

## WETAPUNGA MONITORING

May 2008 saw the completion of the fourth annual wetapunga monitoring trip to the island, incorporating a pilot study of adult weta movements which proved to be very revealing.

As briefly reported in *Hauturu* Issue 19, numbers found this year (117) were similar to last year (124). This represents a consistent increase on the numbers found in the first (80) and second (84) years' surveys. Thus the pattern to date is a jump in numbers every second year and it will be interesting to see if this is maintained in the year five survey planned for May 2009. Juveniles are still proving difficult to locate; these made up only 9% of the total this year, compared to 15% in 2007. They are clearly secretive in the early stages and keep out of harm's way.

The number of male and female adult pairs, usually found mating, was consistent with previous years where around 25% of all adults found were as pairs. As you can see from the photograph mating is quite a tricky business for giant insects. Those very long and spiny legs could be potentially difficult to get out of the road. The last thing a prospective partner needs is a jab with one of those very stout spines on the hind legs! Just for the record the female is pointing upwards and the male downwards – this seems to be the usual preferred position. However, over the years we have found the odd mating pair in much more confined spaces where they have attempted to couple up in more secluded sites such as in foliage-branchlet tangles, or under loose bark of large trees.

Each year, the same team of three search the same areas on the island for the same period of time. It is interesting to note the variability in numbers of wetapunga between years at the same sites. We found that numbers had gone up at some sites but down at others, compared to previous years. This may be natural variability or a reflection that weta are moving around more than we thought likely.

This year was the first year we have found wetapunga up the John Drew Memorial Track in the Tirikakawa valley after searching there each year. Earlier anecdotal records have shown that wetapunga were certainly present in this valley and this year we verified this with 8 wetapunga in the hand! This was somewhat of a relief as we were wondering if it was a case of not seeing the wood for the trees...

Two Landcare Research Scientists were with us again this year aiming to use radio telemetry to investigate various aspects of wetapunga behaviour. To facilitate this, a very small transmitter is glued onto the prothoracic shield just behind the head, as seen in the photograph. Once the weta has been released it can be monitored remotely by tracking its position via the transmitter, thus avoiding any direct disturbance.

We were particularly interested to see the distance weta are able to move, whether they move to new sites via the ground or through branch connections above ground, and to learn more

about daytime refuge sites. Although this was just a pilot study with only 6 transmitters and over a short period of one week, there were some very unexpected results.

Previously we had considered wetapunga to be somewhat sedentary in that they move between trees utilizing aerial pathways in the form of canopy connections between one tree and the next. Night observations had confirmed that, when weta come out to feed, they can be quite nimble as they walk across alarmingly flimsy branchlet connections of foliage between trees. There have been many occasions when weta have been seen moving between their daytime refuge, for example in a dead nikau frond suspended in the canopy, to the foliage of an adjoining food-plant tree such as mahoe or karamu.

Imagine the surprise when some of the adult weta, equipped with transmitter back-pack, proceeded down to the ground and were then observed to 'leg it' all over the forest floor. Several males travelled over 50 metres in one night with a female moving over 30 metres! Uphill movement appeared to be no problem and there were a number of chasing manoeuvres observed where a male was in hot pursuit of a female. Not surprisingly males were recorded travelling greater distances than females.

The transmitters did not appear to pose a problem to females either, as several were observed laying eggs in exposed soil and two others were found mating, in one case with a male that was also equipped with a transmitter.

The radio tracking also revealed that adult wetapunga appear to move to a new daytime refuge site each night. All weta were recorded in different positions from one day to the next, indicating movement every night. In some cases they remained in the same tree but on others they were found in different trees over 50 metres away from the previous refuge tree. The brief study confirmed a number of observations made during the four years of surveying since kiore eradication, but also revealed other new behavioural information.

It is fair to say that within a few days the radio-tracking work changed our whole perception of how these giant weta can get around the forest. All six weta with transmitters were adults and it is likely the degree of movement is related to just the adult stage. However, despite being adults,

it is considered that this behaviour would have made them particularly vulnerable to predation by cats and kiore when these predators were present on Hauturu.

