# Mohua monitoring in the Blue Mountains (Southland) November 2025

Updated report for 2025 written by [redacted] and [redacted]

This report was originally written in 2007 by [redacted] but has been updated overtime to reflect the annual survey results collected each year.

## Summary

The annual Blue Mountains mohua monitoring was conducted on the 1st - 3rd November 2025 by [redacted] The three established and fixed transect monitoring lines (Garden Gully, Rankleburn, and Cattle Spur) were each surveyed three times over this period, with the aim of the survey being to gain an accurate picture of the mohua population trend within the monitoring area as a proxy for the wider Blue Mountains.

When comparing the average (mean) results from November's measurement to previous years, the average number of mohua counted per transect are the lowest counts to date. This is consistent with the overall long-term trend, with a few outlier years, of a steady decline in the area. With a potential mast predicted for the 2025/2026 summer season, and the expected mammalian predator upswing as a result, this is a concerning state for the Mohua to be in.

It should be noted that this trip was taken a week after a heavy storm hit the area, creating a large swathe of treefall in the area.

| | *2021* | *2022* | *2023* | *2024* | ***2025*** |
|---|---|---|---|---|---|
| *Garden Gully* | 48 | 30 | 24 | 53.7 | **18.7** |
| *Rankleburn* | 28 | 17 | 14 | 17.3 | **10.3** |
| *Cattle Spur* | 09 | 07 | 02 | 02.3 | **01.3** |

## Background

The Blue Mountains Forest Conservation Area (12,400 ha) lies between the Clutha River and the township of Tapanui, approximately 115 kilometres northeast of Invercargill. The Blue Mountains range varies in altitude from 100 m near the Pomahaka River to 1020 m at the summit of the main ridge. The vegetation is predominantly silver beech, with podocarps in some gullies and some red beech on the eastern side on the Clutha Valley floor. The tops of the Blue Mountains have alpine snow tussock and alpine cushion bog wetlands associated with numerous tarns.

Forestry company Earnslaw One manages a large area of exotic forest on the eastern side of the Blue Mountains, of mainly *Pinus radiata* and Douglas fir. Access to the eastern side of the Blue Mountains and the mohua monitoring lines is relatively easy via forestry roads. Access to the western side of the range is via private farmland. The Blue Mountains Forest Conservation Area is managed as a Recreational Hunting Area (RHA) for fallow deer (*Dama dama*), and pigs are also present. Red deer (*Cervus elephus*) are uncommon.

The Blue Mountains are home to one of the four largest remaining populations of Mohua, along with the Dart and Landsborough valleys, and the Catlins (Elliot, 2013). Mohua, or yellowheads (*Mohoua ochrocephala*) are small, insectivorous songbirds that reside exclusively in native forest (Gaze 1985). Mohua are endemic to the South Island and used to be widespread throughout the South Island; one observation in 1888 described a flock of 200 in the Lake Brunner district (Smith 1888). Their numbers were noticed to be declining in the early 1900's and they are now absent from over 75% of their former range (Gaze 1985). The current population is estimated to be c. 5000 individuals and conservation status is "At Risk, Declining" (Robertson et al. 2017). Mohua are cavity nesters and are particularly vulnerable to predation by rats and stoats. Predation of mohua nests often results in the loss of not just the eggs but also the adult female (Elliot 1996).

In 2019, extensive seed sampling across New Zealand indicated the biggest beech mast in over forty years, with heavy seeding of Rimu and tussock as well (DOC media release 2019). Masting events can cause an increase in rodent numbers. Stoat populations respond to the increase in rodent prey with increased survival of young stoats. This increase in rodent and stoat numbers causes increased predation pressure on native birds (King, 1983, Clapperton et al. 2019). The increase in predation during mast years by stoats and rats on mohua and their nests have led to dramatic declines in mohua populations (Elliot 1996). The timing of mohua nesting makes them particularly vulnerable to predation, as the fledging of many first clutches and the laying of second clutches coincides with a peak in the number of stoats (O'Donnell et al. 1996). Ongoing monitoring is especially important with ongoing climate change. Mast events are more likely to occur when a given years summer is warmer than the previous year before it, so increasing temperatures are also likely to increase masting events, further increasing predation pressure on Mohua (Tompkins et al., 2013).

## Blue Mountains Monitoring Programme

The Blue Mountains monitoring area covers 2,800 ha of the southern (Rankleburn) area of the Blue Mountains Forest (Fig. 1). This is the area where mohua are concentrated. The monitoring programme is run from the Murihiku/Invercargill Office. Three transect lines covering about 15 km and representative of the Blue Mountains monitoring area have been monitored annually for mohua since the 1980s. Monitoring (Fig. 5) suggest a decline in the population from 1998, followed by some recovery since 2005 and a decline since 2016. Overall, there has been a population decline in the Rankleburn and Cattle Spur areas since the 1990s. However, the higher counts in the 1990s may be due to different methods used for the counts (e.g. squeakers to call birds in). Also, other variables such as weather conditions were not recorded in early years. (Collen, 2007). Annual survey methods have been standardised and documented since 2008 to determine current mohua population trends in the Blue Mountains.

