

## **REVIEW & ASSESSMENT OF BEST PRACTICE**

REARING, SOCIALISATION, EDUCATION & TRAINING METHODS FOR GREYHOUNDS IN A RACING CONTEXT





## **PREAMBLE**

This review and assessment of best practice rearing, socialisation, education and training methods for greyhounds in a racing context was a project funded by Greyhound Racing New South Wales and conducted by a collaborative team of researchers convened by the Australian Working Dog Alliance.

Greyhound Racing New South Wales (GRNSW) is the Greyhound Racing Controlling Body in NSW; it is a body corporate charged with providing strategic direction and leadership in the development, integrity and welfare of greyhound racing in New South Wales (NSW). It is the peak body of the sport and is responsible for ensuring the competitiveness and long-term commercial viability of greyhound racing for the benefit of participants, business partners and the community. From July 2009, GRNSW became responsible for the regulatory affairs of the sport. This broadening of responsibilities was the result of a government decision to transfer the greyhound division functions of the Greyhound and Harness Racing Regulatory Authority (GHRRA) to GRNSW. The business structure of GRNSW covers both the commercial and regulatory responsibilities with four core business units: Integrity, Industry & Strategy, Media & Content and Growth & Sustainability. For more information visit their website.

The Australian Working Dog Alliance is a registered not-for-profit organisation whose mission is to engage and unite the Australian Working & Sporting Dog Industry to advance the welfare and productivity of Australia's iconic working and sporting dogs by:

- Working collaboratively with all sectors of the Australian Working & Sporting Dog Industry on a range of nationally coordinated initiatives
- Promoting a sustainable and evidence-based best practice industry environment with an ethos of continuous quality improvement
- Facilitating open communication and knowledge sharing between all working and sporting dog stakeholders, including researchers, on a national scale.

The Alliance was formed in 2013 with seed funding from the Australian Government Department of Agriculture, Fisheries and Forestry under the Australian Animal Welfare Strategy, a national partnership between governments, industries and the community that existed to improve animal welfare for all Australian animals.

## Disclaimer:

The views and opinions expressed in this report reflect those of the authors and not necessarily those of Greyhound Racing New South Wales. While every care has been taken in the preparation of this report, the authors give no warranty that the said sources are correct and accept no responsibility for any resultant errors contained herein, nor any damages or loss whatsoever caused or suffered by any individual or corporation.



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## **DEFINITIONS**

Best practice: refers to a system of professional procedures – including processes, checks and testing – that are accepted or prescribed as being correct or most effective. Using best practice will deliver an outcome that has fewer problems and fewer unforeseen complications than alternatives, and that combines the attributes of the most efficient and most effective ways of accomplishing a task based on proven (evidence-based) methods.

Survey: Refers to the anonymous online and hard copy questionnaire run with approval from the La Trobe University College of Science, Health, and Engineering human ethics sub-committee (approval number S15/136) intended to benchmark existing industry practices and explore industry and public perceptions surrounding racing greyhound management and training practices.

Review: Refers to this document.

**Breaking**: Part of Education, specifically the initial period in which greyhounds are introduced and familiarised to kennelling, starting boxes, race tracks and chasing.

**Education**: (sometimes referred to as Schooling in UK/Ireland). The period in which greyhounds are familiarised/habituated to kennelling, starting boxes, race tracks and chasing.

**GRNSW**: Greyhound Racing New South Wales.

*Handler*: The person responsible for the management, whether of a total or temporary nature, of a greyhound.

*Lure*: Mechanism that greyhounds chase around a track during racing.

**Rearing:** The puppy-raising period from weaning to adulthood, commencement of education or training.

Train/Training: The preparation, education or exercise of a greyhound to race or trial, including ongoing physical conditioning and exposure to kennelling, starting boxes, race tracks and chasing.

Wastage: Wastage can be considered as the number of individual animals bred for a purpose who are subsequently discarded from the industry. For racing greyhounds, wastage can be used to refer to the number of dogs bred for the purpose of racing that are then discarded (euthanased) for a number of different reasons that may include: failing to become racers, being excess to a participant's needs, or being unable to be rehomed, whether due to behaviour, physical, training or injury reasons.

Weaning: The period in which puppies are introduced to eating supplementary/solid food.

*Five Freedoms*: A widely used framework for assessing whether the basic needs of animals are being met by humans. They are:

- 1. Freedom from hunger or thirst by ready access to fresh water and a diet to maintain full health and vigour
- 2. Freedom from discomfort by providing an appropriate environment including shelter and a comfortable resting area
- 3. Freedom from pain, injury or disease by prevention or rapid diagnosis and treatment
- 4. Freedom to express normal behaviours, by providing sufficient space, proper facilities and company of the animal's own kind
- 5. Freedom from fear and distress by ensuring conditions and treatment which avoid mental suffering



## 1. EXECUTIVE SUMMARY

Greyhound industry members engage in a variety of practices to promote their dogs' welfare, and some participants place a high level of importance on the welfare of racing greyhounds. However, this Review draws attention to significant differences that exist between the standards that industry members and other stakeholder groups accept are required for greyhounds to experience a positive welfare state.

## Key findings:

## 1.1. Rearing and training

- A significant and abiding weakness of the NSW greyhound industry is that its
  knowledge base resides predominantly at the level of individual dog breeders
  and trainers. Many common practice approaches to greyhound management and
  training do not compare favourably with best practice from other working dog
  industries, which are informed by formal education programs for participants.
- Whilst conducting this Review, we became aware of many contradictions in everyday
  management practices relating to nutrition, exercise physiology and stages of
  physical/behavioural development of the dog. There was minimal consideration
  for major effects of some practices on health, welfare and performance of dogs
  throughout their life cycle.
- It is common practice for racing greyhounds to spend a significant period of their adult life under conditions of individual-animal housing. This is unacceptable from an animal welfare standpoint.
- Many common dog management practices in the NSW greyhound racing industry
  do not appear to be based on an understanding of fundamental behavioural needs
  and canine performance science principles, perhaps because a formal education
  program is lacking. The absence of this knowledge framework increases the risk that
  optimal selection for breeding, and the racetrack performance of greyhounds, will
  be compromised.
- Management of greyhounds during weaning and rearing stages should follow a
  protocol that best equips greyhounds for their future life as adults both on and
  off the track. Current practice does not demonstrate an awareness of the critical
  importance of the first 3 months of life in this process.
- Research into dog behaviour that is considered to apply to all breeds of dog shows that gradual introduction to novel environments from an early age can help to reduce levels of fear experienced by the dog in later life. Young greyhounds should be provided with a structured programme that is based around gradually exposing them to a range of stimuli from an early age. The adoption of such an approach is likely to: 1) benefit performance on the tracki.e.reduce the number of non-chasers and 2) improve each greyhound's chances of being a suitable candidates for adoption at the end of their racing life.
- Population level wastage can be partly addressed by focussing on strategies that can be adopted to optimise performance and welfare at the individual dog level.



#### 1.2. Lure review

- Lure type and design is a polarizing issue for the industry. It represents a
  very complex interplay between industry economics, public perception, a
  greyhound's willingness to chase and the risk of injury to both dogs and
  catchers.
- Assessment of the different lure types used, evaluation of their pros and cons, and decisions relating to whether or not they are used in greyhound racing has been predominantly based on the opinions of industry participants. Best practice assessment would involve studies designed and implemented by external assessors.
- The underlying motivation of greyhounds to chase any lure must be further assessed before considering major infrastructure changes to lure types.
- A large number of potentially contributing factors must be considered before valid conclusions about lure type and design can be drawn. This could be achieved by undertaking an independent audit and assessment of data from follow-on lure and catching pen tracks. Whilst follow-on lures are commonly used in the USA, UK and NZ, it does not appear that any Australian greyhound racing control bodies have collected data for benchmarking the international experience with different lure types. These data could inform the decision-making process for selecting the optimal lure type for use on Australian tracks.
- There is simply no evidence to support the widely-held belief that it is necessary to use either a live animal or an animal-derived product to teach a greyhound to chase a lure. In order to set a clear direction for the industry to move away from the use of live bait, the synthetic lures used at tracks should not resemble an animal shape. This will help to re-frame the historical perception that it is necessary to model a successful racing greyhound industry around chasing an animal-origin lure. This is a key step in the cultural change required in the greyhound racing industry that will assist with regaining the confidence of the general public. It will present a clear demonstration that the industry has moved to align its practices and opinions with the wider community.

## 1.3. Education & data for development

• It is our impression that training practices commonly used in the greyhound racing industry are largely based on hearsay and mythology. This may reflect the absence of a structured education program, which results in racing outcomes (desirable and undesirable) appearing mostly to be engineered through a process of trial and error rather than the implementation of a systematic approach which takes on board current state of the art thinking from a wide knowledge base. It is common practice in the greyhound racing industry for existing trainers to teach new industry members how to train racing greyhounds. However, a critical weakness of this approach is concern expressed by industry members of losing their competitive advantage by sharing trade secrets – the 'tricks of the trade'.



- The National Greyhound Welfare Strategy provides an opportunity to share expenses, experience and knowledge between Australian states towards more evidence based practice. Examples include the adoption of: 1) Education packages that are requisite for licencing; 2) Standardised digital record keeping that readily enables, allows and promotes the sharing of data across state borders. We note from the Survey that industry participants did not unanimously support linking education to licencing. This does not remove the necessity for it but such resistance should be taken on board by GRNSW in terms of the importance of cultural change described elsewhere in this Report.
- To inform best practice, the greyhound industry should engage in further
  research. Because the design of this research is critical to future transparency and
  acceptance, we propose that it should take the form of a stand-alone research
  collaboration with experienced researchers, supported by GRNSW and other State
  controlling bodies, Greyhounds Australasia, government and other external funding
  agencies such as the Rural Industries Research and Development Corporation.
- A significant change both at a cultural level and also in the approach toward best practice in handler education and dog training techniques –has already occurred in other Australian working dog sectorse.g.Military, Guide Dogs for the Blind, Federal Police, Customs Border Protection and Corrective Services. These groups have progressed to using a behavioural approach to training, using access to an inanimate object to reinforce a range of specific behaviours. These practices and principles are likely to provide significant support and models for translation to the racing greyhound context where the task in question, chasing a lure, is much simpler to train than the more complex tasks required in these other working dog contexts.
- It would be helpful for GRNSW to speak with other working dog industry groups
  who have adopted the use of canine performance science, behaviour and learning
  principles to achieve improvements in welfare, operational performance and
  industry standardisation.

## 1.4. Changing the way GRNSW operates - best practice and welfare initiatives

- Ongoing evaluation of training and assessment, dog sourcing and selection, identification and registration, housing and husbandry and full life cycle dog demographic data will create benchmarks for available welfare indicators and permit robust evaluation of changes over time. Best practice requires full life cycle recording and routine analysis of metrics. Studying the methods of those industry members who achieve low wastage rates would allow them to be commended and permit dissemination of information relating to successful strategies to other industry members.
- Animal welfare initiatives, including the National Greyhound Welfare Strategy, must be externally audited and transparent. An example of how such a system has been implemented at the international level is that the United Kingdom Accreditation Service (UKAS) has accredited the Greyhound Board of Great Britain (GBGB), ensuring the welfare of British racing dogs.



- Ensure funding for welfare initiatives is used to source expertise from outside the industry.
- Wastage represents one of the most significant threats to the NSW greyhound racing industry's sustainability and public licence to operate. Strategies to proactively reduce the wastage levels in the industry must be given a much higher priority by GRNSW.
- All future welfare initiatives need to: be transparent have responsibility and
  accountability attributed to individuals, and; have timeframes assigned. This will
  ensure effectiveness is evaluated, programs modified as required and progress is
  made. Assigning quality management principles to industry goals may be a
  useful strategy.
- The racing greyhound industry has many external stakeholders. Historically, GRNSW
  has only acknowledged its members and industry participants as stakeholders.
  Recognising that the general public, animal advocacy groups, animal welfare
  legislators and media are significant influencers on the industry's social licence to
  operate, and therefore future sustainability, is an important cultural shift that needs
  to occur.
- The recently announced Welfare & Integrity Fund offers an opportunity to change direction. However, making education mandatory in itself does not necessarily mean that the curriculum translates into best practice. This Review has noted an existing industry culture of regulation and compliance rather than resourcing to educate and upskill. An example of this is seen in recent events surrounding media exposure of live baiting. Regulatory steps have been taken to prohibit the use of animal-origin lures and squawkers and other non-animal objects are emerging as acceptable alternatives. However, no instructions have been developed or offered to participants to explain how these new stimuli can be used to train a greyhound to chase a lure.
- If a disconnect exists between developing a best-practice curriculum and having experts to deliver it, the goal of upskilling industry members is unlikely to succeed. Revision of existing coaching and education packages should address the need for expertise in curriculum delivery. One way to ensure this gap is bridged may be to target participants who have demonstrated best practice in the industry and then teach them how to effectively communicate the curriculum to others.

## 1.5. International comparison with United Kingdom

- Although reviews of the greyhound industry in the UK led to subsequent major changes in governance, there remains great pressure for practices to be regulated for the dogs' full life cycle, "from cradle to grave". This threatens the future viability of the industry, so consideration of early rearing and training is vital.
- In the UK there is increasing expectation and pressure to reduce wastage by aiming for 100% rehoming of greyhounds at the end of their racing career. As similar expectations are likely to arise in Australia, the importance of early socialisation becomes a vital consideration.



- Prioritising the welfare of greyhounds in the face of mass media attention and parliamentary reviews is a critical risk-mitigation strategy for the industry as a whole. This approach may help avoid the experience encountered in the USA where greyhound racing is now non-operational in all but three States.
- There is much similarity between UK and Australian practices, and many shared welfare concerns. This means that the results of UK greyhound welfare prioritisation and the findings of ongoing research will likely be of significant relevance and potential application in Australia.
- While few in number, differences in practices between the two countries are significant. For example, single kennelling is relatively rare in the UK, with most greyhounds being kennelled in pairs. Many similar lessons and practices can be shared through international collaborations.

## 1.6. Changing the industry culture

- It would be beneficial to change industry perception from animals as a 'racing commodity' to 'performance athletes' by re-focussing on optimising the welfare and performance of the racing greyhound. Equipping industry participants with the requisite knowledge base to achieve this is critical.
- Industry members who are newer to the greyhound industry may be more
  amenable to changes, especially if they are educated on the ways in which
  different practices may improve dog welfare and consequently improve racetrack
  performance. The results of the survey suggest that greyhound industry
  members are concerned about their dogs' welfare and their desire to chase;
  using those performance goals as a reason to alter management practices, and
  welfare outcomes, may be effective for some elements of the racing greyhound
  community.

#### 1.7. Recommendations

#### Best practice recommendation:

Young greyhounds should be provided with a structured programme of controlled exposure to a range of stimuli from an early age. The stimuli should represent likely scenarios that the greyhound will experience in later life. Such protocols should be based around knowledge of the dog's socialization period. Whilst this recommendation requires a significant change in approach to the management of greyhounds in the first 3 months of life, it is one that has been widely adopted by other professional working dog industry groups, and the benefits are widely recognised.

#### Best practice recommendation:

It is common practice for greyhounds in Australia to spend a significant period of their adult life under conditions of individual housing. This is unacceptable from an animal welfare standpoint. Dogs are highly social animals and single-housing eliminates their ability to demonstrate one of the Five Freedoms - Freedom to express normal behaviour: by providing sufficient space, proper facilities and company of the animal's own kind. Cohousing of compatible dogs should be adopted as standard practice for greyhounds at all stages of their lifecycle.



#### Best practice recommendation:

An education package for handlers should include training about the appropriate use of muzzles, with a focus on assessing how their use can be minimised within the industry. Appropriate management techniques to minimise the triggers for barking and alternative strategies to manage kennel frustration (Eg through the implementation of enrichment activities) are required.

#### Best practice recommendation:

Racing greyhound-specific education packages that are mandatory for each stage of industry licencing should be developed as a matter of urgency. The National Greyhound Welfare Strategy provides an opportunity to share expenses, experience and existing knowledge between Australian states. Such best practice of education tied to licensing already exists in another Australian state.

#### Best practice recommendation:

Lures should be synthetic, of non-animal related material and not resembling an animal shape. This will help to re-frame the historical perception that it is necessary to model a successful racing greyhound industry around chasing an animal-origin lure. This is a key step in the cultural change required in the greyhound racing industry that will assist with regaining the confidence of the general public. It will present a clear demonstration that the industry has moved to align its practices and opinions with the wider community.

## Best practice recommendation:

Standardised digital record keeping that readily enables the sharing of data across state borders should be developed. Ongoing assessment of full life cycle dog demographic data will create benchmarks for available welfare indicators and permit robust evaluation of changes over time. Best practice requires full life cycle recording and routine analysis of metrics. Studying the methods of those industry members who achieve low wastage rates would allow them to be commended and enable dissemination of information relating to successful strategies to other industry members.

#### Best practice recommendation:

All welfare initiatives moving forward should be: transparent, have responsibility and accountability attributed to individuals, and timeframes assigned to ensure effectiveness is evaluated, programs modified as required and progress is made. Assigning quality management principles to industry goals may be a useful strategy.

#### Best practice recommendation:

The racing greyhound industry has many external stakeholders. Historically, GRNSW has only acknowledged its members and industry participants as stakeholders. Recognising that the general public, animal advocacy groups, animal welfare legislators and media are significant influencers on the industry's social licence to operate, and therefore future sustainability, is an important cultural shift that needs to occur.



## Best practice recommendation:

Developing a clear understanding of what motivates greyhounds to chase is considered by this Review panel to be a very important consideration for the industry as a whole. It is proposed that gaining access to the expertise to undertake the research required could be achieved by sponsoring PhD programs in collaboration with suitable Universities.

The most cost effective way for the industry to proceed with collecting the data required for this project would be to collaborate with a University and set up a research project to fully investigate this topic. A working dog industry precedent for this step is the Rural Industry Research and Development Corporate, Meat and Livestock Australia, University of Sydney and Working Kelpie Council collaboration titled the Australian Farm Dog Project. Given that the vast majority of racing greyhound breeding, rearing and training operations occur in rural contexts, there may be good alignment with RIRDC and racing greyhound industry goals. The funding for one full-time PhD student, including costs associated with data collection and analysis, would total approximately \$130,000. It is estimated that a large project might require 2–3 PhD students bringing an estimate of the cost to around \$250,000.





## 2. PROJECT CONTEXT

## Provided by GRNSW

Greyhound Racing New South Wales is a body corporate established by the Greyhound Racing Act 2009 (the Act) as the independent controlling body for greyhound racing in this State. GRNSW is charged with providing strategic direction and leadership in the development, integrity and welfare of greyhound racing in NSW.

In May 2015, GRNSW engaged the Working Dog Alliance to review and provide advice on best practice rearing, socialisation, education & training methods for greyhounds in a racing context. This work will improve guidance and training for industry participants and inform future policy initiatives for the industry. The engagement of the Working Dog Alliance follows an open tender process.

The work will assist GRNSW and partner controlling bodies to further mitigate the risk of live baiting practices in the racing industry and implement and educate industry to adopt best practice rearing, socialisation, education and training methods.

#### Terms of reference

GRNSW wants to support a sustainable and vibrant industry and move away from any reliance or association with animal products on lure. The Review is required to:

- review and assess current domestic and international methods of the rearing, socialisation education and training of greyhounds in their lifecycle including any significant shift from the use of live animal baits and lures.
- identify and recommend best practice rearing, socialisation education and training methods that exclusively use artificial and synthetic materials as a bait or lure (ie do not involve the use of live or dead animals or animal products)
- identify and recommend best practice rearing, socialisation, education and training methods that may include an acceptable level of animal content (ie professionally sourced skins) subject to appropriate approval, legal and policy constraints, ethical considerations and community support;
- identify and recommend lure operation systems that are used in best practice rearing, education and training methods;
- for each recommended method, outline transitional and implementation requirements for industry wide adoption including:
  - associated capital costs for all parties involved;
  - implementation requirements and timing;
  - training and education strategies;
  - short-term and long-term welfare implications on greyhounds including current racing population and life after the track;
  - risks including (but not limited to) non-compliance, adverse impacts on the industry and criticism by stakeholders; and
    - impacts on relevant legislation, rules and policies;
- demonstrate how recommended methods can be implemented and support the continuation of the greyhound racing industry



## 3. INTRODUCTION

The greyhound industry in New South Wales is estimated to provide a total economic contribution of around \$145 million per year, and provides employment for about 1,500 full time equivalent positions. Over 13,000 participants are involved in the NSW racing greyhound industry, including owners, breeders, trainers, and those organising race meetings and administration of the sport, many on a voluntary basis. The industry's future viability is threatened by public and political response to recent scandals related to illegal use of live bait in training practice and mass greyhound graves.

Expert analysis asserts that animal production systems that are not publicly acceptable will not be present in the future. A system that is inefficient, resulting in large amounts of wastage, or which results in poor animal welfare, is unlikely to be sustainable because it fails to align with the general public's values. It is imperative, therefore, that the industry take all necessary steps to ensure the welfare of the animals in their charge. Transparency in reassuring the public regarding its willingness to engage with independent experts able to scrutinise existing practices and propose evidence-based reforms is also critical.

## Why animal welfare matters

Genetic selection, rearing of young animals, recruitment and assessment processes, housing and handling, training techniques, handler education, and health and endpoint management are all aspects of the greyhound production system that can affect the quality of the final product: the racing dog. However, the term quality no longer refers only to racetrack performance. Of critical import are the efficiency of the production system and the ethical framework used to prevent, or sometimes justify, any compromised welfare of the animals involved.

Growing awareness of the implications of animal use and management for welfare has led to rising public expectations and lower levels of tolerance for conditions perceived as inadequate. Animal welfare issues are demonstrably important to the general public. For example, more letters are received by European Union (EU) parliamentarians relating to animal welfare than any other issue, and have led to the development of EU legislation to improve animal welfare. Commercial dog racing is no longer operational in 39 states of the USA in response to changing public attitudes. This global context should be considered as part of the Australian greyhound industry's risk management strategy.

At present, the perceived welfare of dogs varies from very poor to very good across different companion, working and sporting roles. This is most evident in the popular press, where many stories raise concern about the welfare of racing dogs, and, more recently, the use of live baiting in racing dog training and mass graves linked to unsuccessful training or retired racing dogs. Greyhound racing is completely dependent on public enthusiasts to operate as a viable enterprise, yet they are reported as having the lowest perceived welfare of any owned type of dog. Proactive demonstration of positive welfare initiatives, reduced wastage, clear communication of transparent processes, full life-cycle traceability of animals and scientifically informed continuous improvement toward best practice are important means by



which the industry can recruit public support. Monitoring of industry member and general public perceptions, beliefs and attitudes is required to assess progress, justify innovations and identify new directions.

An observed outcome of increased sensitivity to animal well-being is that producers, users and government agencies request scientific information about animal welfare. It is therefore imperative that independent observers rigorously examine the current state of practice in greyhound racing to determine whether these practices produce any negative effects on racing dog welfare. In the near future it is likely that the general community and industry itself will place an increasing emphasis on ensuring the competency of the animal trainers and handlers who manage the animals. In this light, meeting and exceeding community expectations for standards of animal care can be considered effective risk management for animal-based industries. This review provides an opportunity for the racing greyhound industry to be pro-active in developing an industry-wide approach towards a sustainable future and maximised welfare for the racing greyhounds of Australia.





## 4. METHODOLOGY AND APPROACH

We used three main methods to achieve the Review's aims: a literature and standards review, site visits and consultation with NSW greyhound racing industry members, and an online survey that was also distributed in hard copy at track meets throughout NSW. We undertook a review of the history, existing literature, policies and procedure related to greyhound racing and other working dogs, at a national and international level. This allowed us to determine existing standards within the industry, identify critical deficiencies and make recommendations toward best practice.

#### 4.1. Literature and standards review

The team reviewed current local and international practices used in a variety of sporting and working dog contexts. This review focused specifically on puppy rearing, dog training, management practices, handler education and the types of lures used in training. The use of animal content was also critically addressed regarding potential advantages and disadvantages to the performance of the dog during its training and racing, and with consideration of potential impacts on racing in other jurisdictions and adoptability. A sociological perspective reviewed the history of greyhound racing and contextualised current issues in relation to other sports.

The review of current scientific literature in conjunction with traditional behaviour theory has provided the foundations on which recommendations for the most effective and ethical methods of rearing and training will be made. This review aimed to identify risk factors at various life stages that may impact on greyhound welfare and performance, such as the ability to generalise learned behaviour, effects of fear and handler behaviour. The key factors of environmental management, best practice in socialisation and handling, and behavioural modification will be addressed in order to promote the well-being of juvenile greyhounds and enhance their ability to succeed on the racetrack, while also increasing their chance of adoption post racing career.

## 4.2. Site visits and industry consultation

We undertook a series of site visits throughout NSW to consult with a representative cross section of racing greyhound breeders, rearers, break-in centres, trainers, legislators and industry member groups. In addition to this face-to-face industry consultation, we invited and welcomed input and feedback from a range of industry members via email throughout the project period. Specific attention was given to whether any move away from live baiting has been perceived to affect training and racing outcomes, and the effectiveness of training methods that use fully synthetic and/or artificial materials as a lure compared to ethically sourced animal content.

Throughout the entire consultation period, we have been mindful of the role of education for people and opportunities to promote the required culture change to support a sustainable and vibrant industry, reducing wastage rates and moving away from any reliance or association with animal products on lure.



## 4.3. Online survey: Racing Greyhound Management Practices & Perceptions Survey

In consultation with members of the racing greyhound industry and animal welfare advocacy groups, the research team constructed a survey. This survey was distributed widely using a secure online software provider, and was completed by existing industry greyhound owners, breeders, rearers, and trainers, veterinarians, members of animal advocacy groups, and by the general public. Completion of the survey by members of the industry helped us to benchmark existing greyhound management practices as well as perceptions and attitudes surrounding them, helping us understand how amenable they are likely to be to any changes recommended based on the literature and standards review. Completion by the general public permitted us to determine the extent to which public expectations align with industry realities. This is of crucial importance as a risk management objective, because public outcry over industry practices could be catastrophic for the industry and its sustainability as a whole.

This aspect of the project received approval from the La Trobe University College of Science, Health, and Engineering human ethics sub-committee (approval number S15/136).

## 4.3.1. Participants

A total of 2,483 people (40% male) completed a survey related to racing greyhound management. The mean age of participants was 46 years, and 35% (n = 864) indicated that they lived in New South Wales. Another 15% of respondents were from Victoria, and 13% were from Queensland. While most respondents (74%) were from Australia, 13% were from the United Kingdom, and 7.5% were from the United States of America.

Survey participants reported the highest level of education they have received, and their employment status. Over one-quarter of participants reported that they have received either an undergraduate (29%) or postgraduate (28%) university degree, while 22% have obtained a trade certificate or TAFE diploma. A smaller percentage (13%) have completed Year 11 or Year 12, and just 5% did not proceed beyond Year 10. Nearly half (47%) of respondents were working full time, while 14% worked part-time, 14% indicated that they were self-employed and 12% were retired.

Respondents were asked to indicate whether they have ever owned a companion dog, and 77% reported that they currently own one. Another 15% reported that they have owned one in the past, but not now, and 9% have never owned a companion dog.

Participants indicated their affiliation (if any) with greyhound racing, and nearly half (45%) reported that they were members of the general public. Another 31% of respondents indicated that they owned a retired racing greyhound, 15% (n = 363) were members of the greyhound industry (ie a racing greyhound owner, rearer, trainer, or breeder), and 10% identified as part of an animal welfare advocacy group such as RSPCA, Animals Australia, or World Animal Protection (formerly WSPA). Among NSW participants, 33% (n = 285) of respondents indicated that they were a member of the racing greyhound industry and 40% (n = 340) identified as members of the general public, allowing for robust analysis between these two groups.



#### 4.3.2. Measures

We created a survey consisting of three sections, for completion by participants worldwide. The survey questionnaire can be found in its entirety in *Appendix A*. The first section contained nine demographic questions, including items related to whether the participant has ever owned a companion dog, their affiliation with the racing greyhound industry, and how often they attend greyhound races live at the track, watch them on TV, or bet on them. Participants who indicated that they rarely or never attend races were also asked to report the reason(s) why they do not attend.

The second section of the survey was completed only by participants who had indicated in the demographic section that they were a racing greyhound owner, rearer, breeder, or trainer. The items in this section were designed to create baseline information about the current state of practice by greyhound industry members. They included questions related to the types of socialisation experiences provided to dogs, ranking the attributes perceived as most important in a racing greyhound, and the number of dogs at various career stages that they own or care for. There were also items regarding the level of support for the follow-on lure, and whether the participant prefers the follow-on lure or the catching pen system at the end of a race. There were a total of 25 items in this section of the survey.

The final section was completed by all participants, and contained 14 items related to perceptions of the ways in which racing greyhounds are currently managed, as well as how they should be managed. Topics included socialisation practices, wastage rates, the general wellbeing of greyhounds in the industry, and the use of live animals on lures in greyhound training.

#### 4.3.3. Procedure

The survey was created by the research team, in consultation with members of the racing greyhound industry and animal welfare advocacy groups. The survey was made available online for all participants, and in hard copy format for greyhound industry members in NSW who attended selected race meets. We recruited primarily through social media platforms, emails to Australian racing greyhound professional member bodies and emails to personal contacts of the research team. Individuals were encouraged to share the survey link with any of their contacts who may be interested. In particular, we targeted state-based greyhound industry groups outside NSW, animal advocacy groups, retired racing greyhound groups, veterinary groups, and the general public. GRNSW recruited industry members in NSW through their social media networks, by posting information about the survey on their website and by directly emailing their member database with an invitation to participate.

Data collection proceeded for  $3 \frac{1}{2}$  weeks in late June and early July 2015. It was expected to take approximately 15 minutes for each participant to complete the survey.

#### 4.3.4. Analysis

As only eight participants completed the hard copy version of the survey, hard copy and online responses were combined for analysis. Descriptive data were calculated to observe trends among various groups of participants, including: industry members in NSW, industry members in the rest of Australia (excluding NSW), industry members



from UK/Ireland, general public in NSW, general public in the rest of Australia (excluding NSW), and general public UK/Ireland. This was to provide context for the ways in which respondents from NSW, and industry member responses, compared to practices and perceptions across the rest of Australia and internationally.

We used analyses of variance (ANOVAs) to compare stakeholder groups among all survey participants on a range of perceptions about racing greyhound management. These stakeholder groups included: industry members, racing greyhound adoption workers, owners of retired racing greyhounds, animal advocacy group members, veterinarians who regularly work with racing greyhounds, veterinarians who do not regularly work with racing greyhounds, veterinary technicians/nurses/students, employees of another animal sector, and the general public. We also compared industry members within NSW with industry members outside NSW on current greyhound management practices. For each of these analyses, the alpha level was set at 0.05; therefore, any result where p < 0.05 was considered significant.

#### 4.3.5. Results

The results presented throughout the body of this report consist of selected descriptive and frequency results from the survey, as well as the results of the ANOVAs comparing groups. The frequency data for all items on the survey are available in *Appendix B*. The ANOVA results for group comparisons are available in *Appendix C*. While some findings of the Survey are presented throughout the body of this Review, the survey results and discussion of findings are comprehensively presented in *Appendix D*.





## 5. OVERVIEW OF GREYHOUND RACING

## 5.1. Industry perspective

## 5.1.1. Development and history of greyhound racing

Greyhound racing emerged from hare coursing, a rural bloodsport where two dogs raced in open countryside to catch a hare or make it turn in a particular direction, plumpton coursing, which took place in an enclosed space, and handicapped dog racing on straight tracks, which had its recorded origins in the early nineteenth century. Traditionally, hare coursing was a monied sport, patronised by the middle and upper classes, whilst the working classes were entertained by the lesser rabbit coursing. The working class equivalent was typically held in enclosed urban arenas established by publicans, the main providers of commercial sporting opportunities in the late 1800s. Whilst an attempt to use an artificial lure had been made in 1876 in north London, the event was less than satisfying to an audience used to the skill and agility displayed in coursing. Nevertheless, many traditional blood sports, such as badger baiting, had been gradually banned since the 1835 Cruelty to Animals Act in the United Kingdom, which focussed primarily on the sports of the working class, whilst the aristocratic sports of hunting and foxing continued unabated. The use of live hares in coursing continued to raise concern about animal cruelty, and despite attempts to outlaw it, coursing was only banned in the UK in 2005.

The first modern greyhound race track was opened in 1919 in Emeryville, California, following Owen P. Smith's successful invention of an "Inanimate Hare Conveyor". The following year, the International Greyhound Racing Association was formed, and once pari-mutuel wagering was permitted, greyhound racing boomed. Greyhound racing, or speed coursing, moved quickly to Europe and arrived in Sydney in early 1927. In New South Wales, legislative change was required to legalise betting on the new sport, and it was thought that the use of a "tin hare" would be popular with the animal welfare groups that had been campaigning for the end of blood sports for well over a century. Greyhound racing was aggressively promoted by investors seeking a return on their investment during an economically depressed era. Its ownership and management by sports entrepreneurs set greyhound racing apart from those governing bodies traditionally run by gentlemen amateurs, and as a proprietary sport was thoroughly commercialised from the outset. Proprietary, or privately owned, sports developed in direct contrast to the amateur tradition and were viewed with suspicion by the sporting establishment.

The boom in greyhound racing through the late 1920s and into the 1930s resulted from catering directly to the sport's target market, the working class. Horse racing was inaccessible, expensive and held during the day, so greyhound racing's appeal lay in the fact that it was cheap and held on weeknights in urban venues. The "working man's racehorse" could be kept in backyards and the everyday person could dream of securing their fortune on the back of the animals they trained. By the late 1920s, greyhound racing was the third largest leisure activity in the UK, behind only cinema and soccer, and regular meets in Australia attracted tens of thousands of punters who could place their wagers with 180 bookmakers.

The first modern greyhound race track was opened in 1919 in Emeryville, California, following Owen P. Smith's successful invention of an "Inanimate Hare Conveyor".



The popularity of greyhound racing amongst the working class posed significant problems for the middle classes, which had, for over a century, advocated for rational or utilitarian activities to occupy the leisure time of the "great unwashed". Concerns about the morality of gambling, and particularly the corruption of the working class, has long suffused pre-industrial and emerging modern sports, and the mass appeal and rampant commercialism meant that greyhound racing found itself under attack from several angles. Opponents declared that men were abandoning their wives and children in favour of gambling away their meagre salaries each night, or worse still, women and children themselves were betting, whilst the clergy decried the sport as breeding "parasites".

Such was the outcry over greyhound racing that the phrase "going to the dogs" was co-opted as a reference to the deleterious effects of habitual gambling on greyhound racing. Rivals for the working class's leisure spend also advocated for greyhound racing to be curtailed. The Australian Jockey Club were concerned about the decline in attendance at horseracing and threatened to deregister bookmakers who worked both sports, and businesses argued that the sport threatened their livelihoods. In Western Australia, politicians argued that allowing yet another sport where gambling is the main aim would only "drain" people's earnings.

In New South Wales, the political strength of the middle classes effected the sudden, albeit temporary, collapse of the industry following changes to the Gaming and Betting Act in 1928 that prohibited betting after sunset and a later Supreme Court ruling that banned betting on the dogs all together. There were efforts to circumvent the ban by using whippets and goats in races, but following a change in government – and legislation – in 1930, greyhound racing's legal status was restored and the sport continued to grow into the post-war era and beyond. By the late 1930s, there were nearly 1700 races per year. "Tin-hare coursing" was banned in Western Australia in 1927, and in Victoria, live lures continued to be used through the 1930s and 1940s, despite calls to end the practice. By the early 1950s, live hare coursing was finally banned in New South Wales, which meant that racing was the only event left for greyhounds, however it was not until 1959 that live lures were banned in Victorian speed coursing, though tin hares had been legalised in 1956.

Greyhound racing has declined in popularity in recent decades and attendance fell sharply once off-course betting was legalised.

The advent of televised racing, and more recently, mobile access to online betting means that whilst attendances may be down, gambling on greyhound racing remains significant, accounting for around 10% of all gambling revenue, with estimates hovering between \$3bn and \$4bn wagered annually in Australia.

## 5.1.2. Attending greyhound races and wagering: current practices

Survey participants indicated how often they attend a greyhound race live, watch one on TV, or bet on a race. Comparisons showed reported attendance rates and wagering varied between NSW Industry members, Australia Industry members (excluding NSW), NSW General Public, and Australia General Public (excluding NSW) (see Figure 1).

Such was the outcry over greyhound racing that the phrase "going to the dogs" was co-opted as a reference to the deleterious effects of habitual gambling on greyhound racing.



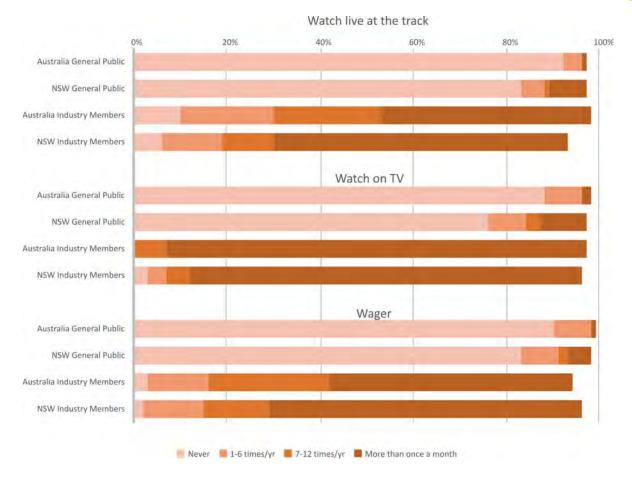


Figure 1: Frequency with which participants watch races like at the track, watch them on TV, or bet on them, among Australia (ex-NSW) general public, NSW general public, Australian industry members outside NSW, and NSW industry members

It is clear from Figure 1 that industry members attend greyhound races, watch them on TV, and bet on them, much more frequently than members of the general public, most of whom have never attended, watched, or bet on a race.

#### Non-attendees

Survey respondents who indicated that they rarely or never attend greyhound race meetings were asked the reason for this. Among industry participants who do not regularly attend, being too busy or having concerns about the welfare of the animals were the most commonly responses, selected by 38% of NSW respondents and 50% of participants elsewhere in Australia. Among the general public, a majority of participants from NSW and the rest of Australia indicated that they were concerned about the welfare of the animals (NSW: 87%; rest of Australia: 83%) or that they would not find it enjoyable (75% for both groups). Some participants also wrote in that they do not believe greyhounds should race (5% for both groups), or that they believe it is cruel and/or exploitative to dogs and/or humans (9% in NSW, and 13% elsewhere in Australia).



## 5.1.3. Roles among current industry members

Participants who identified as a greyhound owner, breeder, rearer, or trainer, were asked to describe their role(s) in the greyhound industry. The most commonly selected response was a racing greyhound owner, which was selected by 83% of NSW industry member respondents and 90% of respondents from elsewhere in Australia. Additionally, 63% of NSW industry member survey participants, and 58% of Australian (excluding NSW) identified as trainers, and 49% of NSW industry member respondents (61% of Australian industry members) reported that they are a breeder.

## 5.1.4. Racing greyhound industry member groups

More than half (57%) of the NSW industry members indicated they were a member of a racing greyhound member representative group. As shown in **Figure 2**, most of those (37% of NSW industry member survey participants) identified as members of the NSW Greyhound Breeders, Owners & Trainers Association (GBOTA).

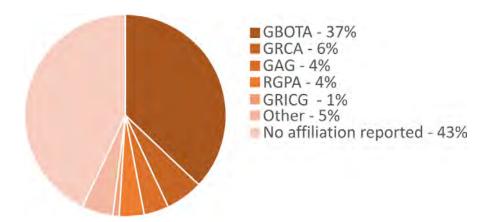


Figure 2: Percentage of participants from NSW who indicated that they were members of a racing greyhound related industry group

Other member representative groups indicated were: NSW Greyhound Racing Club Association (GRCA), Greyhound Action Group NSW (GAG), Registered Greyhound Participants Association (RGPA), Greyhound Racing Industry Consultative Group.



## 5.1.5. Self-rated experience

Industry respondents were asked to rate their level of experience with racing greyhound breeding, rearing, training, and ownership. Results are shown in **Figure 3**.

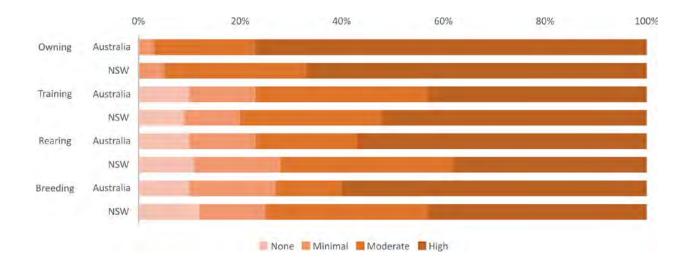


Figure 3: Self-rated experience of racing greyhound industry members

It is clear that participants generally rate themselves above average on all four variables. Greyhound ownership received the highest average experience rating out of the four categories.

## 5.1.6. What is most important in a racing greyhound to industry members?

Respondents ranked a number of variables according to their perceived order of importance in a racing greyhound, from 1 (most important) to 13 (least important). There were 13 items total, including 'a keen chaser', 'mentally sound', and 'experiencing good welfare'. Mean average responses are shown in **Figure 4**. A lower mean indicates a higher level of importance placed on that particular item.

