

Southern New Zealand dotterel/Pukunui population, protection efforts and staff allocation

A community meeting took place on 25 of March 2025 on the topic of the proposed aerial operation to protect the Southern New Zealand Dotterel (SNZD) / Pukunui and other Rakiura native species. At the end of this meeting during the question-and-answer section, Furhana Ahmad asked for some additional context around the history of how DOC's strategy to protect the SNZD has changed over the years. Our recollection of Furhana's questions is listed below:

- The graph you are showing only shows the recent years of the population count. Can I please see a graph for the population fluctuations since 1990?
- What has changed over the years in terms of dotterel protection efforts and staff allocated to the project?

DOC's response to the above questions can be found in the information below.

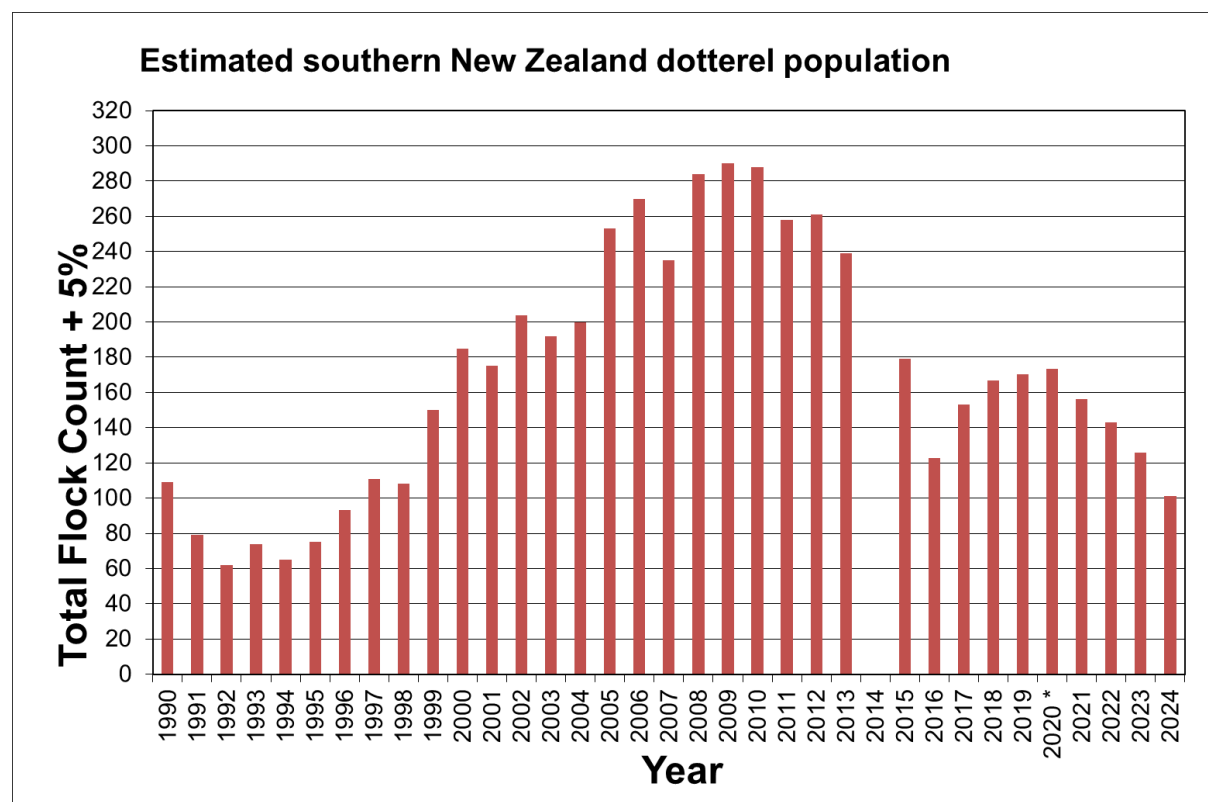


Figure 1: A table showing the fluctuation of the SNZD population from 1990 to 2024. Data is missing from 2014 due to no flock count being undertaken that year.

Table 1: A table summarising the field work dedicated to protecting the SNZD and the number of staff assigned to this project from 1992 to present.

