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## TASMANIAN COMMUNITY FOREST AGREEMENT RESEARCH INTO ALTERNATIVES TO 1080

NEWSLETTER 9

June 2007

### Overview

May has been an exciting month, with nearly all grant deeds now started, and with the Project Officers also having gained relevant approvals to begin their work program in earnest.

The Implementation Committee met again this month, and has agreed to a number of new initiatives under the Program to progress research into both Repellents and Commercial Harvesting as Alternatives to 1080. More detail of these are included later in the Newsletter.

Finally, Morgan Edwards, who many people will remember as the Commonwealth Government representative at the initial workshops, has left DAFF to start a new career with AusAID. Morgan has been working tirelessly behind the scenes over the last 18 months, and his input, and good humour, will be missed.

### Grants Program Update

The first quarterly reporting round for the grant recipients is due at the end of this month.

Each grant recipient is required to provide a formal status reports that will be reviewed by the Technical Panel and Implementation Committee. Copies will be made available to members of the Stakeholder Advisory Group on request.

In the meantime, some recipients have continued to send some ad hoc updates and notices.

### Rural Development Services, Landholder Decision Making

Rural Development Services has a grant aimed at developing an in-depth understanding of landowner decision making relating to the use, and/or non-use of 1080 in managing browsing damage.

They will be holding a workshop on Friday 29<sup>th</sup> June, in Launceston, to bring together experts, key stakeholder groups and those directly affect by browsing damage to provide input and expertise into the design of the survey methods to be used in their project.

Rural Development Services would welcome enquires by farmers, or farming groups, who wish to find out more about the day or discuss their attendance.

For more information, contact Jodie Presnell by phone: 6231 9033 or email [jodie.presnell@ruraldevelopmentservice.com](mailto:jodie.presnell@ruraldevelopmentservice.com).

### Dr Edwards, Trapping



Figure 1 Minimising capture of non-target species is a key issue for trapping. This was one of three wombats caught over the course of 2007. Dr Edwards reports "They exhibit no apparent stress symptoms and when

approached and the trap opened, tend to be reluctant to leave”.

Dr Ivo Edwards has provided a report “*Trapping Browsers as a 1080 Alternative. 2007 Interim Report*” which he describes as being “a means of presenting the essence of results to date, explaining proposed research for the next few months, and summarising presently available trapping data”.

Dr Edwards is happy for this document to be circulated to interested parties for comment or discussion. It covers his trapping trials and research for the last year, thoughts on free feeding practices, cost issues with trapping, automatic feeders, second generation multi-entry traps and feeder containment compounds. Copies can be obtained by contacting the Project Manager (1080 Alternatives).



**Figure 2** A multi-animal gate trap prototype being developed by Dr Edwards. Multi- or large area animal traps have several potentially attractive characteristics over single animal traps, but further research is needed to identify if they can be used as an effective Alternative to 1080.

### **Dr Statham, Species Specific Delivery Mechanisms**

Dr Statham has begun trials of different ‘feeder’ delivery systems. He sent a photo (Figure 3) of a captive wallaby feeding from one delivery system developed in New Zealand and being evaluated as part of his trials.

He reported that both Bennett’s and Rufous Wallabies managed to work out

how to use these feeders in the first night with a food they had never been exposed to.



**Figure 3** Development of species specific feeder mechanisms is a key enabler for any alternative toxins or future fertility controls that may be developed as alternatives to 1080.

### **Project Officer Update**

The main focus for the Project Officers over the last two months has been bait preference trials for trapping.

The first trial was a four week baiting preference trial at three properties at Westbury.

Pre-baiting spotlighting showed that the numbers of rufous wallaby and brushtail possums seen over 3 nights was consistent within a property, but numbers varied between properties. The experimental design used five baits (carrots plus and minus aniseed, cracked maize plus and minus aniseed, and barley) with baits set out in 12 groups of 5. The bait lines were set in rows 10, 20 and 40 metres from the bush edge, giving a total of 180 bait stations on each property.

The preliminary results suggested that the uptake of carrots and barley was

comparable out to 20 metres from the bush edge but more carrots than barley were consumed at 40 metres. The uptake of maize was consistently less than both carrots and barley. Aniseed appeared to have little effect on carrot or maize bait uptake.

Based on this bait preference trial, a second trial, where traps were introduced into the experiment was held at one location at Westbury. The experiment was restricted to one site because of the number of Mersey Box Traps currently available. Sixty Mersey Box traps were deployed at the bush edge, with 12 replications of each bait. Trapping, in accordance with the *Code of Practice for the Capture and Destruction of Wallabies*, was then conducted over 3 nights. The results indicated that traps baited with carrots (irrespective of aniseed) and barley caught similar numbers of animals, and both carrots and barley-baited traps caught more animals than those traps baited with maize. More rufous wallabies were trapped in the first nights and more possums were trapped in the last night.

