Cross-jurisdictional Management of Feral Camels to Protect NRM & Cultural Values
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Project Newsletter (No. 3, January 2008)

New Memberships of Steering Committee

The Steering Committee of DKCRC Camel Project welcomes two new members: Tony Pople and Phil Gee. Thus the Committee has 11 members bringing together a group of people from different backgrounds with an interest in camel management.

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<th>Affiliation</th>
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<tbody>
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Project progress

1. Steering Committee Meetings

- The Steering Committee held its 5th meeting in Brisbane on 12 September 2007. Two new members were invited to become members of the Steering Committee. The meeting heard from Glenn Edwards and Benxiang Zeng about progress on the project with a focus on the stakeholder attitudinal study, the review of legislation, the pet meating case study and the impact evaluation. It was also agreed that two new sub-projects would be commissioned, one focusing on modelling feral camel management options and the second undertaking a study to identify whether an ‘Achilles Heel’ could be identified for feral camel control. The next Steering Committee Meeting will be held in Alice Springs in early 2008.

A group of stakeholders from Queensland were invited to attend the afternoon workshop to share information and discuss the progress of their projects (Figure 1) and hear about a mobile abattoir. The closer collaboration between the DKCRC/NHT camel project and other related projects across the country was also discussed.

![Figure 1: The afternoon workshop on camel management in Brisbane on 12 September 2007](image)

2. Major infrastructure information collected

More information about the major infrastructure has been added to the project’s camel maps.

This map shows camel distribution, land tenure, local communities, the road system and the Dog Fence over the feral camel range (Figure 2). This data plus the information already included in the database will be used to help develop a range of recommended management options.

This map also shows the dog fence is actually a barrier for feral camels spreading into the south-eastern coastal area. Feral camels are known to cause damage to the Dog Fence in South Australia but it appears that the maintenance of an effective barrier is serving a two-fold purpose.
3. Survey of stakeholder perspectives on camel management

A key component of the research being undertaken is to determine the attitudes of landholders and managers across the feral camel range to management options, as well as to collect on-the-ground information on the impacts of feral camels. Benxiang Zeng carried out surveys of four Western Australian settlements in June 2007 and currently Petronella Vaarzon-Morel, a consulting anthropologist, and Waltja Tjutjangku Palyapayi Aboriginal Corporation (Waltja) are working in partnership to undertake surveys and discussions with a number of other communities in the Northern Territory, Western Australia and, subject to permits, in the APY lands of South Australia.

The twelve communities visited to date include four in Western Australia (Warakurna, Warburton, Blackstone and Kenpa) and eight in Northern Territory (Areyonga, Atitjere, Bonya, Titjikala, Walkabout Bore (an outstation of Titjikala), Finke, Yuendumu and Laramba). Of these, Finke was as a designated case study site where the researcher spent a period of 4 days working with the community. In total 90 Aboriginal people have been interviewed for the survey to date. In addition to these formal interviews some informal discussions with other members of the communities have also been held. The preliminary findings indicate attitudinal differences between age groups, different geographic areas, experiences with feral camels, as well as between the communities based on the type of land management undertaken in their area.

It is anticipated that all survey and consolidations will be completed by the end of March 2008. It is hoped that around 30 Aboriginal communities across the camel range will be surveyed.
The survey of pastoralist attitudes is also ongoing and to date 61 pastoral properties across the feral camel range have been surveyed, including 25 in Western Australia and the rest in the Northern Territory. Rural Solutions of SA has been engaged to survey pastoralists in South Australia and Western Australia. A smaller number of pastoralists in Queensland will also be surveyed.

The final survey being undertaken is of the existing camel industry. Approximately 20 camel-related businesses – including camel abattoirs, pet-food companies, camel tourism businesses and pet meating operators – have been interviewed or surveyed in NT, WA, SA, Qld and NSW. Two key points are coming through. The first is that there is a need to get a coordinated supply of camels before any meat (human consumption or pet meat) operation is really feasible and profitable. The second is that the domestic market is likely a potential niche market which needs further attention in terms of public awareness and market creation. The survey and a related case study on pet meating are expected to be completed by the end of April 2008.