The three most important categories for NSW respondents were 'physically sound', 'a keen chaser', and 'experiencing good welfare', with 'successful on the racetrack' rated higher than 'experiencing good welfare' for Australian industry survey participants outside of NSW. Overall, there was less importance placed on the dog's ability to breed, whether they are good with other animals, and whether they would make a good companion dog after their racing career ends.



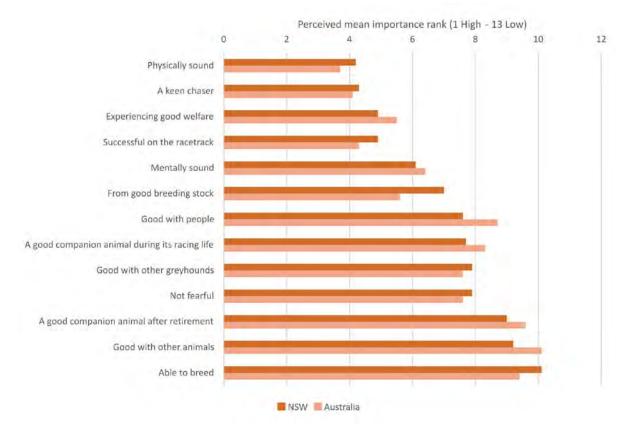


Figure 4: Mean responses for rank order items relating to the most important aspects of a racing greyhound. A lower mean indicates a higher importance placed on that item.

## 5.2. Greyhound racing in relation to other sports: a sociological perspective

## 5.2.1. Key issues and their relationship to the broader sports context

From early accusations of corruption in the issue of racing licenses, the use of "noxious substances" to nobble rivals or pep up a contender, and even the sale of shares in a "stud farm" to raise mechanical hares (!), scandal has never been far from greyhound racing. For example, the first recorded use of a banned substance (whisky) was in 1927, only months after greyhound racing started in Australia. Whilst contrary to the widely promoted "spirit of sport", the imperative to gain a competitive advantage – or ensure one's competitors are disadvantaged – is a key characteristic of performance sport, and it is no surprise that such tactics were noted in greyhound racing so rapidly. The commercial nature of the sport, with prize monies, high salaries of leading trainers and the profit to be made through gambling, has served as extrinsic motivation to find not only the best competitors, but techniques and technologies that enhance the chances of victory. There are limited ways that advantage can be gained in sport – innovation in equipment, training technique or diet and so each of these are manipulated to effect the desired performance outcomes. In this section, key issues in greyhound racing are contextualised within the broader sports context.



## 5.2.1.1. Other blood sports

As noted above, greyhound racing is the technological consequence of a controversial blood sport, and for that reason might be considered in the context of other blood sports. Blood sports are defined as those activities where the death of an animal is a likely, if not guaranteed, outcome of the entertainment. They include bull-fighting, dog-fighting, cockfighting, coursing and a number of other sports that are still "played" in the world today, despite vocal protest against them. Whilst greyhound racing might not be considered a blood sport in terms of the actual event, Atkinson and Young (2005) argue that abuse within greyhound racing is systemic. Even though there are examples of good practice where the dogs' welfare is paramount, violence and abuse can manifest in different contexts across the lifecycle of the greyhound, including breeding, rearing, training/racing, housing and racing career end-point.

As such, the physical abuse, risk of injury and culling mean that greyhound racing has a likely, if not guaranteed, risk of death for the participating dog, which means some would classify it as a blood sport.

## 5.2.1.2. Training abuses: a symptom of sport?

The training abuses in racing greyhounds identified by Atkinson and Young (2005; 2008), including excessive training and race schedules, injuries and so on are not dissimilar to the physical and emotional abuse experienced by human athletes, particularly young competitors, at the hands of their coaches. Coaches often demand complete subjugation and parents can compel their children to comply with injury-inducing schedules. The traditional view of the coach/trainer as the repository of athletic knowledge who must be obeyed is difficult for children to counter, even if they fear for their safety or well-being. Indeed, like greyhounds, this subordinate relationship means that they often lack the agency to reject the training regimes with which they feel uncomfortable or fear being singled out or dropped from a team if they express their concerns. Alternatively, they may be so willing to "do whatever it takes" to progress that they cannot recognise exploitative or abusive practices, particularly when the dominant cultural maxim of "no pain no gain" may inure them to the harm they might be experiencing. Either way, children are often expected to perform beyond what is safe and appropriate in the name of high performance training.

Exploitation and abuse in sport can take on different guises, and result from an emphasis on competition, early specialisation and the pressure to win. Athletes might be asked to train excessively, the types of training methods might be inappropriate, athletes might be forced to train when exhausted or injured and athletes risk becoming "overtrained". Kerr (2010) refers to the "forced physical exertion" experienced by young athletes, which can occur when athletes engage in potentially harmful exercise (where it exceeds the athlete's skill level or capacity); where the exercise has no actual or perceived benefit (volume for the sake of volume); where the athlete does not consent to the practice; and finally where exercise is used as punishment (such as running laps for missing a goal). Children are at particular risk in those sports where their physical peak is achieved before adulthood, and there are well documented cases in gymnastics and figure skating, for example, where extreme training methods and emotional pressure have led to severe injuries and depression.



Children are at risk of becoming objectified in performance sport so that their aims and goals are subsumed under the expectations of coaches, trainers and parents. Indeed, abusive practices are more likely when "adults lose their ability to differentiate their own needs and goals for success from that of the child" (Kerr 2010: 42). In other words, the child athlete is merely a means to an end, much like the skill of a greyhound's performance, or even perhaps its enjoyment of the experience, is rendered unimportant in light of what that performance delivers to the owner, trainer and venue operator. As such, greyhounds and young athletes are both essentially labourers within their respective sports:

Children [greyhounds] participate in highly work-like conditions; adults depend on children's [greyhounds'] work for their own employment and income; the receipt of income, expenses, and prizes formalizes their working status, but many labour in the expectation of future income (Donnelly & Petherick 2010: 311).

And like labourers in industry, children and greyhounds are expendable. If they are unable to meet the required performance metrics, there are others available to take their place. Dogs are more disposable than people, and if they are unable to deliver financial rewards, their demise is probable.

## 5.2.1.3. Influence of gambling

The presence of gambling in sport is ubiquitous and the early codification of horseracing, boxing and cricket in the 1700s was to provide standardised competition for effective gambling. Despite the fact that gambling has been an intrinsic part of sport, the motivation to gamble on greyhounds was largely condemned as part of the further moral decline of the working class. In banning tin-hare racing in Western Australia and Victoria in 1927, there was specific debate about gambling, the fact that there were already sufficient opportunities to gamble, and that greyhound racing existed only for gambling and no other purpose. Gambling on animal sports supplants attention on the welfare of the competitors with the financial interests of punters, which is foregrounded as the essential outcome of greyhound racing. Indeed, attendance at greyhound meets is less about the ability and skill of the dogs, even though the individual events can be thrilling, and almost entirely an opportunity to gamble, such that the success or enjoyment of the event is mediated through an individual's profit. The gambling imperative is so great, that the greyhound itself is a marketable commodity. In the absence of acceptable progress in the sport or a suitably aggressive attitude, the dog can be written off as a loss. In this context, greyhounds are as expendable as the tens of thousands of young hopefuls who play soccer or basketball in the pursuit of a professional career. Unlike these human youngsters, however, the non-viable dog is culled (and often killed). Atkinson and Young (2008: 86) interviewed a breeder who remarked:

"Culling happens, it really does. As a breeder, one of the skills you acquire is the ability to look at a pup and watch its gait for potential. Dogs who don't have the instinct [to chase] or the tools to be a consistent winner – well, a good handler can spot it a mile away . . . Most of the time, I'd drown the pups."

The prevalence of gambling is evident in current statistics, whereby attendances are declining around the world, yet gambling on greyhounds is not.



## 6. TOWARD BEST PRACTICE

## 6.1. What is best practice?

Best practice: Refers to a system of professional procedures – including processes, checks and testing – that are accepted or prescribed as being correct or most effective. Using best practice will deliver an outcome that has fewer problems and fewer unforeseen complications than alternatives, and that combines the attributes of the most efficient and most effective ways of accomplishing a task based on proven (evidence-based) methods.

A pre-requisite for this Review to identify and recommend best practice in the greyhound lifecycle, was to address the question, "What is common practice?" This was achieved using both the Survey and telephone, email and face to face meetings with industry members. These findings about common practice are described in this section and discussed in terms of good practice. The Recommendations that follow relate to what is required for the greyhound racing industry to move towards best practice rearing, socialisation education and training methods.

The sequential progression required to move from common practice to best practice is shown diagrammatically below:

COMMON PRACTICE ightarrow GOOD PRACTICE ightarrow BEST PRACTICE

Using the information from the Survey, we found that common practice at the various greyhound life stages falls into the following pattern:

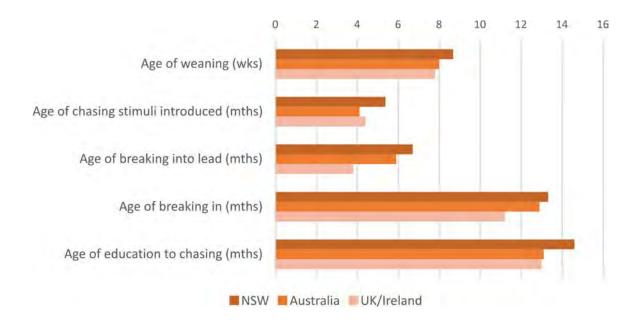


Figure 5: Showing mean average reported age of racing greyhound puppy preparation milestones



The Survey results show that many similarities exist across time-points in the racing greyhound lifecycle for NSW, elsewhere in Australia and the UK/Ireland. A brief description of common practice for these different lifecycle stages is provided below.

## 6.2. Common practice in the greyhound lifecycle: weaning, rearing & education

## 6.2.1. Focus on Weaning and Rearing

Weaning (8 weeks): Greyhounds are generally either reared by their breeder or by individuals who specialize in raising young dogs. Bitches are generally whelped in whelping boxes and remain with their litters until weaning, usually at around 8 weeks of age. Puppies are usually then raised in litter groups until the age of approximately 6 months, however, in some instances, the pups may be split up into smaller group sizes than the original litter, and in others they may stay with mother until 6 months and older.

Rearing (8 weeks to 12 months): During the rearing period, most greyhounds live in a semi-natural or paddock setting. They are generally kept in paddocks, or even in whole woodlands, where they can play, and exercise to gain physical strength and cardiovascular fitness. There is a strong belief in the industry that the dog's musculoskeletal system and ligaments will not mature until at least twelve months of age, and so the only training done during this stage is via free-running. A popular belief amongst handlers is that if the home enclosure is too large, the consequence is that the dogs don't exercise properly. Consequently, from approximately 3 months of age, some dog groups will be kept in a smaller yard for most of the day, and transferred for up to several hours into a much larger paddock to stimulate more vigorous exercise.

#### 6.2.2. Focus on Breaking, Education & Training

Breaking into Lead (12-13 months): Breaking into lead walking generally occurs at some point once the dog is over 6 months of age, often around the time a dog is one year old. Lead training is reported to take 2-3 weeks and coincides with a significant turning point in the greyhound's life when they start to be regularly handled individually by familiar humans. Prior to 6 months, greyhounds have generally experienced minimal one-on-one interactions with humans.

Research demonstrates that gradually introducing dogs to novel stimuli and novel environments from an early age can help to overcome fear and anxiety in later life. Current practices in the greyhound lifecycle do not demonstrate an awareness of the critical importance of brain development in the first 3 months of life. In the first year of life, greyhounds are group housed in paddocks, fed daily and gates are opened and closed, but they are not routinely physically handled. When they are handled, it is usually by a familiar human, with dogs having limited exposure to non-familiar people. The management of the greyhound during the weaning and rearing stages should follow a protocol that best equips greyhounds for their future life – especially living in kennels and at the track, but also for life after the track. Currently the greyhound life cycle and training milestone (lead training, kennelling exposure, starting gate exposure, racetrack exposure etc.) occur after the sensitive developmental period has ended.



Other working dog industry groupse.g.Guide/Seeing Eye Dogs, Australian Customs and Police have adopted puppy rearing programs that aim to offer positive interactions with relevant equipment and environment for the dog's future working life. An example of how this might work would be a step-by-step exposure of a detection dog to a conveyor built for short periods of time during the first 3 months of life. In the first instance, the conveyor belt would be stationary and the environment would be quiet, with positive association (via food, toys or play with handler). Over time, the future detector dog would gradually be exposed to the conveyor belt in a staged program of increasing complexity so that ultimately the dog is willing to walk on a moving conveyor belt loaded with suitcases. The pace of this stage is determined by the dog's willingness. Most professional working dog organisations have their puppy raising programs, incorporating introduction to various stimuli, with rough age guides and instructions for handlers, documented as a puppy raising guidelines handbook for handlers.

A similar program and documentation should be developed for gradually exposing greyhound puppies to the stimuli and environment of the racetracke.g.transport, collar, physical examination on a table, lead training, kennelling, chasing stimuli, starting box, playbacks of auditory stimuli such as crowds, lure sounds and the like. Extending this positive interaction to a variety of people (eg. ages, genders), animals (eg. non-greyhound dogs, cats, farm animals) and environments (eg. street walks, traffic, household noises like vacuum cleaners, music) will improve the chances of greyhounds being more suitable for rehoming when no longer engaged in training or racing.

## Best practice recommendation:

By providing young greyhounds with a structured programme of controlled exposure to a range of stimuli from an early age, it may be possible to reduce the number of non-chasers. The stimuli should represent likely scenarios that the greyhound will experience in later life. Such protocols should be based around knowledge of the dog's socialization period. Whilst this recommendation requires a significant change in approach to the management of greyhounds in the first 3 months of life, it is one that has been widely adopted by other professional working dog industry groups, and the benefits are widely recognised.

Education and Training (14 months): From the time that education and training commence, greyhounds tend to be singly housed, often spending most of their time individually, in indoor kennel facilities. This is the stage during which the greyhounds are first given the opportunity to chase, on a track. This generally occurs when the dogs are 13-14 months old and takes approximately a month. This period essentially involves giving the greyhound an opportunity to fine tune its natural instinct to chase, whilst gradually habituating it to some of the potentially fear-evoking stimuli associated with the race track.

There are variations in the methods used to encourage a greyhound to chase prior to breaking in to a lure. The techniques do not usually involve a mechanical race lure and the type of activities that are used include learning to chase a ball, squeaky toy



or other object, a skin or cloth dragged along the ground - sometimes via attachment to a four wheel motorbike. Whistles and calls may be given by people to encourage chase and a second (sometimes older) dog may be used to help teach the young dog. Once chasing keenly, the greyhound will often be given chances to chase on a straight run before being taken to a trialling or licensed racetrack to be given their first handslip. A handslip means that the greyhound is released from the lead behind a moving lure usually on a bend of the track. Once the trainer is satisfied that the dog is chasing the lure keenly, a starting box is introduced, although some breeders and trainers will have habituated the dog to this earlier in life. Via gradual habituation, the dogs are first allowed to walk through the starting boxes with front and back doors open before being allowed to chase a lure in the same manner. The process continues until the greyhound is confident in the starting boxes and will reliably leave the traps in pursuit of the lure. Some dogs may be sold prior to educating, whilst others will be educated by their breeder or rearer, then sold for a higher price.

The practice of muzzling greyhounds for extended periods, either to reduce barking or eliminate biting/chewing is noted. Muzzling does not address the reason for the underlying behaviour in any way, and may act as a stressor to the dog. The use of muzzles can also inhibit the dogs' natural cooling mechanisms - in hot weather or immediately after racing, this represents a serious welfare concern. Long term use, unsupervised use, selection of an inappropriate muzzle type and/or extended periods of muzzling can lead to compromised welfare and physical injuries.

## **6.3.** Common practice in the greyhound lifecycle: socialisation

#### 6.3.1. What is socialisation?

#### Best practice recommendation:

It is common practice for greyhounds to spend a significant period of their adult life under conditions of individual housing which is unacceptable from an animal welfare standpoint. Dogs are highly social animals and singlehousing eliminates their ability to demonstrate one of the Five Freedoms - Freedom to express normal behaviour: by providing sufficient space, proper facilities and company of the animal's own kind. Co-housing of compatible dogs should be adopted as standard practice for greyhounds at all stages of their lifecycle.

#### Best practice recommendation:

Education package for handlers should include training about the appropriate use of muzzles, with a focus on assessing how their use can be minimised within the industry. Appropriate management techniques to minimise the triggers for barking and alternative strategies to manage kennel frustration (eg. through implementation of enrichment activities) are required.



Scientific investigations tell us that a puppy's exposure to environmental stimuli should be as systematic and positive as possible, as this provides the animal with the best chance of developing a sound temperament and robust capacity to cope in a range of circumstances.

Socialisation refers to the process of gradually exposing dogs to a wide range of social and environmental stimuli with the end goal being that the dog will develop to be confident in a range of situations. For racing greyhounds, appropriate socialisation is vital for them to feel safe and confident at all stages of life – from rearing to racing and rehoming at the end of training, or a racing career. Appropriate socialisation is needed to minimise the risk of dogs developing fear or anxiety behaviours.

## 6.3.2. The sensitive period of development: optimal for socialisation

The sensitive period of development describes the time of rapid brain development at which optimal socialisation occurs, and dogs most readily learn about new stimuli.

It has been found that a window of opportunity exists, between 3 weeks to 14 weeks, during which optimal socialisation effects can be fully realised. This does not mean that socialisation occurring outside of this timeframe is not beneficial, it just occurs more slowly and takes a more gradual introduction to ensure that dogs become accustomed to, rather than frightened of, new stimuli.

The process of socialisation can be slowed down or prevented by the development of interfering behaviour, such as fear responses. Likewise, the process can be prevented at later ages by the decline of positive approach behaviour which normally brings the young dog into contact with others, including dogs, humans and animals of other species.

Gradual (ie. from lowest level to highest, in stages), calm, and positive exposure to stimuli during the sensitive period is important to minimize the chances of fears and anxiety developing in later life. Although there is variation amongst owners and trainers, a large number of greyhounds are currently kept in a rural setting and these dogs are unlikely to be exposed to a great variation in either environmental or social stimuli until they are at least 12 months of age. In the first three months of life, they are unlikely to meet many different people or to encounter urban environments, loud noises or other potentially frightening situations. As a result, greyhounds are unlikely to become accustomed to these stimuli and are more likely to find them frightening at a later agee.g.during training, transportation, or on-track. This is also likely to present welfare concerns during the educating, trialling, racing and retirement stages of the greyhound's life. It is possible that fearful dogs are not always identified as such. Some of those rejected for lack of motivation to chase may actually be fearful of the environment in which they are required to race. Our survey has identified some breeders and trainers who work hard to habituate dogs to a range of stimuli including the starting boxes, vehicles, chasing stimuli and the value of these efforts upon the dogs' later ability and welfare. However, this is not common practice.

It is during the age of 3 weeks to 3 months that dogs learn to adapt most easily to stimuli to which they are gradually and positive exposed.



## 6.3.3. Socialisation: a necessary priority

Responsibility for the greyhound's future social confidence lies with the breeder and/ or rearer who has the dog during the socialisation period. The breeder's role continues from the moment a puppy is born, as it starts to get used to being handled. As the puppy and its litter mates grow up, the breeder is the only individual who has the opportunity to increase the amount and quality of interaction the puppies have with both them and other people. If the breeder is a woman, for example, and she is the exclusive, or almost exclusive human contact the puppies have, they are likely to be less well-adjusted towards men and children. In this scenario, it would be best practice therefore, to plan for men and children to see and handle the puppies, but this must occur in a gradual, controlled and positive manner.

It is not only important for breeders to socialise the puppies to people, but they must also ensure exposure to environmental stimuli. For example, a puppy that has had regular and positive experience of a television, vacuum cleaner, etc. will likely be more able to cope with experiencing these later in life than one that has been shut away in a quiet kennel or room. Audio tapes of environmental noises (eg. Traffic, household noises such as human chatter, music, kitchen noises, etc.) can also be played, and this can have some benefit.

# Socialisation is a very important part of a racing greyhound's development, and is especially important as community expectation about the proportion of ex-racing dogs which are rehomed increases.

It is critical to ensure that greyhound socialisation includes aspects of the dog's post-racing life experience. This is considered such an important step in optimising the successful of development of many working dog programs (eg Guide dogs, Customs and Police working dog programs) that sufficient resources are allocated to ensure that a team of staff dedicated to this phase of the working dog lifecycle are available. These other professional working dog groups often have early rearing programs from as early as 3 weeks of age that may include exposure to a variety of environmental stimuli (such as different substrate textures: grass, cement, wood, uneven foam, etc.), sound recordings played quietly and a rotation of unfamiliar people.

Group living provides an important opportunity for developing canine-specific social skills. However, in common practice, there appears to be a significant gap in the opportunities provided for socialisation with non-litter mates – from both their own species (greyhound and other breeds) and other species.

Compared to many working dog industry groups where dogs may be raised individually in a kennel facility environment with limited opportunities for free-running, social contact and exercise, the approach used for group-rearing young greyhounds better meets the species-specific needs for social interaction, and should be commended.



#### Best practice recommendation:

Best practice recommendation: The management of the racing greyhound during the weaning and rearing stages should follow a program that best equips the individual dog for their future life. This is required for their future, both on and off the track. Such protocols should be based around knowledge of the dog's socialisation period and a priority during the sensitive period of development, during the first three months of life.

## 6.4. Common practice in the greyhound lifecycle: education and training methods

## 6.4.1. Where does common practice come from?

Greyhound breeding and training programs aim to produce the highest possible proportion of dogs that win races. Historically, the intuitive (subjective) observations of greyhound industry members have selected both racing dogs and breeding stock based on their own experiences. Currently, a significant and abiding weakness of the Australian greyhound industry is that its knowledge base resides predominantly at the level of the individual dog breeder or trainer. It has previously been stated that "much of the training of greyhounds is based on knowledge handed down over time, and often this methodology is out of date, flawed or unacceptable in today's society" (Beer, et al., 2008). In the absence of a formal education program for participants, many of the common dog management practices in the NSW greyhound racing industry do not appear to be based on an understanding of fundamental behavioural needs and canine performance science. The absence of this knowledge framework increases the risk that optimal selection for breeding, and the racetrack performance of greyhounds, will be compromised.

A relevant study for consideration here was a UK study by Rooney and colleagues (2007) that compared subjective assessments by experienced working dog trainers with an objective test developed by an applied animal behaviour scientist, to assess whether there was agreement between the subjective and objective systems. The test used by the scientist provided more detailed information compared to the more traditional subjective methods, supporting the argument that quantitative measures of performance are superior to subjective qualitative assessment. Such rigorous study of performance may similarly benefit the greyhound industry.

It is common practice in the greyhound racing industry that existing trainers teach new industry members how to train racing greyhounds. One factor that severely inhibits the passage and process of ensuring widespread continuous quality improvement is concern expressed by industry members of losing their competitive advantage by sharing trade secrets – their 'tricks of the trade'.



It is our impression that in the absence of a structured education program, the resultant greyhound industry training practices are largely based on hearsay and mythology. Racing outcomes (desirable and undesirable) appear mostly to be engineered through a process of trial and error rather than the implementation of a systematic approach taking on board current state of the art thinking from a wide knowledge base.

Under such a spontaneous development framework, an individual's knowledge base develops through conversation (in person and online), media (eg. radio or press interviews), personal and shared experience.

Essentially, therefore, a large proportion of Australia's greyhound trainers are operating in a virtual professional development vacuum.

They are relying largely on techniques that they themselves have found to be successful, or methods that they have heard worked for another participant.

The outcomes of this informal training may run counter to what has been evaluated on the basis of the evidence available from a number of sources as best practice. This mis-match has the potential to compromise both the welfare of the animals and the productivity of the Australian greyhound industry.

## 6.4.2. Training the trainers

There are a number of similarities in this regard between the Australian greyhound industry and the training development of other skilled worker groupse.g.nurses and tradesmen. Training programs for these other skilled professions originally involved only on-the-job training. This is no longer the case. Most professions now include components of both on-the-job training and formal education, with evidence of ongoing education being required to maintain registration with the professional body organisation. Structured learning programs offer a range of opportunities to skilled professions, such as formal recognition of expertise and quality assurance for the wider community.

This situation is compounded by the predominant focus of the regulatory framework for Australia's greyhound industry members being on compliance with regulations, rather than the promotion of education and best practice through the provision of adequate resources. This point was communicated by participants consulted during the course of this Review as 'an industry that put resources into regulation rather than education of its members'. However, the recent step by GRNSW to setup a Welfare and Integrity Fund shows a positive change. As there is no formal program to facilitate the sharing of existing expertise throughout the racing greyhound industry, the advertised goal of achieving continuous quality improvement in animal welfare standards is currently thwarted. The greyhound racing industry aims to produce the required number of dogs that excel at performing a specific task with the longest working life possible.



The current period of both ongoing and completed parliamentary enquiries into the Australian greyhound racing industry offers the momentum required to develop a nationally accredited greyhound education package that focuses around the determination, development and implementation of best practices for greyhound racing. The time has come to shift the thinking away from 'racing commodity' to 'performance animal athlete' by re-focus on how to optimise the performance of the racing greyhound by equipping industry participants with the requisite knowledge base.

In order to be credible, the curriculum developed to facilitate knowledge transfer within the Australian greyhound industry must not be haphazard, anecdotal or based on popular belief; it must be centred on a curriculum that has been objectively and critically reviewed by industry and non-industry experts, and firmly rooted in evidence-based information. Therefore, it is incumbent upon the Australian greyhound industry to advance the welfare of Australia's racing greyhounds by expanding the current situation where knowledge and skills are acquired informally to a situation where participants are able to draw upon the wider knowledge base available from outside the greyhound racing industry.

Representatives from the following stakeholder groups: owners, veterinarians, breeders, rearers, handlers, trainers, animal welfare advocacy bodies, researchers and government agencies should be included as collaborators in this venture to develop a national education and accreditation program for greyhound industry participants.

The outcome of such an approach would be the development of a curriculum that is endorsed by consensus of the relevant experts and provide the greyhound industry with a training platform of the highest world standard. An important goal of such a teaching program would be to produce greyhound trainers with a skillset that allows them to adapt and adjust a training program to suit an individual dog. This should be a key goal of the GRNSW Welfare and Integrity Fund.

The authors of this Review argue that the way forward for the greyhound racing industry is to expand the knowledge base from informal training through collaboration to develop a training program for greyhound trainers that equips them with a skill-set based around the principles of teaching and learning. The desirability of a training program provided by Registered Training Organisations (RTOs) delivering courses registered with *ASQA* is well recognised. A key component of this regulatory framework that will be very important for the greyhound industry to embrace is the opportunity for existing expertise to be recognised through the modality of *Recognition of Prior Learning*. Formally recognised education also offers industry members qualifications to take with them into other industry settings, should they elect to leave or diversify from the racing greyhound industry.



The aspiration of achieving high animal welfare standards for greyhounds will only be achieved by developing a nationally accredited training curriculum with relevant animal behaviour and psychological principles related to the practical goal of encouraging desirable patterns of greyhound behaviour.

The tool-kit for such training programs includes reinforcers to externally motivate dogs such as squeakers, whistle, voice, touch, and lure items. It is noted that many of the items in this tool-kit are currently used by greyhound trainers. However, as stated previously, it does not appear that such tools are used in a consistent or structured way.

Despite not being unanimously applauded by industry members, Greyhounds Australasia appear to be the body best placed to coordinate the development and dissemination of such a standardised training platform. The recently announced initiative of the National Greyhound Welfare Strategy (NGWS) is a positive step. The purpose of the NGWS is to achieve national agreement on industry initiatives. We understand that steps are currently underway to revise an existing nationally accredited greyhound training package: RGR08 - Racing Training Package. This is a positive step and supported by this Review. As the training package is currently being revised, the comments about training and education that follow are general in nature.

At the outset, it is worth noting that RGR08 - Racing Training Package refers to both horse racing and greyhound racing. The primary focus of the training package is horse training and the overall impression gained from reviewing it is that the sections relating to greyhound racing have been included as an afterthought. Much of current greyhound lifecycle management seems to mirror horse racing practices (group rearing in paddocks, individual stabling during training/racing, etc.)

It should be pointed out that there are significant biological and behavioural differences between the species-specific needs of horses and dogs that are not captured within RGR08 – Racing Training Package. As highlighted in other Sections of this Report, a significant deficiency in common practice in the greyhound industry is a lack of awareness and attention to the importance of early socialisation for greyhounds. The package requires a revisit so that the focus of training becomes a whole of lifecycle approach to management of the greyhound, based on what is known to be important aspects of dog behaviour, physiology and nutrition.

The curriculum under the current version of RGR08 - Racing Training Package that is relevant to greyhounds appears to be quite comprehensive in scale, but it is inherently limited in content. There is insufficient detail for the RTO/teacher to provide anything other than their own interpretation of the curriculum. A couple of examples to demonstrate this point are that it does not include definitions for industry terminology or other areas of importance identified in this Review - socialisation and lure training.



Consequently, it raises questions about:

- 1) how suitable teachers can be sourcedi.e.those with the knowledge required to train potential industry members to a high standard and
- 2) how a standardised education package can be delivered.

#### Best practice recommendation:

Evidence-based, racing greyhound specific, education packages that are requisite for each stage of industry licencing. The National Greyhound Welfare Strategy provides an opportunity to share expenses, experience and existing knowledge between Australian states.

# 6.5. Wastage

Data provided from GRNSW's record keeping system, OzChase Support shows numbers of greyhounds recorded at time of whelping, naming (around 12months of age) and commencing racing are presented in Table 1 below, The number of greyhounds recorded as deceased, retired and rehomed by GRNSW's Greyhound Adoption Program (NSW GAP) is also shown below.

	2010	2011	2012	2013*	Total	Average /Yr
Pups Whelped	8,301	8, 091	7,375	7,562	31,329	7,832
Number named	5,800	5,940	5,220	4,768	21,728	5,432
% which have been named	69.9%	73.4%	70.8%	63.1%	69.4%	69.3%
Attrition whelping-naming	30.1%	26.6%	29.2%	36.9%	30.6%	30.7%
Number which have raced	5,028	5,087	4,474	3,162	17,751	4,438
% which have raced	60.6%	62.9%	60.7%	41.8%	56.7%	56.5%
Attrition naming-racing	9.3%	10.5%	10.1%	21.3%	12.7%	12.8%
Number known deceased	2,072	1,886	1,370	745	6,073	1,518
% known deceased	25%	23.3%	18.6%	9.9%	19.4%	19.2%
Number known retired	948	778	299	124	2,149	537
% known retired	11.4%	9.6%	4%	1.6%	6.9%	6.7%
Number rehomed by	24	33	28	56	141	35
NSW GAP						
% rehomed by NSW GAP	<0.3%	0.4%	<0.4%	0.7%	<0.5%	<0.5%



Table continued	2010	2011	2012	2013*	Total	Average /Yr
Attrition pre-racing	39.4%	37.1%	39.3%	58.2%	43.3%	43.5%
Total known endpoints#	36.4%	33.3%	23%	12.2%	26.8%	26.2%
Total unknown endpoints	24.2%	29.6%	37.7%	29.6%	29.9%	30.3%

Table 1: Showing numbers of racing greyhounds recorded at various life cycle points by GRNSW. #On the assumption that dogs retired, rehomed by NSW GAP and known to be deceased are discreet, independent categories. \* Within dogs whelped in 2013, a number of dogs will still be racing.

These data show that over the four years from 2010-2013, an average of 30% of dogs bred to be racing greyhounds go missing within the first year, before they are named. Close to a further 10% of dogs born to race go missing after being named, never starting in a race. These figures show that around 40% of greyhounds bred to race, never start in a race.

Just over a quarter of racing greyhounds whelped have an endpoint accounted for, recorded as deceased, retired or rehomed through the NSW GAP program. On average, close to 60% of dogs bred into the greyhound racing industry in NSW start in a race, but of these, two-thirds are subsequently unaccounted for with no career endpoint recorded. By comparison, Victoria currently achieve 75% retirement reporting compliance rate.

We recognise that this data set may not be fully independent and could have overlapping categories. For example, some of the dogs noted as missing between whelping and naming may be recorded as deceased. Likewise, some of the dogs recorded as retired, may have been rehomed through the NSW GAP program. We also recognise that groups other than NSW GAP are involved in rehoming racing greyhounds and that some may end their careers interstate or overseas (eg New Zealand) and may not be accounted for within the NSW OzChase Support data collection system. It is unclear if an equivalent number of dogs that originate in other jurisdictions end their careers in NSW. However, the figures shown in the table above provide the most accurate measures available in the NSW racing greyhound industry and they show that a high level of wastage has occurred over this time period.

We also note that in 2014, NSW GAP rehomed 109 dogs and as at 13 July 2015, 128 greyhounds had been rehomed through NSW GAP. This shows a positive trend, increasing the number of greyhounds rehomed post training and racing careers, but still represents a very small portion of the total dogs bred for the purpose of racing.



Wastage represents one of the most significant threats to the NSW greyhound racing industry's sustainability and public licence to operate. Strategies to proactively reduce the wastage levels in the industry must be given a much higher priority by GRNSW.

#### Best practice recommendation:

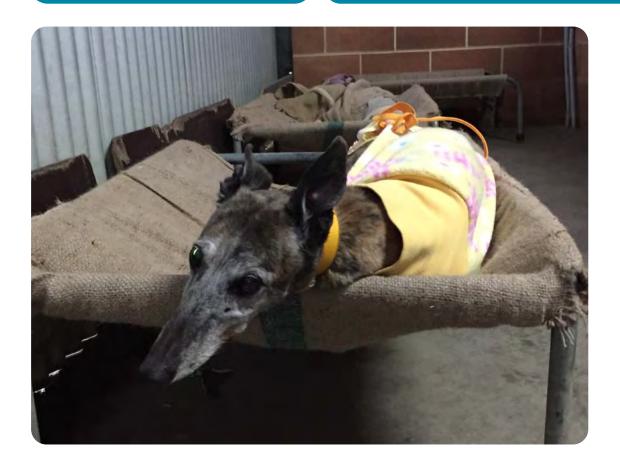
Standardised digital record keeping that readily enables, allows and promotes the sharing of data across jurisdictions. Ongoing assessment of full life cycle dog demographic data will create benchmarks for available welfare indicators and permit robust evaluation of changes over time. Best practice requires full racing greyhound life cycle recording and routine analysis of metrics. Studying the methods of those industry members who achieve low wastage rates would allow them to be commended as well as dissemination of information relating to successful strategies to other industry members.

#### Best practice recommendation:

All welfare initiatives moving forward to be: transparent, have responsibility and accountability attributed to individuals, and timeframes assigned to ensure effectiveness is evaluated, programs modified as required and progress is made. Assigning quality management principles to industry goals may be a useful strategy.

#### Best practice recommendation:

The racing greyhound industry has many external stakeholders. Historically, GRNSW has only acknowledged its members and industry participants as stakeholders. Recognising that the general public, animal advocacy groups, animal welfare legislators and media are significant influencers on the industry's social licence to operate, and therefore future sustainability, is an important cultural shift that needs to occur.





# 7. LURE REVIEW: ENCOURAGING CHASE IN GREYHOUNDS

# 7.1. Greyhound racing lures – current industry preferences in historical context

There appears to be a pervasive belief that live animal lures are the best way to motivate greyhounds to chase. The Survey (refer Appendix B & D) showed that 13% of general public responses indicated a belief that live bait is required to make the dogs chase as quickly as possible, and around 18 per cent of industry members agreed or strongly agreed that "some racing greyhounds will not chase unless they are trained using live animals on the lure".

The item "keen to chase" was the second most important variable when industry members were asked to rank 13 different items in order of their importance in a racing greyhound. This makes sense, as a greyhound that is keen to chase is more likely to lead to success on the racetrack than a dog which is not motivated to chase. However, as important as this feature is, the motivation behind a greyhound's willingness to chase is not well understood.

This is a critical knowledge gap, because a complete understanding of why greyhounds chase a lure is essential to developing a successful strategy that can be adopted to encourage non-chasers. What motivates greyhounds to chase must be clearly understood before a valid analysis of lure design can be carried out. If it is established that the type of lure design is not a significant factor in whether or not a greyhound will chase the lure, then the approach to future lure design can be directed towards greyhound safety and public perception, rather than other characteristics. This is incredibly important because the current approach of industry, to focus on the lure type, may well be putting the cart before the horse. The next section of this Review will explore this issue in more detail, by describing the role of motivation in chase behaviour.

# 7.2. Behavioural principles relating to training a greyhound to chase a lure

#### 7.2.1. What motivates racing greyhounds to chase?

Essentially, Greyhounds vary in their level of motivation to chase a lure. However, there is simply no evidence to support the widely-held belief that it is necessary to use either a live animal or an animal-derived product to teach a greyhound to chase a lure.

Some examples from other working dog industries clearly show that dogs are regularly trained to perform tasks much more complex than chasing a lure using non-animal origin materials. For example, military detector, police, corrective services and guide dogs are trained by being rewarded with a synthetic object such as a tennis ball or towel.



The position that it was not necessary to use an animal-derived product as a lure for greyhounds was independently stated by a number of Australian racing greyhound industry participants during the course of this Review. Whilst the reasons why greyhounds will chase an artificial lure in a race environment are complex, they can be considered broadly in terms of the individual dog's motivation to chase.

By considering a greyhound's willingness to chase in terms of motivation (ie, the reasons why a dog chases), a trainer can then consider the ways in which that motivation can be increased.

#### 7.2.2. Is chasing internally or externally motivated?

Motivation can be broken down into:

- 1) Internal or self-motivation and
- 2) external motivation

#### 1) Internal or self-motivation

means an activity is undertaken for its own sake without any sort of external reward. It is driven by an interest or enjoyment in the task itself, rather than needing an external reward for it to be repeated. Internal motivation creates positive emotions and this enjoyment increases the likelihood that the animal will engage in the activity again in the future. It is possible that greyhounds chase the lure due to high levels of internal motivation to chase, just because they enjoy it. That is, they may experience a feeling of wellbeing as a result of chasing the lure.

#### 2) External motivation

involves performing a behaviour in order to either earn external rewards or avoid punishment. The types of external motivators that are regularly used to try and encourage greyhounds to chase the lure include the use of rags or similar objects such as fishing rods with dangling toy attachments, plastic bags, drag nylon hare skins or soft toys. Squawkers, whistles and calls are also used to encourage chasing, and some trainers will use a second (sometimes older) dog to help teach train younger dogs.

# 7.2.3. Linking motivation, lure type, early experience and desired dog behaviour

Some greyhounds are internally poorly motivated to respond to a moving stimulus by chasing it. This is just an example of individual differences between greyhounds.

For the remainder it is likely to be possible to turn on or increase the internal motivation by taking steps to increase the value of the external motivator.



For probably a very small proportion of greyhounds with low internal motivation to chase, there is likely nothing that can be done to encourage them to chase.

This is exactly why some people use a live lure - they think it will be highly stimulating, and this is probably a reasonable assumption. However, if we can figure out other stimuli that are interesting to greyhounds, there is an opportunity to use these instead of live lures to motivate greyhounds to chase. The key to success with this approach will be to start the training early, use lots of positive reinforcement and avoid any punishment associated with chasing. To be successful, external motivators have to be high value to the individual dog, so they will vary from dog to dog.

The greyhound's early life experience, ongoing learning and its very own individual predisposition for chasing are important components of a dog's ultimate motivation to chase on the racetrack. Identifying the extent to which each of these elements affects racetrack behaviour requires systematic research. While a dog's personality and predisposition for chasing cannot be altered, early life experiences and learning are dramatically impacted by handler practices. For example, breaking and educating of young greyhounds generally happens in a novel location, in the presence of new people. Dogs may also have been transported in a vehicle to the unfamiliar breaking location. Without controlled exposure, these steps involve the potential for exposure to a large number of potentially fear-inducing experiences.

This is important in the context of poor performance in greyhounds, as there is considerable research examining military, police and guide dogs, identifying traits which are linked to poor and good working ability (eg Rooney et al 2004). In these studies, fear of novel environments has been shown to be both the most common reason for failure (Goddard and Beilharz 1986) and a heritable trait (Goddard and Beilharz 1993). Research demonstrates that gradual introduction to novel environments from an early age can help to overcome fear and anxiety in later life. So by providing young dogs with a structured programme of exposure to a range of stimuli that they are likely to encounter later in life, it may help to reduce the number of non-chasers.

Based on the information collected throughout the course of this Review, it appears that a strategy of trial and error is most commonly adopted by greyhound trainers as they develop their training protocols. With the recent industry drive to move away from using animal-origin lure materials, there appears to have been a lot of effort to develop new lure materials. For example, many breakers and trainers are trialling a range of different types of squawkers. However, it appears that this is being conducted in an ad hoc manner rather than in a structured and consistent manner.

The lack of instructions/information associated with the recent roll-out and adoption of squawkers as the answer to no longer using animal-derived baits provides a useful example of how the industry has tended to innovate without an adequate empirical foundation. Attempts by participants to design novel squawkers and the like without adequately testing these raises concerns that reduced efficiency of industry productivity and animal welfare outcomes may follow. An evidence-base to support these various approaches to changing greyhound training practices is not present.

