Battle for our Birds in Southland

What is the *Battle for our Birds*?

This year a heavy seeding or mast is predicted to happen across most South Island beech forests. This heavy seeding is an exceptional environmental situation that occurs every 10-15 years and is expected to drive introduced predators such as rats, mice and stoats to high numbers. The Department of Conservation's (DOC) "Battle for our Birds" is aimed at saving native species at risk from this massive predator plague.

DOC has identified several sites in Southland and other parts of New Zealand where rare native species are under greatest threat. These threatened species are struggling under normal predator pressures, but this year will struggle even more due to the anticipated beech mast and resultant high predator numbers. If we did no predator control at these sites, some species such as mōhua, kākā, orange fronted parakeet, rock wren, and bats could become locally extinct. Seed fall and rodent levels will be monitored at these sites and, if a threshold is met, widescale predator control will be actioned.

Rats and possums can eat chicks or birds in nests

We are taking affirmative action to prevent a major catastrophe and need to increase the scale and intensity of predator control operations this year. DOC is not prepared to let threatened species disappear and seeks your support in the huge effort needed.

Iris Burn Valley, part of Kepler Track *Em Oyston*

Southland Sites and Values

Anywhere that a mast event occurs in beech forest we expect predator numbers to boom . The following indicates an overall approach, final details are still being worked through. Due to the particular values at each site DOC will carry out predator control in the following Southland forests:

- **Iris Burn Valley**
    - Following recent confirmation of a healthy but vulnerable population of critically endangered long-tail bats in the Iris Burn Valley, work is currently underway to set up bait stations in a comparatively small area where bat roost trees have been found (550 ha). These will continue to be maintained over time.
    - Due to the anticipated beech masting, aerially applied 1080 pellets will also be used over a wider area (12,000 ha) when rodent densities at the site hit the trigger level. This will help the bats and a range of other species present in the valley – including whio, kaka, mohua, and Fiordland tokoeka (kiwi).
- **Clinton and Arthur Valley catchments**
    - Aerial rat and possum control is planned over 23,500 ha in the Clinton, Arthur, and Sinbad catchments in northern Fiordland. Aerial operations have previously been carried out in part of this area between 2005 and 2009.
    - Species such as whio, kaka, Fiordland tokoeka, weka, kea and pateke (brown teal) are present in these sites. Bait trials and other site and species specific planning is underway to ensure that direct risks to these species are minimised and that long term protection is maximised.
    - This work is planned for outside the Great Walks season.

Long-tailed bat *James Reardon*

- **Hollyford Valley**
    - The Hollyford Valley contains a wide variety of birds in its mixed beech and podocarp forests. The area is an important feeding site for South Island kākā and attracts birds from a wide surrounding area.
    - There is an increasing population of whio in the Hollyford River which are at risk from high levels of dispersing stoats.
    - The alpine areas surrounding the Hollyford Valley contain good numbers of rock wren.
    - The productive mix of forest type means that the area has the potential to support a high level of predators, putting additional pressure on dwindling native species present.

- **Eglinton Valley**
    - The Eglinton Valley contains a strong population of mistletoe and South Island kākā, and is one of the very few places left where both species of native bat (long-tailed and short-tailed) can still be found.
    - Bat numbers are currently increasing where effective rat control is in place; however bat populations are known to reduce by approximately 30% in the absence of effective control.
    - A remnant population of mohua are now starting to build up again after being dramatically reduced following the large rat plague in 2000-2001.
    - Ground based predator control will begin in early winter using a network of bait stations across 4,800 ha. DOC will continue with this programme but will be prepared to supplement this with aerially applied 1080 pellets if rat numbers are not able to be controlled adequately.
- **Peninsulas between Breaksea Sound and Dusky Sound, adjacent to Resolution Island**
    - Considerable investment is being made removing predators from the islands of Dusky Sound, including Resolution Island. A 35,000 ha area of mainland adjacent to Resolution will receive rat and possum aerial control. The aim is to knock down the possums while numbers are still low to stop them dispersing.
    - In addition to the direct benefits of the predator knockdown, monitoring will be carried out to help inform the effectiveness of killing stoats by secondary poisoning on the mainland adjacent to nearly predator-free islands.