4. Review of Australian camel legislation

A team at Charles Darwin University has recently completed a comprehensive review of legislation relating to camels in Australia. More than 570 pieces of legislation from each jurisdiction where wild camels occur was assembled and reviewed for relevance to their management. Areas of analysis included ownership, legal obligation to control, legal obligation for welfare, access, welfare over-riding other access restrictions, environment/natural resource management, health, trade, culling (including firearms), processing and transport. Legislation was reviewed for inter-jurisdictional consistency and the potential for impediments to effective camel management. In each area inconsistencies in different jurisdictions were found that are likely to affect the management of feral camels. For each legislative area the group has made recommendations on potential means for ensuring consistency between jurisdictions and reducing legal impediments to camel management, particularly in remote areas.

The research has found some interesting pieces of legislation, including a legislation that forbids a person using another person’s camel without permission and another which allows individuals to impound a camel if it is unattended.

5. Documentation and evaluation of the impacts of feral camel

The documentation and evaluation of the physical and financial costs that feral camels cause, and their impact on management is continuing. The research is using a number of methods to determine a total cost to the Australian economy of large numbers of feral camels. Both the qualitative and quantitative information about camel impacts are being collected and documented. These data are coming from the surveys of stakeholders discussed earlier in this newsletter as well as reviewing existing literature, and on-the-ground field survey and monitoring. The information collected to date includes financial data of feral camel damage to infrastructure, photographic evidence showing impacts on the environment, descriptive information of impacts from stakeholders, and monitoring/field survey data of camels’ impact on waterholes and desert vegetation at sites in the Northern Simpson Desert (Figure 3).

The information will be analysed and where appropriate mapped. A report on the impacts of feral camel and associated management costs will be finished by May 2008.
6. Achilles’ heel review

The Invasive Animals Cooperative Research Centre have been contracted to undertake a desktop review to identify and compare all potential methods of chemical, fertility and biological control which could be used to control feral camels in Australia. The research will also develop suggestions for potential landscape-scale delivery options for any promising activities identified.

The final review will be submitted by June 2008.

7. Modelling feral camel management options

Steve McLeod (NSW DPI) and Tony Pople (Biosecurity Queensland) have been engaged to develop a model of feral camel management options for completion in June 2008. The model will be developed to answer some key questions regarding to efficient camel management, such as:

- What is the ecological carrying capacity?
- How long till current populations reach that level?
- What is the distribution of camels likely to be at that time?
- What is likely to be the most effective form of management?
- What is a sustainable yield for ongoing commercial use in different habitats?

The project will use the models to determine the management option that achieves the most cost-effective outcome for given density thresholds (assuming that density-damage relationships remain unknown), to calculate the rate of spread from historical records, to predict the distribution of camels at their ecological carrying capacity, and to determine areas of suitable habitat. It will also identify information gaps and suggest possible studies for critical knowledge gaps. The focus at this
stage is on the Northern Territory but the model will be able to be adapted to other states when suitable data are available.

8. Project communication

- The camel project webpage is online. The webpage briefly introduces the project and presents the project newsletters, media releases. The webpage address is: http://www.desertknowledgecrc.com.au/research/feralcamels.html.

- A Tri-state meeting about camel management in the Simpson Desert was held in Simpson Desert National Park, Birdsville QLD on 11 December 2007. The DKCRC camel project was invited to attend the meeting to introduce the project. Glenn Edwards, the project leader, introduced the camel project to around 20 participants from Queensland, South Australia and Northern Territory (Figure 4). Collaboration between the project and Queensland partners has meant that more information about Queensland has been added to the project database.

Figure 4: Glenn Edwards presenting the camel project at the Tri-state camel meeting in Birdsville.
Alice Spring News

On 6 December 2007, a local newspaper – Alice Springs News – published an interview with Glenn Edwards, the DKCRC Camel Project leader, entitled “Camels: threat or opportunity?” Glenn introduced the DKCRC camel project and addressed the impacts of feral camels on economy, environment and Aboriginal culture, and highlighted the major issues in an effective feral camel management.

Waltja Family News

Family News is a Newsletter published by Waltja Tjutangku Palyapayi Aboriginal Corporation (Waltja) based in Alice Springs. Since April 2007, it has published two articles about the DKCRC camel project and its collaboration with Waltja to deliver a community survey in Central Australia. The publication of the “camel story” has made the DKCRC project more visible to Aboriginal people.

Jocelyn Coventry from NT DPI has presented the camel project at the Bio-physics seminar held in Brisbane in October.

9. Coming events

Next Steering Committee Meeting will be held in Alice Spring NT in early 2008.

10. Other camel news

Property-based culling actions were taken in NT-SA border areas in November and December 2007.

Pet-meating operation is ongoing in WA Ngaanyatjarra lands.

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