A significant theme that was expressed to the Review Panel during this project, was that industry participants are looking for outside assistance and support to help them through this turbulent time. This presents an opportunity for industry groups to show



leadership at this time, by providing some guidelines on how squawkers and other stimuli can and should be used to help motivate greyhounds to chase the lure. Many greyhounds are internally highly motivated to respond to an external moving stimulus by chasing it. These dogs will chase any moving object so motivating them to do so is easy.

It was mentioned above that the reasons why some greyhounds will chase an artificial lure in a race environment and others will not are complex and difficult to tease apart. The concepts of internal and external motivation have been described to provide a framework that trainers may refer to as a starting point in their efforts to encourage non-chasers. There is the potential that individual animals respond to different motivations and the extent to which fear interferes with these motivations differs both between individual dogs and according to past experiences. However, the specific ways and ages of the greyhound lifecycle at which chase stimuli should be introduced requires further investigation.

A full understanding of the development of motivation in greyhounds is likely to require controlled trials to determine the optimal stage and age of the greyhound lifecycle in which to introduce squawkers and other stimuli that may motivate some greyhounds to chase. Such an investigation should also address whether the stimuli should be used as a motivator or a reward. Another consideration that is not immediately clear is whether stimuli should be introduced to puppies, say for playing chasing games, or reserved as a novelty item to maintain and increase the motivation of racing greyhounds to chase the lure, by using it as a reward.

Because of the need for expertise required to design a study to collect valid data and also in recognition of the huge costs associated with making changes to race track and lure design, we recommend that such a study should not be conducted wholly by industry participants. Industry participants must feel included in the process and can provide critical insights, but outside oversight is essential to be confident that the results of the study are evidence-based and valid. This will increase the potential for the results to be more widely applicable and accepted.

# 7.3. Motivation to chase impacts animal welfare and industry sustainability

A proportion of greyhounds do not show a strong motivation to chase. These greyhounds will typically be coaxed to chase, and may be track-tested several times, but those who do not respond to training are of no use to the racing industry and subsequently require rehoming, potentially competing for good homes with retired racing dogs. The use of live baits in the industry is possibly driven by the economic consequences for the owner and trainer of a dog failing to chase.

A focus by the industry on increasing the knowledge basis relating to reasons why greyhounds chase and do not chase is considered to be a critical action point for the industry to address before it can objectively move forward in terms of lure type and track design.



As well as providing participants with the opportunity to reduce the number of non-chasers, it also potentially decreases the number of greyhounds which need to be bred, and re-homed, each year. Thus, a focus on decreasing the number of non-chasers presents the greyhound industry with the opportunity to demonstrate to the general public that it is being proactive in addressing animal wastage and animal welfare.

When more is known about how to use ethical and sustainable stimuli to encourage greyhounds to chase, this knowledge can then be incorporated into the industry's education package that is currently being revised, in particular, the GR808 Racing Training Package. It is envisaged that GR808 will be adopted by the industry and participants will be required to demonstrate competency in the revised Certificates before being licenced. Such a requirement could be written into all relevant State Animal Welfare Acts to ensure national standardisation. Whilst there appears to be a belief that non-chasing is due to either genetic predisposition or a lack of instinct, these conclusions do not provide a breaker or a trainer with much guidance on how they may be able to increase a dog's motivation to chase.

# 7.4. On track considerations – with motivation as an overlay

# 7.4.1. Follow-on lure rewards the behaviour – the question of internal vs external motivation

Despite the lack of understanding about why dogs give chase, there is some debate in the industry about the effects of different lure types on increasing chase behaviour in dogs. The follow-on lure racing system may permit greyhounds to briefly obtain the lure that they are chasing once they cross the finish line. This system is in use in South Australia, New Zealand, USA and UK, but is less common in Australia than the catching pen system. The catching pen guides dogs into a holding area just off the track after the race is finished. There are arguments in support of and against both systems. These arguments are based predominantly on individual perceptions relating to whether or not the dog should (or needs to) receive a reward at the end of the race, and comparative injury rates.

The key argument in favour of the follow-on lure is based on a perception that there is a reward for the dogs at the end of the race: the dogs are rewarded by obtaining what they have been chasing. However, this may be an overly simplistic interpretation of what is occurring at the end of the race.

The first consideration must be whether or not it is necessary for a greyhound to be externally motivated to chase a lure; does it actually make any difference whether the dog receives a reward at the end of the race?



Even if they do need the reward, can we be certain that racing greyhounds consider the follow-on lure to be a reward for completing (or winning) the race?

Given that the majority of greyhound race tracks in Australia do not use the followon lure, and therefore, the dogs do not get to catch the lure but still chase, perhaps catching a lure at the end of the race is not necessary in order to encourage dogs to race. Considering the above section about motivation, greyhounds may well be chasing the lure for reasons of predominantly internal motivation, rather than external motivation. If this is so, then what happens at the end of the race will be of little relevance to chasing behaviour.

The lure-as-reward perception assumes that mouthing a lure through a muzzle is rewarding, even though it might be difficult to achieve or even painful for the dog to bite through the wire muzzle. Another complicating factor is that not all dogs get to mouthe the lure – some dogs get shoved about by other dogs. There are a few reasons, then, why the experience may not necessarily be a positive (ie rewarding) one for those dogs. The fact that follow-on lures cannot always be caught and chewed by every greyhound at the end of the race makes it harder to universally view it as a reward (external motivator) for the dog.

There are other non-lure opportunities to externally motivate dogs at the end of the race. For example, the use of a squawker, or another exciting stimulus, could possibly appear at the end of the race. One participant described to us a system in North America where bright and noisy objects pop up at the end of the race for the dogs to grab onto as a reward. Whilst such stimuli may well be fun for the greyhound to interact with, there is a considerable delay between when dogs leave the starting box and when the objects pop up at the end of the race. A large body of research indicates that clear links between actions and consequences are more likely to be drawn if consequence occurs immediately after the action. Therefore, it does not necessarily follow that the objects at the end of North American races act as external motivators for chasing a lure.

If catching a follow-on lure at the end of the race can be considered an external motivator for the greyhound, it might represent positive reinforcement. If this was the case, it would increase the motivation to chase the lure in the future.

It is not necessarily a valid conclusion to assume that a greyhound will consider a follow-on lure to be an external motivator.

It has been suggested that the follow-on lure system does not only reward the fastest dog, but all the dogs which complete the race. The difference between the time taken for the winner and the losers to finish the race is too short for the catcher to practicably allow access to the winner alone. Therefore, it has been argued that dogs will be less likely to run fast, knowing that they will have a chance to bite at the lure even if they do not win, but just for finishing.

How significant these lure type considerations are in terms of actual greyhound race performance is not well understood. One way to assess the impact of the follow-on lure system on performance could be to compare the speed of dogs over consecutive follow-on lure races, or to compare the percentage of suspensions for failure to chase



between the follow-on lure and the catching pen. To our knowledge, comparing the speed of racing dogs over time in the follow-on lure versus the catching pen have not been assessed. However, there is some research comparing suspensions for failure to chase, as well as injury rates/scratching, which is another concern about the follow-on lure and these are described below.

#### 7.4.2. Effects of the follow-on lure on injury rates

There is concern in the industry that there are a larger number of injuries sustained by racing greyhounds when the follow-on lure system is used. Tail injuries may occur when the lure runs past, and when dogs run into each other while trying to bite the lure. There is also concern that some of the injuries may not be noticeable immediately after the race. This would impact on the reporting of injuries sustained due to this system, causing the follow-on lure to appear safer than it actually is. One way to evaluate this possibility would be to compare data on the number of scratchings under the two systems. Scratching would suggest that some injury or other issue developed after the previous start, which could indicate an injury from the follow-on lure during a previous race that was not immediately apparent.

#### 7.4.3. Previous studies of follow-on lures vs catching pens in Australia

Tracks that have used the follow-on lure system in Australia have reviewed the advantages and disadvantages of its use. We will briefly describe the results here as Study 1 and Study 2.

## 7.4.3.1. Study 1

Study I collected monthly data related to the number of suspensions, injury rates, and scratching rates under the follow-on lure system compared to the catching pen system. They also asked industry members to rate their level of support for the follow-on lure. Data collection began three years before the introduction of the follow-on lure in that state. Although the study was completed several years ago, the industry has continued to collect data of this kind each month, and provided us with their full dataset as of May 2015. In early years of the follow-on lure, the industry primarily collated information on suspension rates; however, more recently they have also collected data on the number of suspensions due to failure to pursue, marring, and unsatisfactory performance. They provided us their raw data for further analyses.

In the first year of use, support for the follow-on lure was reported to be 70%. This support subsequently dropped to 44% two years later and 25% three years later. It is interesting to note that this analysis concluded that 7 out of the 8 trainers who provided the majority of runners in the state remained supporters of the follow-on lure over this 3 year period.

The industry body who conducted the study concluded that the follow-on lure does reduce failure to chase and marring rates by about 67%, but the percentage of these events was low to begin with, at 0.6% of total starts.

We used statistical tests to compare the monthly rates of suspensions, scratchings and injuries for the follow-on lure system and the catching pen system.



There was no significant difference in the absolute number of injuries that occurred in the catching pen and the follow-on lure, but the percentage of injuries per total start each month was higher for the catching pen than the follow-on lure. There was no difference between the percentage of scratchings per month between the catching pen and the follow-on lure. There was a smaller percentage of suspensions using the follow-on lure system than the catching pen system, as well as fewer incidents of marring, failure to pursue, and unsatisfactory performance.

#### 7.4.3.2. Study 2

We ran additional statistical analyses on a set of data provided from an industry survey. The results of this study suggest differences in perceptions of the follow-on lure depending on the number of greyhounds that the participant currently works, and by the years of experience with the greyhound industry. Interpreting these data are complex, however. Respondents with 5 or fewer currently racing greyhounds reported that the follow-on lure has no effect on their greyhounds, compared with none of the participants with at least 21 dogs. Respondents with more than 21 years of experience overwhelmingly (77%) believed that the catching pen reduces injuries, while those with 11 to 20 years of experience did not favour one or the other. Interpreting these results is challenging and merits further study.

Study 2 saw an increase in suspensions once the catching pen was re-introduced after completion of the follow-on lure trial period. However, it is possible that this is an effect of change from one lure system to another, rather than the being a result of the type of lure system.

#### 7.4.3.3. Anecdotal evidence from track veterinarians

We approached veterinarians who work at race tracks under both the follow-on lure and catching pen systems to determine their perceptions of the injury rates and chasing performance of racing greyhounds in their care. None were able to provide extensive data on the topic, but all provided their opinion and anecdotal evidence about their experience.

One veterinarian recalls more injuries with the follow-on lure, but commented that they were mostly minor (bitten tongues or lips, muzzles jammed on teeth). A few dogs have experienced de-gloved tail tips which required amputation. There have been a few tumbles after pouncing on the lure which required treatment, and one freak accident where the dog fractured its front leg when jumping at the lure. This person believed that catching pens probably result in fewer injuries but require more manpower to manage. On the other hand, they reported having observed more injuries to the people catching the dogs in the follow-on lure system, and stated they would not choose the follow-on lure over the catching pen. According to this veterinarian, trainers say the dogs chase better when the follow-on lure is used, and that there are probably fewer dogs suspended for failure to pursue.

A New Zealand veterinarian reported that trainers are generally satisfied with the follow-on lure. They reported observing some superficial hind limb grazes but these



may be caused during the race as well as when the dogs grab the lure. Some dogs have had their tails run over in the past, but a cover over the lure has solved that problem. A few dogs have been seriously injured by being run over by other dogs, but this is very uncommon. This veterinarian also believes that the positive reinforcement provided by the lure will cause dogs to chase more keenly.

A veterinarian who has only been on tracks with a catching pen notes occasional minor injuries due to falling or being pushed against the padding by other dogs. There are also occasional serious injuries when a dog which has fallen during the race tries to enter the pen while other dogs are turning around to go back out. Regarding chase performance, "If the dog catches the lure sometimes, but not every time, then it is more likely to chase harder at each race to attempt to make sure it will catch the lure."

A variable reward schedule of this kind could prove to be a powerful way to encourage dogs to chase. However, providing a lure that dogs could obtain only some of the time may be challenging. One potential solution would be to allow the dog to obtain the lure during trialling, but not during racing. The problem with this method is that there are many differences between trialling and racing, not least the fact that dogs are generally trialled on their own, while they race with seven other dogs. These large differences in the experiences of trialling and racing suggest a need for using a variable reinforcement schedule during races, and not just during trials.

These comments should be treated with caution as they are based on the individual veterinarian's impressions, rather than a large amount of information that was independently and objectively collected.

Taken together, the results of the two industry studies suggest that there was a lower injury rate seen with the follow-on lure than with the catching pen. The follow-on lure results also showed significantly fewer suspensions than the catching pen. Likewise, the anecdotal evidence provided by track veterinarians would suggest that, in general, the follow-on lure does not result in an increased number or severity of injuries. However, we urge caution in the interpretation of these results. It is possible that there may be other confounding effects in the industry studies (eg, other safety measures put into place in later years, or changes in reporting efficiency), and the comments from veterinarians are not based on rigorous, controlled research studies.

# 7.5. Lure Review: Summary

Participant concerns that the follow-on lure increases the number of injuries and reduces drive to chase are not substantiated by available data.

If injuries due to the follow-on lure were only visible long after the end of the race it is expected that this would be reflected in scratching data. However, whilst acknowledging that the data provided for review is not without potential sources of error,

there is no evidence to suggest that the follow-on lure results in higher injury rates, suspension rates, or scratching rates, than the catching pen.



#### 7.5.1. Public Relations and lures

Based on public outcry in recent times relating to the illegal use of live baits to encourage greyhounds to chase, the greyhound industry is making rapid changes to ensure that the industry remains sustainable. Whilst there is a dearth of information available regarding what encourages greyhounds to chase a lure, there is simply no evidence to support the widely held belief that it is necessary to use either a live animal or an animal-derived product to teach a greyhound to chase a lure.

It is essential for participants to appreciate that the perceived "natural" or "authentic" experience of animal products on the lure is not necessary to make a greyhound succeed on the track, and it is certainly not desirable from a public relations or animal welfare perspective.

In order to set a clear direction for the industry to move away from the use of live bait, the synthetic lures used at tracks should not resemble an animal shape - a ball or rope or streamers may be more suitable. This will help to re-frame the historical perception that it is necessary to model a successful racing greyhound around chasing an animal-origin lure.

This is a key step in the cultural change required in the greyhound racing industry that will assist with regaining the confidence of the general public. It will present a clear demonstration that the industry has moved to align its practices and opinions with the wider community.

#### 7.5.2. Recommendations for lure operation systems

- It appears to this Review panel that the assessment of the pros and cons of different lure types, and the decisions relating to which types are used in greyhound racing, has been predominantly based on the opinions of industry participants. A clear limitation of this opinion-based approach is that certain voices within the industry will carry more weight, and, as a result, the opinions of a few individuals have clearly influenced the decision-making process.
- An assessment of lure operation systems should represent a stand-alone research collaboration supported by GRNSW and other State bodies, GA, government and possibly a range of other external funding agencies such as the Rural Industries Research and Development Corporation.
- The most cost effective way for the industry to proceed with collecting the data required for this project would be to collaborate with a University and set up a research project to fully investigate this topic. A working dog industry precedent for this step is the Rural Industry Research and Development Corporate, Meat and Livestock Australia, University of Sydney and Working Kelpie Council collaboration titled the Australian Farm Dog Project. The funding for one full-time PhD student, including costs associated with the data collection and analysis, would total approximately \$130,000. It is estimated that such a project might require 2-3 PhD students bringing an estimate of the cost to around \$250,000.



# 8. AN INTERNATIONAL COMPARISON: WHAT ABOUT THE UNITED KINGDOM GREYHOUND INDUSTRY?

## 8.1. United Kingdom Racing and its history

Greyhound racing is widespread in the United Kingdom (UK) and Ireland. The first records of commercial racing appear in 1926 and the sport became especially popular amongst the male working classes. It grew rapidly in popularity, reaching a peak shortly after the Second World War, with 34 million paying spectators in 1946 and by 1960 there were 151 greyhound tracks (64 licensed 87 independent), operating in the UK. The popularity of racing over the years has been variable with a variety of extraneous forces affecting the sport. Changes in the buoyancy of the economy, in attitudes to gambling and to animal usage, and more recently the introduction of the Animal Welfare Act 2006, have all had an effect. Although not formally acknowledged, there has generally been a decline in popularity as reflected by the gradual closure of multiple tracks, today leaving a total of only 25 licensed and 9 independent tracks. However the demand for televised races for gambling, and in particular the relatively recently introduced The Bookmakers' Afternoon Greyhound Service (BAGS) racing, means that number of races remain considerable, with approximately 70,000 races being hosted a year in 2010.

## 8.2. Financial stability of the UK greyhound industry

In 2014, Deloitte published a review of the UK greyhound industry and its financial stability. They concluded that £1.3bn (AU\$2.7bn) is bet annually on Greyhound Racing in British Licensed Betting Offices (LBOs). After horseracing, Greyhound Racing competes with football (soccer) to be the second biggest sport in terms of LBO turnover. Over 7,000 people are directly employed in the industry. Aside from racecourses and trainers the remaining other core industry employees are those working in administration and media and those in the Betting industry with a direct link to greyhound racing Over £55m (AU\$116m) was generated in tax by the Greyhound Racing industry in 2012, coming predominantly from gross profit tax on British betting operators. There were 8,000 new greyhound registrations in 2012 (down 8% from 2009) 4,000 owners registering greyhounds in 2012 (down 17% from 2009) and 835 licensed trainers in 2013 (down 14% from 2010).

Although attendance at meetings has recently decreased; the people attending races are believed to have changed from typical 'working class punters' to typically hen and work and birthday parties. A new track opening in 2015, marks some optimism within the industry.

It is clear that the future of the industry relies on both maximizing productivity and safeguarding the welfare of the dogs to ensure it remains publicly acceptable.



#### 8.3. Structure of races

Originally in the UK, dogs were raced in eights. But today dogs are raced in groups of six. They are each released from a trap box, and pursue a mechanical hare (ie the lure), over distances between 210m and 1100m, although the most common distances are between 400m and 600m.

The UK lure used to be covered with an animal pelt, but this led to problems with increased weight when the weather was wet and frequent breakdowns of the lure. Therefore since the 1990s, the UK and Irish lure have been replaced and today the lure is normally either a stuffed toy or a small lightweight plastic windsock in a variety of colours. It is believed that the greyhounds chase the lure by sight and by sound.

There are also occasional hurdle races, which involve the dogs jumping over wooden obstacles. Races are run anticlockwise on oval tracks, which vary in their size, and hence the angle at which the dogs runs. Dogs are not separated by lane fences during races.

## 8.4. Regulation of the UK racing greyhound industry

#### 8.4.1. Some background

The organisation, regulation and funding of greyhound racing has historically been complex and unconventional, involving a whole range of stakeholders from multinational bookmakers to owners of single dogs. There has historically been no regulations. However during the consultation regarding the UK Animal Welfare Act (2006), the landmark piece of UK legislation which replaced the 1911 Protection of Animals Act, some organisations called for tightened specific control, or even the banning, of greyhound racing. On introducing the Act, the Department for Environment Food & Rural Affairs (DEFRA) announced plans for secondary legislation to include specific issues and target animals, including racing greyhounds.

In addition on Sunday the 16th July 2006, there broke a high profile case; Sunday Times published an article alleging that "for the past 15 years David Smith, a builders' merchant, has been killing healthy greyhounds no longer considered by their trainers to be fast enough to race". Although euthanasia if carried out under humane conditions is not illegal, under the licensed greyhound rules of racing it is forbidden unless carried out by a vet, and when other rehoming options are unavailable. It also raises considerable moral and ethical objection amongst the general public and those with an interest in animal welfare and rights. Hence, this case had far-reaching repercussions. The greyhound racing industry responded by setting up an inquiry into regulation of the industry, which was completed in November 2007. This inquiry focussed on the regulation of greyhound racing, as well as addressing issues of traceability and dog welfare.



The Associate Parliamentary Group for Animal Welfare (APGAW) felt that an independent parliamentary inquiry was also required in addition to measures undertaken by the greyhound industry itself, and so carried out its own inquiry, made up of seven MPs and four Peers on "The Welfare of Greyhounds", which was reported in May 2007.

Subsequently, in 2009, DEFRA launched a consultation on the proposed introduction of which would be made under section 13 of the Animal Welfare Act. 2006 (Licensing or registration of activities involving animals). These aimed to "create minimum welfare standards for all greyhound tracks in England, without imposing disproportionate burdens on an industry that is already subject to the high standards required by the Animal Welfare Act" (GBGB 2010). Following responses from many organisations, the greyhound industry and private individuals, The Welfare of Racing Greyhounds Regulations were debated, and comments submitted regarding the draft by all interested parties. The regulations were ultimately passed by delegated legislation committees of both the House of Commons and House of Lords on 9th Feb 2010. This represents the first legislation specific to greyhound welfare in the sport's long history, and the new regulations came into force on April 6th, 2010. DEFRA has plans to introduce a Code of Practice relating to the welfare of greyhounds. Regulations are made by a Statutory Instrument and are binding. The Code of Practice will be approved by Parliament, but will not be legally binding, although it will be possible to use it as evidence in a court of law.

#### 8.4.2. Regulatory bodies

Subsequent to the changes outlines above, there was a major reorganization, effective and operational from 1st January 2009. A single unified body, The Greyhound Board of Great Britain (GBGB), took over the functions previously carried out by both the British Greyhound Racing Board and the National Greyhound Racing Club. This GBGB now has responsibility for the governance, regulation and management of the sport of licensed greyhound racing in England, Scotland and Wales. In the UK, from April 2010, new regulations came into force which predominantly control the racing stage. This means that a minority of 'independent' greyhound race tracks require inspection by local authorities (currently nine tracks). However, for the majority of licensed tracks, the GBGB regulate track activities (currently 25 tracks) and track operators are required to hold accreditation under their rules.

The GBGB currently has 218 Rules of Racing, many of which serve primarily to increase integrity of the industry and safeguard against foul play; they aim to ensure that races are run safely and fairly. These include several rules which have been specifically written to protect the welfare of the dogs. The Rules of Racing (GBGB 2009) also include rules on trainers' kennels and transportation, as well as rehoming (owners have a responsibility to rehome whenever possible) but there is no focus on the rearing, training or socialization of the dogs.



Those tracks not licensed by the United Kingdom Accreditation Service accredited GBGB need to be licensed and inspected by their local authority against the new welfare standards. In summary, the main regulations require that:

- A veterinarian must be present at all race meetings, trials and sales trials and must inspect every greyhound before it runs.
- The veterinarian must be provided with and have access to appropriate facilities.
- Suitable kennels must be provided for at least every 1 in 5 greyhounds that are going to run in a race or trial.
- Only greyhounds that are microchipped and, where required, tattooed may run in a race or trial.
- Track records must be kept of owners, trainers, greyhounds and injuries to greyhounds.

Animal advocacy and welfare organisations believe that greyhounds should have their welfare protected across the full life-cycle, "from cradle to grave" (eg Dog's Trust 2009).

Hence, when the regulations were seen to focus almost entirely on trackside activities, they were met with great disappointment from animal welfare campaigners, who believe that trainers' kennels, rearing activities, breeders' kennels, and the process of rehoming also require regulation.

In 2015, the Regulations have now been in existence for 5 years, and it is believed they will soon be reviewed. At that time, animal welfare and campaigning bodies will call for greater attention to breeding, rearing, socialisation and training; hence the current GRNSW review is timely.

At the launch of a recent campaign, Dog's Trust (UK charity) stated that:

"Disappointingly, the secondary legislation, introduced in 2010 (The Welfare of Racing Greyhounds Regulations), only focused on welfare measures at the track (where Greyhounds spend less than 10% of their time). These Regulations do not provide any legislative protection for Greyhounds during breeding, kennelling, transportation and for retirement. The Government stated in its summary of the consultation that it was satisfied the Animal Welfare Act provided sufficient protection in these areas. Yet much of the industry's activity is behind closed doors and without regular independent inspections it is very difficult for the enforcement agencies (RSPCA, police and Local Authorities) to apply the relevant legislation."

However, in this current period of uncertainty, the UK industry (in particular, GBGB) are very sceptical of outside interest, and are generally reluctant to engage in surveys or research from external bodies.



## 8.5. The importance of Irish greyhound racing

Although the Republic of Ireland is a separately governed country, subject to different legislation and although the Irish Greyhound Board (IGB) governs the Irish greyhound industry distinctly to the GBGB regulation in the UK, the two countries and industries remain intimately linked.

The majority, of dogs raced on British tracks, were bred in Ireland. In 2007 it was estimated that 75%-80% of greyhounds racing on British tracks were born in Ireland (APGAW 2007), and today this figure is thought to be higher maybe even 90%. In addition, even some of the minority that are bred in UK are taken to Ireland for rearing and schooling, so common practices, legislation and regulation in Ireland are extremely relevant to the UK greyhound industry. Ireland is predominantly an agricultural nation and there is a history of livestock breeding. There is a belief that greyhounds in Ireland are treated as livestock and historically animal welfare conditions and legislation have lagged behind that in the UK. As was noted by APGAW (2007) "in Ireland, traditionally a more rural society, the welfare lobby is less vociferous and less influential", which further exacerbates this dichotomy.

The introduction of the Animal Health and Welfare Act (2013) to Ireland, which already has greyhound specific legislation, brings Irish legislation in line with, if not surpassing, that of the UK. However, attitudes to animals, in particular to dogs, appear to differ markedly in the two nations. As Professor Sir Bateson noted with reference to Irish pedigree dog breeding in general, "The extent of the trade in dogs is astonishing". The breeding establishments in Ireland tend to be much larger scale than those in the UK; Ireland still has multiple dog pounds, and problems with stray and unwanted dogs that have led to large scale importation of dogs from Ireland into UK for rehoming. There was a Dog Breeding Establishments Act introduced in 2010 which aimed to bring Irish law in line with England's, limiting bitches to a maximum of six litters in a lifetime and preventing mating within 12 months from the previous litter. However, the Irish racing greyhound industry opposed this and requested an exemption; they were granted specific cases in which owners can request permission for individual bitches to have 8 litters.

When reviewing the UK racing industry, one cannot not do so without also assessing the conditions from which the dogs are sourced and the location where the vast majority are reared and schooled: in Ireland.



The majority of dogs raced on British tracks were bred in Ireland. In 2007 it was estimated that 75%-80% of greyhounds racing on British tracks were born in Ireland; today, this figure is thought to be higher, maybe even 90%.



## 8.6. What legislation is in place in UK and Ireland?

#### 8.6.1. United Kingdom

The Animal Welfare Act (Defra 2006) was a revolutionary price of legislation in the UK. It means that not only is it a crime to cause unnecessary suffering to an animal within your care, but it also states that carers have a legal duty of care to meet the needs of animals in their care and can be prosecuted if they have not taken reasonable measures to meet those needs.

The duty of the person responsible for animals to ensure welfare

- (1) A person commits an offence if he does not take such steps as are reasonable in all the circumstances to ensure that the needs of an animal for which he is responsible are met to the extent required by good practice.
- (2) For the purposes of this Act, an animal's needs shall be taken to include:
  - (a) its need for a suitable environment,
  - (b) its need for a suitable diet.
  - (c) its need to be able to exhibit normal behaviour patterns,
  - (d) any need it has to be housed with, or apart from, other animals, and
  - (e) its need to be protected from pain, suffering, injury and disease

The Hunting Act 2004, in the UK means that it is offence to hunt a wild mammal with a dog, unless the hunting is exempt.

#### 8.6.2. Ireland

In contrast, the Irish Government introduced Greyhound welfare legislation in 2011 which specifically addressed the keeping, trading, transporting, rearing, breeding, training, housing, racing or coursing of a greyhound. It has been described to "go way beyond UK legislation in specifically protecting Greyhounds from cradle to grave" (Dogs Trust 2015). However, the enforcement of the legislation is the responsibility of the Irish Greyhound Board (IGB) and the Irish Coursing Club.

In Ireland there exists primary legislation in the form of:

- Animal Health and Welfare Act (2013)
- Greyhound Industry Act (1958)
- Horse & Greyhound Racing Act (2001) and
- The greyhound specific Welfare of Greyhounds Act 2011

This includes a large number of clauses with the overall aim of protecting welfare, although most are somewhat generic and lacking specificity. For example, carers must ensure "the greyhound is adequately exercised", and that "the greyhound is inspected at suitable intervals regarding its welfare".

The terms adequate and suitable are difficult to define, and either prove or disprove. The act does, however, stipulate to all those responsible that "the keeping, breeding or rearing, training, racing or coursing of a greyhound must be done in such a manner as to avoid unnecessary suffering".



It also refers to the secondary legislation, in the form of the Irish Greyhound Board's Code of Practice, the primary objective of which is to set standards and clearly define what is expected of all individuals engaged in the care and management of registered greyhounds. This code supports and promotes the principles set out in the "Five Freedoms".

#### THE FIVE FREEDOMS:

## 1. Freedom from hunger and thirst:

By ready access to fresh water and a diet to maintain full health and vigour;

#### 2. Freedom from discomfort:

By providing an appropriate environment including shelter and a comfortable resting area;

#### 3. Freedom from pain, injury or disease:

By prevention through rapid diagnosis and treatment;

#### 4. Freedom to express normal behaviour:

By providing sufficient space, proper facilities and company of the animal's own kind;

## 5. Freedom from fear and distress:

By ensuring conditions and treatment which avoid mental suffering.

It lays out some generic principles and although lacking specificity it states within a section on environmental enrichment that:

"How pups are treated, dealt with and handled can help with their behavioural development with respect to socialisation and habituation and have a far reaching effect throughout their lives. Although there will always be a risk of single-event incidents that may lead to fear, nervousness or anxiety in a pup there will be a better chance of a solid, emotionally grounded individual if simple, basic socialisation and habituation techniques are carried out"

It thereby acknowledges the value of early introduction to potentially fear-provoking stimuli, but gives little guidance on how best to do this, nor the minimum level expected. In Ireland, there is no Hunting Act, and there are legal coursing events in which muzzled greyhounds and lurchers chase a hare caught for the specific event. However, illegal hare coursing does still continue.



## 8.7. Use of live prey in the UK

General practice in the UK is to use human and mechanical methods to encourage chasing in greyhounds. The UK industry regulator GBGB regulations Rule 212 xxi, states that:

"The keeping of any other live animal, bird, rodent, etc. that could be used in any way for training, coursing, etc., or the use thereof, is forbidden absolutely at all Licensed Kennels."

Since schooling is not a regulated process there are no specific rules about the use of live prey during this phase, and this rule does not explicitly say prey must not be used. However, many trainers and rearers follow this regulation strictly.

The *Hunting Act 2004*, in the UK means that it is an offence to hunt a wild mammal with a dog, unless the hunting is exempt. Therefore, rabbits are afforded some protection unless the hunting of rabbits takes place on land which belongs to the hunter, or which the hunter has been given permission to use for the purpose by the occupier, or, if the land is unoccupied, by the person to whom the land belongs.

The Animal Welfare Act (DEFRA 2006) means that it is illegal to hunt a "Protected animal". An animal is a "protected animal" for the purposes of this Act, if—

- (a) it is of a kind which is commonly domesticated in the British Islands,
- (b) it is under the control of man whether on a permanent or temporary basis, or
- (c) it is not living in a wild state.

The legality is slightly ambiguous but we are aware of no prosecutions. In Ireland, there is no Hunting Act but the Animal Health and Welfare Act (2013) means it is illegal to cause needless cruelty to an animal. The IGB firmly believes that the greyhound is a sighthound and the impetus to chase comes from seeing a moving object.

# It is irrelevant to the dog if the moving object is alive, or a windsock, as they chase on the racetrack.

The IGB see no benefit to either live baiting or using animal products during schooling or training and would strongly support investigation and prosecution of any industry member found to contravene this policy.

There have, to date, been no such allegations or investigations since the act was introduced in 2013. However, there is a widespread belief that greyhound rearers often keep cages of rabbits, whose purpose is unclear, and UK trainers openly debate on forums how they utilise a dog killing prey as a way to teach a young dog to chase. The BBC's 'On-The-Line: Cradle to Grave' documentary, claimed to expose the illegal practice of blooding using live bait. Quotes from the programme include:

"It's widely known that if you give a dog a live animal to kill, on occasion I've heard of cats being used – this makes the dog more keener [sic.] and makes it perform better. It's because they've had the taste of blood. The use of live bait – in this case rabbits – is against the law in Ireland and the UK. Blooding is, in fact, an imprisonable offence. Nevertheless, blooding is a common training technique and in rural areas in Ireland, the use of live lures is an open secret."



Blooding is believed to be widespread throughout Ireland. It is extremely cruel and highly illegal. Greyhound scene commentator, John Martin, is on record as saying that "greyhound racing would not continue to exist without blooding; blooding must be widespread". Writing in the Irish Independent on January 12th, 1994, Mr Martin added: "Do not expect an admission of the country's semi-state greyhound racing authority. To concede the point would be to accept that they are the custodians of a sport whose very existence is based on blooding".

There is a general impression in the industry that such practices are more common in Ireland, as the country is very rural and practices are never reported. Practitioners warn of Irish-reared dogs being more likely to have had a kill and being less likely able to retire to a home with a cat or rabbit, than British-reared dogs. Mechanical and handslip methods of introducing a lure are believed to occur predominantly in England and Wales. However, as noted earlier, a large number of UK racing greyhounds are educated in Ireland; this may be partly due to the availability of land and lower costs, but the relative ease of access to live bait use in training methods may be partly responsible.

In a recent review of welfare concerns associated with the lifecycle of the racing greyhound, Rooney (2012) identified 48 potential welfare issues within the industry. These included: lack of opportunities to socialise, disappearance of non-chasers and weaker individuals, dental and periodontal disease, confinement in a kennel, low levels of human contact, extended periods of muzzling, lack of heating/cooling, inadequate space during transportation (unable to turn around), and kennelling in small and dimly lit facilities. This assessment identified several issues connected with training, rearing and socialization which fall outside UK greyhound specific regulations, but which can potentially affect both welfare and optimal productivity of the industry. The key issue identified as most affecting greyhound welfare was a lack of opportunities to socialise during rearing.

# 8.8. Key findings from this international comparison

- Participants should be aware that changes in legislation, as have occurred in UK, can have major impact on accountability relating to animal management practices.
- Although reviews of the greyhound industry in UK led to subsequent major changes in governance, there remains great pressure for practices to be regulated for the dogs' full life cycle, "from cradle to grave", which threaten the future viability of the industry, so consideration of early rearing and training is vital.
- In the UK there is increasing expectation and pressure to reduce wastage by aiming for 100% post-racing rehoming. As similar expectations are likely to arise in Australia, the importance of early socialisation becomes a vital consideration.



- Prioritising the welfare of greyhounds in the face of mass media attention and parliamentary reviews is a critical risk-mitigation strategy for the industry as a whole. This approach may help avoid the experience encountered in the USA where racing is now non-operational in all but three States.
- Transparency of the industry and adopting a pro-active evidence-based approach, rather than a reactive response to media exposure, is likely to be critical to building a sustainable industry with a viable future.
- There is much similarity between UK and Australian practices, and many shared welfare concerns. This means that the results of UK greyhound welfare prioritisation exercise and the findings of ongoing research will likely be of significant relevance and potential application in Australia.
- This similarity also offers great potential to share research and lead the world in the development and implementation of best practice racing greyhound rearing, training, education and management practices that offer racing greyhounds improved welfare with better outcomes and a life worth living.
- The Survey presented in this report highlights the value of international collaborations. In countries where common practices show some variation, this allows for a wider variety in the data collected and hence more meaningful associations and results to be determined. Over a longer time frame, when multiple international organisations can be fully recruited, this has even greater significance and potential value for all stakeholders.
- While few, the differences in practices between the two countries are significant.
   For example, single kennelling is relatively rare in the UK, with most greyhounds being kennelled in pairs and the benefits to the dogs of compatible pairings are likely to be great. Many similar lessons and practises can be shared through international collaborations.





# 9. CHANGING INDUSTRY CULTURE

## 9.1. What the Survey tells us

The aim of the Survey was to provide baseline information about the current state of greyhound management practices in NSW, elsewhere in Australia and around the world, and to determine differences in perceptions of the ways in which greyhounds should be managed, according to a variety of stakeholder groups. To our knowledge, this is the first study of its kind in the world.

#### 9.1.1. Interest in improving on existing practices

Among current practices, when participants were asked to rank what is most important in a racing greyhound, industry members ranked the item 'experiencing good welfare' as the third most important out of 13 items. Consistent with a concern for welfare across the life cycle, industry participants commonly provided their greyhounds with regular physical contact with people before and during the rearing process. Dogs were not often permanently kennelled before they were broken in, and more than one person regularly handled most pups.

Industry members appeared generally interested in research to help them improve practices, but responses to some items suggest a lack of willingness to adopt all suggestions provided by research studies. Furthermore, participants were not particularly interested in workshops to improve socialisation, training, or rearing techniques. However, they were interested in workshops on first aid and health care for racing dogs. That many participants appeared to believe that research into other breeds would not apply to greyhounds is telling. To our knowledge, there is no scientific evidence to suggest that greyhounds are substantially different from other dog breeds in the amounts and types of socialisation and rearing experiences that they need to experience good welfare. Therefore, it is likely that research on other breeds and breed types should also apply to racing greyhounds.

It will be important for industry groups to encourage members to: continue their professional development through ongoing educational programs; be open to changing certain practices if evidence-based research so indicates; and consider the welfare needs of their racing greyhounds in light of research into the welfare of other dog breeds.

#### 9.1.2. Socialisation needs prioritising

The lack of interest in improving socialisation techniques was reflected in a number of items on the survey. For example, the items, 'a good companion animal after retirement' and 'good with other animals' were ranked nearly last, at 11 and 12, out of the 13 most important things in a racing greyhound. Additionally, outings into unfamiliar environments were uncommon before and during rearing, and friendly interactions with animals other than dogs were not common during the racing career. Finally, street walks were less common than other types of exercise; they were provided just a few times per week. However, when they did occur, they often lasted for over half an hour, longer than any other type of exercise provided to the dogs.



# 9.1.3. Mis-matches between industry members and other Industry stakeholders

Of particular concern were differences between industry members and other stakeholder groups regarding greyhound welfare. Industry members were less likely than other participants to rate the welfare of racing greyhounds as being of high importance, although the mean for this response among industry members was still very high. Participants from within the industry were also more likely to indicate that racing greyhounds are well cared for throughout various stages of their lives. However, industry members were less likely to place a high level of importance on a range of socialisation experiences for greyhounds. Furthermore, industry members are more likely to indicate that the current laws relating to the management of greyhound welfare, and the enforcement of those laws, were sufficient, than other groups.

Industry members estimated that a higher percentage of greyhounds bred to race actually end up having a racing career when compared to other groups, but they reported a lower percentage that should race. Industry members were also less likely to agree that the industry has a responsibility to prepare greyhounds for life as a pet after their career ends, and more likely to agree that an acceptable percentage of greyhounds are eventually adopted as pets. They reported that a significantly larger number of greyhounds are adopted post-career than some other groups, and reported a smaller percentage of greyhounds which should be adopted post-career than most other groups.

Whether these discrepancies between industry members and other groups are due to industry members having a better understanding of greyhound industry reality, or having less awareness of what greyhounds need in order to thrive, is unclear. However, the willingness of industry members to accept a higher level of wastage than participants outside the industry needs to be addressed. Indeed, improving socialisation practices, such that dogs are regularly exposed to a variety of different, positive experiences from the time they are pups, could help resolve these high levels of wastage. Adequately socialised dogs would most likely be better prepared for life as a pet once their racing career ends. However, they may also be better racers: socialised dogs should be less neophobic, and therefore enthusiastic about the excitement of race day. Behavioural research is warranted in order to determine the long-term effects of various socialisation practices on greyhound racing and adoption outcomes.

# 9.1.4. Effecting positive culture change within the racing greyhound industry

One challenge for the future is in changing long-held attitudes and beliefs about the best way to manage racing greyhounds, in order to improve welfare outcomes and reduce wastage rates. The theory of cognitive dissonance may provide some insights into how the industry may effect changes in practice by altering attitudes and beliefs. This theory has been described in the context of a dog-related issue: tail-docking in pet dog breeds. According to this theory, people sometimes engage in behaviours that do not accord with their attitudes and beliefs. In the case of tail-docking, breeders who cherish their pet dogs and want to ensure that they are experiencing good welfare, were engaging in a practice that most likely caused extreme acute pain, and sometimes chronic pain, to these dogs. In situations such as this, individuals



find this disconnect (or dissonance) between behaviour and beliefs to be very uncomfortable, and so they make efforts to reduce the dissonance. In some cases, this might be changing the behaviour, but in others it might be finding reasons why the behaviour actually is justified by one's beliefs. Some breeders may have stopped docking, while others suggested that it is necessary for the dog's health as an adult (eg to reduce the incidence of tail injuries).

According to cognitive dissonance theory, people who have already engaged in a behaviour that does not accord with their beliefs are less likely to be willing to change the behaviour, and more likely to find reasons to justify why the behaviour is necessary. This is because changing their behaviour would require an acknowledgement that they had been previously behaving in a way that was not ideal, which is uncomfortable for many people. However, over time, attitudes and beliefs can change, and behaviour changes can also result.