This pilot study was very successful and a longer, more comprehensive radio-tracking study is planned for May-June 2009 during the next annual wetapunga survey.

*Chris Green, DOC Auckland*



# HAUTURU

LITTLE BARRIER ISLAND SUPPORTERS TRUST

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NEWSLETTER  
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## FROM THE CHAIR

As the year comes to a close, I want to thank all those people and organisations who have supported the Trust in many ways and ask for your continued support next year.

I want to acknowledge the recent appointment of Evan Hamlet as a new trustee, and of Phillip Yates as an advisory trustee.

Unfortunately this is the last of the newsletters to be edited by our long-standing trustee Judy Hanbury, who has done such a sterling job since our inception ten years ago and now wants a break. The quality of the newsletter is a testament to her skill and dedication. Thanks Judy, and thanks to NZ Post for their support in distributing our newsletters.

Thanks also to the NZ National Parks & Conservation Foundation for their donation of funds towards climbing asparagus control on the Island, specifically the exploratory work in the Orau Gorge carried out by Abseil Access – see opposite.

The trust has also approved funds for the purchase of two GPS units to assist with weed control in such far-flung parts of the island as the Orau Gorge.

A recent report points out that the LBI Rangers' house is now well over 30 years old. The original aluminium joinery is showing the effects of age and the salt winds. We wonder if anyone has contacts with an aluminium joinery company that might like to sponsor a new set of joinery. Trustee Lyn Wade will be pleased to hear from you: [ddlc.wade@xtra.co.nz](mailto:ddlc.wade@xtra.co.nz)

Regards, *John Hagen, Chairman*

## NEWS FROM HAUTURU SHANE'S WEED REPORT ISN'T ALL GOOD

The weed programme started at the beginning of August and as I write this the weed team is completing the last day on the job. The climbing asparagus programme has now been running for 11 or so years and numbers have steadily declined over this time in the south-western corner of the island. We have reached the stage where the numbers have plateaued and it will take some time to reach the planned zero density. The searching this year was very, very thorough and the team, led by Liz, has done a marvellous job.

Unfortunately it is not all beer and skittles. While undertaking their yearly contract, Abseil Access has done some exploratory work in the Orau Gorge where we had picked up some random asparagus plants in the last few years. The searching proved worthwhile if not a little disheartening. Thousands of plants have been found, including several very large fruiting adults. This will set the project back many years. We are currently nutting out a plan of attack. The location of the infestation is so remote and rugged that access is severely limited by weather, and to weeders who resemble mountain goats.

The pampas programme has not lifted off yet as we are waiting for a spell of good weather to get the helicopter out and resume that battle.

The Mexican devil programme has, unfortunately, been shelved for this year due to increasingly limited funding and the need to prioritise projects over the whole spectrum of DOC work. We are hoping that we can get this programme up and running next year. Fingers crossed!

*Further 'News from Hauturu' is overleaf.*

## URGENT ACTION : What you can do to help

This discovery in the legendary Orau Gorge is a nasty surprise and calls for urgent action. The Trust is currently applying for funds for a major component of the pampas eradication programme, so is seeking your help towards the earliest possible start on attacking climbing asparagus (*Asparagus scandens*) in this magnificent gorge. The sooner the better, in order to curtail growth and reduce spreading.

- Send a donation to the Trust by post or website. More contact details are inside.
- Encourage others to become Hauturu Supporters and/or donate.
- Lobby local and regional councils to remove such plant pests, especially from coastal areas.
- Remove plant pests from your own property and plant 'friendly alternatives'.
- Help our Gulf islands by taking part in weeding and planting projects in coastal Regional Parks.

## NEWS FROM HAUTURU

*Kia ora everyone,*

As we shake off the extra duvet on the bed and look forward to summer, we see the island going into the best time of year. The breeding season has started for many of the birds out here and the kaka and some of the smaller passerines are all trying to be the loudest and bossiest in their patch! The pohutukawa started flowering halfway through October and the tui have resumed their war on all comers who even look at the bright red flowers. The flax has also started flowering and the tui that aren't on duty in the pohutukawa are putting on their orange make-up in the flax.

