

NEW ZEALAND PREDATOR WORKSHOP

In April, I travelled to New Zealand to present a talk on our predator studies. Getting there can be rather trying as the only direct flights from Perth are midnight horror journeys - the least said the better. Be prepared to write off a day.

In Wellington, I spent the afternoon at the Dept. of Conservation discussing radio-telemetry with some experts. I was hoping that they might have some fresh insights into contact radiotelemetry but I drew a blank.

From Wellington I flew to Christchurch where I was met by Dr. Charles Eason a toxicologist who heads a research group investigating various approaches to vertebrate pest control. My visit was timely because Eason was hosting an eminent UK toxicologist, and he had already organized a mini-workshop to describe his research.

The major vertebrate pest control problem in NZ is the Brush-tail possum now estimated to number about 70 million. This would suggest that the species is not a candidate for the endangered species list in NZ.

We were given a guided tour of their field station which housed some gigantic possums. My first impression on seeing these possums was that megafauna has not died out after all; it simply went to NZ. I mean, have you ever seen a King Kong possum rear up in a menacing manner? They look positively life-threatening.

1080 baits are used to control possums, but Eason is working an ingenious alternative. Would you believe that the toxin is Vitamin D? A dose disturbs calcium metabolism which affects electrolyte metabolism which then eventually results in heart failure.

The beauty of it is that it is so target specific, a metabolic peculiarity restricted to possums. One dose is enough and a follow-up baiting with baits containing calcium potentiates the Vit. D.

I was absolutely amazed at the amount of 1080 they use to control possums, literally grams/kilograms of the stuff (we use milligrams for foxes). Because such large amounts are used, efforts have been made to determine the

environmental fate of 1080. Eason is very much involved here, and he has found that 1080 is rapidly degraded even when used in such large amounts.

He has developed an exquisitely sensitive (picogram level) analytical technique for analyzing 1080. It is not suitable for routine analysis of 1080 as it is very sophisticated method requiring highly skilled technicians and the instrumentation is very costly (GC with EC detector using 1080 halogenated derivatives). Nonetheless, I came away with some useful tips which we hope to incorporate into our own bioassay under development at Curtin Uni.

The Workshop

The workshop was held at a private ski resort in the mountains near Arthur's Pass. The accommodation was very basic about a star rating; the food was good, the days crisp and sunny.

Upon arrival, our driver got out and promptly removed the windscreen wiper blades and secured them inside the vehicle. Why? "Because Kias are about" was the answer.

Kias turned out to be large green alpine parrots, absolutely marvelous birds full of cheek and swagger. Instead of a beak, it has a shredder. It delights in shredding things like wiper blades, tents, sleeping bags, bags of flour etc.; apparently anything that's shreddable gets shredded when kias are about. It is not threatened presumably because it can also shred the multitude of introduced predators that cause havoc with the NZ bird fauna.

Prior to colonisation by *Homo sapiens*, NZ terrestrial mammals were absent. Birds filled the empty mammal niches. The polynesians introduced a rat. The Brits excelled in this; they tried to introduce every exotic mammal they could get their hands on so it would seem.

As a result, the predation ecology is hideously complex. NZ has feral cats, ferrets, weasels and stoats. The Polynesian rat, the Norway rat and the ship rat along with the possum complicate matters even further - they are believed to be

nest predators. To top things off, the native raptors cannot be ignored.

Many endemic birds are threatened; not surprisingly, the predation ecology is poorly understood because of the multitude of potential predators. Given these circumstances, it is fair to say our counterparts in NZ have a long way to go. One gets the impression that they sometimes feel a bit overwhelmed and who could blame them.

I described our work to the participants and judging from the subsequent discussions, it seemed to have been received with considerable interest.

The editor of some NZ biological journals was present and after hearing my talk asked me if our work had been published. I said that I was currently experiencing difficulties with Australian referees at this stage. On hearing this, the editor then invited me to publish our studies in NZ journals. I'm seriously considering this invitation.

A highlight of workshop proceedings were the talks on feral cat control. The Kiwis have managed to eradicate cats from islands and in the course of doing have acquired an enormous

amount of experience and knowledge. Some of the trapping techniques were demonstrated. Under development are new baits, scents, and lures which are under test in the field. Curiously, cats are attracted to L-alanine sprinkled on baits. Extensive bait preference trials have been carried out with feral cats and surprisingly, fish (widely used) ranks rather low on the palatability scale.

Perhaps most of all, it was stressed that cat eradication requires dedication and commitment. Success depends a great deal on stubborn persistence and staying power combined with an attitude that seeks to exterminate the last cat. The message here is that any cat control program that we undertake must not be undertaken with the view that a quick fix is likely. One must be prepared for the long haul.

Despite this we can take heart because the New Zealanders have shown that it can be done even under very difficult circumstances. If they can do it, so can CALM, perhaps with a little help from our NZ friends.

Jack Kinnear

A WORD FROM THE SCIENTIFIC EDITOR

Authors who are preparing MSS for scientific or technical publications by CALM please note that I will be on leave from mid-July until 7 September.

If you ensure that approved MSS reach me before 1 July they will be registered and forwarded to referees so that they will be in process during my absence. If this is not possible, then please hold onto them and submit to me upon my return in September.

New Publications

The following titles have recently been published and should be available either from Stores or Enquiries at Como.

The Karri Forest: Its Conservation Significance and Management by P.E.S. Christensen.

Wildlife Management Program No. 8 *The Management of Sandalwood* by I.G. Kealley.

Technical Report No. 27 *Application of Dendrochronology, Stem Analysis and Inventory Data in the Estimation of Tree and Stand Ages in Karri Forest* by M.E. Rayner.

Occasional Paper No. 1/92 *Application of Modern Inventory Techniques in the Forests of Western Australia*. Edited by R.D. Spencer.

Occasional Paper No. 3/92 *Drupella cornus: a synopsis - proceedings of a workshop held at CALM, Como, W.A. November 1991*. Edited by S. Turner.

Marianne Lewis