In the case of greyhound industry members, long-time owners, rearers, breeders and trainers may be resistant to changing socialisation and training practices in an effort to reduce wastage and improve post-career adoption rates, because this would require them to acknowledge that their past behaviours have been less than ideal for achieving these ends. However, industry members who are newer to greyhound management may be more amenable to changes, especially if they are educated on the ways in which different practices may improve racetrack performance and improve dog welfare. The results of the survey suggest that greyhound industry members are concerned about their dogs' welfare and their desire to chase; using those goals as a reason to alter management practices may be effective for some elements of the racing greyhound community.

To conclude, greyhound industry members are engaging in a variety of practices to benefit their dogs' welfare, and they place a high level of importance on meeting those needs. However, there are considerable differences between industry members and other stakeholder groups regarding what greyhounds need to experience a positive welfare state, and they accept higher rates of wastage than other groups. In order to improve welfare and wastage outcomes for greyhounds, as well as perceptions of the industry by members of other stakeholder groups, educational campaigns should aim to address the limited socialisation practices currently engaged in by the industry.



## 9.2. Overcoming illicit practices in sport

#### 9.2.1. Understanding illicit practices in sport

Modern sport, as a regulated, rule-bound, competitive activity, has been in existence since the mid-nineteenth century. It was predicated on the games ethic and later the amateur tradition that emerged in English Public Schools, such as Rugby, Eton and Harrow. It was elevated beyond mere physical recreation and was imbued with notions of ethics and morality. Sport thus became an intellectual pursuit that was thought to be beyond the comprehension of the working classes, or "professionals", who were excluded from participation by virtue of their lowly birth. Regardless, the mere act of hitting a ball with a bat or running the length of a track has no inherent moral dimension, and so various ideas, such as sportsmanship or sport as "character-building", have been imposed onto sport and are reinforced through rules that insist on fairness in an endeavour that is inherently inequitable.

To further promote the notion of sport as fair, illicit behaviours and substances that are thought to artificially enhance performance are banned in order to preserve the "sanctity" of sport. Over the history of sport, what constitutes "illicit" has changed, with training, the use of coaches, and government sponsored sports systems (amongst others) each variously considered to destroy the amateur ethic of sport. In most instances, behaviours that were once regarded as contrary to the ethos of sport have been gradually mainstreamed, such that it would now seem ridiculous to ban professional coaching staff or to prohibit state support of elite athletes. The outlier in this respect is performance enhancing substances, because efforts to eradicate them from sport have intensified since the mid-twentieth century. In greyhound racing, the illicit use of live baits on lures as a perceived performance enhancement, have recently attracted wide media and public attention.

The question of why illicit performance enhancement is such a threat to the integrity of sport is worthy of consideration. Magdalinski (2008) contends that, in performance sport, the objective is to determine the limits of ability, uninterrupted, unimpeded or untainted by external influences. Rule changes reduce the vagaries of the arena; equipment is refined to reduce drag or friction; and clothing is engineered to be as streamlined as possible. This allows the sports performance to be evidence of the athlete's pure ability. She argues that popular concern around illicit enhancement is that it is impossible to know the extent to which the body or the ingested substance is responsible for the athlete's performance, which means it is impossible to determine how authentic the outcome is. A secondary consideration is that illicit enhancement is popularly regarded as a cheat, a quick fix, an action that negates the need for hard work, discipline, commitment and a range of other positive characteristics thought to develop through sport. Using a "shortcut" to sporting success means that the authenticity, or "naturalness" of the performance is undermined.

Authenticity was certainly raised as an issue in the 1920s when tin-hare racing was first mooted in Western Australia. The use of an artificial lure was argued to be a trick or deception that would undermine the greyhounds' desire to run, and the use of live lures in contemporary greyhound training may tie into this notion of authenticity. There appears to be a persuasive, if scientifically unsubstantiated, belief that live lures are the best way to make the dogs chase as quickly as possible. As one American trainer suggests: "Gotta



let 'em be killers; gotta let 'em hunt" (cited in Jackson 2001). Around 18 per cent of Survey respondents agreed that "some racing greyhounds will not chase unless they are trained using live animals on the lure", yet far fewer believed it was a widespread or acceptable practice.

# In the case of greyhounds, authenticity is closely aligned with "nature", with the notion that it is natural for a dog to chase a hare/rabbit.

As one survey respondent noted: "Being allowed to have a greyhound course a live wild rabbit excites a greyhound because it's of the wild nature of the rabbit which is hard to replicate..." A number of respondents argued that meat or a carcass can be used as lures, perhaps with the expectation that the dog will catch the lure and receive a food-based reward at the end. This recognises that a dog chasing a rabbit is likely going to catch and kill it, and so perpetuates the belief that providing meat replicates the "natural order" or creates a perceived authentic experience for the dog.

#### 9.2.2. Overcoming illicit practices

There are a number of instances were undesirable or illicit behaviour has been changed within sport, and these are categorised as on-field, off-field and non-sport behaviours.

#### 9.2.2.1. On-field

Greyhound racing itself is a technological outcome of a process of reducing cruelty in the sport of coursing, whereby with each new innovation, a controversial blood sport was superseded by a more humane alternative. By the late nineteenth century, open coursing was increasingly regarded as a "beastly, low, cruel practice" as well as unsporting, as the hares were not provided "an equal chance of escape as being killed". Enclosed coursing, whilst initially decried, was regarded as a more humane version of coursing where hares were well attended and provided with escape routes. The standardised racing format and the technological developments of the mechanical lure in the early twentieth century meant that a new sport emerged that embodied much of the thrill and excitement of coursing without risk of harm to hares.

In bodybuilding, the use of illicit substances, such as anabolic steroids, dates back to the 1950s, yet dissatisfaction with their extensive use spawned a spin-off version of the sport, namely raw bodybuilding, which prohibits the use of all artificial enhancement. Athletes who compete in raw bodybuilding are much leaner than those taking drugs, meaning that a competitor's muscle definition is more clearly visible. Assessing the size, shape and quality of a competitor's musculature is the objective of bodybuilding, so the bifurcation of the sport has led to a version that rewards those seeking a more authentic expression of muscle-building with a more highly attuned performance. In other words, the rules of raw bodybuilding that preclude the use of illicit substances are reinforced by a better sports performance as perceived by competitors. In the case of greyhound racing, if the performance outcomes obtained by using only artificial lures could be validated as more effective training solutions, it follows that there will be greater willingness to use them.



#### 9.2.2.2. Off-field

Attempts to ameliorate off-field violence or illicit activities through sport are variable. The National Football League in the United States was quick to penalise quarterback Michael Vick for his involvement in dog-fighting and for the physical abuse and death of dogs on his property. In 2009, Vick was suspended indefinitely by the NFL for breaching their player code, but returned to football just over two years later. Despite reacting swiftly to allegations of animal abuse, the NFL and other sporting organisations have been more reticent to intervene in cases of domestic violence. They have traditionally regarded intimate partner assault as a largely private matter, and have only levied token penalties against perpetrators.

In fact, athletes have received longer penalties for relatively minor drug infringements than for assaulting a partner. The 2014 case of Baltimore player Ray Rice was a turning point in the NFL. Rice punched his fiancé (later wife) and was excluded for two matches. It was only after a public outcry and video footage of him dragging his unconscious partner from a lift was released that the Baltimore Ravens terminated his contract. This incident prompted the NFL to include domestic violence in their Personal Conduct Policy, which now penalises a first incident with an automatic six game ban, and a second leading to a permanent ban from the game. Education sessions, awareness campaigns and funding for domestic violence helplines have also been implemented by the NFL's newly appointed Vice President for Social Responsibility.

By contrast, in Australia, there have been several campaigns since the 1990s to use sport, especially rugby league, to reduce domestic violence in small, rural communities. The "Domestic violence – It's Not Our Game" initiative was developed in 2007 in Normanton, in Far North Queensland, an area with the highest rates of domestic violence in the state. Local rugby league teams agreed to exclude any team member involved in domestic violence, and players acted as role models in the community. The campaign led to a 55% reduction in domestic violence incidents and domestic violence is no longer tolerated in the community. Similarly, the "Tackling Violence" programme, an indigenous-led education and prevention programme supported by the NSW and Commonwealth governments, is making inroads in rural communities with 900 players signing a code of conduct which penalises them for involvement in domestic violence ("Regional rugby clubs stand strong" 2015).

#### 9.2.2.3. Non-sport example

Some of the most effective consumer behavioural changes have occurred in the public health domain. The use of graphic images of the health outcomes of cigarette smoking and the more recent implementation of plain packaging for tobacco products has had a notable effect on rates of smoking, with some demographics seeing a pronounced decline. Visually linking the consequences to the act of smoking, the prohibition of advertisements on television, the loss of opportunity to connect with consumers via sporting events and increased taxes have worked together to influence this significant public health concern.

At the time when it was proposed that tobacco companies be banned from sponsoring sporting events in Australia, there was an outcry that a massive funding shortfall would eventuate, undermining the ability to sports' governing bodies to



deliver sport to the public. It was argued that the public were largely in favour of tobacco sponsorship of sport and that the sponsorships had little impact on smoking uptake. Needless to say, the expected lack of sports funding did not eventuate, and other companies and organisations stepped forward to communicate their brands via sport. In Victoria, for example, tobacco sponsorships were often replaced with health promoting messages, such as Transport Accident Commission's campaign "Drink, drive, bloody idiot" emblazoned on the clothes of professional footballers.

## 9.3. Coaching and Knowledge Transfer

#### 9.3.1. Coaching knowledge transfer: a sporting overview

Coaching is a multi-faceted practice. It can draw upon an individual's experiences as a player or working with a mentor, formal coaching education programmes, intuition, instinct or "feel", trial and error, reflection and evidence-based practice. In terms of evidence-based practice, the science of coaching is only a recent addition to the sports scientific sub-disciplines and has not always been embraced by coaches. At junior levels, coaching is often performed by parents and other volunteers, many of whom have few if any formal qualifications. It is also not uncommon for past players to take up coaching positions within professional sport, and many of these rely significantly on their past experiences of being coached rather than entering coaching as a dedicated profession. Despite the fact that coaching science has its own evidence base, coaches are often expected to have played a sport; effective coaching is assumed to be correlated with experience of the sport.

Increasingly, however, sporting organisations are developing educational pathways and continuing professional development opportunities that draw together current knowledge as well as experience to prepare coaches. These coach education programmes often include a range of critical coaching-related issues, such as child welfare, ethics and integrity training.

The basic task of a coach is to work with athletes to improve their performance, and identifying how athletes acquire skills and conditioning to facilitate those performance gains is fundamental to any coaching education programme. Coaching is regarded as both an "art" and a "science", so that intuition and creativity are as fundamental to the process as science and evidence. It is important to note that "coaching" is not the same as "training". Training can be understood as a process of teaching the movement patterns established in a programme, whereas coaching is a complex decision-making process or a "structured improvisation". As such, it is clear that not all coaching knowledge and competencies can be communicated through formal coach education programmes. Researchers have thus examined knowledge transfer processes to identify how expertise is developed, and interviewed high level coaches at length to determine what source of knowledge they regard as critical.

Sources of knowledge have been categorised as either formal or informal, with most coaches citing informal learning experiences as their preferred and actual avenue of acquiring new ideas about coaching. Reade et al (2008a) conclude that coaches



typically learn from other coaches and that there is scant evidence to suggest that sports science plays a significant role in informing their practices. They note that most coaches are open to evidence-based practice, but often lack the time, resources or expertise to locate, analyse and integrate those findings into their coaching. Furthermore, coaches largely prefer interacting with and learning from their peers and feel that "learning by doing" is best achieved through working with mentors rather than studying independently. When confronted with a coaching challenge, most coaches start by asking other coaches what they do or have done to overcome similar situations.

Even when coaches' needs and scientists' research overlap, coaches express difficulty in accessing relevant information or in discerning how bench science can be applied in practical situations. Communicating research results and their application through association newsletters or coaching seminars would reach the end user more effectively.

# However, sports scientists typically disseminate their scholarship through journal articles in language inaccessible to the average coach.

Having said that, there is certainly a large number of exercise physiologists, biomechanists, sports psychologists among others working with leading athletes and teams, even if recent experiences relating to supplement provision to players at the Essendon Football Club may give some coaches and athletes pause.

For the most part, specific, dedicated sports science support occurs at the highest levels of Olympic and professional sport, through various academies or institutes of sport as well as in collaboration with university researchers. At lower levels, however, there is less funding available, though athletes might purchase support on an individual or personal basis. On the other hand, the science of sport in terms of the development and refinement of equipment and technology has increased exponentially.

In equine performance sports, there is an increasing focus on evidence-based practice. Equine sports scientists are working with trainers to enhance performance and reduce the risk of injury or illness to lengthen a horse's racing career. For example, the second International Saddle Research Trust Conference on the theme of Horses, Saddles and Riders: Applying the Science, which was held in late 2014, "to support research into the influence of saddles on the welfare, performance and safety of horses and riders using objective scientific methods" (Clayton et al 2015) and the International Conference on Equine Exercise Physiology (Hobbs 2015) indicate the emerging interest in evidence-based equine performance training.

A cursory look at the literature suggests there are few if any similar professionals within the greyhound racing industry, and this discrepancy might be owing to the significantly larger investment in owning and training racehorses.



#### 9.4. Recommendations for Educational Interventions

An important part of the cultural change required to reduce if not entirely eliminate the physical abuses associated with greyhound racing is a strong educational process. The concept of "abuse" needs to be clarified, as there are likely many who mistreat their dogs who would not understand their practices to be "abuse". Just like the PE teacher, who forces their charges to "give 'em fifty" for turning up late to class, is unlikely to conceptualise her/his act as abusive, so too, the systemic culling and unethical training methods are likely to have been normalised amongst many greyhound trainers.

It is not uncommon in sport for coaches and trainers to simply replicate their experiences rather than use scientifically validated techniques to enhance their athletes' performances.

Reframing racing greyhounds as athletes rather than disposable commodities, and foregrounding their experience in the training and racing process, is essential. Furthermore, in order to educate those who engage in abusive practices, it is important to understand not only why some trainers mistreat their animals or use live lures, but also why others do not. What differentiates trainers who do not engage in abusive practices from those who do? Are there significant differences in how they view the greyhounds and their role in the dogs' athletic development? Can we exploit and normalise these attitudes? Too often, remedying the deviant behaviour becomes the focus when there is a lot to learn from the "desirable" behaviours. For many members of the general public, the sport is "too far gone" and there are calls for it to be banned all together. The decline in greyhound racing in recent decades suggests that the public appeal is declining, and some, such as Phillips (2015), suggest that the power to eradicate animal cruelty lies with the public, who should be encouraged not to bet on such sports. Given that it is unlikely that greyhound racing will be dismantled, perhaps there is room for a verified "cruelty free" stamp of approval from authorised inspectors. This could be publicised like the National Heart Foundation's "tick" or "free range eggs" certification to indicate to gamblers which dogs come from best practice breeding and training conditions, allowing them to make an informed decision about which dogs, races or events to support. This would not be without challenges, but this Review's benchmarking of existing practices and recommendations are an important first step toward this possibility.



#### 10. FUTURE RESEARCH

Developing a clear understanding of what motivates greyhounds to chase is considered by this Review panel to be the most important next step for the industry as a whole. It is proposed that gaining access to the expertise to undertake the research required could be achieved by sponsoring PhD programs in collaboration with a suitable University.

The most cost effective way for the industry to proceed with collecting the data required for this project would be to collaborate with a University and set up a research project to fully investigate this topic. A working dog industry precedent for this step is the Rural Industry Research and Development Corporate, Meat and Livestock Australia, University of Sydney and Working Kelpie Council collaboration titled the Australian Farm Dog Project. The funding for one full-time PhD student, including costs associated with the data collection and analysis, would total approximately \$130,000. It is estimated that such a project might require 2 PhD students, bringing an estimate of the cost to around \$250,000.





#### 11. CONTRIBUTING RESEARCHERS

#### Professor Paul McGreevy

Professor McGreevy is a veterinarian and ethologist. He is Professor of Animal Behaviour and Animal Welfare Science at the University of Sydney's Faculty of Veterinary Science. The author of over 170 peer-reviewed scientific publications and six books, Paul has received numerous Australian and international awards for his research and teaching innovations. With the support of the Rural Industries Research and Development Corporation, the Working Kelpie Council of Australia and Meat and Livestock Australia, he is currently leading a small team of fellow veterinarians and animal scientists to identify valuable traits in working dogs and the contributions these dogs make to the work of producers and processors. He also heads the VetCompass initiative that has brought together all of the Australian veterinary schools to provide national disease surveillance for dogs and cats.

#### Associate Professor Pauleen Bennett

Associate Professor Pauleen Bennett is Australia's leading anthrozoologist - a specialist in the area of human-dog interactions. She is President of the International Society for Anthrozoology and Associate Editor of the field's leading journal, Anthrozöos. She has contributed to over 60 peerreviewed publications and has been awarded almost \$1.3 million in grants. She has considerable expertise in survey design, administration and analysis and has worked closely with government departments in three Australian states to analyse and advise on issues concerning management of companion dogs and cats. She leads a multi-disciplinary research group at La Trobe University which focuses on the use of dogs in medical and other applied settings, as well as their use as companions. The group was recently awarded a seed grant to investigate the use of scent detecting dogs in agricultural and conservation settings. Pauleen developed and teaches a very popular subject on the psychology of human-animal relationships, and previously led development of Australia's first post-graduate course in animal welfare.

#### Dr. Nicola Rooney

Dr. Nicola Rooney (BSc PGCE PhD) is a Research Fellow in the Animal Welfare and Behaviour Group at the University of Bristol, UK. For the past sixteen years, she has headed a team conducting research on working dogs, collaborating with many working dog agencies worldwide. She also works as an independent consultant to the Royal Society for the Prevention of Cruelty Animals, helping produce Codes of Practice and independent reviews on various issues. Most recently she has written a review on welfare concerns associated with greyhound racing in the UK, and currently manages a team conducting a 4-year project on racing greyhound welfare. They are examining ways of improving the efficiency of racing greyhounds, reducing the costs of dental issues to the industry, whilst improving welfare including during transport.

#### Dr. Karen Dawson

Dr. Karen Dawson has been in veterinary practice for over 20 years. A former Animal Welfare Manager at Racing Queensland Limited, she has been involved with the Greyhound Adoption Program of Queensland (GAP) since 2008, and also rehomes greyhounds through her own program, The Greyhound Rehoming Centre. She has undertaken behavioural assessments for the purpose of rehoming or muzzling exemption on over 600 greyhounds. Prior to that, she was employed by the Queensland Government Racing Science Centre. Karen is a member of the Australian Veterinary Association (AVA), member of the Australian Veterinary Behaviour Interest Group (AVBIG) and a committee member of the Australian Greyhound Veterinary Association (AGVA). She has been involved in the recent and ongoing amendments to compulsory muzzling law requirements for pet greyhounds in Queensland, and has presented at the AGVA conference in 2012 (Greenhounds and other non-GAP rehoming programs) and 2014 (The impact of welfare on performance and rehoming). She was also requested to provide evidence on how current rearing practices impact on performance and "wastage" to the select committee of the NSW parliamentary inquiry into greyhound racing.



#### Dr. Nick Branson

Dr. Nick Branson graduated as a veterinarian from the University of Melbourne and has worked in private veterinary practice in Australia for more than 10 years, including 5 years' experience as an on-track veterinarian for Greyhound Racing Victoria. He has completed a Certificate IV in dog behaviour and training, as well as a doctorate by research in applied canine behaviour and neuroscience. Nick conducted research on working dogs with the University of Pennsylvania in USA. Most recently, Nick has conducted working dog research including strategic analysis for improving the welfare of Australia's working dogs on behalf of the Australian Animal Welfare Strategy. In part, this research resulted in 'The Australian Working Dog Survey Report' (2009) and 'The Australian Working Dog Industry Action Plan' (2012). As a founding Director of the Australian Working Dog Alliance, Nick was a member of the organizing committee for its inaugural Working Dog Conference in 2013. His research expertise includes brain lateralization, applied animal behaviour and animal welfare.

#### Dr. Tiffani Howell

Dr. Tiffani Howell is a Research Officer at La Trobe University. She completed her PhD in 2013; during the course of the PhD she published four peer-reviewed journal articles related to dog behaviour and cognition. Since PhD completion she has published two more papers and has three in press. Dr. Howell has experience in designing and executing research programs examining dog cognitive abilities, including survey research, behavioural investigations, and the development of a minimally-invasive technique for recording EEg waveforms in awake, conscious dogs. In 2014, Tiffani oversaw a Victorian Department of Environment and Primary Industries project as well as a separate project funded by the Phyllis Connor Foundation. At La Trobe University, she has co-supervised four honours projects and one PhD candidate since 2014, and another PhD candidate will arrive in August 2015. Her diverse experiences, including behavioural aspects of dog training and owners' subjective experiences, make her well-suited to manage this project.

#### Dr Tara Magdalinski

Dr Tara Magdalinski completed undergraduate and postgraduate degrees in Human Movement Studies at The University of Queensland, focussing on the sociological and historical aspects of sport. Following ten years as a founding member of the Faculty of Arts at the University of the Sunshine Coast, in 2007 she moved to University College Dublin to take up a position in sports management, where she is currently the Head of Subject for Sports Management and the Associate Dean for Teaching and Learning in the School of Public Health, Physiotherapy and Sports Science. Tara has published widely in the area of sports studies, focussing on exploring the interface between performance technologies, nature and sport to try to understand concerns about "unnatural" enhancement and expectations of "authenticity" in sport. Her well-reviewed research monograph, Sport, Technology and the Body: The Nature of Performance (Routledge 2008), examines these issues in detail. Tara also co-edited (with Timothy Chandler), With God on their Side: Sport in the Service of Religion (London, Routledge, 2002), and her most recent book, Study Skills in Sports Studies (Abingdon: Routledge), was released in May

#### Mia Cobb

Mia Cobb holds a BSc(Hons) in Zoology, and worked in animal shelter and working dog facilities for over a decade, before shifting focus to research and promote the welfare of Australia's working and sporting dogs. From 2007 she led the federal government Australian Animal Welfare Strategy's working group for dogs used in work and sport, overseeing two major projects. In 2013, in conjunction with colleagues keenly interested in and committed to the sustainability of working and sporting dogs, Cobb founded the Australian Working Dog Alliance, a non-profit organisation that aims to work with industry to improve the welfare of Australia's working and sporting dogs. She believes in helping scientific research escape academic journals, so established the popular canine science blog, Do You Believe in Dog?, and also co-hosts the anthrozoology podcast, Human Animal Science. Mia is nearing completion of a PhD at Monash University, researching human attitudes, kennel management practices and the subsequent welfare, stress and work performance of kennelled guide dogs. Her research was awarded the RSPCA Australia Alan White Scholarship for Animal Welfare research in 2009.





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### APPENDIX A SURVEY QUESTIONNAIRE

#### Participant Information Statement

**Project Title: RACING GREYHOUND MANAGEMENT SURVEY** 

SHE-CHESC Approval Number: S15/136

Chief Investigator: Dr Pauleen Bennett, Associate Professor, School of Psychology and Public Health, La Trobe University, Bendigo, E: Pauleen.bennett@latrobe.edu.au Ph: 03 5444 7460

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**Project outline:** This survey is funded by Greyhound Racing New South Wales, in order to determine people's perceptions of how racing greyhounds are currently trained and socialized, as well as how they should be trained and socialized, as part of identifying current and best practices.

Research procedures: You must be 18 years old or over to complete this survey. You must also be fluent in English. It is expected take approximately 15 minutes to complete the survey. This research is completely anonymous.

There are some items in the survey related to the use of live bait in racing greyhound training. These items are not intended to determine whether any specific individual engages in this practice, which is illegal in many areas. Rather, these items relate to each participant's beliefs and attitudes regarding live bait and legal alternatives. If you do not feel comfortable responding to certain items on the survey, you may leave them blank.

You are under no obligation to participate and may withdraw at any time before completing the survey. Participation in this survey, or lack of participation, will not advantage or disadvantage you in any way.

What will happen to the data you provide: Because your responses will be anonymous, the research team will have no way to identify individual respondents. This means that, once you complete the survey, your responses will not be able to be removed from the file because it will not be possible to determine which responses belonged to you.

The raw data will be stored for at least five years using La Trobe's data storage services. The results of the survey may be published in electronic or printed scholarly journals, reports and books, summarised on the Greyhound Racing New South Wales website and presented at academic conferences, but due to your anonymous status you will not be identified in any way. The data will also be retained indefinitely on secure University servers, so that it can be incorporated into future studies.

You may request a summary of the results or a copy of any manuscripts or reports generated by the research team. Such requests, or any questions regarding the project, may be directed to the Chief Investigator, A/Prof Pauleen Bennett, School of Psychology and Public Health, on telephone number 03 5444 7460.

If you have any complaints or concerns about your participation in the study that the researcher has not been able to answer to your satisfaction, you may contact the Senior Human Ethics Officer, Ethics and Integrity, Research Office, La Trobe University, Victoria, 3086 (P: 03 9479 1443, E: humanethics@latrobe.edu.au). Please quote the application reference number S15/136.

o I have read and understood all of the information in the participant information statement. I am at least 18 years old and fluent in English, and I understand that my participation is completely voluntary and confidential.



#### Demographic information

#### 1. Gender

- o Male
- o Female
- 2. In what year were you born? (please write) \_\_\_\_\_

#### 3. Where do you live?

- o New South Wales
- o Australian Capital Territory
- o Northern Territory
- o South Australia
- o Queensland
- o Tasmania
- o Victoria
- o Western Australia

Country other than Australia (please write)\_\_\_\_\_

#### 4. What is the highest level of education you have completed?

- o No formal schooling
- o Year 10 or below
- o Year 11 or year 12
- o TAFE diploma, trade certificate, apprenticeship
- o University, (undergraduate)
- o University, (post graduate)
- o Other (please write) \_\_\_\_\_
- o Prefer not to say

### 5. Which of the following best describes your current situation in relation to paid work?

- o Retired
- o Unemployed
- o Unable to work
- o Engaged in home duties
- o Part time or casual paid work (30 hours or less per week or seasonal work)
- o Full time paid work (more than 30 hours per week)
- o Self-employed
- o Other (please write) \_\_\_\_\_
- o Prefer not to say

#### 6. Have you ever owned a companion dog?

- o I currently own one or more companion dogs
- o I have owned one or more companion dogs in the past, but not now
- o I have never owned a companion dog



### 7. Please describe your affiliation (if any) with greyhound racing. I am a (please select all that apply):

- o Racing greyhound owner/rearer/trainer/breeder
- o Racing greyhound rehoming/rescue/adoption worker
- o Owner of retired racing greyhounds
- o Animal advocacy group member (e.g. WSPA, RSPCA, Animals Australia)
- o Veterinarian who regularly works with racing greyhounds
- o Veterinarian who does not regularly work with racing greyhounds
- o Member of the general public
- o Other (please specify) \_\_\_\_\_

#### 8. Approximately how often do you watch and/or bet on greyhound races?

	Never	Less than once per year	Once or twice per year	Three to six times per year	Six to 12 times per year	More than once per month
Watch live at the track	0	0	0	0	0	0
Watch on TV	0	0	0	0	0	0
Wager	0	0	0	0	0	0

### 9. If you never or rarely attend greyhound race meetings, is this because: (select all that apply)

	Not at all	Not really	Somewhat	A lot	Completely
I am too busy	0	0	0	0	0
My friends/family do not watch the races	0	0	0	0	0
My friends/family do not think I should watch the races	0	0	0	0	0
It has never occurred to me to attend one	0	0	0	0	0
I am concerned about the welfare of the animals	0	0	0	0	0
I would not find it enjoyable	0	0	0	0	0

o Other (please specify)

# Racing Greyhound Management Practices (for industry members only)

The following questions will ask about your role in the greyhound industry, and the ways in which you manage the racing greyhounds in your care. Your responses to this survey are completely anonymous.

#### 10. Are you a: (please select all that apply)

- o Racing Greyhound Owner
- o Racing Greyhound Breeder
- o Racing Greyhound Trainer
- o Racing Greyhound Rearer



- o Racing Greyhound Breaking in facility employee
- o Racing Greyhound Handler/Catcher at the track
- o Other role in greyhound racing industry e.g. steward, vet, etc. (please write) \_\_\_\_\_\_

#### 11. Are you a member of:

- o Greyhound Breeders, Owners, and Trainers Association (GBOTA)
- o Greyhound Racing Industry Consultative Group (GRICG)
- o Greyhound Action Group NSW (GAG)
- o NSW Greyhound Racing Club Association (GRCA)
- o Registered Greyhound Participants Association (RGPA)
- o Another association (please write) \_\_\_\_\_

#### 12. Please describe your level of experience with racing greyhound:

	No experience	Mimimal experience	Moderate Experience	High experience
Breeding	0	0	0	0
Rearing	0	0	0	0
Training	0	0	0	0
Owning	0	0	0	0

### 13. Please rate from 1 (most important) to 13 (least important) what is most important to you in a racing greyhound.

	Rank
Successful on the racetrack	
Good with people	
Good with other greyhounds	
Good with other animals	
Experiencing good welfare (i.e. having all physical and behavioural needs met)	
A good companion animal during its racing life	
A good companion animal after retirement	
Not fearful	
A keen chaser	
From good breeding stock	
Able to breed	
Physically sound	
Mentally sound	

### 14. How many of the following greyhounds bred for racing do you currently have in your care, and how many belong to you?

	Number currently on property	Number belonging to you
Breeding bitches		
Stud males		
Puppies still with mother		



Number of racers currently resting or re-	covering			
Retired dogs				
15. Approximately what percentage comonths:	of the puppies t	hat were born i	n the past 12	2
Survived to the time of weaning?				
Do you still have on your property?				
Were sold to racing homes or returned to	o the owner?			
Are on another property, e.g for rearing?				
o Not applicable				
16. Approximately what percentage v	vere rejected fro	om racing?		
Approximately what percentage were du	ie to:			
III health?	Inexperience	d trainer?		
Lack of chasing drive?	Poor manage	ement of the dog	<u> </u>	
Aggression to people?	Not responsi	ve to training?		
Aggression to dogs?	Other (pleas	e write)		
o Not applicable				
<ul><li>17. Approximately how much money of your greyhounds? \$</li><li>18. Does this amount vary depending o Yes</li><li>No</li></ul>				
<ul> <li>19. If yes, please estimate how much the following stages:</li> <li>Whelping \$</li> <li>Rearing \$</li> <li>Breaking in (i.e. taught to chase) \$</li> <li>Pre-training and racetrack education</li> <li>Training \$</li> <li>Racing \$</li> <li>Post-racing career \$</li> </ul>		ry month, in to	tal, for the d	ogs at
20. If you breed or rear greyhounds f when they begin being:	or racing, how o	old are your pup	s most com	nmonly
• Weaned? weeks	JI: /	.\2		
<ul> <li>Introduced to artificial chasing stimu weeks</li> </ul>			m	ontns
Broken to the lead?years				
• Broken in (i.e. taught to chase)?	years	months	weeks	
• Educated for racetrack chasing?	years	months	weeks	



### 21. How often do your racing greyhounds receive the following experiences as pups (e.g. before rearing)?

	Never	Less than once per month	Once per month	2 to 3 times per month	Once per week	2 to 3 times per week	At least once per day	l do not know
Physical contact with familiar people	0	0	0	0	0	0	0	0
Interactions with unfamiliar people	0	0	0	0	0	0	0	0
Interactions with dogs from the same litter	0	0	0	0	0	0	0	0
Interactions with dogs that are not from the same litter	0	0	0	0	0	0	0	0
Friendly interactions with animals other than dogs (e.g. time with pet cats, livestock)	0	0	0	0	0	0	0	0
Interactions with dog breeds other than greyhounds	0	0	0	0	0	0	0	0
Outings into a familiar environment	0	0	0	0	0	0	0	0
Outings into unfamiliar environments (e.g. the beach, city centre)	0	0	0	0	0	0	0	0

o Other (please describe event and frequency) \_\_\_\_\_

### 22. How often do your racing greyhounds receive the following experiences during the rearing process?

	Never	Less than once per month	Once per month	2 to 3 times per month	Once per week	2 to 3 times per week	At least once pe day	l do not know
Physical contact with familiar people	0	0	0	0	0	0	0	0
Interactions with unfamiliar people	0	0	0	0	0	0	0	0
Interactions with dogs from the same litter	0	0	0	0	0	0	0	0
Interactions with dogs that are not from the same litter	0	0	0	0	0	0	0	0
Friendly interactions with animals other than dogs (e.g. time with pet cats, livestock)	0	0	0	0	0	0	0	0
Interactions with dog breeds other than greyhounds	0	0	0	0	0	0	0	0
Outings into a familiar environment	0	0	0	0	0	0	0	0
Outings into unfamiliar environments (e.g. the beach, city centre)	0	0	0	0	0	0	0	0

o Other (please describe event and frequency) \_\_\_\_\_



#### 23. How often do your racing greyhounds receive the following experiences during their racing career?

	Never	Less than once per month	Once per month	2 to 3 times per month	Once per week	2 to 3 times per week	At least once per day	l do not know
Physical contact with familiar people	0	0	0	0	0	0	0	0
Interactions with unfamiliar people	0	0	0	0	0	0	0	0
Interactions with dogs from the same litter	0	0	0	0	0	0	0	0
Interactions with dogs that are not from the same litter	0	0	0	0	0	0	0	0
Friendly interactions with animals other than dogs (e.g. time with pet cats, livestock)	0	0	0	0	0	0	0	0
Interactions with dog breeds other than greyhounds	0	0	0	0	0	0	0	0
Outings into a familiar environment	0	0	0	0	0	0	0	0
Outings into unfamiliar environments (e.g. the beach, city centre)	0	0	0	0	0	0	0	0

o Other (please describe event and frequency) \_\_\_\_\_

24. If you are	a rearer,	, approximately	how ma	ny pups	are reared	together i	n the	same
enclosure?								

	_				
75	$\Box \sim \iota$	7011	roop.	VOLIE	pups:
<b>Z</b> 3.	י טע	vou	KEED	voui	DUDS.

$\cap$	Indoors	$\circ$	Outdoors	0	Roth

#### 26. Approximately what size is the indoor space where you keep your pups?

Length \_\_\_\_\_ Width \_\_\_\_\_

#### 27. If you are a rearer, approximately what size are your rearing yards?

Length \_\_\_\_\_ Width \_\_\_\_\_

#### 28. How often do you do the following?

	Never	Rarely	Sometimes	Most of the time	Always	I do not know
Use straight run rearing	0	0	0	0	0	0
Use open paddock rearing	0	0	0	0	0	0
Rotate pups into different groups until they are broken in	0	0	0	0	0	0
Keep pups in the same pup group until they are broken in	0	0	0	0	0	0
Permanently kennel pups until they are broken in	0	0	0	0	0	0

o Indoors o Outdoors o Both
o Separate o In pairs oln groups of 3 or more (please write number) \_\_\_\_\_



0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0

### 29. Please write the number of exercise sessions that you provide each of your race-fit dogs (please specify per day or per week), and the length of an average session.

	Number of sessions	Length of average session
Left in paddock to free run	per oday oweek	hours mins
Exercised in paddock with a handler	per oday oweek	hours mins
Left in straight run	per oday oweek	hours mins
Exercised in straight run with a handler	per oday oweek	hours mins
Rotating walker	per oday oweek	hours mins
Street walk (e.g. on lead)	per oday oweek	hours mins

### 30. I support use of the follow-on lure, in which the greyhound is able to catch the lure at the end of the race, being used in trialling and racing.

0	Strongly disagree	0	Disagree	0	Neither agree nor disagre
0	Agree	0	Strongly agree		

#### 31. What is your preferred method for finishing a greyhound race?

- o Follow on lure (i.e. the greyhound is able to catch the lure at the end of the race)
- o Catching pen (i.e. the greyhound does not catch the lure, but is secured in a pen at the end of the race)

o Ot	:her (p	lease	write)	
------	---------	-------	--------	--

o I don't know

Please explain the reason for your answer: \_\_\_\_\_



### 32. I would accept a national accreditation system in which I would be required to maintain minimum education standards each year in order to maintain my licensing.

o Strongly disagree o Disagree o Neither agree nor disagree

o Agree o Strongly agree

### 33. Please rate your level of interest in making use of the following if they were available in your local area.

	Not interested at all	A little interested	Somewhat interested	Quite interested	Extremely interested
Swimming pools for racing greyhound training	0	0	0	0	0
Drag lure (i.e. a silent piece of fluff on a string, pulled up a straight track) as early education	0	0	0	0	0
Trialling on a straight track as early education	0	0	0	0	0
Controlled bull rings (i.e. a licensed miniature racetrack) for early training	0	0	0	0	0
Workshop on first aid and health care for racing dogs	0	0	0	0	0
Workshop on socialization techniques	0	0	0	0	0
Workshop on training techniques	0	0	0	0	0
Workshop on rearing methods	0	0	0	0	0

#### 34. Please rate your level of agreement with the following statements.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Research could help the greyhound industry understand best practice for racing greyhound training.	0	0	0	0	0
Research could help the greyhound industry understand best practice in racing greyhound socialization.	0	0	0	0	0
Research could help the greyhound industry understand best practice in racing greyhound handler education.	0	0	0	0	0
Research would not tell me anything I don't already know about racing greyhound management.	0	0	0	0	0
If the results of a racing greyhound research study suggested doing something that I disagree with, I would disregard the findings.	0	0	0	0	0
Greyhounds are different from other dog breeds, so research about training other breeds is irrelevant to racing greyhound training.	0	0	0	0	0



#### Perceptions of racing greyhound management

This section will ask you about your attitudes and beliefs related to racing greyhound management. You are not required to answer any questions that you feel uncomfortable answering and your responses will be completely anonymous. You will not be identifiable in any way.

If you are a member of the greyhound industry, you are not being asked to provide information about your specific practices in this section, but rather your perceptions of the industry as a whole.

#### 35. Please rate the extent of your agreement with the following statements.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Greyhounds are generally well cared for while they are racing	0	0	0	0	0
Greyhounds are generally well cared for while they are learning to race	0	0	0	0	0
An acceptable percentage of greyhounds bred for racing actually end up participating in races	0	0	0	0	0
The racing greyhound industry has been unfairly portrayed in recent media reports	0	0	0	0	0
Greyhounds are generally well cared for as young puppies	0	0	0	0	0
Greyhounds that participate in races have racing careers that are too short	0	0	0	0	0
Greyhounds are generally well cared for while they are growing up	0	0	0	0	0
The welfare (i.e. having physical and behavioural needs met) of racing greyhounds is important to me	0	0	0	0	0
If a racing greyhound is in good physical health, that means it is experiencing good welfare	0	0	0	0	0
The general public does not understand the sport of greyhound racing	0	0	0	0	0
Greyhounds are generally well cared for once they retire from racing	0	0	0	0	0
The greyhound industry has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends	0	0	0	0	0
Racing greyhounds should be kept in good physical health	0	0	0	0	0
Racing greyhounds should have regular contact with people throughout their racing lives	0	0	0	0	0
Racing greyhounds should not be treated as if they were pets	0	0	0	0	0
An acceptable percentage of racing greyhounds become adopted as pets when their racing career ends	0	0	0	0	0
If a racing greyhound is not aggressive, that means it is experiencing good welfare	0	0	0	0	0
Racing greyhounds should have regular contact with people when they are learning how to race	0	0	0	0	0
Racing greyhounds should have regular contact with people when they are very young	0	0	0	0	0



36. In your opinion, how sufficient are the existing legal requirements relating to the management of greyhounds bred to race, in ensuring that the dogs experience good welfare (i.e. ensuring that all their physical and behavioural needs are being met)?

- o Not at all sufficient
- o Not really sufficient
- o Somewhat sufficient
- o Mostly sufficient
- o Completely sufficient
- o The existing legal requirements in my area are too restrictive
- o There are no existing legal requirements in my area
- o I don't know

37. In your opinion, how sufficient is the enforcement of existing legal requirements relating to the management of greyhounds bred to race, in ensuring that the dogs experience good welfare (i.e. ensuring that all their physical and behavioural needs are being met)?

- o Not at all sufficient
- o Not really sufficient
- o Somewhat sufficient
- o Mostly sufficient
- o Completely sufficient
- o The enforcement of existing legal requirements in my area is too severe
- o There are no existing legal requirements in my area
- o I don't know

### 38. How important is it to you that greyhounds bred to race regularly receive the following experiences?

	Not important at all	Not very important	Somewhat important	Quite important	Extremely important
Toys to play with	0	0	0	0	0
Things to see, smell, and hear (e.g. music, TV)	0	0	0	0	0
Physical contact with familiar people	0	0	0	0	0
Interactions with unfamiliar people	0	0	0	0	0
Interactions with dogs from the same litter	0	0	0	0	0
Interactions with greyhounds from a different litter	0	0	0	0	0
Interactions with dogs other than greyhounds	0	0	0	0	0
Interactions with animals other than dogs (e.g. time with pet cats, livestock)	0	0	0	0	0
Outings into a familiar environment	0	0	0	0	0
Outings into unfamiliar environments (e.g. the beach, city centre)	0	0	0	0	0
Visual contact with familiar people (e.g. through the fence)	0	0	0	0	0



Visual contact with unfamiliar people (e.g. through the fence)	0	0	0	0	0
Housing that provides contact with other dogs	0	0	0	0	0
Housing that provides contact with people	0	0	0	0	0

<b>39</b> .	39. To the best of your knowledge, what pe	rcentage of greyhounds bred to race
act	actually participate in races? (please write) _	%

<b>41</b> . To	the best of	f your knowledge,	when a greyh	ound bred to r	ace does parti	cipate in
races	, how many	races, on average	e, do you think	t it runs in its li	fetime? (please	e write)

42. How many races should a racing	greyhound be able	to run in its lifetime? (ple	ase
write)			

## 43. To the best of your knowledge, what do you think is the most common reason for a racing greyhound to stop racing?

- o Old age
- o Disease
- o Drop in racing form
- o Injury
- o Not responsive to training
- o Inexperienced trainer
- o Poor management of the dog
- o Lack of drive to chase
- o Other (please write) \_\_\_\_\_\_
- o I don't know

Please explain the reason for your answer \_\_\_\_\_\_

# 44. To the best of your knowledge, what percentage of greyhounds bred for racing end up being rehomed/adopted as pets when their training or racing career is over? (please write) \_\_\_\_\_\_%

### 45. What percentage of dogs should end up being adopted as pets when their training or racing career is over? (please write) \_\_\_\_\_%

Recent media reports suggest that some greyhounds have been trained by attaching a live animal to a mechanical device, or lure, that the dog chases around the track. Other greyhounds have been trained using animal pelts or meat products which were ethically sourced from places such as abattoirs.