As many of you will have seen, we have had our share of rain out here, which has meant a pretty damp winter and early spring. This, hopefully, means that the island will start the summer well hydrated with all the plants in great condition. A good measure of this, I think, is the kidney fern which seems to shrivel right up as the ground dries up. Presently they are looking great, which says to me the island has all the moisture it needs. Great stuff.

Cook's petrels are starting to rule the skies at night and I'm starting to think we may need Noise Control on speed dial if they get much louder. This year is the fourth anniversary of the kiore eradication and Matt Rayner has told us that this is about the time we will see the birds from the first clutch after the bait drop coming back to breed for themselves. The weeders have been seeing some new burrows out and about, so the future looks bright for these little ocean acrobats.

Since the last issue of *Hauturu* there has been plenty happening so here's a small recap of the last six months or so:

### Tuatara

Not too much to report here like the last few newsletters. Hopefully the adult females will be getting down to the serious business of laying eggs in the next month or so. We didn't have any eggs from last season so we have our fingers crossed for eggs by Christmas. The 27 babies we do have here continue to put on weight and will be moved into the main enclosure in the next couple of weeks.

One of these little guys had to be operated on earlier in the year as he had a growth on his neck of a few grams. When

you only weigh 15gms it is quite a large thing! We had seen a smallish giant centipede in his box so wonder if maybe it had been a bite gone bad. So armed with a hypodermic needle and a certificate in wildlife first aid, Shane cut away the growth and the tuatara was kept under observation for a few days with no visitors allowed. He is now doing well and has put on more weight than some of the others, which is great to see.



JUDY HANBURY

Ruud Kleinpaste and Annie Whittle, Trustees, scrambling through a typical coastal infestation of climbing asparagus.

### Kakariki Translocation

As I reported last time, there has been a translocation done to Motuihe Island in the inner Gulf. From all reports the birds seem to be doing really well over there. We hope this continues. Luis Ortiz-Catedral and his team returned to Hauturu in September for the second of the planned translocations, this time to Tawharanui Regional Park on the Takatu Peninsula. Unfortunately, when the team caught the first kakariki it was a female that had a brood patch which meant the breeding season had started. This meant the translocation was cancelled and Tawharanui would have to wait a wee bit longer to hear the chatter of parakeets. Luis is due back in autumn next year to try again.

## HAUTURU GOES SOLAR

Where once there were kerosene refrigerators and noisy, smelly old diesel generators, now there are cleaner, quieter, more sustainable energy sources.

From Liz Maire (DOC) comes the news that Rory Renwick's use of solar power and other energy conservation measures has earned him the inaugural North Island Dept of Conservation 'Caught Being Sustainable Award'.

Rory is DOC's Warkworth Area biodiversity programme manager, responsible for offshore islands such as Hauturu/Little Barrier Island.

On Hauturu, the use of solar panels has reduced the amount of carbon dioxide produced by 17,447 kilograms in a year. Savings also come from the reduced need for staff input, a drop in maintenance costs, and lower diesel bills.

The sustainability project, being rolled out across a number of Hauraki Gulf islands, includes the installation of energy-efficient fridges and freezers, solar hot-water heaters, energy-efficient light bulbs, and low-flow showerheads.

DOC is one of the six government departments required to be carbon neutral by 2012.

Congratulations, Rory, on taking the initiative! *JCH*

### Hihi

Another summer of hihi work has started on the island with Eddy Waite being employed to look at breeding success on the south-western side of the island. It has been a slow start to the season after some recent inclement weather. Eddy has found six nests and is hopeful that a few more will follow in the next few weeks. For those not sure what this work involves... lots of patience!! The idea is to gather information on productivity and survival of adult birds and juveniles from year to year along with habitat information, clutch sizes etc. This will then help us to determine suitable translocation sites and give us some baseline data from what is New Zealand's only self-sustaining population of this unique species.

