



MACQUARIE DISPATCH

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Success on Macquarie Island

The Hobart media turned out in force for the much-anticipated return of the Macquarie Island Pest Eradication Team.

The polar support vessel, L'Astrolabe, docked just on dusk on 7 April 2014, following an official announcement that afternoon that the project to eradicate rabbits, rats and mice from Macquarie Island had been declared a success.

Project manager Keith Springer and various team members were interviewed by ABC News 24, ABC's 7.30 Report, Landline and others in the following days.

About 100 people involved in the project, including staff from the Tasmanian Department of

Primary Industries, Parks, Water and Environment and the Australian Antarctic Division, major contractors such as Helicopter Resources and dog trainer Steve Austin, were welcomed by Tasmanian Governor Peter Underwood at a reception at Government House later that week. It was a most enjoyable event held in majestic surroundings and provided an opportunity to celebrate and savour the success of what's been an incredibly challenging project over the past seven years.

Hobart locals and visitors took up the opportunity to welcome home the team members at the 'Miracle on Macca' event on Saturday 12 April on the Parliament House

lawns adjacent to the Salamanca Markets. While most of the team had left Hobart bound for their homes throughout Australia and New Zealand, a small number of hunters and dog handlers and their dogs were on hand to answer questions about all aspects of the project.

Determining success

When the 12-member team and 11 hunting dogs left Macquarie Island for home in early April, they were confident they had achieved the goal of eradicating an estimated 150,000 rabbits and an unknown number of rats and mice.

The aerial baiting completed in 2011 was designed to remove all of the rodents and nearly all of the rabbits, and that is exactly what happened. Following the completion of baiting, the highly-skilled hunters and dogs immediately began searching the island for any signs of surviving rabbits, rats and mice. Eight surviving adult rabbits were found in the four months after the baiting, together with

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The Macquarie Island Pest Eradication Team pose for waiting media on their arrival in Hobart in April.

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The 2013/14 team on the island earlier this year.

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a single litter of juveniles. Three rodent detection dogs joined the search in 2013.

In the nearly three years since baiting was completed, the hunters and dogs have scoured the island thoroughly, searching day and night for any sign of surviving individuals of the three pest species. With search coverage logged by GPS, they cumulatively walked nearly 92,000 kilometres.

Project manager Keith Springer said: "The level of intensity of searching was such that if there were any signs of surviving individuals, we are confident we would have found them over the two and a half years of monitoring work."

Reflections and lessons learnt

The Macquarie Island Pest Eradication Project has wholly consumed Keith Springer's time for at least the past seven years, since the project received funding. He reflects on the changes he's seen in his long association with Macquarie Island.

"Having spent a year on Macquarie Island chasing cats in 2000 I was able to see the vegetation in pretty good shape after 20 years of rabbit control via myxomatosis, although grazing damage was becoming obvious in

some places. On returning as a ranger just five years later, the change in the devastated landscape was incredible; across nearly the entire island the slopes were bare of vegetation and the ground was riddled with burrows. Rabbits were visible everywhere; even shooting about 5,000 of them during the year made no obvious difference to their numbers. Seeing such devastation was a huge motivator to be involved in resolving the problem of removing the remaining mammal pests from the island.

The opportunity to play a part in this did eventuate when I was appointed to a project officer job to progress the eradication planning in 2006, and then the project manager's position after funding was secured.

We had a small but skilled and effective team doing the planning and there was a huge amount of detailed planning to get through. The failure to complete the baiting in 2010 was frustrating but fortunately things went much better in 2011 and set the scene for the hunters to follow up on. After three years of field work it is immensely satisfying to see that the final rabbits have been accounted for by the hunting teams. The results are visible all around the island, whether it be by the amount of vegetation growing back, seeing spider webs in the grass stalks on the plateau, moths around the island or



Project manager Keith Springer

the increased numbers of blue petrel burrows – these are all the 'proof of the pudding' and the validation of the work that has gone into the project by so many dedicated people over the years. Experience gained on the island by project staff has led to further opportunities to work on other island eradications or pest control for several.

Personally, it is incredibly rewarding to have been involved in a project that has successfully delivered its planned outcomes – and great to see the island responding to the lack of rabbits and rodents. Some of the trials and tribulations during the planning and preparation stages were pretty significant, but didn't derail it completely and we managed to work through or around them."

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Spectacular changes in the post-rabbit era

Jenny Scott, from the UTas School of Geography and Environmental Studies, has been documenting vegetation and landscape change on Macquarie Island since 1980, just after myxomatosis was introduced into the rabbit population. She reflects on the changing landscape of the island after a visit earlier this year.

Now there are no rabbits, rats or mice, thanks to the diligent efforts of the Macquarie Island Pest Eradication Project (MIPEP) team. Over the past year or so, everyone familiar with the island has been astounded and thrilled by the rapid rate of vegetation regrowth. It's not there yet, but well on its way!

My work partly involves measuring changes in the vegetation in a series of 34-year-old plots on the steep coastal slopes, which involves standing in one place for long periods of time and wearing many layers of clothes while noting the percentage cover of all the plants in one-square-metre plots. I do this on average once every five years. The other important part of my project is photo-monitoring, which records long-term changes in this landscape. I have a large collection of photos from around the island taken at

the same sites at different times over a 34-year period. Some of the changes we have managed to record (the PWS rangers help with this work each year) have been spectacular, and follow the rising and falling fortunes of the rabbit population.