Remember, all responses to questions on this survey are completely anonymous.



### 46. What are the laws where you live regarding the use of live animals on the lure to train racing greyhounds?

- o It is illegal to use live animals and ethically sourced animal pelts/meat products
- o It is illegal to use live animals, but ethically sourced animal pelts/meat products are permitted
- o It is legal to use live animals where I live, but it is frowned upon
- o It is legal and socially acceptable to use live animals where I live
- o There are no existing legal requirements in my area
- o I don't know

# 47. In your opinion, which of the following alternatives to training with live animals on the lure could result in a dog that is just as fast, or even faster, on the race track? (select all that apply)

- o Ethically sourced animal pelts/skins
- o Ethically sourced meat products
- o A mechanical or electric hare
- o Stuffed toys with a squeaker
- o Stuffed toys without a squeaker
- o Other (please write) \_\_\_\_\_
- o Nothing else would make a dog run as fast as a live animal does
- o I don't know

### 48. Please rate your level of agreement with the following statements related to the use of live animals on the lure in racing greyhound training.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Training with live animals on the lure makes racing greyhounds more aggressive off the racetrack	0	0	0	0	0
Training racing greyhounds with live animals on the lure is common	0	0	0	0	0
Training with live animals on the lure is unacceptable, regardless of whether or not it is legal	0	0	0	0	0
Training racing greyhounds with live animals on the lure is not acceptable under any conditions	0	0	0	0	0
Some racing greyhounds will not chase unless they are trained using live animals on the lure	0	0	0	0	0
Training with animal products makes racing greyhounds less suitable for adoption as a pet	0	0	0	0	0



### Appendix B - Descriptive results from survey

#### Demographic information

#### Participants per group

Group	Number of Participants
NSW Industry members	285
Australian industry members outside NSW	31
General public in NSW	340
Australian general public outside NSW	492
Total sample	2,421

#### 1. Gender

	Industry		General public		
Percent	NSW	Australia	NSW	Australia	
Male	79.1	67.7	23.7	19.4	
Female	20.9	32.3	76.3	80.6	

#### 2. Age

	Industry		General public	
Statistics	NSW	Australia	NSW	Australia
Mean	51	52	40	45
Std Dev	12.5	13.9	13.8	12.5
Min-Max	23-77	23-72	18-77	18-79

#### 3. (for total sample) Where do you live?

Area	Percent
New South Wales	35.7
Australian Capital Territory	1.9
Northern Territory	0.0
South Australia	3.2
Queensland	12.9
Tasmania	1.8
Victoria	14.9
Western Australia	3.8
United Kingdom	13.1
USA	7.5
New Zealand	1.7
Ireland	0.9
Canada	1.2
Elsewhere in Europe	1.1



#### 4. What is the highest level of education you have completed?

	Industry		General public	
Percent	NSW	Australia	NSW	Australia
No formal schooling	-	-	-	-
Year 10 or below	18.7	22.6	5.0	3.5
Year 11 or year 12	18.0	25.8	14.7	13.2
TAFE diploma, trade certificate, apprenticeship	37.7	22.6	25.1	21.6
University, (undergraduate)	12.0	16.1	28.9	33.0
University, (post graduate)	11.3	12.9	24.2	26.3
Other	0.4	-	-	-
Prefer not to say	2.1	-	2.1	2.4

#### 5. Which of the following <u>best</u> describes your <u>current</u> situation in relation to paid work?

	Industry		General public	
Percent	NSW	Australia	NSW	Australia
Retired	27.7	35.5	7.4	7.2
Unemployed	2.1	6.5	2.1	1.2
Unable to work	2.5	3.2	4.7	3.1
Engaged in home duties	3.5	3.2	3.0	5.3
Part time/casual paid work	8.4	6.5	19.2	17.6
Full time paid work	38.2	12.9	45.3	49.3
Self-employed	16.5	29.0	13.0	11.2
*Student	0.4	-	3.6	2.2
Prefer not to say	0.7	3.2	1.8	2.9

#### 6. Have you ever owned a **companion dog**?

	Industry		General p	General public	
Percent	NSW	Australia	NSW	Australia	
Currently own	64.0	58.1	63.2	76.0	
Owned previously	18.3	32.3	24.6	16.2	
Never owned	17.6	9.7	12.2	7.8	

<sup>\*</sup>indicates text-based responses to open-ended items



# 7. (for total sample) Please describe your affiliation (if any) with greyhound racing. I am a (please select all that apply):

Percent	NSW	Australia
Racing greyhound owner/rearer/trainer/breeder	33.0	6.2
Racing greyhound rehoming/rescue/adoption worker	6.4	9.3
Owner of retired racing greyhounds	24.5	27.1
Animal advocacy group member (e.g. WSPA, RSPCA, Animals	7.3	15.7
Australia)		
Veterinarian who regularly works with racing greyhounds	1.4	2.0
Veterinarian who does not regularly work with racing greyhounds	4.9	4.9
Member of the general public	39.6	52.9
*Veterinary nurse/student/tech	2.5	0.9
*Employee in another animal sector	1.4	1.3
*Friends/family own greyhounds	0.2	0.3
*Owner of pet sighthound	0.2	0.2
*Racing punter or enthusiast	0.1	-

#### 8. (industry members) Approximately how often do you watch and/or bet on greyhound races?

	Watch live at the track		Wat	ch on TV	Wager		
Percent - industry members	NSW	Australia	NSW	Australia	NSW	Australia	
Never	1.8	3.4	2.9	-	6.8	10.0	
Less than once per year	1.1	3.4	0.7	-	3.4	6.7	
Once or twice per year	5.8	3.4	1.5	-	4.5	-	
3 to 6 times per year	6.9	6.9	2.2	-	6.0	13.3	
6 to 12 times per year	15.0	27.6	5.5	6.7	11.7	23.3	
More than once per month	69.3	55.2	87.2	93.3	67.7	46.7	

#### 8b. (general public) Approximately how often do you watch and/or bet on greyhound races?

	Watch live at the track		Watch on TV		Wager	
Percent - general public	NSW	Australia	NSW	Australia	NSW	Australia
Never	84.1	92.7	78.4	89.1	86.6	95.4
Less than once per year	3.9	4.4	5.8	5.4	1.5	2.3
Once or twice per year	2.4	1.5	1.8	2.5	1.5	0.2
3 to 6 times per year	2.4	0.6	1.2	0.8	1.2	0.4
6 to 12 times per year	1.8	-	2.7	0.2	1.2	-
More than once per month	5.4	0.8	10.0	1.9	7.9	1.7

#### 9. If you never or rarely attend greyhound race meetings, is this because: (select all that apply)

<sup>\*</sup>indicates text-based responses to open-ended items



	Not	at all	Not	really	Some	what	А	lot	Com	pletely
Percent – industry members	NSW	Australia								
I am too busy	50.0	50.0	12.5	-	-	-	25.0	50.0	12.5	-
My friends/family do not watch the races	75.0	100.0	-	-	-	-	-	-	25.0	-
My friends/family do not think I should watch the races	87.5	100.0	-	-	-	-	-	-	12.5	-
It has never occurred to me to attend one	87.5	100.0	-	-	-	-	-	-	12.5	-
I am concerned about the welfare of the animals	50.0	50.0	12.5	-	-	-	12.5	50.0	25.0	-
I would not find it enjoyable	75.0	-	-	-	-	-	25.0	-	-	-

Text-based response options (percent)	NSW	Australia
*I do not believe that greyhounds should race	0.4	-
*I find it cruel/exploitative to dogs and/or humans	-	-
*I find it corrupt	0.4	-
*I don't want to support the industry	-	-
*There is no track nearby	0.4	-

#### 9b. (general public) If you never or rarely attend greyhound race meetings, is this because: (select all that apply)

	Not	at all	Not	really	Some	ewhat	А	lot	Com	pletely
Percent – industry members	NSW	Australia								
I am too busy	53.8	52.9	12.1	18.3	15.4	11.6	7.7	8.7	10.9	8.5
My friends/family do not watch the races	26.2	32.4	10.5	7.6	7.3	10.7	10.1	8.9	46.0	40.5
My friends/family do not think I should watch the races	51.4	52.0	13.2	14.9	7.4	9.1	5.8	4.0	22.2	20.0
It has never occurred to me to attend one	30.8	29.6	10.3	13.1	11.1	12.0	7.1	9.1	40.7	36.3
I am concerned about the welfare of the animals	3.3	8.1	2.2	3.5	7.6	5.5	11.3	10.4	75.6	72.6
I would not find it enjoyable	12.0	14.3	3.5	5.5	9.3	5.5	8.9	9.3	66.4	65.4

Text-based response options (percent)	NSW	Australia
*I do not believe that greyhounds should race	5.3	4.5
*I find it cruel/exploitative to dogs and/or humans	8.5	13.0
*I find it corrupt	-	0.2
*I don't want to support the industry	2.9	1.8
*There is no track nearby	-	0.4

<sup>\*</sup>indicates text-based responses to open-ended items



#### Racing Greyhound Management Practices (for industry members only)

The following questions will ask about your role in the greyhound industry, and the ways in which you manage the racing greyhounds in your care. Your responses to this survey are completely anonymous.

#### 10. Are you a: (please select all that apply)

Percent	NSW	Australia
Racing Greyhound Owner	82.5	90.3
Racing Greyhound Breeder	49.1	61.3
Racing Greyhound Trainer	63.2	58.1
Racing Greyhound Rearer	33.7	35.5
Racing Greyhound Breaking in facility employee	1.1	3.2
Racing Greyhound Handler/Catcher at the track	29.1	35.5
Other role in greyhound racing industry e.g. steward, vet, etc	6.3	3.2

#### 11. Are you a member of:

Percent	NSW	Australia
Greyhound Breeders, Owners, and Trainers Association (GBOTA)	36.5	41.9
Greyhound Racing Industry Consultative Group (GRICG)	1.4	3.2
Greyhound Action Group NSW (GAG)	3.9	-
NSW Greyhound Racing Club Association (GRCA)	6.3	-
Registered Greyhound Participants Association (RGPA)	3.9	6.5
Another association	4.9	16.1
None of the above	42.5	35.5

#### 12. Please describe your level of experience with racing greyhound:

	No ехр	perience	Minimal e	Minimal experience Moderate Ex		Experience	High ex	perience
Percent	NSW	Australia	NSW	Australia	NSW	Australia	NSW	Australia
Breeding	12.5	10.0	12.9	16.7	31.9	13.3	42.6	60.0
Rearing	11.3	10.0	16.8	13.3	34.4	20.0	37.5	56.7
Training	8.8	10.0	11.0	13.3	28.3	33.3	51.8	43.3
Owning	-	-	5.4	3.3	27.2	20.0	67.4	76.7

<sup>\*</sup>indicates text-based responses to open-ended items



# 13. Please rate from 1 (most important) to 13 (least important) what is most important to you in a racing greyhound.

		NSW			Australia	1
	Mean	Standard	Min-Max	Mean	Standard	Min-Max
Statistics		deviation			deviation	
Successful on the racetrack	4.9	3.4	1-13	4.3	3.2	1-13
Good with people	7.6	3.1	1-13	8.7	2.4	4-13
Good with other greyhounds	7.9	3.0	1-13	7.6	2.8	2-13
Good with other animals	9.2	3.1	1-13	10.1	2.4	5-13
Experiencing good welfare	4.9	3.8	1-13	5.5	3.9	1-13
A good companion animal during its	7.7	3.5	1-13	8.3	3.1	1-13
racing life						
A good companion animal after	9.1	7.9	1-13	9.6	3.2	3-13
retirement						
Not fearful	7.9	3.2	1-13	7.6	3.7	1-13
A keen chaser	4.3	3.2	1-13	4.1	3.1	1-12
From good breeding stock	7.0	3.9	1-13	5.6	3.4	1-13
Able to breed	10.1	3.0	1-13	9.4	3.7	1-13
Physically sound	4.2	2.6	1-13	3.8	2.3	1-10
Mentally sound	6.1	3.0	1-13	6.4	3.2	1-13

# 14. How many **breeding bitches** bred for racing do you currently have in your care, and how many belong to you?

	Number curren	itly on property	Number b	elonging to you
Percent	NSW	Australia	NSW	Australia
0	30.6	30.4	23.8	40.9
1 to 5	65.0	65.2	72.5	45.5
6 to 10	3.1	4.3	3.1	13.6
11 to 20	1.3	-	0.6	-
21 or more	-	-	-	-

<sup>\*</sup>indicates text-based responses to open-ended items



14b. How many **stud males** bred for racing do you currently have in your care, and how many belong to you?

	Number curren	tly on property	Number b	elonging to you
Percent	NSW	Australia	NSW	Australia
0	86.7	80.0	84.1	77.8
1 to 5	13.3	20.0	15.9	22.2
6 to 10	-	-	-	
11 to 20	-	-	-	
21 or more	-	-	-	

14c. How many **puppies bred for racing still with the mother** do you currently have in your care, and how many belong to you?

	Number currer	ntly on property	Number belonging to you			
Percent	NSW	Australia	NSW	Australia		
0	83.5	70.0	81.6	73.7		
1 to 5	3.3	15.0	7.9	15.8		
6 to 10	9.9	15.0	8.8	-		
11 to 20	1.7	-	0.9	5.3		
21 or more	1.7	-	0.9	5.3		

14d. How many puppies bred for racing that are weaned but less than 4 months old do you currently have in your care, and how many belong to you?

	Number currer	ntly on property	Number belonging to you		
Percent	NSW	Australia	NSW	Australia	
0	85.2	69.6	80.7	70.0	
1 to 5	4.9	13.0	10.1	25.0	
6 to 10	6.6	17.4	7.6	5.0	
11 to 20	1.6	-	0.8	-	
21 or more	1.6	-	0.8	-	

<sup>\*</sup>indicates text-based responses to open-ended items



14e. How many **puppies bred for racing between 4 and 9 months old** do you currently have in your care, and how many belong to you?

	Number currer	ntly on property	Number belonging to you			
Percent	NSW	Australia	NSW	Australia		
0	62.3	54.5	44.1	45.5		
1 to 5	19.6	18.2	36.4	13.6		
6 to 10	9.4	18.2	11.2	27.3		
11 to 20	6.5	9.1	7.7	13.6		
21 or more	2.1	-	0.7	-		

14f. How many **young dogs bred for racing over 9 months of age** do you currently have in your care, and how many belong to you?

	Number currer	itly on property	Number belonging to you			
Percent	NSW	Australia	NSW	Australia		
0	43.9	52.2	30.1	42.9		
1 to 5	33.1	21.7	47.6	33.3		
6 to 10	12.8	21.7	15.1	19.0		
11 to 20	7.4	4.3	6.6	-		
21 or more	2.7	-	0.6	4.8		

14g. How many **dogs currently racing** do you have in your care, and how many belong to you?

	Number curren	tly on property	Number belonging to you		
Percent	NSW	Australia	NSW	Australia	
0	25.9	25.0	17.7	16.0	
1 to 5	56.9	41.7	65.1	52.0	
6 to 10	11.5	16.7	13.0	20.0	
11 to 20	4.6	16.7	3.6	12.0	
21 or more	1.1	-	0.5	-	

<sup>\*</sup>indicates text-based responses to open-ended items



## 14h. How many **racers currently resting or recovering** do you have in your care, and how many belong to you?

	Number curren	itly on property	Number belonging to you		
Percent	NSW	Australia	NSW	Australia	
0	47.2	63.6	46.9	59.1	
1 to 5	49.3	22.7	49.7	31.8	
6 to 10	2.8	9.1	2.8	9.1	
11 to 20	0.7	4.5	0.7	-	
21 or more	-	-	-	-	

#### 14i. How many retired dogs do you currently have in your care, and how many belong to you?

	Number currently on property		Number belonging to you		
Percent	NSW	Australia	NSW	Australia	
0	22.6	30.4	23.0	33.3	
1 to 5	67.3	56.5	66.5	52.4	
6 to 10	6.9	13.0	8.7	14.3	
11 to 20	3.1	-	1.9	-	
21 or more	-	-	-	-	

#### 15. Were any puppies born in the last 12 months on your property and/or belonging to you?

Percent	NSW	Australia
Yes	32.6	60.0
No	67.4	40.0

<sup>\*</sup>indicates text-based responses to open-ended items



#### 15a. Approximately what percentage of the puppies that were born in the past 12 months:

		to the time		l on your perty	homes	ld to racing or returned e owner	prope	n another erty (e.g. aring)
Percent	NSW	Australia	NSW	Australia	NSW	Australia	NSW	Australia
0%	2.7	-	20.0	11.8	48.5	70.6	46.3	72.2
10%	-	-	3.8	-	7.6	5.9	4.5	5.6
20%	1.3	-	1.3	-	7.6	-	4.5	-
30%	1.3	-	5.0	-	13.6	-	4.5	-
40%	-	-	-	-	-	5.9	3.0	-
50%	1.3	-	7.5	11.8	10.6	11.8	3.0	-
60%	-	-	2.5	5.9	4.5	-	-	5.6
70%	2.7	5.9	6.3	-	3.0	5.9	4.5	-
80%	2.7	-	6.3	-	1.5	-	4.5	-
90%	10.7	11.8	1.3	11.8	1.5	-	1.5	-
100%	77.3	82.4	46.3	58.8	1.5	-	23.9	16.7

#### 16. Approximately what percentage were rejected from racing?

Percent	NSW	Australia
0%	84.1	76.5
10%	11.0	17.6
20%	2.4	-
30%	-	-
40%	1.2	-
50%	1.2	5.9
60%	-	-
70%	-	-
80%	-	-
90%	-	-
100%	-	-

<sup>\*</sup>indicates text-based responses to open-ended items



#### Approximately what percentage were due to:

	III b	Lack of chasing health		Aggression to		Aggression to other		
		cartii	d	rive	people		dogs	
Percent	NSW	Australia	NSW	Australia	NSW	Australia	NSW	Australia
0%	77.8	100.0	83.0	75.0	100.0	100.0	92.2	100.0
10%	7.4	-	7.5	16.7	-	-	5.9	-
20%	3.7	-	1.9	-	-	-	2.0	-
30%	1.9	-	1.9	-	-	-	-	-
40%	1.9	-	-	-	-	-	-	-
50%	1.9	-	3.9	8.3	-	-	-	-
60%	1.9	-	1.9	-	-	-	-	-
70%	1.9	-	-	-	-	-	-	-
80%	-	-	-	-	-	-	-	-
90%	-	-	-	-	-	-	-	-
100%	1.9	-	-	-	-	-	-	-

	Inexperier	iced trainer		anagement he dog		ponsive to aining	*Too yo	oung to tell
Percent	NSW	Australia	NSW	Australia	NSW	Australia	NSW	Australia
0%	92.2	100.0	100.0	100.0	96.0	100.0	81.3	80.0
10%	-	-	-	-	2.0	-	12.5	-
20%	-	-	-	-	2.0	-	-	-
30%	2.0	-	-	-	-	-	-	-
40%	3.9	-	-	-	-	-	-	-
50%	-	-	-	-	-	-	-	-
60%	-	-	-	-	-	-	-	-
70%	-	-	-	-	-	-	-	-
80%	-	-	-	-	-	-	-	-
90%	-	-	-	-	-	-	-	-
100%	2.0	-	-	-	-	-	6.3	20.0

<sup>\*</sup>indicates text-based responses to open-ended items



#### 17. Approximately how much money do you spend per month on all of your greyhounds?

Percent	NSW	Australia
Less than \$100	4.7	10.0
\$100 - \$299	18.3	6.7
\$300 - \$499	17.9	16.7
\$500 - \$799	16.0	10.0
\$800 - \$999	8.2	-
\$1,000 - \$1,999	18.7	26.7
\$2,000 - \$2,999	8.9	10.0
\$3,000 - \$4,999	4.3	10.0
\$5,000 - \$9,999	1.6	6.7
\$10,000 or more	1.6	3.3

#### 18. Does this amount vary depending on the career stage of the dogs?

Percent	NSW	Australia	
Yes	73.0	61.3	
No	27.0	38.7	

#### 19. If yes, please estimate how much you spend every month, in total, for the dogs at the following stages:

	W	helping	Rearing		Breaking in		Pre-training/education	
Percent	NSW	Australia	NSW	Australia	NSW	Australia	NSW	Australia
Less than \$100	33.6	20.0	13.5	6.7	16.7	15.4	23.6	28.6
\$100 - \$299	13.1	10.0	38.5	40.0	7.6	7.7	22.8	14.3
\$300 - \$499	15.9	50.0	17.6	13.3	43.9	23.1	26.8	14.3
\$500 - \$799	9.3	-	11.5	26.7	12.9	38.5	8.7	42.9
\$800 - \$999	4.7	-	4.1	6.7	4.5	7.7	4.7	-
\$1,000 - \$1,999	12.1	20.0	6.8	6.7	6.1	7.7	7.9	-
\$2,000 - \$2,999	2.8	-	2.0	-	6.8	-	4.7	-
\$3,000 - \$4,999	5.6	-	2.0	-	1.5	-	-	-
\$5,000 - \$9,999	0.9	-	1.4	-	-	-	0.8	-
\$10,000 or more	1.9	-	2.7	-	-	-	-	-

<sup>\*</sup>indicates text-based responses to open-ended items



	T	raining Racing		cing	Post-career	
Percent	NSW	Australia	NSW	Australia	NSW	Australia
Less than \$100	19.7	16.7	22.0	16.7	30.2	33.3
\$100 - \$299	36.4	41.7	37.0	41.7	49.6	58.3
\$300 - \$499	24.2	16.7	26.8	25.0	11.6	8.3
\$500 - \$799	9.1	25.0	5.5	16.7	1.6	-
\$800 - \$999	2.3	-	0.8	-	1.6	-
\$1,000 - \$1,999	6.1	-	4.7	-	3.1	-
\$2,000 - \$2,999	1.5	-	1.6	-	1.6	-
\$3,000 - \$4,999	-	-	1.6	-	-	-
\$5,000 - \$9,999	0.8	-	-	-	0.8	-
\$10,000 or more	-	-	-	-	-	-

20. If you breed or rear greyhounds for racing, how old are your pups most commonly when they begin being weaned:

Percent	NSW	Australia
3 weeks or younger	2.2	-
4 to 5 weeks	14.9	16.7
6 to 7 weeks	30.6	33.3
8 to 9 weeks	16.4	38.9
10 to 11 weeks	1.5	5.6
12 to 14 weeks	26.9	5.6
15 weeks or older	7.5	-

<sup>\*</sup>indicates text-based responses to open-ended items



#### 20b. If you breed or rear greyhounds for racing, how old are your pups most commonly when they begin being:

	Introduced to artificial chasing stimuli		Broken to the lead		Broken in	
Percent	NSW	Australia	NSW	Australia	NSW	Australia
3 months or younger	53.2	64.7	22.7	22.2	5.6	-
4 to 5 months	10.8	17.6	19.1	27.8	0.7	5.9
6 to 7 months	12.2	5.9	24.8	22.2	2.1	5.9
8 to 9 months	5.0	-	5.0	22.2	1.4	5.9
10 to 11 months	1.4	5.9	8.5	-	0.7	-
12 to 14 months	12.9	5.9	19.1	5.6	53.8	54.7
15 months or older	4.3	-	0.7	-	35.7	17.6

# 20c. If you breed or rear greyhounds for racing, how old are your pups most commonly when they begin being educated for racetrack chasing?

Percent	NSW	Australia
11 months or younger	6.3	17.6
12 to 13 months	19.7	17.6
14 to 15 months	37.3	29.4
16 to 17 months	23.2	29.4
18 months	9.9	-
19 months or older	3.5	5.9

#### 21. How often do your racing greyhounds receive the following experiences as pups (e.g. before rearing)?

	Physical contact with		Interactions with		Interactions with dogs	
	fami	liar people	unfamil	unfamiliar people		same litter
Percent	NSW	Australia	NSW	Australia	NSW	Australia
Never	0.4	-	2.7	3.6	3.1	-
Once per year or less	-	-	2.7	-	2.7	-
Once per month	1.2	-	14.6	17.9	1.6	-
2 to 3 times per month	0.4	-	10.7	14.3	-	-
Once per week	1.2	-	22.2	21.4	-	-
2 to 3 times per week	6.2	7.1	21.5	14.3	2.6	3.6
At least once per day	82.6	78.6	10.3	7.1	80.9	78.6
l don't know	8.1	14.3	15.3	21.4	9.3	17.9

#### 21a. How often do your racing greyhounds receive the following experiences as pups (e.g. before rearing)?

	Interactions with dogs	Friendly interactions with	Interactions with dog
Percent	that are not from the	animals other than dogs (e.g.	breeds other than

<sup>\*</sup>indicates text-based responses to open-ended items



	same litter		time wit	h pet cats, livestock)	greyhounds	
	NSW	Australia	NSW	Australia	NSW	Australia
Never	13.3	26.9	41.3	48.1	31.9	38.5
Once per year or less	4.3	-	7.5	3.7	5.4	-
Once per month	-	3.8	4.3	11.1	4.7	15.4
2 to 3 times per month	2.7	3.8	2.0	7.4	3.5	7.7
Once per week	5.1	7.7	3.5	-	4.3	-
2 to 3 times per week	9.4	11.5	7.9	3.7	8.9	3.8
At least once per day	49.6	23.1	18.9	7.4	28.0	7.7
l don't know	12.5	23.1	14.6	18.5	13.2	26.9

#### 21b. How often do your racing greyhounds receive the following experiences as pups (e.g. before rearing)?

	Outings into a familiar		Outings into unfamiliar environments (e.		
		environment	the be	each, city centre)	
Percent	NSW	Australia	NSW	Australia	
Never	9.4	22.2	38.1	50.0	
Once per year or less	3.5	-	10.4	12.5	
Once per month	7.4	3.7	18.8	4.2	
2 to 3 times per month	5.1	-	3.5	8.3	
Once per week	7.8	-	6.5	8.3	
2 to 3 times per week	15.6	25.9	7.7	-	
At least once per day	39.1	29.6	2.7	-	
I don't know	12.1	18.5	12.3	16.7	

<sup>\*</sup>indicates text-based responses to open-ended items



#### 22. How often do your racing greyhounds receive the following experiences during the rearing process?

	Physical contact with		Interactions with		Interactions with dogs	
	fami	liar people	unfamil	unfamiliar people		same litter
Percent	NSW	Australia	NSW	Australia	NSW	Australia
Never	0.4	-	5.5	3.8	4.7	-
Once per year or less	-	-	3.1	-	2.4	-
Once per month	1.1	-	15.7	30.8	0.8	-
2 to 3 times per month	0.8	-	15.3	15.4	0.8	-
Once per week	2.7	-	17.6	26.9	0.8	-
2 to 3 times per week	4.2	7.4	17.6	11.5	1.6	-
At least once per day	83.1	85.2	9.8	-	78.3	85.2
l don't know	7.7	7.4	15.3	11.5	10.6	14.8

#### 22a. How often do your racing greyhounds receive the following experiences during the rearing process?

	Interactions with dogs		Friendly interactions with		Interactions with dog	
	that are not from the		animals other than dogs (e.g.		breeds other than	
	same litter		time with pet cats, livestock)		greyhounds	
Percent	NSW	Australia	NSW	Australia	NSW	Australia
Never	11.1	24.0	39.0	46.4	32.0	44.4
Once per year or less	2.7	-	8.1	-	6.3	-
Once per month	6.1	4.0	3.9	10.7	6.6	14.8
2 to 3 times per month	3.8	-	1.9	3.6	2.3	3.7
Once per week	3.4	8.0	2.3	7.1	3.9	3.7
2 to 3 times per week	11.5	8.0	9.7	3.6	6.3	3.7
At least once per day	49.6	44.0	18.1	7.1	27.7	14.8
l don't know	11.8	12.0	17.0	21.4	14.8	14.8

<sup>\*</sup>indicates text-based responses to open-ended items



#### 22b. How often do your racing greyhounds receive the following experiences during the rearing process?

	Outings into a familiar		Outings into unfamiliar environments (e.g.		
	environment		the beach, city centre)		
Percent	NSW	Australia	NSW	Australia	
Never	11.0	14.8	37.0	26.9	
Once per year or less	3.1	-	10.5	23.1	
Once per month	7.8	7.4	14.8	15.4	
2 to 3 times per month	5.5	7.4	4.7	3.8	
Once per week	9.0	7.4	7.8	7.7	
2 to 3 times per week	11.4	11.1	6.2	3.8	
At least once per day	40.4	29.6	3.5	-	
I don't know	11.8	22.2	15.6	19.2	

#### 23. How often do your racing greyhounds receive the following experiences during their racing career?

	Physical contact with		Interact	ions with	Interactions with dogs	
	familiar people		unfamiliar people		from the same litter	
Percent	NSW	Australia	NSW	Australia	NSW	Australia
Never	0.4	-	2.0	-	10.8	17.9
Once per year or less	-	-	1.2	-	5.2	-
Once per month	1.6	-	7.2	3.8	1.6	3.6
2 to 3 times per month	1.2	-	11.2	-	1.6	-
Once per week	2.4	-	27.6	34.6	3.2	3.6
2 to 3 times per week	5.2	11.1	28.8	42.3	4.8	3.6
At least once per day	85.9	85.2	12.4	11.5	55.4	46.4
l don't know	3.2	3.7	9.6	7.7	17.3	25.0

<sup>\*</sup>indicates text-based responses to open-ended items



#### 23a. How often do your racing greyhounds receive the following experiences during their racing career?

	Interacti	Interactions with dogs Friendly interaction		ly interactions with	Interactions with dog		
	that are	that are not from the		animals other than dogs (e.g.		breeds other than	
	same lit	same litter time with		h pet cats, livestock)	greyhounds		
Percent	NSW	Australia	NSW	Australia	NSW	Australia	
Never	3.6	-	46.9	46.2	26.8	44.4	
Once per year or less	0.4	-	9.1	7.7	8.9	-	
Once per month	3.2	-	5.1	7.7	6.1	14.8	
2 to 3 times per month	4.8	-	1.6	7.7	5.3	-	
Once per week	10.3	11.1	3.5	-	4.5	-	
2 to 3 times per week	13.5	18.5	5.9	3.8	7.3	3.7	
At least once per day	58.3	63.0	16.9	7.7	30.9	25.9	
l don't know	6.0	7.4	11.0	19.2	10.2	11.1	

#### 23b. How often do your racing greyhounds receive the following experiences **during their racing career**?

	Outings into a familiar		Outings into unfamiliar environments (e.g.		
	environment		the beach, city centre)		
Percent	NSW	Australia	NSW	Australia	
Never	2.4	3.6	23.0	21.4	
Once per year or less	1.2	-	9.4	7.0	
Once per month	2.4	-	17.2	25.0	
2 to 3 times per month	5.2	-	7.8	7.1	
Once per week	10.8	10.9	13.3	14.3	
2 to 3 times per week	21.9	42.9	14.1	7.1	
At least once per day	49.8	25.0	5.1	-	
I don't know	6.4	17.9	10.2	17.9	

<sup>\*</sup>indicates text-based responses to open-ended items



24. If you are a rearer, approximately how many pups are reared together in the same enclosure?

Percent	NSW	Australia
1	-	-
2	14.9	9.1
3	11.5	36.4
4-6	55.2	45.5
7-10	8.0	9.1
*Entire litter	10.3	-

#### 25. Do you keep your pups:

Percent	NSW	Australia
Indoors	4.5	-
Outdoors	45.5	46.2
Both	50.0	53.8
Separate	6.9	3.8
In pairs	23.1	26.9
In groups of 3 or more	69.9	69.2

25b. If you keep your pups in groups of 3 or more, how many do you keep together?

Percent	NSW	Australia
3	16.3	12.5
4-6	61.0	62.5
7-10	6.4	6.3
*Entire litter	15.6	12.5

26. Approximately what size is the indoor space where you keep your pups (m²)? NB: due to some nonsensical responses, we recommend relying on the median rather than the mean.

Statistics	NSW	Australia
Mean	28,789.5	45.9
Standard deviation	357,977.3	100.0
Median	16.0	12.0
Min-Max	0-450,000	2-400

27. If you are a rearer, approximately what size are your rearing yards (m<sup>2</sup>)? NB: due to some nonsensical responses, we recommend relying on the median rather than the mean.

Statistics	NSW	Australia
Mean	4,503.3	4,838.2
Standard deviation	16.550.3	6,234.8
Median	800.0	1,870.0

<sup>\*</sup>indicates text-based responses to open-ended items



Min-Max 21-120,000 225-20,000

#### 28. How often do you do the following?

		· ·		Use open paddock rearing		ate pups into nt groups until are broken in	pup gro	os in the same oup until they broken in
Percent	NSW	Australia	NSW	Australia	NSW	Australia	NSW	Australia
Never	12.5	10.7	5.0	-	23.7	17.9	6.2	-
Rarely	6.6	10.7	2.7	10.7	20.2	28.6	3.9	3.6
Sometimes	22.3	17.9	15.9	32.1	25.6	21.4	19.3	21.4
Most of the time	21.5	25.0	17.8	10.7	8.8	7.1	33.6	35.7
Always	30.5	25.0	50.8	35.7	9.2	14.3	29.3	32.1
l don't know	6.6	10.7	7.8	10.7	12.6	10.7	7.7	7.1

#### 28a. How often do you do the following?

	pups	anently kennel until they are proken in	Use drag lure systems to develop chasing in pups before breaking in		to develop chasing in Use sight stimuli to pups before breaking encourage chasing		Use sound stimuli to encourage chasing	
Percent	NSW	Australia	NSW	Australia	NSW	Australia	NSW	Australia
Never	51.2	37.0	12.1	7.1	5.0	7.1	4.3	7.1
Rarely	16.2	7.4	6.6	10.7	2.3	-	4.3	
Sometimes	11.2	18.5	19.9	14.3	17.7	7.1	24.0	14.3
Most of the time	9.2	11.1	16.0	25.0	19.2	35.7	19.4	35.7
Always	5.8	11.1	37.1	32.1	47.7	35.7	41.5	32.1
l don't know	6.5	14.8	8.2	10.7	8.1	14.3	6.6	10.7

<sup>\*</sup>indicates text-based responses to open-ended items



#### 28b. How often do you do the following?

	Use rewards to encourage chasing (e.g. allow the dog to catch the lure when the race is finished)		Break my dogs in myself		educati	specialized on centre to my dogs in	Use a more experienced or retired greyhound to teach my dogs to race		
Percent	NSW	Australia	NSW	Australia	NSW	Australia	NSW	Australia	
Never	8.6	-	39.2	28.6	12.0	7.1	22.7	18.5	
Rarely	5.9	3.6	11.2	10.7	8.9	17.9	15.0	22.2	
Sometimes	39.2	25.0	20.0	17.9	14.7	3.6	32.7	40.7	
Most of the time	15.7	39.3	8.1	21.4	14.0	35.7	10.8	3.7	
Always	22.4	25.0	19.6	14.3	46.5	28.6	10.8	3.7	
l don't know	8.2	7.1	1.9	7.1	3.9	7.1	8.1	11.1	

#### 28c. How often do you do the following?

	or reti	more experienced red greyhound to et the pups used e racing kennels	Use a more experienced or retired greyhound to get pups used to a new enclosure		l or retired Have more than one o get pups person handle my a new pups			Pre-train my dogs before break-in (e.g. to the lures and racetracks)		
Percent	NSW	Australia	NSW	Australia	NSW	Australia	NSW	Australia		
Never	22.5	21.4	24.3	28.6	1.5	-	8.4	7.1		
Rarely	12.8	7.1	14.7	17.9	3.8	3.6	6.9			
Sometimes	23.6	21.4	26.6	28.6	19.6	32.1	13.8	14.3		
Most of the time	15.1	28.6	10.8	10.7	23.1	10.7	21.5	25.0		
Always	17.8	10.7	12.7	3.6	47.3	42.9	41.4	42.9		
l don't know	8.1	10.7	10.8	10.7	4.6	10.7	8.0	10.7		

<sup>\*</sup>indicates text-based responses to open-ended items



#### 29. Please write the number of exercise sessions that you provide each f your race-fit dogs.

	NSW					Aus	tralia	
Statistics	Mean	Standard Deviation	Median	Min-Max	Mean	Standard Deviation	Median	Min-Max
Left in paddock to free run	6.9	9.1	4.0	0-49	6.9	12.9	2.0	0-49
Exercised in paddock with a handler	6.4	9.7	2.0	0-49	1.9	2.8	1.0	0-7
Left in straight run	4.1	7.3	1.0	0-49	4.3	5.0	2.0	0-14
Exercised in straight run with a handler	6.2	10.4	2.0	0-98	6.9	7.8	2.0	2-30
Rotating walker	5.5	9.0	3.0	0-70	4.1	9.3	0.0	0-35
Street walk (e.g. on lead)	2.6	3.2	2.0	0-14	2.7	2.7	2.0	0-7

29a. Please write the length of an average exercise session that you provide each of your race-fit dogs (in minutes).

	NSW					Aus	tralia	
Statistics	Mean	Standard Deviation	Median	Min-Max	Mean	Standard Deviation	Median	Min-Max
Left in paddock to free run	19.4	15.3	15.0	0-70	16.5	15.4	12.0	0-56
Exercised in paddock with a handler	16.5	15.6	15.0	0-120	18.8	8.5	17.5	10-30
Left in straight run	15.4	13.9	15.0	0-90	9.3	5.3	10.0	0-15
Exercised in straight run with a handler	14.6	31.1	10.0	0-300	29.5	85.8	5.0	1-350
Rotating walker	16.6	15.6	15.0	0-120	11.9	9.3	15.0	0-20
Street walk (e.g. on lead)	29.9	30.3	30.0	0-210	45.4	76.1	22.0	7-280

<sup>\*</sup>indicates text-based responses to open-ended items



30. I support use of the follow-on lure, in which the greyhound is able to catch the lure at the end of the race, being used in trialling and racing.

Percent	NSW	Australia
Strongly disagree	8.4	10.0
Disagree	7.7	10.0
Neither agree nor disagree	21.4	16.7
Agree	28.4	30.0
Strongly agree	31.2	33.3

31. What is your preferred method for finishing a greyhound race?

NSW	Australia
37.2	56.7
43.5	30.0
9.1	-
2.8	6.7
0.7	-
0.4	-
1.1	3.3
	37.2 43.5 9.1 2.8 0.7 0.4

32. Please describe the reason for your answer. NB: all of these were text-based responses which we categorized after submission.

Percent	NSW	Australia
*It depends on the dog	4.8	-
*Rewards the dog/positive impact on chasing	35.2	53.3
*Fewer dog injuries likely	32.5	20.0
*I don't know what is best/only experienced one system	7.4	-
*It depends on the career stage	0.4	3.3
*Safer for race workers/handlers	3.0	3.3
*Both options should be made available	8.2	3.3
*Neither - I have a better way	2.5	6.5
*Reduces fighting/marring	2.5	3.3
*Poor public perception of grabbing the lure	-	-
*Risk of disease or drug transmission	0.4	-
*Reduces incidence of live baiting	1.4	3.3

<sup>\*</sup>indicates text-based responses to open-ended items



33. I would accept a national accreditation system in which I would be required to maintain minimum education standards each year in order to maintain my licensing.

Percent	NSW	Australia
Strongly disagree	17.9	16.7
Disagree	18.6	13.3
Neither agree nor disagree	22.1	26.7
Agree	27.7	36.7
Strongly agree	10.2	6.7

34. Please rate your level of interest in making use of the following if they were available in your local area (responses on a scale of 1 to 5 where 1 = not interested at all and 5 = extremely interested).

	NSW			Australia		
Statistics	Mean	Standard deviation	Min-Max	Mean	Standard deviation	Min-Max
Swimming pools for racing greyhound training	3.7	1.4	1-5	3.1	1.5	1-5
Drag lure (i.e. a silent piece of fluff on a string, pulled up a straight track) as early education	4.0	1.2	1-5	3.9	1.3	1-5
Trialling on a straight track as early education	4.0	1.2	1-5	3.7	1.4	1-5
Controlled bull rings (i.e. a licensed miniature racetrack) for early training	3.8	1.3	1-5	3.5	1.4	1-5
Workshop on first aid and health care for racing dogs	3.7	1.4	1-5	3.4	1.3	1-5
Workshop on socialization techniques	2.7	1.5	1-5	2.1	1.3	1-5
Workshop on training techniques	3.2	1.5	1-5	3.1	1.3	1-5
Workshop on rearing methods	2.8	1.5	1-5	2.7	1.5	1-5

<sup>\*</sup>indicates text-based responses to open-ended items



35. Please rate your level of agreement with the following statements (responses on a scale of 1 to 5 where 1 = strongly disagree and 5 = strongly agree).