Whio, blue duck – NZ's own torrent duck

- **Waitutu Forest**
    - The Waitutu Forest is a nationally significant mistletoe site, a stronghold for South Island kākā and has a remnant mōhua population.
    - In 2010 an aerial operation was carried out over a 25,000 ha area primarily targeting possums. A further operation is now planned to extend this to 30,000 ha to include protection of an adjacent nationally significant mistletoe population and further buffer the original area to the west.
    - Waitutu Forest is mixed beech, podocarp, hardwood forest (rather than pure beech) and is not directly associated with the beech mast response. However, by targeting the increasing population of possums and aligning the timing to rodent triggers the operation will achieve an effective kill of rats with a by-kill of stoats. An application for a 10 year resource consent has been lodged recognising that this work will need to be ongoing to maintain gains made to date.
- **Waikaia Forest**
    - Waikaia Forest is an island of beech forest on the boundary of Central Otago and Southland and has extremely high conservation values. These include endemic insects, long-tail bats, South Island robins, and mohua that are recovering from local extinction in the 1980s.
    - DOC has not previously been doing any predator control over this 10,000 ha area and this is a very important first step towards protecting the critically important species that are present.
- **Catlins**
    - The primary focus of the planned protection in the Catlins Forest is the nationally important mohua population.
    - Ongoing possum control is underway in much of the Catlins by TB Free New Zealand. If monitoring shows rat numbers are increasing to critical levels, DOC will carry out further control work in the 10,000 ha core area used by the mohua.

Mistletoe is highly palatable to possums

Kākā family - kākā nest in trees, the mothers and chicks are vulnerable to predation

What predator control methods are we using?

DOC and key stakeholders have selected aerially applied 1080 pellets as the most effective predator control method during this mast event. The ecological benefits of using this method over large scale areas are significant as the recovery of predators will be slow, providing up to two seasons of relief for at risk species. The impacts on populations of native species if no predator control was done would be very serious. Local extinctions of species at most risk would be a possibility.

The Parliamentary Commissioner for the Environment has assessed the use of 1080 for predator control and strongly advocated for not only continuing, but expanding its use where appropriate.

Aerial 1080 operations will be timed to address the increase in predator numbers during this mast year. Native birds in these areas will have greater nesting success as a result of these operations due to there being fewer predators to attack chicks and nesting females during the spring breeding season.

Operations will involve helicopter distribution of cereal bait containing 1080 toxin using Global Positioning System (GPS) technology. This achieves even coverage of bait across the extensive and, in some places, difficult Fiordland terrain. This technology also allows the pilot to be sure of boundaries and to avoid sensitive areas such as huts, campsites and major waterways from being sown with bait.

The use of helicopters also means bait can be applied over a short timeframe (one to two days), rather than over a period of weeks as with other forms of predator control. This means bait can be applied when it will be most effective, providing better protection for our threatened species and less inconvenience to the public. Ground based control measures alone cannot be installed in time over the large affected areas in Fiordland, given the scale of the planned operations this year. Traps and bait stations will be used on the periphery of these areas where easier, more accessible terrain can be covered by staff or contractors on the ground.

Timeframe

The operations will take place between June and November 2014, as rodent populations reach the trigger point and when suitable fine weather is forecast. Dates will vary between sites and will be confirmed closer to the operations. DOC will contact all neighbours, put up warning signs and advertise in local newspapers before they begin. Warning signs will indicate that pesticide residue may be present in bait or animals. The removal of signs will indicate you can resume normal activities in the area. If in doubt, check with your local DOC office.

Rosalind Cole

A young visitor to Waikaia Forest meets Pianoa isolata - an ancient carnivorous spider "tuatara of the spider world". This remnant from the Gondwana period has been found either side of the alpine fault in Nelson and Waikaia providing biological evidence of tectonic movement. Insects are an easy meal to predators.

Peripatus (velvet worm) - Prehistoric critter living 550 million years ago, known to be at Waikaia Forest

Planning

DOC is consulting key stakeholders and is working closely with iwi before finalising the operational detail.

Use of 1080 requires the consent of the Environmental Protection Authority, Medical Officer of Health and a resource consent from Environment Southland. Consents are already held for the Eglinton and Catlins sites and a renewed 10 year consent is underway for the Waitutu Forest site. In addition DOC has lodged an application for a one year resource consent to enable the operations to be carried out initially over the other sites and will follow up with a longer term consent application to allow sustained management.

As part of the consent process, a detailed assessment of the risks involved has been completed (Assessment of Environment Effects - AEE). The resource consent imposes conditions on the operation to further safeguard the public and the environment.

DOC welcomes enquiries about this project.