There have been dramatic changes in the vegetation, including regrowth of the three big *Poa* tussock grass species, Macquarie Island cabbage and the beautiful silvery megaherb *Pleurophyllum* (also recorded by botanists Jennie Whinam and Nick Fitzgerald last year, see Dispatch 12). Other changes include an increase in the many smaller plant species. However there is still very active land-slipping and sheet/gully erosion on many of the steep slopes which were severely degraded by rabbits over the past decade. Hopefully things will stabilise over time, as the island adjusts to the disappearance of the rabbits and breathes a huge sigh of relief. Time will tell, and it is a very exciting period to be studying unprecedented changes here. Who knows how the balance will change between plants, birds, insects, fungi, and the land itself, after rabbits and rodents disappeared so rapidly.

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Enhanced biosecurity the key to a pest-free future

The successful conclusion of the Macquarie Island Pest Eradication Project has been a significant milestone in the Tasmania Parks and Wildlife Service's (PWS) long-term management aim of returning the island to a pest-free state and allowing the natural values of the island to recover from centuries of vertebrate pest impacts. The challenge now is to ensure that no invasive species (pests) are able to establish within the reserve. Consequently a strict and comprehensive biosecurity program has been implemented by the Parks and Wildlife Service in conjunction with the Australian Antarctic Division (AAD) to prevent the reintroduction of rodents or the introduction of any new pest species.

All visitors, including Australian Antarctic Division and tourists, and all cargo being transported to the reserve, are screened before arrival to detect potential pests and pathogens. Effective biosecurity relies on using multiple quarantine barriers to minimise the probability of pests being transported, and to maximize the probability of any pests that are detected are then eliminated. Tourists have to clean all their clothing and footwear before landing and are not allowed to bring any foodstuffs ashore.

All cargo transported to the reserve is subject to a multi-stage inspection process before it is cleared for loading on the ship. In particular, a rodent detector dog has been used for more than a year now to screen cargo and expeditioner personal effects before they are loaded onto resupply vessels. Sealable, rodent-proof cage pallets are now used whenever possible to transport cargo items. Once cage pallets have been packed, rodent and insect traps are also placed within them as another line of defence. Finally, as each item of cargo is unloaded and unpacked on the island, it is inspected so that any pest incursions can be dealt with immediately.



Jenny Scott undertaking photo-monitoring on Macquarie Island earlier this year.



2005:
Severe vegetation degradation from rabbit grazing.



February 2014:
Spectacular recovery is well under way.

A dog's work is never done...

There's been no shortage of loving homes offered for the rabbit and rodent detection dogs that were such an integral part of the success of the project but, for the majority of the dogs returning from Macquarie Island, the work goes on.

After experiencing difficulties, several dogs were retired earlier in the project on veterinary advice. Springer spaniel Hamish has found a home with Keith Springer and partner Emma Reid and spends his days occasionally helping with pest work for the Parks and Wildlife Service and maintaining his Facebook page (https://www.facebook.com/home.php?clk_loc=5#!/hamish.springer?fref=ts). Recently his Macquarie Island problems manifested again and resulted in knee reconstruction surgery, curtailing his activity levels significantly. Bondy was

“Finn, one of the Labradors, was sold to US-based Island Conservation and in mid-June departed for Chile...”

also medically retired and now resides in Hobart, having also had surgery on both hind knees which had developed severe arthritis. Gus, another springer spaniel, had sustained back injuries as a result of several awkward landings when jumping from rock stacks, and is lovingly cared for by former AAD station leader Narelle Campbell on the northern New South Wales coast, in easy reach of beaches to frolic on. Border terrier Tama also returned early. Tama was much older than the other dogs when acquired by the Macquarie Island project, and was beginning to suffer from working in the colder conditions of the plateau. After returning to Hobart he was the primary dog for biosecurity checks of Macquarie Island-bound cargo, and is now retired with Dr Sally Bryant from the Tasmanian Land Conservancy. Rico is still recovering after he was accidentally run over shortly after his return from Macquarie Island.



Dog trainer Steve Austin with Gus and Ash, 2009.

The three rodent detection dogs, Cody, Chase and Bail, are owned by handlers Angela Newport and Leona Plaisier and have returned home to New Zealand for further work.

Finn, one of the Labradors, was sold to US-based Island Conservation and in mid-June departed for Chile, where he will work under handler Karen Andrew on Choros Island (<http://www.islandconservation.org/featured/?id=16>) to determine the successful eradication of rabbits.

Following their return to Tasmania in April, the remaining labradors and springer spaniels were assessed by trainer Steve Austin and staff from the Department of Primary Industries, Water and Environment's Invasive Species Branch for their suitability to join the work of the Invasive Species Branch. Five dogs will join branch from May, continuing to make a big contribution to controlling feral species in Tasmania.

Contact us

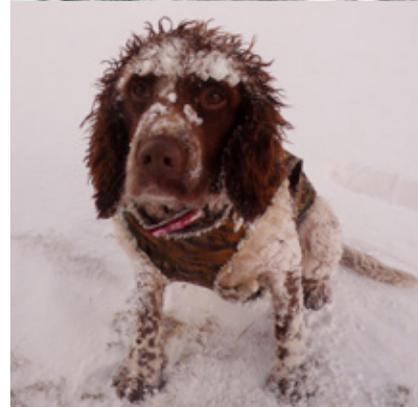
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TOP: Leona Plaisier and Angela Newport with their rodent detection dogs Chase, Bail and Cody.

CENTRE: Hunter Gary Bowcock with Joker and Tama, 2011.

BOTTOM: Katie chillis out.