		NSW			Australia		
Statistics	Mean	Standard deviation	Min-Max	Mean	Standard deviation	Min-Max	
Research could help the greyhound industry							
understand best practice for racing greyhound	3.6	1.0	1-5	3.6	1.0	1-5	
training.							
Research could help the greyhound industry							
understand best practice in racing greyhound	3.4	1.0	1-5	3.3	0.9	2-5	
socialization.							
Research could help the greyhound industry							
understand best practice in racing greyhound	3.5	1.1	1-5	3.7	0.7	2-5	
handler education.							
Research would not tell me anything I don't already	2.7	1.2	1-5	2.9	1.2	1-5	
know about racing greyhound management.	2.7	1.2	1-5	2.9	1.2	1-5	
If the results of a racing greyhound research study							
suggested doing something that I disagree with, I	2.8	0.9	1-5	2.9	0.9	1-5	
would disregard the findings.							
Greyhounds are different from other dog breeds, so							
research about training other breeds is irrelevant to	3.4	1.2	1-5	3.7	1.2	2-5	
racing greyhound training.							

#### Perceptions of racing greyhound management

36. (industry members) Please rate the extent of your agreement with the following statements (responses on a scale of 1 to 5 where 1 = strongly disagree and 5 = strongly agree).

	NSW			Australia		
Statistics – industry members	Mean	Standard deviation	Min-Max	Mean	Standard deviation	Min-Max
Greyhounds are generally well cared for while they are racing	4.4	0.8	1-5	4.5	0.8	2-5
Greyhounds are generally well cared for while they are learning to race	4.3	0.8	1-5	4.3	0.8	2-5
An acceptable percentage of greyhounds bred for racing actually end up participating in races	3.4	1.1	1-5	3.6	1.1	1-5
The racing greyhound industry has been unfairly portrayed in recent media reports	4.3	1.0	1-5	4.6	0.8	2-5
Greyhounds are generally well cared for as young puppies	4.3	0.8	1-5	4.2	0.9	2-5
Greyhounds that participate in races have racing	3.5	1.1	1-5	3.3	1.3	1-5

<sup>\*</sup>indicates text-based responses to open-ended items



careers that are too short						
Greyhounds are generally well cared for while they are growing up	4.3	0.8	1-5	4.3	0.8	2-5
The welfare of racing greyhounds is important to me	4.5	0.7	1-5	4.3	0.6	2-5
If a racing greyhound is in good physical health, that means it is experiencing good welfare	3.7	1.0	1-5	3.9	1.0	1-5
The general public does not understand the sport of greyhound racing	4.3	0.8	1-5	4.4	1.0	1-5
Greyhounds are generally well cared for once they retire from racing	3.6	1.2	1-5	3.7	1.1	1-5
The greyhound industry has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends	3.8	1.1	1-5	3.5	1.0	1-5
Racing greyhounds should be kept in good physical health	4.9	0.4	1-5	4.9	0.4	4-5
Racing greyhounds should have regular contact with people throughout their racing lives	4.4	0.6	1-5	4.3	0.7	2-5
Racing greyhounds should not be treated as if they were pets	2.6	1.2	1-5	3.0	1.2	2-5
An acceptable percentage of racing greyhounds become adopted as pets when their racing career ends	2.9	1.2	1-5	3.0	1.1	1-5
If a racing greyhound is not aggressive, that means it is experiencing good welfare	2.5	1.1	1-5	2.9	1.0	1-5
Racing greyhounds should have regular contact with people when they are learning how to race	4.1	0.8	1-5	4.0	0.9	2-5
Racing greyhounds should have regular contact with people when they are very young	4.3	0.7	1-5	4.2	0.8	2-5

35a. (general public) Please rate the extent of your agreement with the following statements (responses on a scale of 1 to 5 where 1 = strongly disagree and 5 = strongly agree).

		NSW			Australia		
Statistics - general public	Mean	Standard deviation	Min-Max	Mean	Standard deviation	Min-Max	
Greyhounds are generally well cared for while they are racing	2.3	1.3	1-5	2.0	1.1	1-5	
Greyhounds are generally well cared for while they are learning to race	2.2	1.3	1-5	2.0	1.1	1-5	
An acceptable percentage of greyhounds bred for racing actually end up participating in races	1.9	1.1	1-5	1.7	0.9	1-5	
The racing greyhound industry has been unfairly portrayed in recent media reports	1.8	1.2	1-5	1.5	0.9	1-5	
Greyhounds are generally well cared for as young puppies	2.3	1.3	1-5	2.1	1.1	1-5	

<sup>\*</sup>indicates text-based responses to open-ended items



Greyhounds that participate in races have racing careers that are too short	3.3	1.3	1-5	3.2	1.2	1-5
Greyhounds are generally well cared for while they are growing up	2.3	1.3	1-5	2.0	1.1	1-5
The welfare of racing greyhounds is important to me	4.7	0.6	1-5	4.8	0.6	1-5
If a racing greyhound is in good physical health, that means it is experiencing good welfare	2.0	1.2	1-5	1.8	1.0	1-5
The general public does not understand the sport of greyhound racing	2.9	1.5	1-5	2.9	1.5	1-5
Greyhounds are generally well cared for once they retire from racing	1.7	1.0	1-5	1.7	1.0	1-5
The greyhound industry has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends	4.6	0.9	1-5	4.7	0.8	1-5
Racing greyhounds should be kept in good physical health	4.8	0.5	2-5	4.8	0.7	1-5
Racing greyhounds should have regular contact with people throughout their racing lives	4.6	0.7	1-5	4.6	0.7	1-5
Racing greyhounds should not be treated as if they were pets	1.8	1.1	1-5	1.7	1.0	1-5
An acceptable percentage of racing greyhounds become adopted as pets when their racing career ends	1.6	0.9	1-5	1.6	1.0	1-5
If a racing greyhound is not aggressive, that means it is experiencing good welfare	1.8	1.0	1-5	1.8	1.0	1-5
Racing greyhounds should have regular contact with people when they are learning how to race	4.5	0.8	1-5	4.5	0.8	1-5
Racing greyhounds should have regular contact with people when they are very young	4.6	0-7	1-5	4.6	0.8	1-5

37. In your opinion, how sufficient are the existing legal requirements relating to the management of greyhounds bred to race, in ensuring that the dogs experience good welfare (i.e. ensuring that all their physical and behavioural needs are being met)?

	Industry		Genero	ıl public
Percent	NSW	Australia	NSW	Australia
Not at all sufficient	6.9	3.6	66.1	72.6
Not really sufficient	11.9	10.7	10.4	9.2
Somewhat sufficient	19.9	3.6	5.8	2.5
Mostly sufficient	33.9	39.3	7.0	2.9
Completely sufficient	15.5	25.0	0.9	0.4
The existing legal requirements in my area are too restrictive	3.6	10.7	1.5	-

<sup>\*</sup>indicates text-based responses to open-ended items



I don't know	6.9	7.1	7.6	11.9
There are no existing legal requirements in my	1.4	_	0.6	0.4
area	1.4	_	0.0	0.4

38. In your opinion, how sufficient is **the enforcement of** existing legal requirements relating to the management of greyhounds bred to race, in ensuring that the dogs experience good welfare (i.e. ensuring that all their physical and behavioural needs are being met)?

	Ir	ndustry	General public		
Percent	NSW	Australia	NSW	Australia	
Not at all sufficient	12.6	10.7	72.0	74.8	
Not really sufficient	16.9	7.1	12.8	9.7	
Somewhat sufficient	22.7	10.7	4.3	2.5	
Mostly sufficient	26.6	35.7	3.4	1.7	
Completely sufficient	11.2	28.6	0.3	0.4	
The existing legal requirements in my area are	1.8	3.6	0.6		
too restrictive	1.0	3.6	0.6		
I don't know	7.2	3.6	6.1	10.9	
There are no existing legal requirements in my	1.1	_	0.6	_	
area	1.1	_	0.0		

39. (industry members) How important is it to you that greyhounds bred to race regularly receive the following experiences? (Responses on a scale of 1 to 5 where 1 = not important at all and 5 = extremely important)

	NSW				Australia		
Statistics – industry members	Mean	Std Dev	Min-Max	Mean	Std Dev	Min-Max	
Toys to play with	3.5	1.2	1-5	3.5	1.1	1-5	
Things to see, smell, and hear (e.g. music, TV)	3.5	1.1	1-5	3.5	1.1	1-5	
Physical contact with familiar people	4.4	0.8	1-5	4.3	0.8	2-5	
Interactions with unfamiliar people	3.4	1.1	1-5	3.3	0.9	2-5	
Interactions with dogs from the same litter	3.3	1.3	1-5	3.3	1.3	1-5	
Interactions with greyhounds from a different litter	3.3	1.1	1-5	2.9	1.1	1-5	
Interactions with dogs other than greyhounds	2.6	1.2	1-5	2.3	1.2	1-5	
Interactions with animals other than dogs (e.g. time	2.3	1.1	1-5	2.1	1.0	1-4	
with pet cats, livestock)  Outings into a familiar environment	3.9	1.0	1-5	3.7	1.2	1-5	
·	3.3	1.0	1-3	5.7	1,2	1-3	
Outings into unfamiliar environments (e.g. the beach, city centre)	2.7	1.2	1-5	2.5	1.2	1-5	
Visual contact with familiar people (e.g. through the fence)	4.0	1.0	1-5	3.9	1.2	1-5	
Visual contact with unfamiliar people (e.g. through the fence)	3.3	1.1	1-5	3.1	1.0	1-5	

<sup>\*</sup>indicates text-based responses to open-ended items



Housing that provides contact with other dogs	3.5	1.2	1-5	3.4	1.1	1-5
Housing that provides contact with people	3.7	1.1	1-5	3.4	1.2	1-5

38a. (general public) How important is it to you that greyhounds bred to race regularly receive the following experiences? (Responses on a scale of 1 to 5 where 1 = not important at all and 5 = extremely important)

	NSW			Australia		
Statistics – general public	Mean	Std Dev	Min-Max	Mean	Std Dev	Min-Max
Toys to play with	4.5	0.8	1-5	4.7	0.7	1-5
Things to see, smell, and hear (e.g. music, TV)	4.5	0.9	1-5	4.6	0.8	1-5
Physical contact with familiar people	4.8	0.5	1-5	4.8	0.5	2-5
Interactions with unfamiliar people	4.2	1.0	1-5	4.4	0.9	1-5
Interactions with dogs from the same litter	4.0	1.2	1-5	4.1	1.1	1-5
Interactions with greyhounds from a different litter	4.2	1.1	1-5	4.3	0.9	1-5
Interactions with dogs other than greyhounds	4.3	1.1	1-5	4.5	0.9	1-5
Interactions with animals other than dogs (e.g. time	4.0	1.2	1-5	4.3	1.0	1-5
with pet cats, livestock)	4.0	1.2	1-5	4.5	1.0	
Outings into a familiar environment	4.5	0.7	1-5	4.6	0.7	1-5
Outings into unfamiliar environments (e.g. the	4.2	1.1	1-5	4.5	0.8	1-5
beach, city centre)	4.2	1.1	1-5	4.5	0.6	
Visual contact with familiar people (e.g. through the	4.6	0.7	1-5	4.6	0.7	1-5
fence)	4.0	0.7	1-3	4.0	0.7	
Visual contact with unfamiliar people (e.g. through	4.2	1.0	1-5	4.3	0.9	1-5
the fence)	4.2	1.0	1-5	4.3	0.5	
Housing that provides contact with other dogs	4.4	0.9	1-5	4.5	0.8	1-5
Housing that provides contact with people	4.6	0.8	1-5	4.7	0.6	1-5

#### 40. To the best of your knowledge, what percentage of greyhounds bred to race actually participate in races?

#### 41. What percentage should participate in races?

	Actually race				Should ace				
	Ind	ustry	Gene	ral public	Ind	ustry	General public		
Percent	NSW	Australia	NSW	Australia	NSW	Australia	NSW	Australia	
10% or less	3.0	-	30.8	33.3	-	-	8.9	7.2	
20%	5.9	3.6	20.0	28.6	1.1	-	0.7	0.7	
30%	6.6	3.6	18.0	20.7	0.4	-	1.7	1.2	
40%	5.9	3.6	10.2	6.0	2.3	3.6	1.0	0.2	
50%	8.9	3.6	7.2	5.8	4.1	-	3.6	3.5	
60%	12.2	21.4	4.3	2.3	4.5	10.7	1.0	1.9	

<sup>\*</sup>indicates text-based responses to open-ended items



70%	28.4	42.9	4.9	2.1	15.4	28.6	6.3	5.4
80%	18.8	17.9	3.0	0.7	28.9	32.1	8.9	6.5
90%	9.6	3.6	1.0	0.2	25.6	21.4	6.3	2.8
100%	0.7	-	0.7	0.2	17.3	3.6	1.3	1.4
I don't believe	-	-			0.4	-	60.3	69.2
greyhounds should race								

42. To the best of your knowledge, when a greyhound bred to race does participate in races, how many races, on average, do you think it runs in its lifetime?

#### 43. How many races should a racing greyhound be able to run in its lifetime?

Actual races Should race Industry General public Industry General public Percent NSW Australia NSW Australia NSW Australia NSW Australia 0 0.4 3.2 3.5 1 to 5 3.3 13.6 2.1 15.0 0.4 1.6 -6 to 10 2.7 3.3 15.0 18.5 5.6 8.3 11 to 20 14.0 3.3 14.6 19.6 1.6 3.6 9.5 15.3 21 to 40 36.8 40.0 20.7 15.3 7.1 7.1 14.3 10.4 41 to 60 29.8 30.0 12.5 12.5 31.4 28.6 21.4 13.9 61 to 80 10.9 13.3 1.4 8.0 9.0 10.7 4.0 2.8 81 to 99 \_ 14.3 8.0 \_ 0.3 9.0 4.0 2.8 100 to 150 3.9 6.7 8.6 6.3 32.2 28.6 9.5 6.3 151 to 300 0.4 5.4 1.6 1.6 1.6 1.4 0.4 More than 300 1.8 1.1 8.0 \*I don't know 3.8 3.2 4.2 2.1 \*As many as it wants 6.7 3.6 2.4 1.4 1.1 I don't believe 1.6 0.4 3.6 23.0 31.3 greyhounds should race

<sup>\*</sup>indicates text-based responses to open-ended items



44. To the best of your knowledge, what do you think is the most common reason for a racing greyhound to stop racing?

	Indi	ustry	General public		
Percent	NSW	Australia	NSW	Australia	
Old age	8.6	6.7	1.6	0.9	
Disease	-	-	0.3		
Drop in racing form	11.5	10.0	40.8	43.1	
Injury	51.4	33.3	18.2	17.3	
Not responsive to training	1.1	3.3	5.3	1.5	
Inexperienced trainer	-	-	0.6	0.2	
Poor management of the dog	6.5	10.0	5.3	5.5	
Lack of drive to chase	9.5	16.7	10.7	12.9	
I don't know	3.6	-	8.5	11.6	
Other	2.5	6.7	3.1	0.2	
*A combination of these	5.0	13.3	3.8	4.2	

- 45. To the best of your knowledge, what percentage of greyhounds bred for racing end up being rehomed/adopted as pets when their training or racing career is over?
- 46. What percentage of dogs should end up being adopted as pets when their training or racing career is over?

		Actually	adopted		Should be adopted				
	Inc	lustry	Gene	ral public	Ind	ustry	General public		
Percent	NSW	Australia	NSW	Australia	NSW	Australia	NSW	Australia	
10% or less	39.4	30.8	71.0	67.9	3.1	7.4	0.6	0.4	
20%	17.9	23.1	14.7	14.7	2.4	7.4	1.5	0.9	
30%	16.3	7.7	8.5	8.1	5.1	3.7	0.9	0.4	
40%	4.4	19.2	1.6	3.0	1.2	11.1	0.9	0.4	
50%	11.2	7.7	2.3	3.5	20.0	-	4.6	1.3	
60%	2.0	3.8	0.7	0.5	3.9	7.4	0.6	0.6	
70%	4.0	-	0.7	0.7	10.2	11.1	3.4	1.7	
80%	3.6	7.7	0.3	0.7	13.3	22.2	4.0	7.7	
90%	0.8	-	-	0.5	10.6	18.5	12.8	9.2	
100%	0.4	-	0.3	0.5	30.2	11.1	70.6	77.4	

47. Recent media reports suggest that some greyhounds have been trained by attaching a live animal to a mechanical device, or lure, that the dog chases around the track. Other greyhounds have been trained using animal pelts or meat products which were ethically sourced from places such as abattoirs.

Remember, all responses to questions on this survey are completely anonymous.

<sup>\*</sup>indicates text-based responses to open-ended items



#### What are the laws where you live regarding the use of live animals on the lure to train racing greyhounds?

	Indu	ustry	General public		
Percent	NSW	Australia	NSW	Australia	
It is illegal to use live animals and ethically sourced	61.1	62.1	31.0	28.1	
animal pelts/meat products					
It is illegal to use live animals, but ethically sourced	34.4	37.9	43.7	43.4	
animal pelts/meat products are permitted					
It is legal to use live animals where I live, but it is	0.4	-	-	-	
frowned upon					
It is legal and socially acceptable to use live animals	0.4	-	0.3	-	
where I live					
There are no existing legal requirements in my area	-	-	0.9	0.7	
l don't know	3.7	-	24.1	27.9	

# 48. In your opinion, which of the following alternatives to training with live animals on the lure could result in a dog that is just as fast, or even faster, on the race track? (select all that apply)

	Indi	ustry	General public	
Percent	NSW	Australia	NSW	Australia
Ethically sourced animal pelts/skins	57.2	45.2	21.5	15.7
Ethically sourced meat products	28.4	19.4	19.1	15.2
A mechanical or electric hare	34.0	29.0	35.9	31.9
Stuffed toys with a squeaker	53.0	61.3	35.3	29.9
Stuffed toys without a squeaker	16.8	6.5	14.4	11.4
Nothing else would make a dog run as fast	3.2	3.2	3.5	3.5
as a live animal does				
l don't know	1.4	6.5	11.8	13.8
*Whatever the dog has been trained to	0.4	-	0.3	-
chase				
*Anything that the dog will consider a	3.2	6.5	3.8	1.0
reward or be attracted to				
*Better training practices	0.4	-	1.8	0.8
*Only race dogs that want to race	-	-	1.5	0.6
regardless of reward				

<sup>\*</sup>indicates text-based responses to open-ended items



49. (industry members) Please rate your level of agreement with the following statements related to the use of live animals on the lure in racing greyhound training (responses on a scale of 1 to 5 where 1 = strongly disagree and 5 = strongly agree).

		NSW		Australia			
Statistics – industry members	Mean	Std Dev	Min-Max	Mean	Std Dev	Min-Max	
Training with live animals on the lure makes racing greyhounds more aggressive off the racetrack	2.4	1.2	1-5	2.3	1.2	1-5	
Training racing greyhounds with live animals on the lure is common	2.2	1.2	1-5	2.0	1.2	1-5	
Training with live animals on the lure is unacceptable, regardless of whether or not it is legal	4.4	1.1	1-5	4.2	1.2	1-5	
Training racing greyhounds with live animals on the lure is not acceptable under any conditions	4.4	1.0	1-5	4.5	1.0	1-5	
Some racing greyhounds will not chase unless they are trained using live animals on the lure	2.3	1.2	1-5	2.4	1.2	1-5	
Training with animal products makes racing greyhounds less suitable for adoption as a pet	2.0	1.1	1-5	1.8	0.8	1-3	

48a. (general public) Please rate your level of agreement with the following statements related to the use of live animals on the lure in racing greyhound training (responses on a scale of 1 to 5 where 1 = strongly disagree and 5 = strongly agree).

	NSW			Australia		
Statistics - general public	Mean	Std Dev	Min-Max	Mean	Std Dev	Min-Max
Training with live animals on the lure makes racing	3.4	1.3	1-5	3.4	1.3	1-5
greyhounds more aggressive off the racetrack	3.4	1.3	1-5	3.4	1.5	1-5
Training racing greyhounds with live animals on the	3.7	1.1	1-5	4.0	1.0	1-5
lure is common	3.7	1.1	1-3	4.0	1.0	1-5
Training with live animals on the lure is	4.8	0.0	1-5	4.9	0.6	1-5
unacceptable, regardless of whether or not it is legal	4.0	0.8	1-3	4.9	0.6	1-5
Training racing greyhounds with live animals on the	4.8	0.7	1-5	4.9	0.6	1-5
lure is not acceptable under any conditions	4.8	0.7	1-5	4.9	0.6	1-5
Some racing greyhounds will not chase unless they	2.2	10	1.5	2.2	10	1.5
are trained using live animals on the lure	2.2	1.2	1-5	2.2	1.2	1-5
Training with animal products makes racing	7.0	17	1.5	77	1.4	1.5
greyhounds less suitable for adoption as a pet	3.2	1.3	1-5	3.3	1.4	1-5

<sup>\*</sup>indicates text-based responses to open-ended items



#### APPENDIX C - ANOVA RESULTS

# Identifying groups

All results violated the assumption of homogeneity of variance; therefore, Welch statistics were used instead of F-values.

Post-hoc results reveal whether industry members varied from other groups. The categories represented in post-hoc results are: Adoption worker for retired greyhounds (adopt), owner of retired racing greyhounds (retiredowner), animal advocacy group member (advocacy), veterinarian who regularly works with greyhounds (greyvet), veterinarian who does not regularly work with greyhounds (nogreyvet), veterinary technician, nurse, or student (vettech), member of the general public (public), and employee of another animal sector (animsect).

Item	Welch statistic	df	р	Post-hoc results: Industry varies from other groups
Greyhounds are generally well cared for while they are racing	189.19	8, 248.9	<0.001	All groups (all p < 0.01)
Greyhounds are generally well cared for while they are learning to race	183.82	8, 249.8	<0.001	All groups (all p < 0.001)
The racing greyhound industry has been unfairly portrayed in recent media reports	238.63	8, 258.8	<0.001	All groups (all p < 0.001)
Greyhounds are generally well cared for as young puppies	157.72	8, 248.6	<0.001	All groups (all p < 0.001)
Greyhounds are generally well cared for while they are growing up	177.00	8, 246.1	<0.001	All groups (all p < 0.001)
The welfare of racing greyhounds is important to me	22.19	8, 266.7	<0.001	All groups (all p < 0.05) except greyvet and vettech
The general public does not understand the sport of greyhound racing	41.86	8, 248.0	<0.001	All groups (all p < 0.05) except greyvet
Greyhounds are generally well cared for once they retire from racing	85.98	8, 245.6	<0.001	All groups (all p < 0.001) except greyvet
The greyhound industry has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends	33.79	8, 264.8	<0.001	All groups (all p < 0.001) except greyvet
Racing greyhounds should not be treated as if they were pets	20.48	8, 243.8	<0.001	All groups (all p < 0.001) except greyvet
An acceptable percentage of racing greyhounds become adopted as pets when their racing career ends	43.13	8, 250.2	<0.001	All groups (all p < 0.01)
How sufficient are legal requirements for greyhound management?	47.66	8, 254.8	<0.001	All groups (all p < 0.001) except greyvet
How sufficient is enforcement of legal requirements for greyhound management?	40.89	8, 256.5	<0.001	All groups (all p < 0.01) except greyvet
How important is it for greyhounds to have toys to play with	31.73	8, 247.9	<0.001	No significant differences post-hoc
How important is it for greyhounds to have interactions with unfamiliar people	37.66	8, 250.8	<0.001	No significant differences post-hoc
How important is it for greyhounds to have interactions with dogs other than greyhounds	72.30	8, 252.7	<0.001	All groups (all p < 0.01)



Table continued				
Item	Welch Statistic	df	р	Post-hoc results: Industry varies from other groups
How important is it for greyhounds to have interactions with animals other than dogs (e.g. time with pet cats, livestock)	79.40	8, 251.3	<0.001	All groups (all p < 0.01)
How important is it for greyhounds to have outings into unfamiliar environments (e.g. the beach, city centre)	56.82	8, 247.8	<0.001	All groups (all p < 0.01)
What percentage of greyhounds actually race?	72.82	8, 241.1	<0.001	All groups (all p < 0.01)
What percentage should race?	10.46	8, 227.3	<0.001	Adopt (p = 0.023), retiredowner (p = 0.002), advocacy (p < 0.001), public (p < 0.001)
How many races do greyhounds run?	7.02	8, 228.0	<0.001	Nogreyvet (p < 0.001)
How many should they run?	6.74	8, 77.4	<0.001	Adopt (p = 0.007) and advocacy (p = 0.001)
Why do most greyhounds stop racing?	3.02	8, 249.8	<0.001	No significant differences post-hoc
What percentage of greyhounds become adopted as pets?	18.43	8, 244.8	<0.001	Adopt, advocacy, nogreyvet, public (all p < 0.001)
What percentage should be adopted as pets?	25.88	8, 242.3	<0.001	All groups (all p < 0.001) except greyvet
Training racing greyhounds with live animals on the lure is common	55.32	8, 244.4	<0.001	All groups (all p < 0.001) except greyvet
Training with live animals on the lure is unacceptable, regardless of whether or not it is legal	-	-	-	Data not suited for ANOVA
Some racing greyhounds will not chase unless they are trained using live animals on the lure	1.04	8, 243.6	0.41	-



# Descriptive statistics between identifying group categories

Group number of participants (n), means (M), standard deviations (SD), minimum (min), and maximum (max) responses for items which were significantly different.

	Group	n	М	SD	Min	Max
	Industry	229	4.44	0.8	1	5
	Adopt	62	1.79	1.1	1	5
	Retiredowner	548	2.38	1.4	1	5
Greyhounds are generally	Advocacy	164	1.77	1.0	1	5
well cared for while they are	Greyvet	40	3.63	1.1	1	5
racing	Nogreyvet	93	2.62	1.1	1	5
	Vettech	34	2.18	1.2	1	5
	Public	1012	2.14	1.2	1	5
	Animsect	53	2.66	1.3	1	5
	Industry	229	4.28	0.8	1	5
	Adopt	61	1.57	0.9	1	4
	Retiredowner	547	2.40	1.4	1	5
Greyhounds are generally	Advocacy	164	1.71	1.0	1	5
well cared for while they are	Greyvet	40	3.15	1.0	1	4
learning to race	Nogreyvet	96	2.34	1.0	1	5
	Vettech	34	2.21	1.2	1	5
	Public	1018	2.12	1.2	1	5
	Animsect	53	2.45	1.3	1	5
	Industry	228	4.36	1.0	1	5
	Adopt	63	1.13	0.4	1	3
	Retiredowner	555	2.07	1.5	1	5
The racing greyhound	Advocacy	164	1.23	0.6	1	5
industry has been unfairly portrayed in recent media reports	Greyvet	40	3.03	1.5	1	5
	Nogreyvet	97	1.65	0.9	1	5
	Vettech	34	1.62	1.0	1	5
	Public	1020	1.67	1.1	1	5
	Animsect	54	2.31	1.2	1	5



Table continued						
	Group	n	М	SD	Min	Max
	Industry	228	4.29	0.81	1	5
	Adopt	59	1.73	0.93	1	4
	Retiredowner	542	2.57	1.41	1	5
Greyhounds are generally	Advocacy	164	1.84	0.99	1	5
well cared for as young	Greyvet	40	3.20	1.20	1	5
puppies	Nogreyvet	96	2.39	1.00	1	4
	Vettech	34	2.21	1.12	1	5
	Public	1004	2.21	1.15	1	5
	Animsect	54	2.67	1.15	1	5
	Industry	228	4.30	0.79	1	5
	Adopt	59	1.78	0.85	1	4
	Retiredowner	546	2.45	1.37	1	5
Greyhounds are generally	Advocacy	163	1.81	0.97	1	5
well cared for while they are	Greyvet	39	3.13	1.08	1	5
growing up	Nogreyvet	96	2.31	0.97	1	5
	Vettech	34	2.09	1.08	1	5
	Public	1005	2.12	1.15	1	5
	Animsect	52	2.58	1.18	1	5
	Industry	227	4.48	0.63	2	5
	Adopt	62	4.98	0.13	4	5
	Retiredowner	548	4.80	0.63	1	5
The welfare of racing	Advocacy	162	4.90	0.47	1	5
greyhounds is important	Greyvet	40	4.73	0.45	4	5
to me	Nogreyvet	97	4.76	0.57	2	5
	Vettech	34	4.82	0.72	1	5
	Public	1012	4.75	0.62	1	5
	Animsect	54	4.78	0.72	1	5



Industry	Table continued						
Adopt 57 3.63 1.51 1 5 Retiredowner 535 3.59 1.36 1 5 Advocacy 158 3.20 1.50 1 5 Orgeyvet 40 3.95 0.93 2 5 Orgeyvet 95 3.47 1.14 1 5 Orgeyvet 95 3.47 1.14 1 5 Orgeyvet 1002 2.98 1.46 1 5 Orgeyvet 55 3.62 1.16 1 5 Orgeyvet 55 3.62 1.16 1 5 Orgeyvet 55 3.62 1.16 1 5 Orgeyvet 60 1.42 0.87 1 5 Orgeyvet 60 1.42 0.87 1 5 Orgeyvet 39 3.03 1.20 1 5 Orgeyvet 34 1.85 1.18 1 5 Orgeyvet 34 1.85 1.18 1 5 Orgeyvet 35 2.13 1.26 1 5 Orgeyvet 36 3.21 1.26 1 5 Orgeyvet 37 4.95 0.23 4 5 Orgeyvet 57 4.95 0.23 4 5 Orgeyvet 67 4.96 0.66 2 5 Orgeyvet 67 4.66 0.66 2 5		Group	n	М	SD	Min	Maz
Retiredowner   535   3.59   1.36   1   5		Industry	231	4.29	0.87	1	5
The general public does not understand the sport of greyhound racing   Nogreyvet   40   3.95   0.93   2   5		Adopt	57	3.63	1.51	1	5
Greyhound racing   Greyvet   A0   3.95   0.93   2   5		Retiredowner	535	3.59	1.36	1	5
Nogreyvet   Signature   Sign	The general public does	Advocacy	158	3.20	1.50	1	5
Vettech   34   3.32   1.53   1   5	not understand the sport	Greyvet	40	3.95	0.93	2	5
Public   1002   2.98   1.46   1   5     Animsect   55   3.62   1.16   1   5     Industry   230   3.59   1.16   1   5     Adopt   60   1.42   0.87   1   5     Retiredowner   542   2.21   1.34   1   5     Retiredowner   542   2.21   1.34   1   5     Retiredowner   39   3.03   1.20   1   5     Nogreyvet   39   3.03   1.20   1   5     Nogreyvet   97   1.76   0.88   1   5     Vettech   34   1.85   1.18   1   5     Public   1018   1.68   0.99   1   5     Animsect   53   2.13   1.26   1   5     Industry   229   3.75   1.09   1   5     Adopt   57   4.95   0.23   4   5     The greyhound industry has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends   Vettech   34   4.88   0.41   3   5	of greyhound racing	Nogreyvet	95	3.47	1.14	1	5
Animsect   55   3.62   1.16   1   5		Vettech	34	3.32	1.53	1	5
Industry   230   3.59   1.16   1   5     Adopt   60   1.42   0.87   1   5     Retiredowner   542   2.21   1.34   1   5     Advocacy   164   1.41   0.75   1   5     Mogreyvet   39   3.03   1.20   1   5     Nogreyvet   97   1.76   0.88   1   5     Vettech   34   1.85   1.18   1   5     Public   1018   1.68   0.99   1   5     Animsect   53   2.13   1.26   1   5     Adopt   57   4.95   0.23   4   5     The greyhound industry has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends   Vettech   34   4.88   0.41   3   5     Retiredowner   550   4.66   0.66   2   5     Nogreyvet   97   4.66   0.66   2   5     Vettech   34   4.88   0.41   3   5     Overtage   1.16   1   5     Adopt   57   4.95   0.23   4   5     Nogreyvet   40   4.08   1.10   1   5     Nogreyvet   97   4.66   0.66   2   5     Vettech   34   4.88   0.41   3   5		Public	1002	2.98	1.46	1	5
Adopt 60 1.42 0.87 1 5 Retiredowner 542 2.21 1.34 1 5 Advocacy 164 1.41 0.75 1 5  Mogreyvet 39 3.03 1.20 1 5  Vettech 34 1.85 1.18 1 5  Public 1018 1.68 0.99 1 5  Animsect 53 2.13 1.26 1 5  Industry 229 3.75 1.09 1 5  Adopt 57 4.95 0.23 4 5  The greyhound industry has a responsibility to ensure that greyhounds are generally well are greyard for life as a pet after their racing career ends Vettech 34 4.88 0.41 3 5		Animsect	55	3.62	1.16	1	5
Retiredowner   542   2.21   1.34   1   5		Industry	230	3.59	1.16	1	5
Greyhounds are generally well cared for once they retire from racing         Advocacy         164         1.41         0.75         1         5           retire from racing         Foreyvet         39         3.03         1.20         1         5           Nogreyvet         97         1.76         0.88         1         5           Vettech         34         1.85         1.18         1         5           Public         1018         1.68         0.99         1         5           Animsect         53         2.13         1.26         1         5           Industry         229         3.75         1.09         1         5           Adopt         57         4.95         0.23         4         5           Retiredowner         550         4.62         0.84         1         5           Advocacy         163         4.75         0.78         1         5           Greyvet         40         4.08         1.10         1         5           Nogreyvet         97         4.66         0.66         2         5           Ovettech         34         4.88         0.41         3         5 <td></td> <td>Adopt</td> <td>60</td> <td>1.42</td> <td>0.87</td> <td>1</td> <td>5</td>		Adopt	60	1.42	0.87	1	5
Greynounds are generally well cared for once they retire from racing         Greyvet         39         3.03         1.20         1         5           Nogreyvet         97         1.76         0.88         1         5           Vettech         34         1.85         1.18         1         5           Public         1018         1.68         0.99         1         5           Animsect         53         2.13         1.26         1         5           Industry         229         3.75         1.09         1         5           Adopt         57         4.95         0.23         4         5           The greyhound industry has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing Career ends         Greyvet         40         4.08         1.10         1         5           Nogreyvet         97         4.66         0.66         2         5           Nogreyvet         97         4.66         0.66         2         5           Vettech         34         4.88         0.41         3         5		Retiredowner	542	2.21	1.34	1	5
well cared for once they retire from racing         Greyvet         39         3.03         1.20         1         5           Nogreyvet         97         1.76         0.88         1         5           Vettech         34         1.85         1.18         1         5           Public         1018         1.68         0.99         1         5           Animsect         53         2.13         1.26         1         5           Industry         229         3.75         1.09         1         5           Adopt         57         4.95         0.23         4         5           Retiredowner         550         4.62         0.84         1         5           Advocacy         163         4.75         0.78         1         5           Advocacy         163         4.75         0.78         1         5           Nogreyvet         40         4.08         1.10         1         5           Nogreyvet         97         4.66         0.66         2         5           Vettech         34         4.88         0.41         3         5	Grevhounds are generally	Advocacy	164	1.41	0.75	1	5
Vettech         34         1.85         1.18         1         5           Public         1018         1.68         0.99         1         5           Animsect         53         2.13         1.26         1         5           Industry         229         3.75         1.09         1         5           Adopt         57         4.95         0.23         4         5           Retiredowner         550         4.62         0.84         1         5           Advocacy         163         4.75         0.78         1         5           Advocacy         163         4.75         0.78         1         5           Greyvet         40         4.08         1.10         1         5           Nogreyvet         97         4.66         0.66         2         5           Vettech         34         4.88         0.41         3         5	well cared for once they	Greyvet	39	3.03	1.20	1	5
Public         1018         1.68         0.99         1         5           Animsect         53         2.13         1.26         1         5           Industry         229         3.75         1.09         1         5           Adopt         57         4.95         0.23         4         5           Retiredowner         550         4.62         0.84         1         5           Advocacy         163         4.75         0.78         1         5           Advocacy         163         4.75         0.78         1         5           Greyvet         40         4.08         1.10         1         5           Nogreyvet         97         4.66         0.66         2         5           Vettech         34         4.88         0.41         3         5	retire from racing	Nogreyvet	97	1.76	0.88	1	5
Animsect 53 2.13 1.26 1 5  Industry 229 3.75 1.09 1 5  Adopt 57 4.95 0.23 4 5  The greyhound industry has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends Vettech 34 4.88 0.41 3 5		Vettech	34	1.85	1.18	1	5
Industry   229   3.75   1.09   1   5     Adopt   57   4.95   0.23   4   5     The greyhound industry has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends   Nogreyvet   97   4.66   0.66   2   5     Vettech   34   4.88   0.41   3   5		Public	1018	1.68	0.99	1	5
Adopt         57         4.95         0.23         4         5           The greyhound industry has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends         Advocacy         163         4.75         0.78         1         5           Mogreyvet         40         4.08         1.10         1         5           Nogreyvet         97         4.66         0.66         2         5           Vettech         34         4.88         0.41         3         5		Animsect	53	2.13	1.26	1	5
The greyhound industry has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends  Retiredowner 550 4.62 0.84 1 5  Advocacy 163 4.75 0.78 1 5  Greyvet 40 4.08 1.10 1 5  Nogreyvet 97 4.66 0.66 2 5  Vettech 34 4.88 0.41 3 5		Industry	229	3.75	1.09	1	5
has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends  Advocacy  163  4.75  0.78  1  5  Greyvet  40  4.08  1.10  1  5  Nogreyvet  97  4.66  0.66  2  5  Vettech  34  4.88  0.41  3  5		Adopt	57	4.95	0.23	4	5
has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends  Advocacy  163  4.75  0.78  1  5  Greyvet  40  4.08  1.10  1  5  Nogreyvet  97  4.66  0.66  2  5  Vettech  34  4.88  0.41  3  5	The grevhound industry	Retiredowner	550	4.62	0.84	1	5
are prepared for life as a pet after their racing career ends  Nogreyvet  40  4.08  1.10  1  5  Nogreyvet  97  4.66  0.66  2  5  Vettech  34  4.88  0.41  3  5	has a responsibility to ensure that greyhounds are prepared for life as	Advocacy	163	4.75	0.78	1	5
a pet after their racing Nogreyvet 97 4.66 0.66 2 5 career ends Vettech 34 4.88 0.41 3 5		Greyvet	40	4.08	1.10	1	5
vettecn 34 4.00 0.41 3 5		Nogreyvet	97	4.66	0.66	2	5
D. H. 1011 4.05 0.05 7 5	career ends	Vettech	34	4.88	0.41	3	5
Public IVII 4.65 V.85 I 5		Public	1011	4.65	0.85	1	5
Animsect 55 4.60 0.76 1 5		Animsect	55	4.60	0.76	1	5



Table continued						
	Group	n	М	SD	Min	Max
	Industry	229	2.70	1.24	1	5
	Adopt	57	1.33	0.85	1	5
	Retiredowner	538	1.76	1.12	1	5
Racing greyhounds	Advocacy	159	1.62	1.04	1	5
should not be treated as	Greyvet	39	2.49	1.10	1	4
if they were pets	Nogreyvet	95	2.06	1.07	1	5
	Vettech	34	1.76	1.08	1	5
	Public	1002	1.74	1.05	1	5
	Animsect	54	1.94	1.05	1	5
	Industry	229	2.96	1.17	1	5
	Adopt	62	1.16	0.58	1	5
	Retiredowner	553	1.74	1.13	1	5
An acceptable percentage of racing	Advocacy	165	1.47	0.91	1	5
greyhounds become	Greyvet	40	2.30	1.22	1	5
adopted as pets when their racing career ends	Nogreyvet	97	1.87	1.14	1	5
their racing career ends	Vettech	34	1.44	0.75	1	4
	Public	1025	1.65	0.98	1	5
	Animsect	52	2.08	1.22	1	5
	Industry	231	3.86	1.55	1	8
	Adopt	64	1.41	1.43	1	8
	Retiredowner	574	2.05	1.80	1	8
How sufficient are	Advocacy	168	1.39	1.11	1	7
legal requirements for greyhound	Greyvet	40	2.90	1.91	1	8
management?	Nogreyvet	97	2.45	2.14	1	8
	Vettech	34	1.76	1.58	1	7
	Public	1061	2.20	2.14	1	8
	Animsect	56	2.52	2.11	1	8



Table continued						
	Group	n	М	SD	Min	Max
	Industry	232	3.46	1.60	1	8
	Adopt	64	1.19	0.92	1	8
	Retiredowner	573	1.88	1.67	1	8
How sufficient is enforcement of	Advocacy	168	1.28	1.02	1	7
legal requirements	Greyvet	40	2.65	1.90	1	8
for greyhound management?	Nogreyvet	97	1.93	1.88	1	7
management:	Vettech	34	1.71	1.75	1	7
	Public	1060	2.03	2.04	1	8
	Animsect	56	2.38	2.12	1	8
	Industry	225	3.50	1.19	1	5
	Adopt	59	4.83	0.42	3	5
	Retiredowner	536	4.57	0.80	1	5
How important is it for	Advocacy	156	4.79	0.48	3	5
greyhounds to have toys	Greyvet	40	3.90	1.08	1	5
to play with	Nogreyvet	97	4.45	0.89	1	5
	Vettech	33	4.64	0.82	1	5
	Public	986	4.66	0.71	1	5
	Animsect	56	4.70	0.63	2	5
	Industry	225	3.33	1.00	1	5
	Adopt	59	4.76	0.50	3	5
	Retiredowner	523	4.37	0.89	1	5
How important is it	Advocacy	157	4.62	0.67	2	5
for greyhounds to have interactions with unfamiliar people	Greyvet	40	4.05	0.85	2	5
	Nogreyvet	96	4.24	0.87	2	5
	Vettech	34	4.35	0.81	2	5
	Public	972	4.37	0.89	1	5
	Animsect	55	4.49	0.90	1	5