Preliminary conclusions from these trials were that carrots and barley performed equally well as an attractant to wildlife up to 20 metres from the bush edge and both carrots and barley-baited traps caught similar numbers of rufous wallabies and possums. Another conclusion was that aniseed as a bait treatment appeared to have little effect

Given that many farmers have barley on-farm as a stock feed, and the relative inexpensive cost to buy barley, a third trial was undertaken to explore whether barley treated with aniseed was more effective than barley without aniseed. Unfortunately a change in weather conditions during this trial saw it abandoned after free-feeding, but before trapping commenced.

### Future Work Program

The next stage of the program will be to explore whether large-scale trapping operations, with and without shooting, can reduce browsing damage on agricultural properties. In this context the Project officers have been contacting landowners in the north-east of Tasmania and undertaking property inspections to determine browsing damage, wildlife numbers via spotlight surveys and scat counts before a final decision is made as to the suitability of any properties for the long-term trials.

The commencement of these large trials will not only depend on finding properties with the right mix of browsing damage and wildlife numbers, but also on the arrival of the full compliment of Mersey Box traps and research approval by the Animal Ethics Committee of the shooting trials. It is planned to have obtained these traps and approvals in the next few weeks.

In addition to this field work, the project officers have been active in liaising with trap and trailer manufacturers. They also attended a recent trapping field day run by Forestry Tasmania.

### Repellent Workshop

The Alternatives to 1080 Implementation Committee are seeking to further investigate if odour based repellents can provide a commercially viable alternative to 1080 for wildlife browsing damage management.

A workshop is to be held in Hobart, Tasmania on Monday 9<sup>th</sup> July 2007 to identify promising repellents, develop a joint research project to evaluate the commercial effectiveness of the identified repellents and decide the most effective way of carrying out the research.

Individuals interested in either (a) putting forward repellents for appraisal by this project, (b) participating in the workshop on the 9<sup>th</sup> of July, or (c) carrying out the first stage as part of

their research program are asked to contact the Project Manager (1080 Alternatives) as soon as possible, and at least by close of business, Friday 22<sup>nd</sup> of June.

The Alternatives to 1080 Program has earmarked grant funds for this initial trial, and for research for any repellent(s) that sufficiently demonstrate commercial effectiveness in this initial trial.

Funding will be considered on a case by case basis to assist in airfares and accommodation costs for participants in the initial workshop.

*For more information contact John Dawson either by email [john.dawson@dpw.tas.gov.au](mailto:john.dawson@dpw.tas.gov.au) or by phone 03 6233 6728.*

### **Commercial Harvesting Trial**

At their meeting on the 16<sup>th</sup> May, the Implementation Committee initiated a three-month feasibility study for conducting a Research Program examining the effectiveness of commercial harvesting as a mechanism to control browsing damage.

The trial, to be carried out on King Island, will examine if land-holder issued quotas can be used as a tool for integrating commercial harvesting into crop protection and property based wildlife management plans within the Commonwealth Wildlife Trade Management Plan framework.

It will also trial alternative monitoring tools to improve the understanding of species abundance on the island and its relationship to browsing damage and harvesting levels.

The initial three-month assessment is to confirm that the required land-holder support and infrastructure is in place, that this proposal is in line with existing legislation, and that a Research Officer can be engaged for the Project.

A final decision to proceed is expected in August.

### **Grant Deeds**

As mentioned, five more grant deeds have now been signed, and this section gives a brief overview of these deeds.

More detailed methodology and research purpose information is contained in the deed and this can be made available to interested parties by contacting the Project Manager.

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#### **Humane Herbivore Control (Part 1): Registration and Buy-In**

*Duncan MacMorran, Connovation Pty Ltd, \$93,000.*

Cyanide formulations (Feratox® and Cyanara®) are potential alternatives to 1080 for browsing mammal management in Tasmania, offering advantages such as low environmental persistence. New cyanide products have been used for effective possum control in New Zealand over the last 8 years. Improvements in targeted delivery have increased specificity and reduced operator risk.

Feratox® was developed in NZ in liaison with RSPCA representatives and pest control professionals wanting to identify acceptable toxicants and improve the way pest control is achieved.

This grant addresses the question of whether alternative toxins can be registered and accepted for use in Tasmania.

Part 1 of this research program has two themes:

#### **Regulatory**

The purpose of this theme is to assemble and complete all documentation considered necessary for the registration of potassium cyanide as a toxicant for the control of wallabies and possums in Tasmania with the Australian Pesticides & Veterinary Medicines Authority (APVMA), in order to assess what additional information would be required, and whether the

registration of cyanide based products such as Feratox® is achievable.