Year	Predator control design	Number of dedicated field positions	Areas covered	Key changes
1992-93	1080 bait stations set up in the Table Hill area serviced every four to six weeks.	One (six months)	Table Hill	
1994-95	1080 bait stations in the Table Hill area serviced every two weeks.	One (six months)	Table Hill	Baiting frequency increased
1997-98	Four more treatment areas (Hill 464, Hill 511, Rocky Mountain, Mt Rakeahua) were set up with 1080 bait stations.	One (six months)	Table Hill Hill 464 Hill 511 Rocky Mountain Mt Rakeahua	Treatment area increased
1998-99	1080 bait stations at five treatment areas serviced every two weeks.	Two (six months)	Table Hill Hill 464 Hill 511 Rocky Mountain Mt Rakeahua	Additional staff member
2000-15	First brodifacoum rat bait, and then bromadiolone rodent blocks, were added to the 1080 bait stations to reduce the amount of 1080 bait taken by rats that was intended for feral cats.	Two (six months)	Table Hill Hill 464 Hill 511 Rocky Mountain Mt Rakeahua	Addition of rodent baiting to prevent 1080 bait interference by rats
2016-17	Adaptive management applied. Continuation of 1080 baiting at all existing treatment areas every two weeks and brodifacoum baiting for rat interference. Addition of deer and spur-wing plover ground hunting as control methods. Increase in staffing.	Four (six-month seasonals)	Table Hill Hill 464 Hill 511 Rocky Mountain Mt Rakeahua	Increase in staffing. Move to adaptive management. Additional predator targets.

Year	Predator control design	Number of dedicated field positions	Areas covered	Key changes
2017-18	Adaptive management continued. Feral cat kill trapping added to toxic bait work. Ground hunting of deer and spur-winged plover continued. Field trial of PAPP toxin for feral cats. Track cutting to expand bait station network for greater buffer area around Table Hill. Introduction of ground-set leg-hold traps for feral cats. Added bivvy at Blaikies hill to enable longer stays.	Four (six-month seasonals)	Table Hill Table Hill buffer Hill 464 Hill 511 Rocky Mountain Mt Rakeahua	Field trial of PAPP toxin for feral cats, infrastructure upgrades to expand area. New predator control methods.
2018-20	Adaptive management continued. Additional feral cat kill trap types added (Belisles, SA2 Cat, Timms traps). Ground hunting of deer and spur-winged plover continued. 1080 and brodifacoum bait station work continued. Trap and associated track network further expanded. Ceased use of PAPP toxin for feral cats.	Four (six-month seasonals)	Table Hill Table Hill buffer Hill 464 Hill 511 Rocky Mountain Mt Rakeahua	New feral cat kill trap types added. Ceased use of PAPP.
2021-22	Adaptive management continued. Ground-based hunting of deer and spur-winged plover continued. A review of the predator control methods identified a need for change. Use of 1080 and brodifacoum in bait stations ended in February 2022 in favour of additional feral cat trapping effort.	Four (six-month seasonals)	Table Hill Table Hill buffer Hill 464 Hill 511 Rocky Mountain Mt Rakeahua	Cessation of bait station operations for both 1080 and brodifacoum.
2022-23	Adaptive management continued. Ground hunting of deer and spur-winged plover continued. Trapping focus shifted to a population suppression model in preferred feral cat habitat rather than interception trapping on	Four full-time staff	Table Hill Table Hill buffer Hill 464 Hill 511 Rocky Mountain	Staffing effectively doubled with year-round rather than 6-month seasonal

Year	Predator control design	Number of dedicated field positions	Areas covered	Key changes
	hill tops only. Range of feral cat kill traps used alongside live capture traps (cage traps and legholds).		Mt Rakeahua	staff. Trapping strategy shift.
2023-24	Adaptive management continued. Ground hunting of deer and spur-winged plover continued. Trapping focus continued to population suppression model in preferred feral cat habitat. Additional tracks cut in forested buffer areas to support new feral cat trapping strategy. Range of feral cat kill traps used alongside live capture traps (cage traps and legholds). Consideration of Australasian harrier control options.	Four full-time staff	Table Hill Table Hill buffer Hill 464 Hill 511 Rocky Mountain Mt Rakeahua	Additional track network to shift focus to forested predator source site areas.
2024-25	Adaptive management continues. Ground hunting of deer and spur-winged plover continues. Live and kill trapping of feral cats continues. Alphachloralose used to control black-backed gulls nesting near dotterels at Hill 511. Detailed investigation of large-scale aerial 1080 option to reduce predators over key dotterel breeding sites (including Table Hill, Deceit Peaks, Hill 511, Mount Rakeahua).	Four full-time staff plus two six-month seasonals	Table Hill Table Hill buffer Hill 464 Hill 511 Rocky Mountain Mt Rakeahua	Increase in staffing. Black-backed gull toxic control. Consideration of aerial 1080 proposed operation for 2025 breeding season.

Definitions:

Adaptive management is a structured, iterative process for improving management practices and outcomes by learning from the outcomes of implemented strategies and adapting to new information and changing circumstances

PAPP is short for para-aminopropiophenone; it is a vertebrate pesticide developed in New Zealand for controlling stoats and feral cats