Table continued						
	Group	n	М	SD	Min	Max
	Industry	227	2.56	1.21	1	5
	Adopt	60	4.80	0.48	3	5
	Retiredowner	536	4.24	1.14	1	5
How important is it for	Advocacy	158	4.60	0.70	2	5
greyhounds to have interactions with dogs	Greyvet	39	3.59	1.14	1	5
other than greyhounds	Nogreyvet	97	4.22	1.01	2	5
	Vettech	34	4.50	0.83	2	5
	Public	984	4.41	0.97	1	5
	Animsect	56	4.32	1.01	2	5
	Industry	222	2.35	1.13	1	5
	Adopt	59	4.75	0.58	2	5
How important is it for	Retiredowner	537	4.05	1.23	1	5
greyhounds to have	Advocacy	156	4.44	0.92	1	5
interactions with animals other than dogs (e.g.	Greyvet	40	3.28	1.13	1	5
time with pet cats,	Nogreyvet	97	4.06	0.98	2	5
livestock)	Vettech	34	4.12	1.04	2	5
	Public	980	4.18	1.09	1	5
	Animsect	55	3.91	1.30	1	5
	Industry	224	2.73	1.21	1	5
	Adopt	57	4.74	0.52	3	5
	Retiredowner	536	4.25	1.07	1	5
How important is it for greyhounds to have outings into unfamiliar environments (e.g. the beach, city centre)	Advocacy	157	4.61	0.73	1	5
	Greyvet	39	3.67	1.13	1	5
	Nogreyvet	97	4.21	0.94	2	5
beach, city territe)	Vettech	34	4.35	0.88	2	5
	Public	981	4.35	0.99	1	5
	Animsect	54	4.24	1.08	1	5



Industry	Table continued						
What percentage of greyhounds actually race?         Adopt Allowance         59         2.80         2.05         1         8           What percentage of greyhounds actually race?         Advocacy         153         2.76         1.83         1         8           Greyvet         38         4.68         1.61         1         7           Nogreyvet         95         2.77         1.60         1         8           Public         962         2.78         1.87         1         10           Animsect         51         3.69         2.17         1         9           Industry         221         7.97         1.59         2         11           Adopt         55         9.51         3.34         1         11           Retiredowner         510         8.96         3.11         1         11           Advocacy         152         9.67         3.09         1         11           Nogreyvet         89         8.58         2.91         1         11           Nogreyvet         89         8.58         2.91         1         11           Animsect         46         8.54         3.00         1         11 <th></th> <th>Group</th> <th>n</th> <th>М</th> <th>SD</th> <th>Min</th> <th>Max</th>		Group	n	М	SD	Min	Max
What percentage of greyhounds actually race?         Retiredowner         539         3.72         2.30         1         9           Modrocacy         153         2.76         1.83         1         8           Greyvet         38         4.68         1.61         1         7           Nogreyvet         95         2.77         1.60         1         8           Vettech         34         2.97         1.96         1         8           Public         962         2.78         1.87         1         10           Animsect         51         3.69         2.17         1         9           Ediredowner         55         9.51         3.34         1         11           Retiredowner         510         8.96         3.11         1         11           Retiredowner         510         8.96         3.11         1         11           Retiredowner         37         7.86         2.16         1         11           Nogreyvet         89         8.58         2.91         1         11           Nogreyvet         947         9.04         3.26         1         11           Howing		Industry	227	6.26	2.12	1	10
What percentage of greyhounds actually race?         Advocacy         153         2.76         1.83         1         8           Mogreyvet         38         4.68         1.61         1         7           Nogreyvet         95         2.77         1.60         1         8           Vettech         34         2.97         1.96         1         8           Public         962         2.78         1.87         1         10           Animsect         51         3.69         2.17         1         9           Industry         221         7.97         1.59         2         11           Retiredowner         510         8.96         3.11         1         11           Retiredowner         510         8.96         3.11         1         11           Mogreyvet         37         7.86         2.16         1         11           Nogreyvet         89         8.58         2.91         1         11           Vettech         32         9.44         3.28         1         11           Public         947         9.04         3.26         1         11           Adopt         294 <td></td> <td>Adopt</td> <td>59</td> <td>2.80</td> <td>2.05</td> <td>1</td> <td>8</td>		Adopt	59	2.80	2.05	1	8
Maria percentage of greyhounds actually race?		Retiredowner	539	3.72	2.30	1	9
greyhounds actually race?         Greyvet         38         4.68         1.61         1         7           Nogreyvet         95         2.77         1.60         1         8           Vettech         34         2.97         1.96         1         8           Public         962         2.78         1.87         1         10           Animsect         51         3.69         2.17         1         9           Industry         221         7.97         1.59         2         11           Adopt         55         9.51         3.34         1         11           Retiredowner         510         8.96         3.11         1         11           Advocacy         152         9.67         3.09         1         11           Maryeret         89         8.58         2.91         1         11           Vettech         32         9.44         3.28         1         11           Public         947         9.04         3.26         1         11           Animsect         46         8.54         3.00         1         11           Adopt         50         4.78	What percentage of	Advocacy	153	2.76	1.83	1	8
Nogreyvet   95   2.77   1.60   1   8	greyhounds actually	Greyvet	38	4.68	1.61	1	7
Public         962         2.78         1.87         1         10           Animsect         51         3.69         2.17         1         9           Industry         221         7.97         1.59         2         11           Adopt         55         9.51         3.34         1         11           Retiredowner         510         8.96         3.11         1         11           Advocacy         152         9.67         3.09         1         11           Mogreyvet         37         7.86         2.16         1         11           Nogreyvet         89         8.58         2.91         1         11           Public         947         9.04         3.26         1         11           Animsect         46         8.54         3.00         1         11           Adopt         50         4.78         3.07         0         11           Retiredowner         495         4.40         2.51         0         12           How many races do greyhounds run?         Greyvet         38         4.42         2.29         1         10           Nogreyvet         90         <	race?	Nogreyvet	95	2.77	1.60	1	8
No		Vettech	34	2.97	1.96	1	8
Industry   221   7.97   1.59   2   11     Adopt   55   9.51   3.34   1   11     Retiredowner   510   8.96   3.11   1   11     Advocacy   152   9.67   3.09   1   11     Advocacy   152   9.67   3.09   1   11     Nogreyvet   37   7.86   2.16   1   11     Nogreyvet   89   8.58   2.91   1   11     Vettech   32   9.44   3.28   1   11     Public   947   9.04   3.26   1   11     Animsect   46   8.54   3.00   1   11     Animsect   46   8.54   3.00   1   11     Adopt   50   4.78   3.07   0   11     Retiredowner   495   4.40   2.51   0   12     Advocacy   138   4.17   2.90   0   12     Advocacy   138   4.17   2.90   0   12     Advocacy   138   4.17   2.90   0   12     Mogreyvet   38   4.42   2.29   1   10     Nogreyvet   90   2.90   2.23   1   11     Vettech   33   3.73   2.70   1   11     Vettech   33   3.73   2.70   1   11		Public	962	2.78	1.87	1	10
Adopt   55   9.51   3.34   1   11   11   11   11   11   11   1		Animsect	51	3.69	2.17	1	9
Retiredowner   510   8.96   3.11   1   11   11		Industry	221	7.97	1.59	2	11
What percentage should race?         Advocacy         152         9.67         3.09         1         11           Greyvet         37         7.86         2.16         1         11           Nogreyvet         89         8.58         2.91         1         11           Vettech         32         9.44         3.28         1         11           Public         947         9.04         3.26         1         11           Animsect         46         8.54         3.00         1         11           Industry         218         4.59         1.40         0         9           Adopt         50         4.78         3.07         0         11           Retiredowner         495         4.40         2.51         0         12           How many races dogreyhounds run?         Greyvet         38         4.42         2.29         1         10           Nogreyvet         90         2.90         2.23         1         11           Vettech         33         3.73         2.70         1         11           Public         858         4.14         2.87         0         12		Adopt	55	9.51	3.34	1	11
What percentage should race?         Greyvet         37         7.86         2.16         1         11           Nogreyvet         89         8.58         2.91         1         11           Vettech         32         9.44         3.28         1         11           Public         947         9.04         3.26         1         11           Animsect         46         8.54         3.00         1         11           Industry         218         4.59         1.40         0         9           Adopt         50         4.78         3.07         0         11           Retiredowner         495         4.40         2.51         0         12           How many races do greyhounds run?         Greyvet         38         4.42         2.29         1         10           Nogreyvet         90         2.90         2.23         1         11           Vettech         33         3.73         2.70         1         11           Public         858         4.14         2.87         0         12		Retiredowner	510	8.96	3.11	1	11
Nogreyvet   89   8.58   2.91   1   11		Advocacy	152	9.67	3.09	1	11
Nogreyvet   89   8.58   2.91   1   11   11		Greyvet	37	7.86	2.16	1	11
Public       947       9.04       3.26       1       11         Animsect       46       8.54       3.00       1       11         Industry       218       4.59       1.40       0       9         Adopt       50       4.78       3.07       0       11         Retiredowner       495       4.40       2.51       0       12         Advocacy       138       4.17       2.90       0       12         Feryvet       38       4.42       2.29       1       10         Nogreyvet       90       2.90       2.23       1       11         Vettech       33       3.73       2.70       1       11         Public       858       4.14       2.87       0       12	race:	Nogreyvet	89	8.58	2.91	1	11
Animsect 46 8.54 3.00 1 11  Industry 218 4.59 1.40 0 9  Adopt 50 4.78 3.07 0 11  Retiredowner 495 4.40 2.51 0 12  Advocacy 138 4.17 2.90 0 12  How many races do greyhounds run?  Greyvet 38 4.42 2.29 1 10  Nogreyvet 90 2.90 2.23 1 11  Vettech 33 3.73 2.70 1 11  Public 858 4.14 2.87 0 12		Vettech	32	9.44	3.28	1	11
Industry   218   4.59   1.40   0   9     Adopt   50   4.78   3.07   0   11     Retiredowner   495   4.40   2.51   0   12     Advocacy   138   4.17   2.90   0   12     How many races dogreyhounds run?   Greyvet   38   4.42   2.29   1   10     Nogreyvet   90   2.90   2.23   1   11     Vettech   33   3.73   2.70   1   11     Public   858   4.14   2.87   0   12		Public	947	9.04	3.26	1	11
Adopt 50 4.78 3.07 0 11  Retiredowner 495 4.40 2.51 0 12  Advocacy 138 4.17 2.90 0 12  How many races do greyhounds run?  Greyvet 38 4.42 2.29 1 10  Nogreyvet 90 2.90 2.23 1 11  Vettech 33 3.73 2.70 1 11  Public 858 4.14 2.87 0 12		Animsect	46	8.54	3.00	1	11
Retiredowner   495   4.40   2.51   0   12		Industry	218	4.59	1.40	0	9
How many races do greyhounds run?       Advocacy       138       4.17       2.90       0       12         How many races do greyhounds run?       Greyvet       38       4.42       2.29       1       10         Nogreyvet       90       2.90       2.23       1       11         Vettech       33       3.73       2.70       1       11         Public       858       4.14       2.87       0       12		Adopt	50	4.78	3.07	0	11
How many races do greyhounds run?  Greyvet 38 4.42 2.29 1 10  Nogreyvet 90 2.90 2.23 1 11  Vettech 33 3.73 2.70 1 11  Public 858 4.14 2.87 0 12		Retiredowner	495	4.40	2.51	0	12
Nogreyvet   38   4.42   2.29   1   10		Advocacy	138	4.17	2.90	0	12
Nogreyvet         90         2.90         2.23         1         11           Vettech         33         3.73         2.70         1         11           Public         858         4.14         2.87         0         12		Greyvet	38	4.42	2.29	1	10
Public 858 4.14 2.87 0 12	Sicyriodilas rail:	Nogreyvet	90	2.90	2.23	1	11
		Vettech	33	3.73	2.70	1	11
Animsect 49 527 2.83 1 11		Public	858	4.14	2.87	0	12
ATIITISECT 43 3.27 2.03 I II		Animsect	49	5.27	2.83	1	11



Table continued						
	Group	n	М	SD	Min	Max
	Industry	215	6.70	2.24	1	13
	Adopt	16	9.88	3.36	4	12
	Retiredowner	236	7.60	3.35	1	13
	Advocacy	37	9.22	3.84	1	13
How many should they run?	Greyvet	32	6.59	2.34	3	12
Turr:	Nogreyvet	49	5.31	2.92	2	12
	Vettech	7	6.00	4.55	2	13
	Public	365	7.34	3.83	1	13
	Animsect	29	6.31	3.32	1	12
	Industry	235	5.08	2.68	1	12
	Adopt	62	4.97	2.66	1	11
	Retiredowner	550	4.89 2.43		1	12
	Advocacy	161	4.86	2.41	1	12
Why do greyhounds stop racing?	Greyvet	39	4.28	1.85	1	12
racing.	Nogreyvet	95	4.81	2.48	3	11
	Vettech	34	4.59	2.54	3	12
	Public	1021	5.29	2.83	1	12
	Animsect	55	5.85	2.71	1	12
	Industry	212	2.92	2.30	1	10
	Adopt	62	1.44	0.82	1	4
	Retiredowner	540	2.66	2.14	1	9
What percentage of	Advocacy	157	1.62	1.22	1	10
greyhounds become	Greyvet	38	2.32	2.02	1	9
adopted as pets?	Nogreyvet	94	1.59	1.07	1	7
	Vettech	33	2.03	1.67	1	7
	Public	966	1.95	1.70	1	10
	Animsect	50	2.72	2.07	1	9



	Group Industry	n	М	SD	Min	
	,	212			MIIN	Max
	A -1 +	212	7.22	2.69	1	10
	Adopt	63	9.68	0.80	6	10
	Retiredowner	560	9.41	1.36	1	10
	Advocacy	165	9.70	0.96	1	10
What percentage should be adopted as pets?	Greyvet	38	7.13	2.43	1	10
be adopted as pets:	Nogreyvet	90	8.80	1.83	2	10
	Vettech	33	9.48	1.09	5	10
	Public	1035	9.40	1.49	1	10
	Animsect	52	8.83	1.99	1	10
	Industry	223	2.21	1.17	1	5
	Adopt	59	4.34	0.78	3	5
	Retiredowner	523	3.46	1.20	1	5
Training racing	Advocacy	159	4.04	0.91	1	5
greyhounds with live animals on the lure is	Greyvet	39	2.46	1.34	1	5
common	Nogreyvet	95	3.55	0.90	2	5
	Vettech	33	3.27	1.07	1	5
	Public	962	3.68	1.09	1	5
	Animsect	54	3.07	1.15	1	5
	Industry	225	4.29	1.14	1	5
	Adopt	59	4.86	0.73	1	5
	Retiredowner	539	4.83	0.62	1	5
Training with live animals on the lure is	Advocacy	162	4.87	0.65	1	5
unacceptable, regardless of whether or not it is	Greyvet	40	4.83	0.68	1	5
	Nogreyvet	97	4.98	0.14	4	5
legal -	Vettech	34	5.00	0.00	5	5
-	Public	1010	4.84	0.64	1	5
-	Animsect	56	4.89	0.56	1	5



Table continued							
	Group	n	М	SD	Min	Max	
	Industry	223	2.25	1.21	1	5	
	Adopt	58	2.28	1.35	1	5	
	Retiredowner	528	2.12	1.20	1	5	
Some racing greyhounds	Advocacy	154	2.21	1.22	1	5	
will not chase unless they are trained using	Greyvet	39	2.15	1.07	1	5	
live animals on the lure	Nogreyvet	96	2.04	1.03	1	5	
	Vettech	34	1.85	0.89	1	4	
	Public	957	2.19	1.19	1	5	
	Animsect	52	2.17	1.29	1	5	

## Industry members within and outside NSW

Most of these results did not violate the assumption of homogeneity, so F-statistics are reported except in cases where there is an asterisk next to the F-value. In these cases, a Welch statistic has been reported due to a violation of the assumption of homogeneity.

F-statistic	df	р	Post-hoc results: Industry varies from other groups
0.18	3, 331	NS	-
0.89	3, 331	NS	-
1.71	3, 331	NS	-
1.65	3, 331	NS	-
0.33	3, 331	NS	-
1.43*	3, 8.2	NS	-
0.33	2, 162	NS	-
1.13	2, 167	NS	-
17.85*	2, 19.1	<0.001	Data not suitable for post-hoc analyses
1.07	2,171	NS	-
	0.18 0.89 1.71 1.65 0.33 1.43* 0.33 1.13 17.85*	0.18       3, 331         0.89       3, 331         1.71       3, 331         1.65       3, 331         0.33       3, 331         1.43*       3, 8.2         0.33       2, 162         1.13       2, 167         17.85*       2, 19.1	0.18       3, 331       NS         0.89       3, 331       NS         1.71       3, 331       NS         1.65       3, 331       NS         0.33       3, 331       NS         1.43*       3, 8.2       NS         0.33       2, 162       NS         1.13       2, 167       NS         17.85*       2, 19.1       <0.001



Table Continued				
ltem	F-Statistic	df	р	Post-hoc results: Industry varies from other groups
Age of education for racetrack chasing	3.92*	2, 12.3	0.048	Data not suitable for post-hoc analyses
Before rearing experiences – interactions with unfamiliar people	2.39	3, 324	NS	-
Before rearing experiences - friendly interactions with animals other than dogs (e.g. time with pet cats, livestock)	1.63	3, 314	NS	-
Before rearing experiences – interactions with dog breeds other than greyhounds	0.43	3, 316	NS	-
Before rearing experiences - outings into unfamiliar environments (e.g. the beach, city centre)	1.14	3, 318	NS	-
During rearing experiences – interactions with unfamiliar people	0.96	3, 315	NS	-
During rearing experiences - friendly interactions with animals other than dogs (e.g. time with pet cats, livestock)	0.63	3, 323	NS	-
During rearing experiences – interactions with dog breeds other than greyhounds	0.43	3, 319	NS	-
During rearing experiences - outings into unfamiliar environments (e.g. the beach, city centre)	2.06	3, 318	NS	-
During career experiences - interactions with unfamiliar people	0.60	3, 308	NS	-
During career experiences - friendly interactions with animals other than dogs (e.g. time with pet cats, livestock)	0.36	3, 315	NS	-
During career experiences - interactions with dog breeds other than greyhounds	0.93	3, 307	NS	-
During career experiences - outings into unfamiliar environments (e.g. the beach, city centre)	0.53	3, 318	NS	-
How often do you use rewards to encourage chasing (e.g. allow the dog to catch the lure when the race is finished)	3.96*	3, 8.2	NS	-
How often do you break dogs in yourself	4.68	3, 323	0.003	NSW significantly different from rest of Australia (p = 0.041)
How often do you use a specialized education centre to break dogs in	0.89	3, 11.0	NS	-
How often do you use a more experienced or retired greyhound to teach my pups to race	1.26	3, 322	NS	-
How often do you use a more experienced or retired greyhound to help get the pups used to the racing kennels	1.13	3, 320	NS	-



Table Continued				
Item	F-Statistic	df	р	Post-hoc results: Industry varies from other groups
How often do you use a more experienced or retired greyhound to get pups used to a new enclosure	0.79	3, 319	NS	-
How often do you pre-train dogs before break-in (e.g. To the lures and racetracks)	0.63	3, 322	NS	-
I support use of the follow-on lure, in which the greyhound is able to catch the lure at the end of the race, being used in trialling and racing.	1.59	3, 342	NS	-
I would accept a national accreditation system in which I would be required to maintain minimum education standards each year in order to maintain my licensing.	7.07*	3, 13.1	0.005	NSW significantly different from UK/Ireland (p = 0.012)
Level of interest: Swimming pools for racing greyhound training	0.78	3, 329	NS	-
Level of interest: Drag lure as early education	9.03	3, 327	< 0.001	NSW significantly different from UK/Ireland and rest of overseas (all p $< 0.01$ )
Level of interest: Controlled bull rings for early training	5.73	3, 327	0.001	NSW significantly different from UK/Ireland and rest of overseas (all p $< 0.05$ )
Level of interest: Workshop on socialization techniques	0.85	3, 325	NS	-
Level of interest: Workshop on training techniques	0.40	3, 328	NS	-
Level of interest: Workshop on rearing methods	0.64	3, 325	NS	-
Research could help the greyhound industry understand best practice for racing greyhound training.	7.79*	3, 12.5	0.003	No significant differences post-hoc
Research could help the greyhound industry understand best practice in racing greyhound socialization.	3.70*	3, 12.6	0.041	No significant differences post-hoc
Research could help the greyhound industry understand best practice in racing greyhound handler education.	4.95*	3, 12.4	0.018	No significant differences post-hoc
Research would not tell me anything I don't already know about racing greyhound management.	1.35	3, 332	NS	-
If the results of a racing greyhound research study suggested doing something that I disagree with, I would disregard the findings.	2.07	3, 331	NS	-
Greyhounds are different from other dog breeds, so research about training other breeds is irrelevant to racing greyhound training.	0.70	3, 335	NS	-



# Descriptive statistics between industry members from different areas

Group number of participants (n), means (M), standard deviations (SD), minimum (min), and maximum (max) responses for items which were significantly different.

	Group	n	М	SD	Min	Max
Age of being broken to the lead	NSW	141	6.70	3.57	0	16
	Rest of Australia	27	5.96	3.02	3	14
	UK/Ireland	5	3.80	0.84	3	5
	Elsewhere overseas	0	-	-	-	-
Age of education for racetrack chasing	NSW	142	14.55	2.81	2	24
	Rest of Australia	26	13.12	4.76	0	20
	UK/Ireland	5	13.00	1.23	12	15
	Elsewhere overseas	0	-	-	-	-
How often do you break dogs in yourself	NSW	260	2.63	1.61	1	6
	Rest of Australia	52	3.29	1.59	1	6
	UK/Ireland	11	3.82	1.78	1	6
	Elsewhere overseas	4	4.00	2.00	1	5
I would accept a national accreditation system in which I would be required to maintain minimum education standards	NSW	275	2.93	1.28	1	5
	Rest of Australia	54	3.15	1.25	1	5
each year in order to maintain my licensing.	UK/Ireland	12	4.08	0.79	2	5
	Elsewhere overseas	4	3.25	0.50	3	4
Level of interest: Drag lure as early education	NSW	265	4.02	1.15	1	5
	Rest of Australia	52	3.85	1.35	1	5
	UK/Ireland	11	2.55	1.57	1	5
	Elsewhere overseas	3	1.67	1.16	1	3
Level of interest: Controlled bull rings for	NSW	264	3.76	1.35	1	5
early training	Rest of Australia	52	3.48	1.45	1	5
	UK/Ireland	12	2.50	1.68	1	5
	Elsewhere overseas	3	1.67	1.16	1	3



Table Continued						
	Group	n	М	SD	Min	Max
Research could help the greyhound industry understand best practice for racing greyhound training.	NSW	267	3.57	1.03	1	5
	Rest of Australia	53	3.55	1.05	1	5
	UK/Ireland	12	4.25	0.45	4	5
	Elsewhere overseas	4	3.00	0.82	2	4
Research could help the greyhound industry understand best practice in racing greyhound socialization.	NSW	270	3.43	1.03	1	5
	Rest of Australia	51	3.33	1.03	1	5
	UK/Ireland	12	3.92	0.79	2	5
	Elsewhere overseas	4	2.75	0.50	2	3
Research could help the greyhound industry understand best practice in racing greyhound handler education.	NSW	268	3.47	1.11	1	5
	Rest of Australia	51	3.65	0.82	1	5
	UK/Ireland	12	4.08	0.52	3	5
	Elsewhere overseas	4	3.00	0.82	2	4



#### APPENDIX D

# Online survey: Racing Greyhound Management Practices & Perceptions Survey

In consultation with members of the racing greyhound industry and animal welfare advocacy groups, the research team constructed a survey. This survey was distributed widely using a secure online software provider, and was completed by existing industry greyhound owners, breeders, rearers, and trainers, veterinarians, members of animal advocacy groups, and by the general public. Completion of the survey by members of the industry helped us to benchmark existing greyhound management practices as well as perceptions and attitudes surrounding them, helping us understand how amenable they are likely to be to any changes recommended based on the literature and standards review. Completion by the general public permitted us to determine the extent to which public expectations align with industry realities. This is of crucial importance as a risk management objective, because public outcry over industry practices could be catastrophic for the industry and its sustainability as a whole.

This aspect of the project received approval from the La Trobe University College of Science, Health, and Engineering human ethics sub-committee (approval number S15/136).

#### 1. PARTICIPANTS

A total of 2,483 people (40% male) completed a survey related to racing greyhound management. The mean age of participants was 46 years, and 35% (n = 864) indicated that they lived in New South Wales. Another 15% of respondents were from Victoria, and 13% were from Queensland. While most respondents (74%) were from Australia, 13% were from the United Kingdom, and 7.5% were from the United States of America.

Survey participants reported the highest level of education they have received, and their employment status. Over one-quarter of participants reported that they have received either an undergraduate (29%) or postgraduate (28%) university degree, while 22% have obtained a trade certificate or TAFE diploma. A smaller percentage (13%) have completed Year 11 or Year 12, and just 5% did not proceed beyond Year 10. Nearly half (47%) of respondents were working full time, while 14% worked part-time, 14% indicated that they were self-employed and 12% were retired.

Respondents were asked to indicate whether they have ever owned a companion dog, and 77% reported that they currently own one. Another 15% reported that they have owned one in the past, but not now, and 9% have never owned a companion dog.

Participants indicated their affiliation (if any) with greyhound racing, and nearly half (45%) reported that they were members of the general public. Another 31% of respondents indicated that they owned a retired racing greyhound, 15% (n = 363) were members of the greyhound industry (i.e. a racing greyhound owner, rearer, trainer, or breeder), and 10% identified as part of an animal welfare advocacy group such as RSPCA, Animals Australia, or World Animal Protection (formerly WSPA). Among NSW participants, 33% (n = 285) of respondents indicated that they were a member of the racing greyhound industry and 40% (n = 340) identified as members of the general public, allowing for robust analysis between these two groups.



#### 2. MEASURES

We created a survey consisting of three sections, for completion by participants worldwide. The survey questionnaire can be found in its entirety in Appendix A. The first section contained nine demographic questions, including items related to whether the participant has ever owned a companion dog, their affiliation with the racing greyhound industry, and how often they attend greyhound races live at the track, watch them on TV, or bet on them. Participants who indicated that they rarely or never attend races were also asked to report the reason(s) why they do not attend.

The second section of the survey was completed only by participants who had indicated in the demographic section that they were a racing greyhound owner, rearer, breeder, or trainer. The items in this section were designed to create baseline information about the current state of practice by greyhound industry members. They included questions related to the types of socialisation experiences provided to dogs, ranking the attributes perceived as most important in a racing greyhound, and the number of dogs at various career stages that they own or care for. There were also items regarding the level of support for the follow on lure, and whether the participant prefers the follow on lure or the catching pen system at the end of a race. There were a total of 25 items in this section of the survey.

The final section was completed by all participants, and contained 14 items related to perceptions of the ways in which racing greyhounds are currently managed, as well as how they should be managed. Topics included socialisation practices, wastage rates, the general wellbeing of greyhounds in the industry, and the use of live animals on lures in greyhound training.

#### 3. PROCEDURE

The survey was created by the research team, in consultation with members of the racing greyhound industry and animal welfare advocacy groups. The survey was made available online for all participants, and in hard copy format for greyhound industry members in NSW who attended selected race meets. We recruited primarily through social media platforms, emails to Australian racing greyhound professional member bodies and emails to personal contacts of the research team. Individuals were encouraged to share the survey link with any of their contacts who may be interested. In particular, we targeted state-based greyhound industry groups outside NSW, animal advocacy groups, retired racing greyhound groups, veterinary groups, and the general public. GRNSW recruited industry members in NSW through their social media networks, by posting information about the survey on their website and by directly emailing their member database with an invitation to participate.

Data collection proceeded for  $3 \frac{1}{2}$  weeks in late June and early July 2015. It was expected to take approximately 15 minutes for each participant to complete the survey.

## 4. ANALYSIS

As only eight participants completed the hard copy version of the survey, hard copy and online responses were combined for analysis. Descriptive data were calculated to observe trends among various groups of participants, including: industry members in NSW, industry members in the rest of Australia (excluding NSW), industry members from UK/Ireland, general public in NSW, general public in the rest of Australia (excluding NSW), and general public UK/Ireland. This was to provide context for the ways in which respondents from NSW, and industry member responses, compared to practices and perceptions across the rest of Australia and internationally.



We used analyses of variance (ANOVAs) to compare stakeholder groups among all survey participants on a range of perceptions about racing greyhound management. These stakeholder groups included: industry members, racing greyhound adoption workers, owners of retired racing greyhounds, animal advocacy group members, veterinarians who regularly work with racing greyhounds, veterinarians who do not regularly work with racing greyhounds, veterinary technicians/nurses/students, employees of another animal sector, and the general public. We also compared industry members within NSW with industry members outside NSW on current greyhound management practices. For each of these analyses, the alpha level was set at 0.05; therefore, any result where p < 0.05 was considered significant.

#### 5. RESULTS

The results presented throughout the body of this report consist of selected descriptive and frequency results from the survey, as well as the results of the ANOVAs comparing groups. The frequency data for all items on the survey are available in Appendix B. The ANOVA results for group comparisons are available in Appendix C.

#### 5.1. Survey Descriptive results

#### 5.1.1. Attending greyhound races

Participants indicated how often they attend a greyhound race live, watch one on TV, or bet on a race. Comparisons showed reported attendance rates and wagering varied between NSW Industry members, Australia Industry members (excluding NSW), NSW General Public, and Australia General Public (excluding NSW) (see Figure 1).

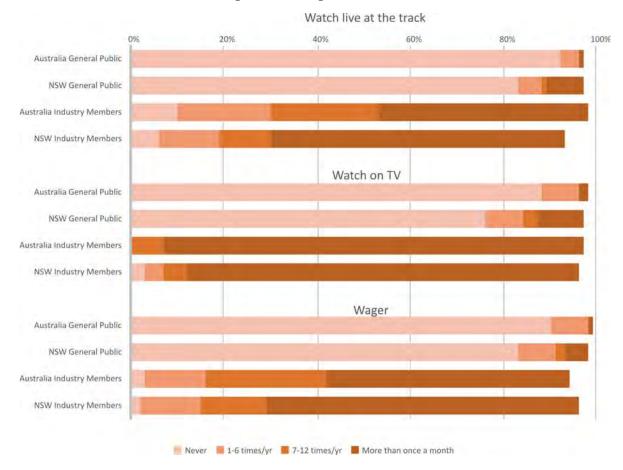


Figure 1: Frequency with which participants watch races like at the track, watch them on TV, or bet on them, among Australia (ex-NSW) general public, NSW general public, Australian industry members outside NSW, and NSW industry members



It is clear from Figure 1 that industry members attend greyhound races, watch them on TV, and bet on them, much more frequently than members of the general public, most of whom have never attended, watched, or bet on a race.

#### 5.1.2. Non-attendees

Survey respondents who indicated that they rarely or never attend greyhound race meetings were asked the reason for this. Among industry participants who do not regularly attend, being too busy or having concerns about the welfare of the animals were the most commonly responses, selected by 38% of NSW respondents and 50% of participants elsewhere in Australia. Among the general public, a majority of participants from NSW and the rest of Australia indicated that they were concerned about the welfare of the animals (NSW: 87%; rest of Australia: 83%) or that they would not find it enjoyable (75% for both groups). Some participants also wrote in that they do not believe greyhounds should race (5% for both groups), or that they believe it is cruel and/or exploitative to dogs and/or humans (9% in NSW, and 13% elsewhere in Australia).

#### 5.1.3. Current practices among industry members

Participants who identified as a greyhound owner, breeder, rearer, or trainer, were asked to complete a section describing their current greyhound management practices. When asked to describe their role(s) in the greyhound industry, the most commonly selected response was a racing greyhound owner, which was selected by 83% of NSW industry member respondents and 90% of respondents from elsewhere in Australia. Additionally, 63% of NSW industry member survey participants, and 58% of Australian (excluding NSW) identified as trainers, and 49% of NSW industry member respondents (61% of Australian industry members) reported that they are a breeder.

## 5.1.4. Racing greyhound industry member groups

More than half (57%) of the NSW industry members indicated they were a member of a racing greyhound member representative group. As shown in Figure 2, most of those (37% of NSW industry member survey participants) identified as members of the NSW Greyhound Breeders, Owners & Trainers Association (GBOTA).

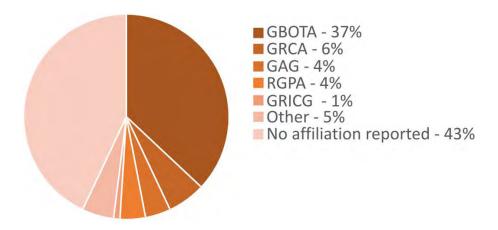


Figure 2: Percentage of participants from NSW who indicated that they were members of a racing greyhound related industry group

Other member representative groups indicated were: NSW Greyhound Racing Club Association (GRCA), Greyhound Action Group NSW (GAG), Registered Greyhound Participants Association (RGPA), Greyhound Racing Industry Consultative Group.



#### 5.1.5. Self-rated experience

Industry respondents were asked to rate their level of experience with racing greyhound breeding, rearing, training, and ownership. Results are shown in Figure 3.

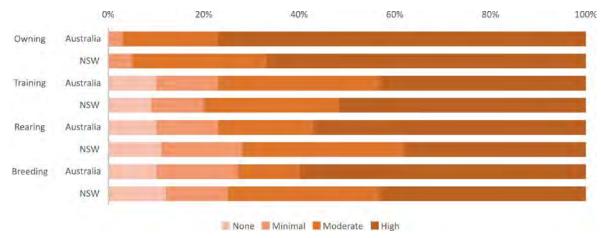


Figure 3: Self-rated experience of racing greyhound industry members

It is clear that participants generally rate themselves above average on all four variables. Greyhound ownership received the highest average experience rating out of the four categories.

# 5.1.6. What is most important in a racing greyhound to industry members?

Respondents ranked a number of variables according to their perceived order of importance in a racing greyhound, from 1 (most important) to 13 (least important). There were 13 items total, including 'a keen chaser', 'mentally sound', and 'experiencing good welfare'. Mean average responses are shown in Figure 4. A lower mean indicates a higher level of importance placed on that particular item.

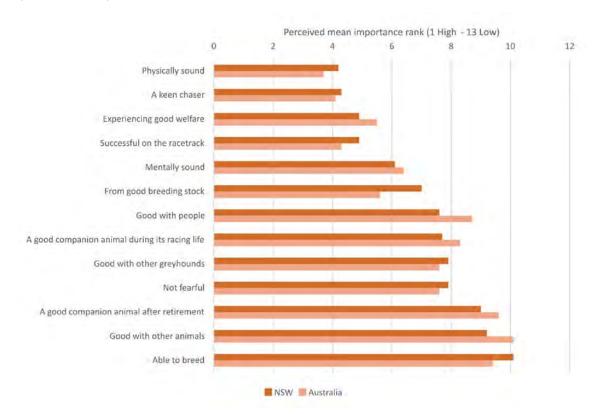




Figure 4: Mean responses for rank order items relating to the most important aspects of a racing greyhound. A lower mean indicates a higher importance placed on that item.

The three most important categories for NSW respondents were 'physically sound', 'a keen chaser', and 'experiencing good welfare', with 'successful on the racetrack' rated higher than 'experiencing good welfare' for Australian industry survey participants outside of NSW. Overall, there was less importance placed on the dog's ability to breed, whether they are good with other animals, and whether they would make a good companion dog after their racing career ends.

#### 5.1.7. Number of dogs owned

Participants listed the number of dogs at various stages in their career that they currently own, and that are currently living on the participant's property. Results for NSW are visible in Table 1 below.

Table 1: Percentage of NSW industry owners who selected zero, between 1 and 5, and between 6 and 10, when asked how many dogs of various career stages they own or are on their property

	NSW industry members (percent)						
	Own				On property		
Number of dogs	0	0 1-5 6-10			0	1-5	6-10
Brood bitches	24	73	3		31	65	3
Stud males	84	16	_		87	13	_
Pups with mother	82	8	10		84	3	10
Pups under 4 months old	82	10	8		85	5	7
Pups from 4 to 9 months old	44	36	11		62	20	9
Dogs over 9 months old	30	48	15		44	33	13
Dogs currently racing	18	65	13		26	57	12
Dogs resting/recovering	47	50	3	·	47	49	3
Retired dogs	23	67	10		23	67	7

Relatively few survey participants from NSW own stud dogs or young pups. Pups from 4 months of age until the beginning of their racing career oftentimes appear to be living off-property, based on the difference between the percentage of respondents who own dogs of this age and who have them on their property. This is also true of some racing dogs, although the dogs which are resting or recovering, appear to be doing so on the owner's property. Participants were asked whether any pups were born on their property in the past 12 months, and around a third from both NSW, and the rest of Australia, indicated that there were none. These participants were asked a series of questions about these pups. For instance, just over three-quarters (77%) of NSW respondents indicated that 100% of those pups survived to the time of weaning. When asked what percentage was still living on the property, 46% of NSW respondents reported that all pups were still on the property, while 20% reported that none of them remained. Respondents also indicated the percentage that were rejected from racing for a variety of reasons, including ill health, lack of chasing drive, or aggression, but nearly all participants from the NSW (84%) indicated that none of their dogs were rejected.



#### 5.1.8. Amount spent on dogs

Respondents reported the amount per month that they spend every month on their greyhounds. Given the large degree of variation reported, median results will be presented in Table 2 in addition to mean averages. This table displays the monthly amount of money spent by participants. Since 73% of participants in NSW indicated that this amount varies by career stage, Table 2 also includes information about the amount per month spent by participants in different stages of the dog's racing career.

Table 2: The number of respondents, mean and median amounts spent every month on greyhounds during different career stages

	n	M	Median
Overall	257	\$1,110	\$600
Whelping	107	\$793	\$350
Rearing	148	\$869	\$250
Breaking in	132	\$582	\$400
Pre-training	127	\$471	\$320
Training	132	\$372	\$240
Racing	127	\$339	\$200
Post-career	129	\$261	\$120

The median amounts appear to be more instructive than the mean averages for these items. Participants appear to invest heavily in the early education and training stages of their dogs, and this gradually decreases over the dog's life.

Due to the large variation in the amounts spent by participants on their dogs, we also developed categories of varying amounts for simplicity, as reported in Figure 5.

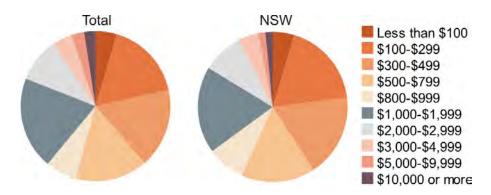


Figure 5: The amount spent per month on greyhounds, by industry members in NSW only

It is clear that approximately half of NSW participants spend between \$100 and \$799 every month caring for their greyhounds, while approximately 40% spend between \$800 and \$2,999. It is relatively rare for participants to spend less than \$100 per month or more than \$3,000 per month on their greyhounds.



# 5.2. Racing greyhound practices: benchmarking current practices

#### 5.2.1. Puppy development: racing career preparation milestones

Respondents were asked to indicate the age at which they wean their pups, introduce them to chasing stimuli, break them to the lead, break them in, and educate them to chasing. Results are shown in Figure 6.

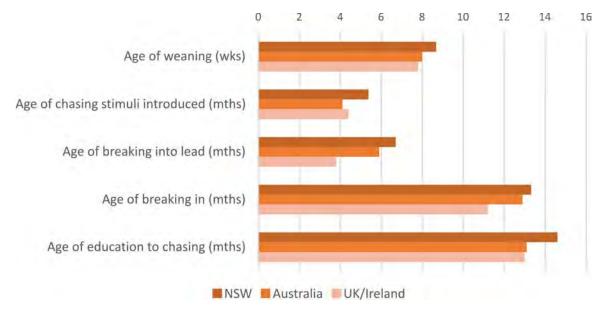


Figure 6: Showing mean average reported age of racing greyhound puppy preparation milestones

For NSW members, weaning age occurs at close to 9 weeks old (SD = 4.1); for the rest of Australia the average is 8 weeks (SD = 5.6), and in the UK/Ireland, pups are weaned at close to 8 weeks, with less variation reported (SD = 1.8). Participants from NSW are consistently later in most milestones compared to the rest of Australia and practices reported by UK/Ireland respondents, indicating that they introduce their pups to chasing stimuli at 5.4 months old (SD = 4.2), break the pups to the lead at close to 7 months (SD = 3.0), break the pups in at 13.3 months (SD = 3.4), and educate the dogs to chasing at 14.6 months of age (SD = 3.3). For the NSW participants, pups are introduced to chasing stimuli at 5.4 months (SD = 4.2), broken to the lead at 6.7 months (SD = 3.6), broken in at 13.3 months (SD = 3.4), and educated to chasing at 14.6 months of age (SD = 2.8).