Beech seed fall has been monitored in the Blue Mountains since 2005 using a network of seed collection funnels. To monitor the relative abundance of rodents and mustelids, fifteen tracking tunnel lines were also established and are operated quarterly in February, May, August, and November. In 2025, cameras were installed along these tracking tunnel lines to complement existing monitoring and improve detection of predator activity. The locations of all monitoring lines are shown in Figure 1.

Beech mast events have been recorded in the Blue Mountains in 2006, 2009, 2014, 2016, 2017, 2019, and 2024, and Department of Conservation climate modelling predicts a light mast for the 2025/2026 summer season. In response to previous mast-driven predator increases, aerial applications of sodium fluoroacetate (1080) were undertaken in December 2014 and 2019 during the wider Battle for our Birds campaign. A further 1080 operation planned after the 2016 mast was cancelled due to winter tracking tunnel results indicating that rat numbers had not increased significantly. Another operation was scheduled for spring 2025.

Between mid-May and July 2024, DOC trialled a new toxic bait for stoats in the Blue Mountains, West Otago. The approximately 1000 ha treatment area included the Rankleburn. Monitoring indicated that the relative abundance of stoats declined following the toxin application (DOC 7841242).

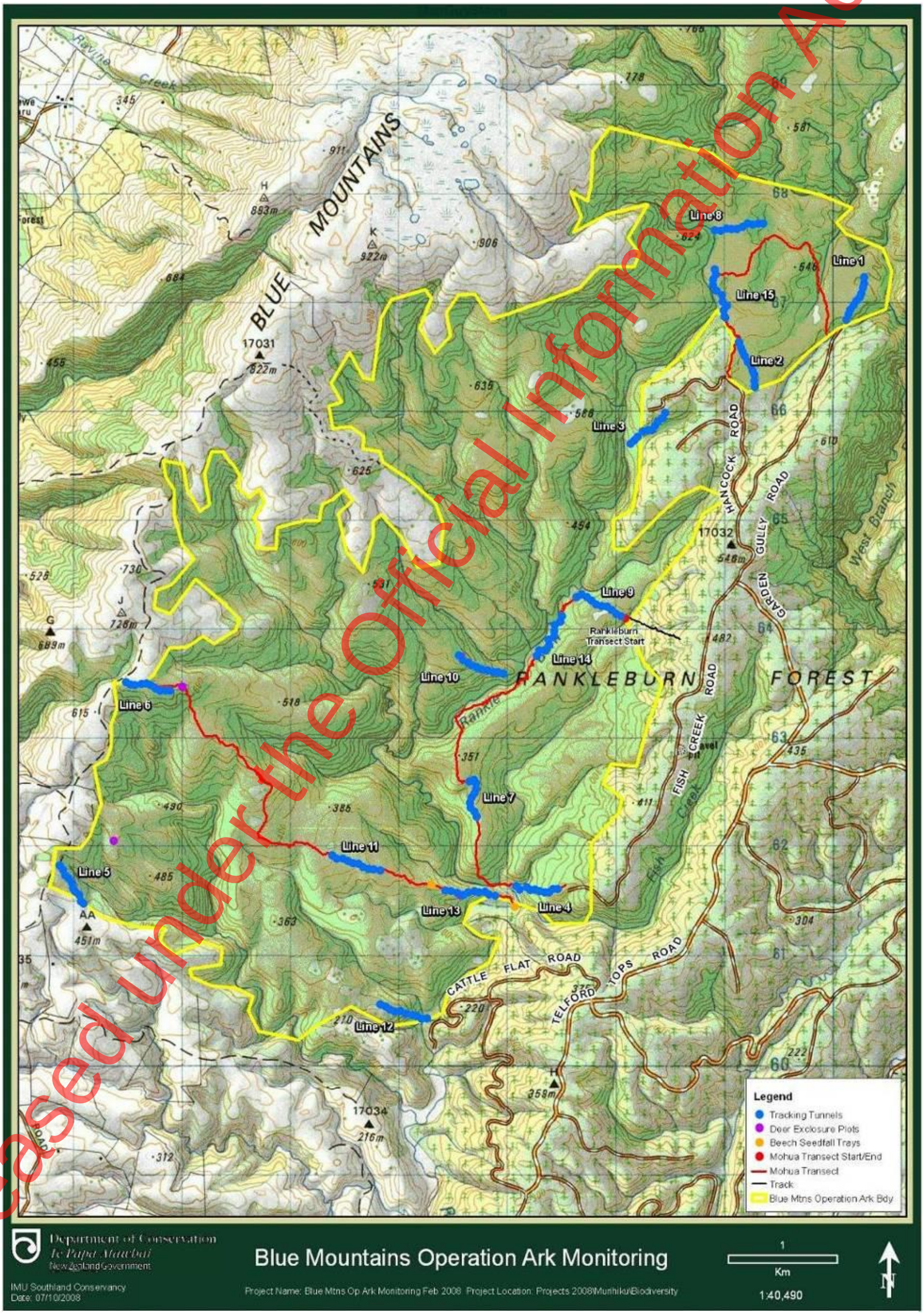



*Figure 1. Blue Mountains Mohua monitoring area boundary and monitoring lines.*

## Methods

Three mohua monitoring transects, shown in Figure1, were surveyed by [redacted], and [redacted] from the 1st – 3rd November 2025. This timing was consistent with that of previous surveys and was selected to coincide with the territorial pre-nesting season of mohua. Each of these transects was surveyed three times during predominantly fine weather. The transects were walked in different directions on different days to mitigate for changes in activity due to time of day at different track sections.

Note: The weather on day 2 was considerably poorer than the other two days. While still within acceptable parameters for bird counts, it had a noticeable effect on the scores for that day.