### Supporters Weekends

I think I mentioned something about having had quite a bit of rain over the winter and spring. This is something that I am sure the first Supporters' working weekend participants would attest to. It absolutely hosed down. Much of the work was called off but a beach clean-up was completed, which was great as it hasn't been done for a few years. Two wool fadge loads of flotsam were sent off the island on our service boat. Despite the rain there seemed to be plenty of smiles and I'm sure people still enjoyed themselves.

The second group fared better on the weather 'front'. The weather was fantastic. The onion weed out by the shoreline did not fare well though, as this group took to it with gusto. Thank you to all who braved bad backs to rid one side of the creek of this persistent weed. I can remember digging this stuff up with Judy and an enthusiastic bunch on the first Supporters' weekend in 2000.

[Supporters reports and dates for 2009 weekends are in the supplement to this newsletter.]

### Up and Coming

Usually Liz and I can bank on a bit of quiet time in the new year but 2009 looks very different. Starting in January we have the reptile monitoring programme for a month, a rifleman translocation to Tiritiri Matangi in February, a chevron skink survey in February, and a kiwi translocation to the Rimutakas is planned for Easter. Phew! Busy, but very exciting times.

Take care, *Shane McInnes & Liz Whitwell*

## ABOUT THE NEWSLETTER

Many thanks to those who expressed appreciation of the two 'bumper' issues of *Hauturu* that marked our 10th anniversary.

This issue brings us back to a more average size, but introduces a new style, with logo and layout by Paradigm Associates. The offer to upgrade Hauturu communications came after a visit to the island organised by Sally Richardson. John Ringer, Paradigm director, said his visit was 'one of the absolute highlights of my life', and he figured some design work was going to be a lot easier to cope with than abseiling the cliffs for weeds!

*Hauturu* is published twice yearly and brings you up-to-date news from and about the island. Please note that past issues are available on request. *JCH*

## RECENT SUCCESS

### International publication of Cook's petrel foraging ecology research

Congratulations go to Matt Rayner on the recent publication of his research into the foraging ecology of Cook's petrel in the top marine science journal, the *Marine Ecology Progress series*.

Matt's doctoral study was conducted in the summer of 2006/07 on Hauturu/Little Barrier Island and Whenua Hou/Codfish Island, the two breeding locations for these endangered New Zealand petrels. By using the latest miniature geolocation loggers, on the smallest species of petrel yet to be tracked at sea, Matt and co-authors have been able to provide answers to the questions posed by earlier land-based studies of Cook's petrel.

Much of this project was funded by the Hauturu Supporters Trust through an ASB Community Trust grant, and for *Hauturu* Issue 19 Matt wrote a general summary of his work.

Now the full research article (published October 2008) can be seen on the 'Inter-Research' website:

<http://www.int-res.com/abstracts/meps/v370/>

Title: 'Foraging ecology of the Cook's petrel *Pterodroma cookii* during the austral breeding season: a comparison of its two populations' – M. J. Rayner (et al)

Matt's next step is to use the geolocation loggers to establish the year-round at-sea distributions of Cook's petrel, including their migration paths across the equator and their wintering grounds in the Northern Pacific. The upcoming field season will hopefully see the retrieval of over 30 tracking devices deployed on birds from Hauturu and Codfish Island since last summer.

This is another first in the study of these small seabirds!

*Judy Hanbury, Trustee*

### STOP PRESS

Matt Rayner has just secured a three-year post-doctoral scholarship from the Foundation for Research Science and Technology to work on the at-sea biology of small seabirds in New Zealand waters, including the Cook's petrel on Hauturu. The good work he has already done on Cook's petrel was a major factor in securing this funding.

## NEW GULF BOOK

Watch out between now and Christmas for this colourful book about the Hauraki Gulf. It includes a section on Hauturu, with excellent photographs contributed by Hauturu Supporters. Hauturu Ranger Liz Whitwell's beautiful kaka is on the cover.