#### 5.2.2. Puppy development: socialisation and life experiences

Participants were asked to report how often their greyhounds receive a range of socialisation and life experiences at different ages of the dog's life, such as physical contact with familiar people, interactions with dogs other than greyhounds, and outings into unfamiliar environments. These items were rated on a scale of 1-7, with 1 being never and 7 being at least once per day. The experience provided least frequently to pups was outings into an unfamiliar environment (NSW industry participants: M = 3.25, SD = 2.5). The experience provided most frequently was physical contact with familiar people (NSW participants: M = 6.91, SD = 0.7). This was also the case during rearing. Physical contact with familiar people was provided very often by NSW respondents (M = 6.89, SD = 0.8), but outings into unfamiliar environments were provided far less frequently (NSW participants: M = 3.46, SD = 2.6). During the racing career, friendly interactions with animals other than dogs were provided less often than other items by NSW participants (M = 3.46, SD = 2.8).



#### 5.2.3. Puppy development: social contact & housing during rearing

Respondents who rear greyhounds were asked how many pups are reared together in the same enclosure, and more than half (55%) of NSW participants indicated that between four and six pups are reared together. One half (50% of NSW respondents) reported that they keep their pups both indoors and outdoors. We asked participants to write the length and width of their indoor space and their rearing yards; however, some of the responses were nonsensical (e.g. an indoor space that is 3km long by 1.5km wide), making interpretation of these results difficult. It is likely that some participants had difficulty estimating the size of these spaces, or they provided entire property dimensions, or a total amount in m² rather than indicating the length and the width of each space individually.

#### 5.2.4. Preparing to race

Survey participants were asked to indicate how often they engage in a variety of different greyhound training and management practices, such as straight run or paddock rearing, sight or sound stimuli to encourage chasing, breaking the dogs in themselves or at a specialised breaking in centre, and using a more experienced greyhound to teach pups about racing. Response options were provided on a scale of 1 to 5, with 1 being never and 5 being always. Results are visible in Figure 7.

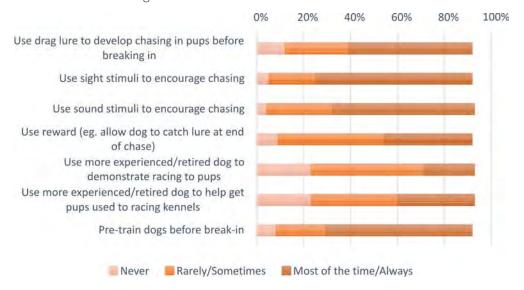


Figure 7: Showing reported frequency of practices by NSW industry members

The item, 'how often do you permanently kennel pups until they are broken in' had the lowest mean for responses from NSW (M = 2.22, SD = 1.6). The item with the highest mean for NSW (M = 4.25, SD = 1.0) was 'how often do you have more than one person handle your pups'. These results indicate the relatively few people commonly kennel their pups permanently before breaking in, but many people often have more than one person handle the pups.

#### 5.2.5. Activity for race-fit dogs

Respondents provided information about the amount and types of exercise that they provide their race-fit dogs. The least commonly provided exercise type was street walks, at 2–3 per week among NSW participants. However, even though these walks were provided less often than other exercise types, they were provided for a longer period of time than any other exercises. Among NSW participants the average length of time for a street walk was 30 minutes.

The exercise type provided most often was free running in the paddock (NSW participants: M = 6.94 per week). Each paddock free run lasted for an average of 16.5 minutes according to NSW respondents.



# 5.3. Comparing types of lure

#### 5.3.1. Follow on lure versus catching pen

Participants were asked to report their level of support for the use of the follow on lure, in which racing greyhounds have the opportunity to grab the lure at the end of a race. Results are reported in Figure 8.

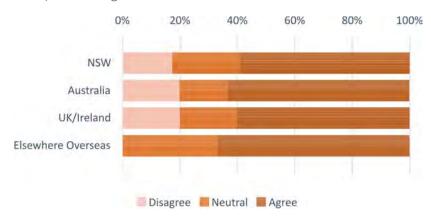


Figure 8: Respondents across different geographic areas report the extent to which they support the use of the follow on lure

More than half of participants within NSW and across the total sample agree or strongly agree that they support the follow on lure in racing. A relatively small percentage disagree or strongly disagree with the statement.

We also asked participants to report whether they prefer the follow on lure or the catching pen, in which dogs are secured in a pen at the end of the race and they are unable to catch the lure. For 45% of respondents within NSW, the catching pen is the preferred method of finishing a race, while 39% expressed a preference for follow on lure. However, 10% participants indicated that they were unsure of which was preferable, and a small percentage (3%) suggested that both options should be available.

#### 5.3.2. Quantitative responses

Participants were asked to report the reason why they prefer one lure type in a text based response. Some particularly insightful comments are highlighted in Table 3 below.

#### Catching pen preferred

I have greyhounds which have endured injuries requiring euthanasia. Greyhounds have had their tails severed and crushed within the rollers and wheels and cable of the lure carriage. Those tails then require amputation surgery. Greyhounds lose their teeth and crush their muzzles when catching the lure. Greyhound have had their legs caught in the carriage and stripped their muscles and tendons off bones... Greyhounds have rehired sedation to have their necks manipulated after catching the Follow on lure...The injuries suffered has to shorter racing careers compared to greyhounds finishing their races in catching pens... The lure does not improve chase nor make the greyhound chase harder, once the greyhound knows it going to catch the lure all the time, many greyhounds no longer try improve their position in a race and just follow the leader. Greyhounds which fight just attack the other greyhounds at the end of the race regardless if the Follow lure is there or not. High cost in replacing muzzles, the greyhounds crush their muzzles when grabbing the lure. Those using the high mesh muzzles harm the dog teeth and cut gums. The follow on lure, just simulates live baiting, and is a substitute for those trainers, who do not have other methods or skills of training greyhounds.



It is the tried and true method. As long as the catching pen staff are fully trained in the operation of the pen, you should not have a problem.

The use of follow on lure makes the dog not compete because it learns that it can still get it regardless of first or last. A dog needs to learn to compete against its fellows. Pack behaviour needs to be encouraged to have your dog become alpha.

If follow on lure did not have to stop in a designated area would be better. Currently with follow on lures finishing in designated position, the lead dog who may have won easily, can grab on when lure is stopped. This dog could also be potentially at risk of the dogs following in injuring it as they want to grab onto the lure. These dogs could be moving at a high speed and hit the dogs trying to get the lure.

#### Follow on lure preferred

I prefer the follow on lure in general because dogs are less likely to be attacked or injured at the end of a race. However, one greyhound I trained would get over keen when she got to catch the lure frequently (sometimes I had no option but to trial at a trial track where there was no catching pen) being over keen meant she lost her track sense and didn't look out for interference and so didn't perform as well as when she was a bit calmer. The dam of the above greyhound however ceased to enjoy her races because she was usually attacked in the catching pen (it got to the point where she was reluctant to even enter the track kennels before the race meeting). When the finish on lure was available at [location removed] I took her there - after one race behind the finish on - where she didn't get attacked at the finish - she regained her enthusiasm and raced much better and was much happier at the end of the race and looked forward to the next race. So the best lure depends on the personality of the particular dog.

Our greyhounds chase because of the thrill of the chase and because of their inherent competitive nature. Greyhounds are also social animals in that when they pull up at the lure they want to join in the game i.e. catching the lure with the pack. What I have found over the years is that greyhounds lose interest very quickly if the thrill of catching the lure is taken from them. They can lose interest very quickly from either recurring injuries and aches and pains, getting bumped in races and becoming field shy and many dogs do not chase hard into a catching pen because they have an aversion to being trapped in a confined space, i.e. the catching pen. I have had many dogs that have lost interest in the catching pen/lure system and several years ago I was encouraged to send my dogs to [location removed] to try on them on the follow on lure system. Well I can say, from my experience, that every dog that I have sent over, which is now coming up to 20, have been fully rehabilitated, in many cases have had a long career ad have become terrific pets. I truly believe it will help greyhounds have longer and fulfilling careers and also disincline trainers to live bait their dogs. To me it would be singlehandedly, the greatest welfare initiative that the industry could introduce and should be in Australia-wide

It rewards greyhounds for their efforts & shows the public that a greyhound is satisfied chasing & catching something other than a live animal.



There is no doubt that the FOL encourages greyhounds to chase better. That promotes better racing and lessens the need for trainers to 'live bait'. There is no doubt in my mind that trainers live bait to keep their greyhounds chasing. Some who are prepared to use live game do so to obtain an advantage and as a consequence are opposed to the FOL as it would lessen their advantage. It should be noted that many trainers who were opposed to the FOL have also been caught live baiting (especially in [location removed]). I have been extremely active in trying to have the FOL introduced and think this is one of the most important aspects in greyhound racing. It sickens me that some trainers complain about the lack of hormones and the lack of skins and carcasses and don't say much about the FOL.

# Table 3: Catching pen preferred Text based responses explaining why respondent prefers the catching pen or follow on lure at the end of a race

When all text-based responses were categorised, 18% of participants, in industry sample in NSW, who prefer the follow on lure indicated that there were fewer injuries to the dog likely. Also, 67% of NSW respondents indicated that it rewards the dog, creating a positive impact on chasing. However, 51% of participants from NSW who reported that they prefer the catching pen indicated that it results in fewer injuries.

# 5.4. Industry training

#### 5.4.1. Interest in training related resources

When asked whether participants would accept a national accreditation system, in which they would be required to maintain minimum education standards each year in order to maintain their licensing, 39% from NSW, indicated that they agreed or strongly agreed (see Figure 9). However, the same proportion from NSW, disagreed or strongly disagreed.

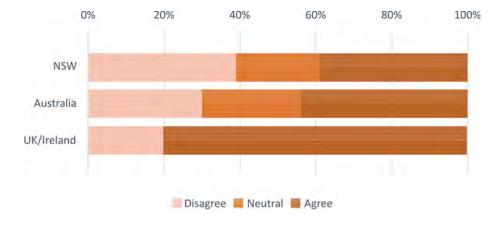


Figure 9: Showing acceptance for a national accreditation system linking education to licensing

Other Australian respondents were more supportive, with support approaching half (44%) of industry respondents.

Participants were asked to rate their level of interest in having a variety of resources made available near their property, on a scale of 1 to 5, where 1 = not interested at all and 5 = extremely interested. Results are visible in Figure 10.



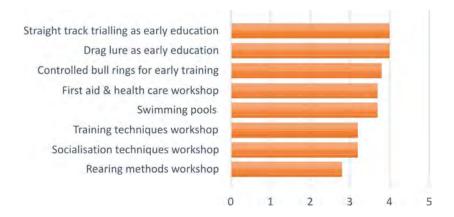


Figure 10: Mean levels of interest in a variety of resources as rated by NSW industry members

There appears to be a degree of interest in all the resources listed above, as all averages were above the mid-point of 2.5. However, interest in educational resources such workshops on socialisation and rearing techniques are lower than more technical resources such as swimming pools, drag lures, and controlled bull rings. The exception is workshops on health care and first aid for racing dogs, which rated at a similar level as controlled bull rings and swimming pools.

# 5.4.2. Role of research in greyhound management

Participants were asked to report their level of agreement with a variety of statements regarding research into greyhound management. As with the previous items related to interest in resources, these items were ranked on a scale of 1–5, where 1 = strongly disagree and 5 = strongly agree. Results are shown in Figure 11 below with items ranked 1–2 grouped as 'disagree' and items 4–5 grouped as 'agree'.

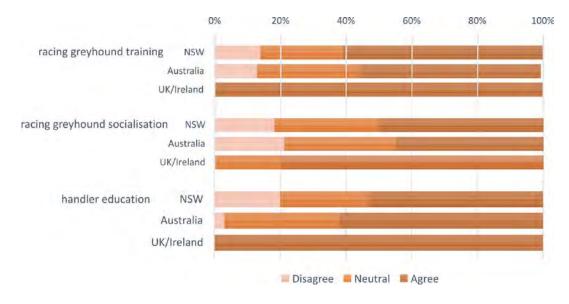


Figure 11: Extent to which participants agreed or disagreed with the statements 'Research could help the greyhound industry understand best practice for' racing greyhound training, socialisation and handler education.

Participants generally seem amenable to research examining the benefits of racing greyhound management, with moderately high means for items related to the potential for research to help the industry understand best practice in racing greyhound management.



Similar items, such as 'greyhounds are different from other breeds, so research about other breeds is irrelevant to racing greyhound training' and 'I would disregard the results of a study if they suggested something I disagreed with', suggests a nuanced perspective on the benefits of research, as illustrated in Figure 12.



Figure 12: Agreement with the statements 'I would disregard the results of a study if they suggested something I disagreed with' and 'greyhounds are different from other breeds, so research about other breeds is irrelevant to racing greyhound training'.

Both these statements were above the midpoint of 2.5 in NSW, as was the item 'research would not tell me anything I don't already know about racing greyhound management'. Therefore, this support for research appears to be qualified in some industry members, although the general trend appears to be acceptance and support for research into best practice of racing greyhound management.

# 5.5. Perceptions of racing greyhound management

#### 5.5.1. Exploring industry and general public perceptions

The final section of the survey was completed by all respondents, including industry members and people who are not currently involved in racing greyhound management. This included 2,483 participants in the total sample, of which 285 were industry members from NSW. Between-group comparisons will be reported from page XX.

Participants were asked to rate their level of agreement with a variety of statements, such as 'Greyhounds are generally well cared for while they are learning to race', 'The general public does not understand the sport of greyhound racing', and 'The greyhound industry has a responsibility to ensure that greyhounds are prepared for life as a pet after their racing career ends'. All items were rated on a scale from 1 to 5 where 1 = strongly disagree and 5 = strongly agree. Among the total sample, and consistent with NSW respondents, the item with the lowest mean was 'An acceptable percentage of racing greyhounds become adopted as pets when their racing career ends' (M = 1.81, SD = 1.1; All NSW respondents M = 2.00, SD = 1.2). The item with the highest mean was 'racing greyhounds should be kept in good physical health' (NSW: M = 4.83, SD = 0.5). Among industry members only, the item with the lowest mean was 'if a racing greyhound is not aggressive, that means it is experiencing good welfare' (M = 2.47, SD = 1.1), which was consistent with industry members from NSW (M = 2.52, SD = 1.1). As with the larger sample of all participants, the item with the highest mean for industry members worldwide was 'racing greyhounds should be kept in good physical health' (M = 4.85, SD = 0.40), which was also true of NSW respondents (M = 4.85, SD = 0.40).

One item asked people to rate their level of agreement with the items, 'The general public does not understand the sport of greyhound racing' and 'The racing greyhound industry has been unfairly portrayed in recent media reports'. Results for all respondents are shown in Figure 13 below.



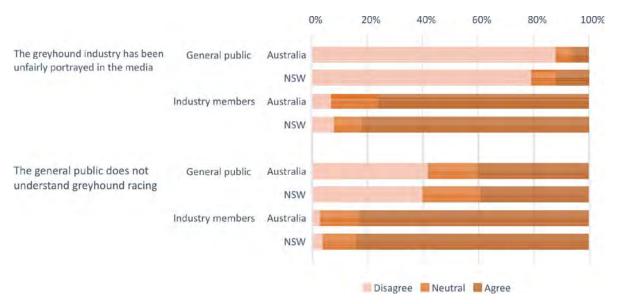


Figure 13: Level of agreement with two items related to general public perceptions and media portrayal of the greyhound industry, comparing industry members in NSW and the rest of Australia, and general public in NSW and the rest of Australia.

It is clear from Figure 13 that there are considerable differences between perceptions of these two items when comparing participants in the general public and industry members. The industry members more frequently agree that the media has unfairly portrayed the greyhound industry, and that the general public does not understand the sport of greyhound racing.

## 5.5.2. Laws governing greyhound management

Survey participants were asked to report whether the existing legal requirements for racing greyhound management were sufficient, and whether the enforcement of these requirements was sufficient. Among NSW industry members, 39% reported that the requirements were only somewhat sufficient, not really sufficient or not sufficient at all, compared to 18% of industry participants elsewhere in Australia. This is in stark contrast to the perceptions of the general public, of whom 82% from NSW (80% elsewhere in Australia) indicated that the requirements were only somewhat sufficient, not really sufficient or not sufficient at all. Results for the sufficiency of legal requirements and enforcement are shown in Table 4 below.

Table 4: Perceptions of sufficiency of legal requirements and enforcement in racing greyhound management within the total sample, all of NSW industry members, industry members elsewhere in Australia, and comparative members of the general public.

LEGAL REQUIREMENTS	Industry Mer	mbers	General Public		
FOR RACING GREYHOUND MANAGEMENT IN MY AREA	NSW	Elsewhere in Australia	NSW	Elsewhere in Australia	
Not sufficient at all	7%	4%	66%	67%	
Not really sufficient	12%	11%	10%	11%	
Somewhat sufficient	20%	3%	6%	2%	
Mostly sufficient	34%	39%	7%	3%	
Completely sufficient	15%	25%	<1%	<1%	
Too restrictive	4%	11%	2%	-	
I don't know	7%	7%	8%	16%	
There are no requirements	1%	-	<1%	1%	



ENFORCEMENT OF LEGAL	Industry Mer	mbers	General Public		
REQUIREMENTS FOR RACING GREYHOUND MANAGEMENT IN MY AREA	NSW	Elsewhere in Australia	NSW	Elsewhere in Australia	
Not sufficient at all	13%	11%	72%	70%	
Not really sufficient	17%	7%	13%	10%	
Somewhat sufficient	23%	11%	4%	3%	
Mostly sufficient	11%	36%	3%	2%	
Completely sufficient	11%	29%	<1%	<1%	
Too severe	2%	4%	<1%	-	
I don't know	7%	4%	6%	15%	
There are no requirements	1%	-	<1%	<1%	

## 5.5.3. Importance of socialisation practices

Participants were asked to report the level of importance they placed on greyhounds receiving a variety of socialisation experiences, such as toys to play with, interactions with animals other than dogs, and outings into unfamiliar environments. Items were rated on a scale of 1 to 5 with 1 being 'not important at all' and 5 being 'extremely important'.

Among the total sample, the item considered least important, with the lowest mean at 3.96 (SD = 1.2), was 'interactions with animals other than dogs (e.g. time with pet cats, livestock)'. The item considered most important, with the highest mean for the entire sample, was 'physical contact with familiar people' (M = 4.75, SD = 0.5). These patterns were consistent for industry member responses as well.

# 5.5.4. Reality versus preference in racing greyhound careers

Respondents were asked to report the percentage of greyhounds bred to race that end up having a racing career, when compared with the percentage that should have a racing career. These results are shown in Table 5 below.

To the best of your knowledge, what percentage of greyhounds bred to race actually participate in races?									
	0-20% 21-40% 41-60% 61-80% 81-100%								
Industry	NSW	9%	13%	21%	47%	10%			
	Elsewhere in Australia	3%	7%	26%	60%	4%			
General public	NSW	51%	28%	11%	8%	2%			
	Elsewhere in Australia	56%	29%	10%	4%	<1%			

What percentage of greyhounds bred to race do you think should participate in races?

		NO RACING	0-20%	21-40%	41-60%	61-80%	81-100%
Industry	NSW	<1%	1%	3%	9%	44%	43%
	Elsewhere in Australia	-	-	4%	11%	60%	25%
General public	NSW	60%	10%	2%	5%	15%	8%
	Elsewhere in Australia	67%	10%	2%	6%	10%	5%

Table 5: The number of greyhounds that do, and should, participate in races, among industry members in NSW and the rest of Australia, and the general public in NSW and the rest of Australia



There is a clear mismatch in perceptions and expectations reported by industry compared to the general public regarding both items. Industry members believed that a higher percentage of greyhounds bred to race participate in races than the general public. Additionally, more than half of general public respondents indicated that greyhounds should not race at all.

Participants were asked to indicate how many races they think a greyhound runs in its lifetime, and how many it should run. Among the full sample, 18% indicated that they probably race 21 to 40 races, 16% wrote between 11 and 20, 16% indicated between 41 and 60, and 15% wrote between 6 and 10. When asked how many races greyhounds should run, 21% wrote in that greyhounds should not race. Another 20% selected 41 to 60 races, and 19% indicated between 100 and 150.

#### 5.5.5. End of career perceptions

Survey participants were asked to report the most common reason why greyhounds stop racing. Among the total sample, 35% of respondents indicated that drop in racing form was the most common cause, with 28% indicating injury as the main reason. NSW Industry members were similar, with 51% reporting injury as the main cause, and 12% indicating a drop in racing form.

Participants were also asked to write a text-based response explaining why they believe that greyhounds stop racing for a particular reason. Some insightful comments are provided below.

My opinion of Greyhound trainers is that most don't understand dogs, dog training, nutrition, behaviour and health. I believe most look for quick solutions to problems they encounter in training preparation (which is one reason live baiting takes place -as a supposed quick fix to get dogs to run faster and with more motivation). Why can't Greyhound trainers use reward-based training methods to motivate dogs to race? Maybe there needs to be a massive education campaign to teach prospective and current trainers about diet, nutrition, housing, alternative training methods, and general welfare - a new generation of smart trainers (sorry - I'm just daydreaming aloud here!).

Injuries occur on the track all the time, when the injury becomes chronic such as soft tissue the greyhound should not race again. Broken bones on the track will lead to a shorter career. My adopted greyhound retired when she was 3 years old and had raced 45 times, she had muscle injury and had been badly spooked on the track by other greyhounds whilst racing, which lead to flesh wounds and mental wounds. She would not race to win anymore, was terrified of being hurt again by the other greyhounds and would slow down and let them pass, therefore she was not good for racing anymore. I adopted her and she immediately loved home life. I contacted the owner/trainer after I adopted her to find out about her history because she had quite a few issues that I was addressing but wanted to qualify. she was unsocialised, terrified of the outside world, but loved life at home, it took me a good year before she felt comfortable with other breeds of dogs and has always been very cautious of men around a certain age, 60's. was fortunate that that person who trained Sally also owned her and luckily he was happy to talk to me about Sally, he cared for her but he was very clear that she was not a pet and therefore was of no use after she could not race, she lived on his property but had never ever been inside his house, she was forced to swim with a rope and was terrified of water, he didn't think this was a problem. The years have gone by and Sally is now 11 and has had the most amazing life since she stopped racing, our family love her like she is one of our children.



Prey drive is important. You could have a dog that is physically perfect for running, in conformation and condition, but without prey drive, they won't win anything. A lot of my friends with retired racers say their dogs didn't care to leave the box, or they ran the wrong way, or they decided to go on a marking spree.

Perceived time restrictions in rest and recuperation as well as socialisation of young dogs results in trainers/owners often retiring before physical condition of dog dictates; a 4-6month lay off may allow a dog to return to racing where this is not convenient for a racing kennel manager.

Once a dog stops winning or is not even placed the owner gets rid of it. There are very few 2nd or 3rd chances.

Not all greyhounds will chase an artificial lure but most do, and they love it even though they know it's not real prey they still chase it and if they stay injury free. They will do so until they are too old to do it, so in my opinion it is old age that puts a stop to their racing days because they become too slow, and retirement calls.

Not all dogs want to chase & they don't all respond to training or not fast enough cause really at the end of the day they are just dogs who want to be loved & looked after & have a safe secure place to call home. The life of most greyhounds is a miserable existence moved from trainer to trainer across states etc. To see which trainer has the best gear to get the dog going quicker than the last trainer. No place to call home. In the hands of inexperienced backyard trainers. Welfare of the dog not important. Trainers only see the dogs as a money maker. Locked in small kennels most of the day. If they're not a good kennel dog (e.g., urinate/poo in their kennels) they will get hit/punched teeth knocked out, thrown into their kennel, they have nowhere to run away from their unregulated /uneducated trainer & that's how some trainers kennel break them & that's only some of what happens to them. I can't believe it's taken this long for an inquiry, shame on the body of people who were supposed to be looking after these poor dogs' welfare!

My understanding is most dogs never make it to the track, and a high percentage of these don't due to failure to chase. This is likely due to low chase drive, but other factors can result in failure to chase (poor health, poor training, dog interested in other things).

We asked respondents to indicate what percentage of greyhounds bred for racing end up being rehomed as pets after their career ends, and what percentage should be rehomed. A majority of the total sample (56%) reported that 10% or fewer greyhounds end up being adopted, and 70% reported that 100% of them should be.

Among all industry members, 36% reported that 10% or fewer greyhounds end up being adopted, while 18% reported 20%, and 16% reported that 30% are successfully rehomed. Just under one-third (30%) of NSW Industry members reported that 100% of greyhounds should be adopted post-career, while 20% indicated 50% and 13% indicated that 80% should be adopted.



#### 5.5.6. Perceptions of live baiting

Respondents were asked a series of questions related to the incidence of live baiting in the greyhound industry. When asked whether the use of live animals in greyhound training is legal where they live, 40% of the total sample selected the response, 'it is illegal to use live animals, but ethically sourced animal pelts/meat products are permitted', and 35% agreed that it is illegal to use live animals and ethically sourced meat pelts/animal products. Another 24% did not know.

When NSW industry members responded to this item, a small percentage did not know (4%), while 61% indicated that all animal products are illegal, and 35% reported that ethically sourced animal products are permitted.

Participants were asked to report whether there are any adequate substitutes for the use of a live animal on a lure that could result in a dog that is just as fast on the racetrack; results are shown in Figure 14.

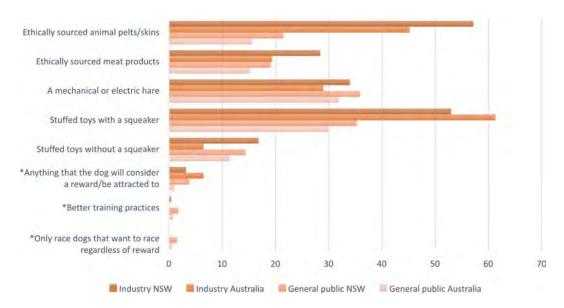


Figure 14: Percentage of participants who indicated that a variety of materials could be viable substitutes for live lures in greyhound training, among industry participants in NSW and the rest of Australia, and the general public in NSW and the rest of Australia.

The most popular choices for industry members were ethically sourced animal pelts and a stuffed toy with a squeaker. A stuffed toy with a squeaker was also commonly selected by the general public, along with an electrical or mechanical hare. However, the general public was less enthusiastic about the use of ethically sourced animal pelts in training than industry participants. Ethically sourced meat products and a stuffed toy without a squeaker were selected less often, while some participants reported that they did not know. Very few industry members reported that they did not know. A small percentage of respondents indicated that nothing would make a greyhound run as fast as a live animal does.

The final question on the survey asked participants to rate their level of agreement with a series of statements related to live baiting, and mean results are shown in Figure 15. The responses were on a scale of 1 to 5, where 1 = strongly disagree and 5 = strongly agree.



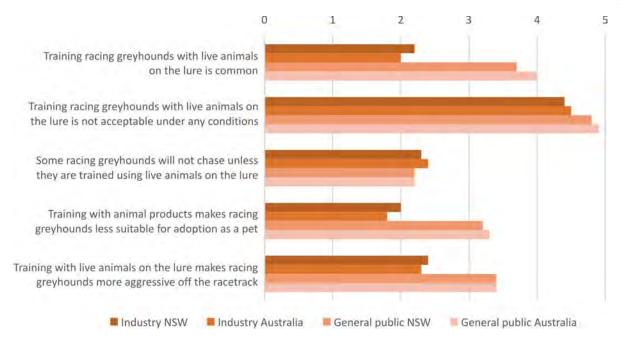


Figure 15: Mean levels of agreement with statements related to use of live animals on a lure in racing greyhound training, among industry participants in NSW and the rest of Australia, and the general public in NSW and the rest of Australia.

The statements suggesting that live baiting is unacceptable received the highest mean responses across all respondent groups. The statement 'some greyhounds will not chase unless they are trained using live bait' received the lowest mean responses, indicating strong disagreement with the statement. The statement that 'live baiting makes greyhounds less suitable for adoption as a pet' received the lowest mean score among industry members from NSW, indicating that NSW industry members do not agree with the statement. That item received higher mean scores among general public participants, as well as the item related to increased levels of aggression off the track. This would suggest that industry members do not perceive any lasting negative effects of personality and suitability as a pet if a dog is trained using a live lure.

# 5.6. Between group comparisons

We used analyses of variance (ANOVAs) to compare industry members and non-members, and participants within NSW and outside of NSW. Preliminary analyses revealed that, with the exception of the United Kingdom/Ireland, there was no significant difference between participants from overseas on a randomly selected set of 8 items; therefore, data from countries other than Australia or the UK/Ireland were combined for analysis. Furthermore, there was no statistical difference between groups when we compared the total sample of all participants with all participants from NSW; therefore, only results for the entire sample will be reported here. Full statistical results of the ANOVAs are available in Appendix C.

#### 5.6.1. Industry members from NSW and elsewhere

We compared industry members from NSW and industry members from other parts of Australia and the world on a range of items related to current greyhound management practice. There was no significant difference between industry members inside or outside NSW on most selected practices. There was a significant difference between groups on age of weaning and age of education to chasing. Both of these items were unsuitable for post-hoc analyses aimed at determining which individual groups were significantly different from each other. However, NSW industry members generally wean their pups at a later age than industry members from the UK/Ireland. NSW industry members also begin educating their pups to chasing later than members from elsewhere in Australia or in the UK/Ireland.



NSW industry members differ significantly from the rest of Australia on the item asking how often they break dogs in themselves. NSW members reported breaking their dogs in themselves less often than members in the rest of Australia.

They also varied significantly from the UK/Ireland when asked whether they would support a national accreditation system in which they would be required to maintain minimum education standards each year in order to maintain their licensing. Participants in NSW reported a lower level of agreement with this item than participants from the UK/Ireland.

NSW participants differ significantly from the UK/Ireland and from elsewhere outside of Australia on items related to their level of interest in having a drag lure available as early education, and controlled bull rings for early training. NSW participants had a higher mean score for this item than participants in the UK/Ireland or elsewhere overseas, indicating a higher level of interest in this resource. This was also the case for controlled bull rings, for whom NSW participants recorded a higher level of interest than UK/Ireland respondents or respondents from other parts of the world.

# 5.6.2. Differences between industry members and other stakeholder groups

Unlike the differences in practices between industry members in NSW and outside the state, which showed few significant differences, there were many significant differences between industry members and other stakeholder groups on items related to the perceptions of racing greyhound management. The other groups included in analysis were: adoption worker for retired greyhounds, owner of retired racing greyhounds, animal advocacy group member, veterinarian who regularly works with greyhounds, veterinarian who does not regularly work with greyhounds, veterinary technician, nurse, or student, member of the general public, and employee of another animal sector.

Several items asked participants to rate whether they agree that greyhounds are well cared for at various stages of their lives. Industry members differ significantly from all other stakeholder groups on each of these items, except for the item, 'greyhounds are generally well cared for once they retire from racing', which differed significantly from all groups except for veterinarians who regularly work with greyhounds. For all of these significant differences, industry members rated a higher level of agreement with these items than members of other stakeholder groups. The industry rated a lower level of agreement than all other groups on the item, 'the welfare of racing greyhounds is important to me', except for greyhound veterinarians and veterinary technicians, nurses, and students.

Some items were related to the extent to which the general public understands greyhound racing. For these items, industry members differed significantly from all other groups except for veterinarians who regularly work with greyhounds. However, the item 'the racing greyhound industry has been unfairly portrayed in recent media reports' saw a significant difference between the industry members and all other groups. In these cases, industry members had a higher level of agreement with those statements than other groups.

Participants rated whether they agree that the industry has a responsibility to prepare greyhounds for life as pets after their career ends, and other items related to this transition. Industry members differed from all groups when asked whether an acceptable percentage of greyhounds are adopted as pets, and all groups except greyhound veterinarians in agreeing that the industry is responsible for ensuring that greyhounds are prepared for life as a pet after their racing career ends. Industry members had a higher level of agreement with the statement that an acceptable number of greyhounds are adopted after their career ends, and a lower level of agreement with the statement that the industry has a responsibility to ensure that greyhounds are prepared for life as a pet post-career. When asked what percentage of racing greyhounds become adopted as pets post-career, industry members reported a significantly higher amount than adoption workers, animal advocacy group members, veterinarians who do not regularly work with greyhounds, and the general public. Industry members also had a lower mean rating than all other groups except for greyhound veterinarians when asked how many greyhounds should be adopted post-career.



When asked to report whether the legal requirements around greyhound management, and their enforcement, are sufficient, industry members reported a significantly higher level of sufficiency than every group except for veterinarians who regularly work with greyhounds. Significant differences were also observed between groups on a range of items related to the types of socialisation experiences that should be provided to greyhounds. For these items, industry members reported a significantly lower level of importance than all other groups, except for the items 'how important is it for greyhounds to have interactions with unfamiliar people' and 'how important is it for greyhounds to have toys to play with', which did not show any significant differences in post-hoc analyses.

When asked how many greyhounds end up racing, significant differences were observed between industry members and all other groups, with industry members rating a higher percentage of dogs that end up racing when compared with other groups. However, when asked how many greyhounds should race, industry members rated a significantly lower percentage than greyhound adoption workers, owners of retired racing greyhounds, animal advocacy group members, and the general public. Industry members also had significantly a higher mean than veterinarians who do not regularly work with greyhounds when asked how many races greyhounds actually run. When asked how many they should run, industry members rated significantly fewer than adoption workers and animal advocacy group members.

Participants completed an array of items related to live baiting in the greyhound industry. Industry members had a lower level of agreement than all other groups except greyhound veterinarians on the item, 'training racing greyhounds with a live animal on the lure is common'.

# 6. DISCUSSION

The aim of this Survey was to provide baseline information about the current state of greyhound management practice in NSW, elsewhere in Australia and around the world, and to determine differences in perceptions of the ways in which greyhounds should be managed, according to a variety of stakeholder groups. To our knowledge, this is the first study of its kind in the world.

Among current practices, when participants were asked to rank what is most important in a racing greyhound, industry members ranked the item 'experiencing good welfare' as the third most important out of 13 total. Industry participants also commonly provide their greyhounds with regular physical contact with people before and during the rearing process. Dogs are not often permanently kennelled before they are broken in, and more than one person regularly handles the pups.

Industry members appear generally interested in research to help them improve practices, but responses to some items suggest a lack of willingness to adopt all suggestions provided by research studies. Furthermore, participants are not particularly interested in workshops to improve socialisation, training, or rearing techniques. However, they are interested in workshops on first aid and health care for racing dogs. That many participants appear to believe that research into other breeds would not apply to greyhounds is telling. To our knowledge, there is no scientific evidence to suggest that greyhounds are substantially different from other dog breeds in the amounts and types of socialisation and rearing experiences that they need to experience good welfare. Therefore, it is likely that research on other breeds and breed types should apply to racing greyhounds, also. It will be important for industry groups to encourage members to: continue their professional development through ongoing educational programs, be open to changing certain practices if evidence-based research so indicates, and consider the welfare needs of their racing greyhounds in light of research into the welfare of other dog breeds.

The lack of interest in improving socialisation techniques is reflected in a number of items on the survey. For example, the items, 'a good companion animal after retirement' and 'good



with other animals' were ranked nearly last, at 11 and 12, out of the 13 most important things in a racing greyhound. Additionally, outings into unfamiliar environments are uncommon before and during rearing, and friendly interactions with animals other than dogs are not common during the racing career. Finally, street walks are less common than other types of exercise; they are provided just a few times per week. However, when they do occur, they may last for over half an hour, longer than any other type of exercise provided to the dogs.

There were few differences between industry members from different areas; however, there were responses from 31 Australian industry members from outside NSW, less than 15 UK/ Ireland industry members on various items, and just 5 industry members from elsewhere overseas. These very small samples reduce the likelihood of significant results. It is likely that if more participants were obtained from other parts of the world, there would be a larger number of significantly different practices between members from NSW and elsewhere.

Of particular concern is the differences between industry members and other stakeholder groups regarding greyhound welfare. Industry members are less likely than other participants to rate a high importance on the welfare of racing greyhounds, although the mean for this response among industry members was still very high. Participants from within the industry were also more likely to indicate that racing greyhounds are well cared for throughout various stages of their lives. However, industry members are less likely to place a high level of importance on a range of socialisation experiences for greyhounds. Furthermore, industry members are more likely to indicate that the current laws relating to the management of greyhound welfare, and the enforcement of those laws, are sufficient, than other groups.

Industry members reported that a higher percentage of greyhounds bred to race actually end up having a racing career when compared to other groups, but they reported a lower percentage that should race. Industry members are also less likely to agree that the industry has a responsibility to prepare greyhounds for life as a pet after their career ends, and more likely to agree that an acceptable percentage of greyhounds are eventually adopted as pets. They reported that a significantly larger number of greyhounds are adopted post-career than some other groups, and reported a smaller percentage of greyhounds which should be adopted post-career than most other groups.

Whether this discrepancy between industry members and other groups is due to industry members having a better understanding of greyhound industry reality, or having less awareness of what greyhounds need in order to thrive, is unclear. However, the willingness of industry members to accept a higher level of wastage than participants outside the industry needs to be addressed. Indeed, improving socialisation practices such that dogs are regularly exposed to a variety of different, positive experiences from the time they are pups could help resolve these high levels of wastage. Adequately socialised dogs would most likely be better prepared for life as a pet once the racing career ends. However, they may also be better racers: socialised dogs should be less neophobic, and therefore enthusiastic about the excitement of race day. Behavioural research is warranted in order to determine the long-term effects of various socialisation practices on greyhound racing and adoption outcomes.

One challenge for the future is in changing long-held attitudes and beliefs about the best way to manage racing greyhounds, in order to improve welfare outcomes and reduce wastage rates for racing greyhounds. The theory of cognitive dissonance may provide some insights into how the industry may effect change in practice by altering attitudes and beliefs. An opinion piece described this theory in the context of a dog-related issue: tail-docking in pet dog breeds (Bennett et al., 2003). According to this theory, people sometimes engage in behaviours that do not accord with their attitudes and beliefs. In the case of tail-docking, breeders who cherish their pet dogs and want to ensure that they are experiencing good welfare, were engaging in a practice that most likely caused extreme acute pain, and sometimes chronic pain, to these dogs. In situations such as this, individuals find this disconnect (or dissonance) between behaviour and beliefs to be very uncomfortable, and so they make efforts to reduce this dissonance. In some cases, this might be changing the behaviour, but in others it might be finding reasons why the behaviour actually is justified by one's beliefs. Some breeders may have stopped docking, while others suggested that it is necessary for the dog's health as an adult (e.g. to reduce the incidence of tail injuries).



According to the cognitive dissonance theory, people who have already engaged in a behaviour that does not accord with their beliefs are less likely to be willing to change the behaviour, and more likely to find reasons why the behaviour is necessary (Bennett et al., 2003). This is because changing their behaviour would require an acknowledgement that they have been behaving in a way that was not ideal, which is uncomfortable for many people. However, over time, attitudes and beliefs can change, and behaviour changes can also result.

In the case of greyhound industry members, long-time owners, rearers, breeders and trainers may be resistant to changing socialisation and training practices in an effort to reduce wastage and improve post-career adoption rates, because this would require them to acknowledge that their past behaviours have been less than ideal for achieving these ends. However, industry members who are newer to greyhound management may be more amenable to changes, especially if they are educated on the ways in which different practices may improve racetrack performance and improve dog welfare. The results of the survey suggest that greyhound industry members are concerned about their dogs' welfare and their desire to chase; using those goals as a reason to alter management practices may be effective for some elements of the racing greyhound community.

A small number of participants (less than 20) contacted the research team with concerns about the content of the survey. Most of these individuals believed that the survey was too pro-racing; however, some industry members made contact because they felt that some of the questions were not worded correctly, making it difficult to respond. For example, on the item related to the legality of animal product use in greyhound training, one participant informed us that the response 'It is illegal to use live animals, but ethically sourced animal pelts/meat products are permitted' was unclear because ethically sourced animal pelts were permitted, but meat products were not. While we did consult with members of the greyhound industry when creating this survey, suggestions like these should be taken into consideration in the future, if surveys of this kind are distributed.

A final limitation of this survey is that, in our efforts to collect information on a broad range of topics, we were unable to go in depth on any of the topics covered. Future survey research should be narrower in scope, covering just one or two of the issues from this survey, but providing more nuanced detail. For example, we did not ask participants the length of time that their dogs wear muzzles during an average day. Therefore, information about this practice, which could have a large impact on greyhound welfare, is not available to us. On site visits, the research team observed a reliance on muzzles to reduce undesirable behaviours such as bed chewing. If the practice of muzzling dogs all day is widespread, then this is of real concern from a welfare standpoint, and education about the importance of managing undesirable dog behaviour in a way that does not impact their welfare is advised.

To conclude, greyhound industry members are engaging in a variety of practices to benefit their dog's welfare, and they place a high level of importance on meeting those needs. However, there are considerable differences between industry members and other stakeholder groups regarding what greyhounds need to experience a positive welfare state, and they accept higher rates of wastage than other groups. In order to improve welfare and wastage outcomes for greyhounds, as well as perceptions of the industry by members of other stakeholder groups, educational campaigns should aim to address the limited socialisation practices currently engaged in by the industry.