### **Human Dimension**

Through targeted interaction with national RSPCA representatives, community groups and stakeholders establish the level of acceptance for cyanide, and specifically Feratox®, as a humane form of browsing damage control in Tasmania.

#### *Future Grant Deed*

Subject to a positive outcome in Part 1 of this research, funding has been offered to fund research into cyanide presentations that target wallabies and possums causing browsing damage, and to conduct preliminary pen and field tests of their efficacy against the two species.

This will identify optimal cyanide formulations and delivery method(s) for wider field-testing in Tasmania

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### **A performance-based contractor system for browsing mammal control.**

*Dr Phil Cowan, Landcare Research, \$26,270*

New Zealand has developed an effective performance-based contract system for reducing possum numbers, and this system underpins a \$50 million pest-control industry related to managing bovine tuberculosis.

The system is based on managers having an understanding of the relationship between pest abundance and resource protection, with performance targets set and contractors paid or not depending on whether the target reduction is achieved.

This project seeks to assess the suitability of performance-based pest-control for use in Tasmania by reviewing information on pest density impact relationships for forestry and agriculture systems, identifying gaps in this knowledge, reviewing the New Zealand

contractor system and how it could be effectively adapted for use in Tasmania.

The outputs from this project will be disseminated through a published report, and presentation to relevant stakeholders in Tasmania.

If this approach receives positive feedback from stakeholders, the Alternatives to 1080 Program may fund a field trial to test this further.

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### **New decision support tools to quantify and monitor the impact of herbivory of native wildlife on pasture and objectively identify alternative control mechanisms.**

*Prof. Tony Norton, TIAR, \$250,500.*

Native marsupial species such as Tasmanian Pademelon and Bennett's Wallaby, can cause serious browsing damage on native and introduced pastures supporting agricultural production.

This Project will develop new GIS tools that can be used to estimate the potential population density of native herbivores and their individual and combined impact on the availability of pasture for agricultural production at a range of spatial scales from paddock to catchment.

This will allow landholders and managers to undertake objective benefit-cost analyses of alternative control mechanisms in pasture production systems.

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### **Integrated Game Management at a Sub-catchment Scale**

*NRM North, \$150,000*

This project aims to review current property based game management tools to develop an integrated sub-catchment scale game planning module that can be implemented via the regional NRM property planning programs.

The project will include a demonstration project at Pyengana that will provide opportunities for adaptive learning to be incorporated into future property planning modules and establish standards for landholder monitoring and evaluation to ensure that current recommended best management practices are producing desired results for game management.

**Development of a species specific delivery mechanism**

*Dr Mick Statham, TIAR, \$51,000*

The objective of this project is to develop a target specific delivery system for use with chemical fertility control agents or alternative toxins. This Project will allow development and rapid screening of baits and baiting systems with a free living population of Bennett’s wallaby and Tasmanian pademelons as well as captive possums.

Potential systems will be field tested to assess the effectiveness against other non target species such as bettongs, ringtail possums and other native species.

**Curtin University, ARC Grant**

Dr Michael Parsons, of Curtin University, has been mentioned in a previous newsletter for his research into dingo urine as an odour based repellent.

Dr Parsons has done several small trials in Tasmania to test its effectiveness against wallabies, and is keen to participate in further trials with the Alternatives to 1080 Program.

His group has recently received an ARC funding grant of \$543,000 over four years to investigate “Dynamics of animal mediated vegetation establishment and persistence in disturbed landscapes”

The grant will help fund a multi-disciplinary project that will examine the total system effect of keystone predator

(dingo) urine used as a post disturbance repellent including long term effects on herbivores and other animals.

Remote sensing will be utilised as a tool to locate ideal landscapes for strategic delivery of the repellent and enable best management plan.

**Correction – No replicas!**

The last Newsletter included a photo on the second page with the caption “Dr Mick and Helen Statham at Connovation’s Factory. The small blue pellets are replica Feratox tablets.”

In fact the small blue pellets were the real thing. Due to the encapsulation of Cyanide inside the Feratox pellet, the pellets are considered quite safe for human handling in New Zealand.

I apologise for this mistake, and can attest from the e-mails I’ve received from Mick since then that he’s still alive and well.

**Upcoming Activities**

Date	Event
20 June	Implementation Committee Meeting.
30 June	Rural Development Services Workshop on Landholder Decision Making.
1 July	Quarterly Reports required from all deed applicants
9 July	Repellents Workshop
10 July	Technical Panel Meeting
Mid July	Implementation Committee Meeting, Grant Recipients Reports accepted and July tranche payments approved.