More information

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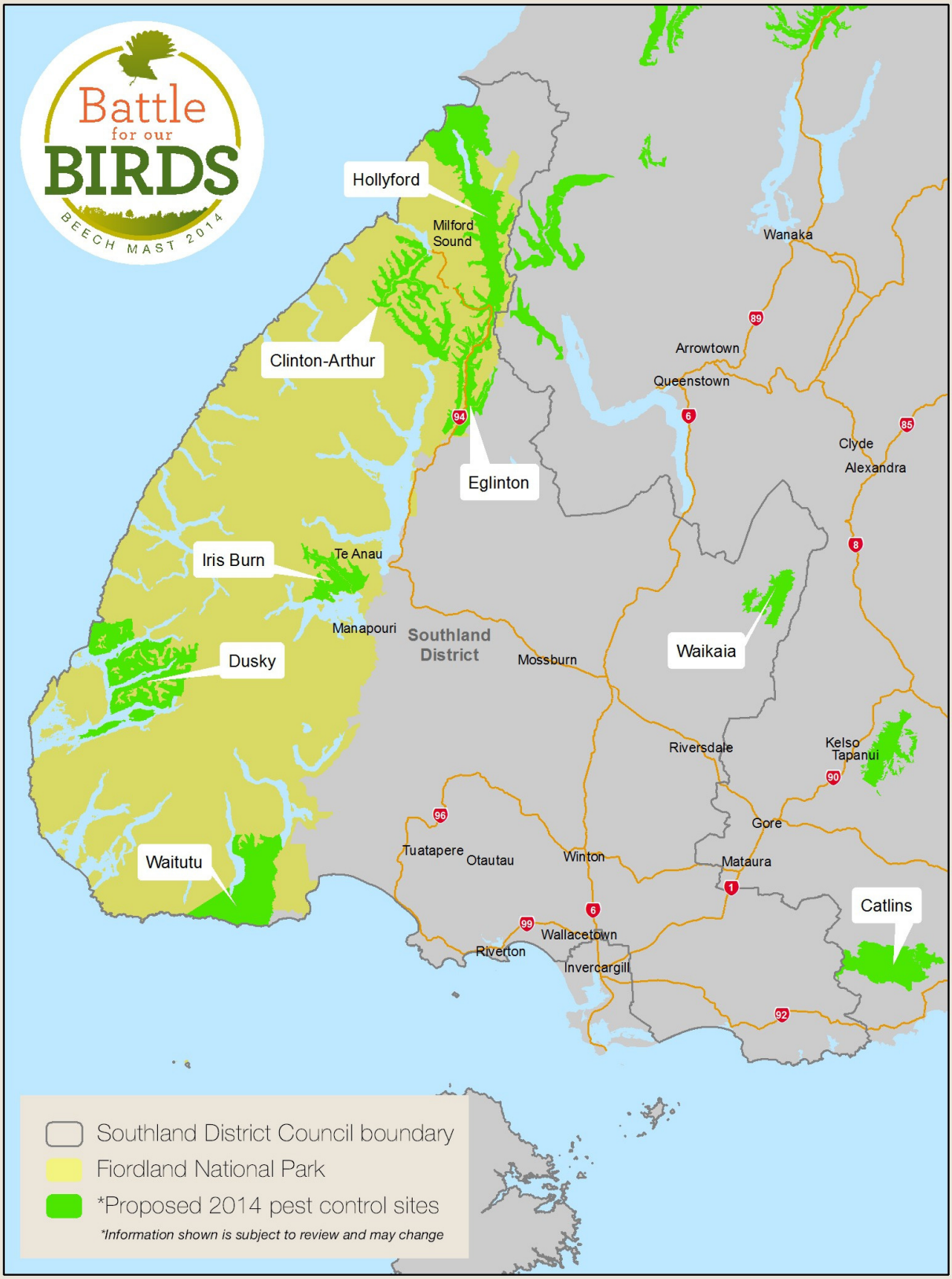
Also see **www.doc.govt.nz/battleforourbirds**

Mohua *Barry Harcourt*



25 Kilometres

NZGD 2000 New Zealand Transverse Mercator
Not for navigation

Date Produced: 14/03/2014
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File Ref: \\wgnhosvr1\GIS$\GIS\Fauna
Name: Southland_BFOB_Sites.mxd

Battle for our Birds 2014

Planned Southland Sites

Department of Conservation
Te Papa Atawbai
newzealand.govt.nz