The survey methods were the same as for previous years 2007-2024, using the protocol for fixed transect counts of mohua described in O'Donnell & Elliott (OLDDM-573015). Each transect was walked at the speed of approximately 1km per hour between 0900 and 1600. Observers listened and watched for mohua. They did not use taped calls or squeakers to elicit responses from the birds. On detection of mohua up to (approximately) 10 minutes was spent attempting to get visual confirmation and determining the precise location and number of birds in the group. The number of birds seen or heard, and their sex (if known) was recorded, and the location recorded with a GPS waypoint. If a bird was heard in the far distance (more than a 10-minute walk from the transect) the observer counted the bird(s) and marked a waypoint at its estimated position.

Each group of mohua was counted separately and every effort was made to ensure that the individuals were not counted twice by being aware of the direction the birds were moving in and continually listening to adjacent mohua calls. All observers had training identifying mohua by their calls, physical appearance, and behaviours.

## Results

The surveys were conducted over three good weather days. The weather was warm with light winds picking up occasionally over the survey's duration. Results from the three transects are shown in table 1. The full set of 2025 data can be found in the Excel spreadsheet (DOC-10626539).

**Table 1. Results of 2025 mohua transect survey.**

| Transect name | Length (km) | Date | Groups | Males | Females | Total birds | Mohua/ km | Time taken | Weather conditions |
|---|---|---|---|---|---|---|---|---|---|
| Garden Gully | 3.6 | 01/11/25 | 18 | 11 | 4 | 20 | 5.5 | 3 hr 18 min | Good |
| | | 02/11/25 | 10 | 14 | 0 | 14 | 3.8 | 4 hr 20 min | Poor |
| | | 03/11/25 | 15 | 18 | 4 | 22 | 6.1 | 4 hr 00 min | Good |
| | | **mean** | **14.3** | **14.3** | **2.7** | **18.7** | **5.1** | **3 hr 52 min** | |
| Rankleburn | 6.2 | 01/11/25 | 11 | 11 | 1 | 12 | 1.9 | 5 hr 07 min | Good |
| | | 02/11/25 | 4 | 4 | 0 | 5 | 0.8 | 6 hr 00 min | Poor |
| | | 03/11/25 | 9 | 12 | 2 | 14 | 2.3 | 5 hr 00 min | Good |
| | | **Mean** | **8** | **9** | **1** | **10.3** | **1.7** | **5 hr 22 min** | |
| Cattle Spur | 5.3 | 01/11/25 | 1 | 1 | 0 | 1 | 0.2 | 4 hr 30 min | Good |
| | | 02/11/25 | 0 | 0 | 0 | 0 | 0.0 | 6 hr 30 min | Good |
| | | 03/11/25 | 2 | 2 | 1 | 3 | 0.6 | 5 hr 19 min | Good |
| | | **mean** | **1.3** | **0.7** | **0** | **2** | **0.3** | **5 hr 26 min** | |

Mohua were found along the length of the Garden Gully transect and along the northern half of the Rankleburn transect on all 3 survey days. Mohua were only heard on two of the survey days on the Cattle spur transect, and only seen once (two birds, start of the transect). They were heard at the very beginning, and end, of the cattle spur transect. Groups spotted in the 2025 survey are indicated in figure 2

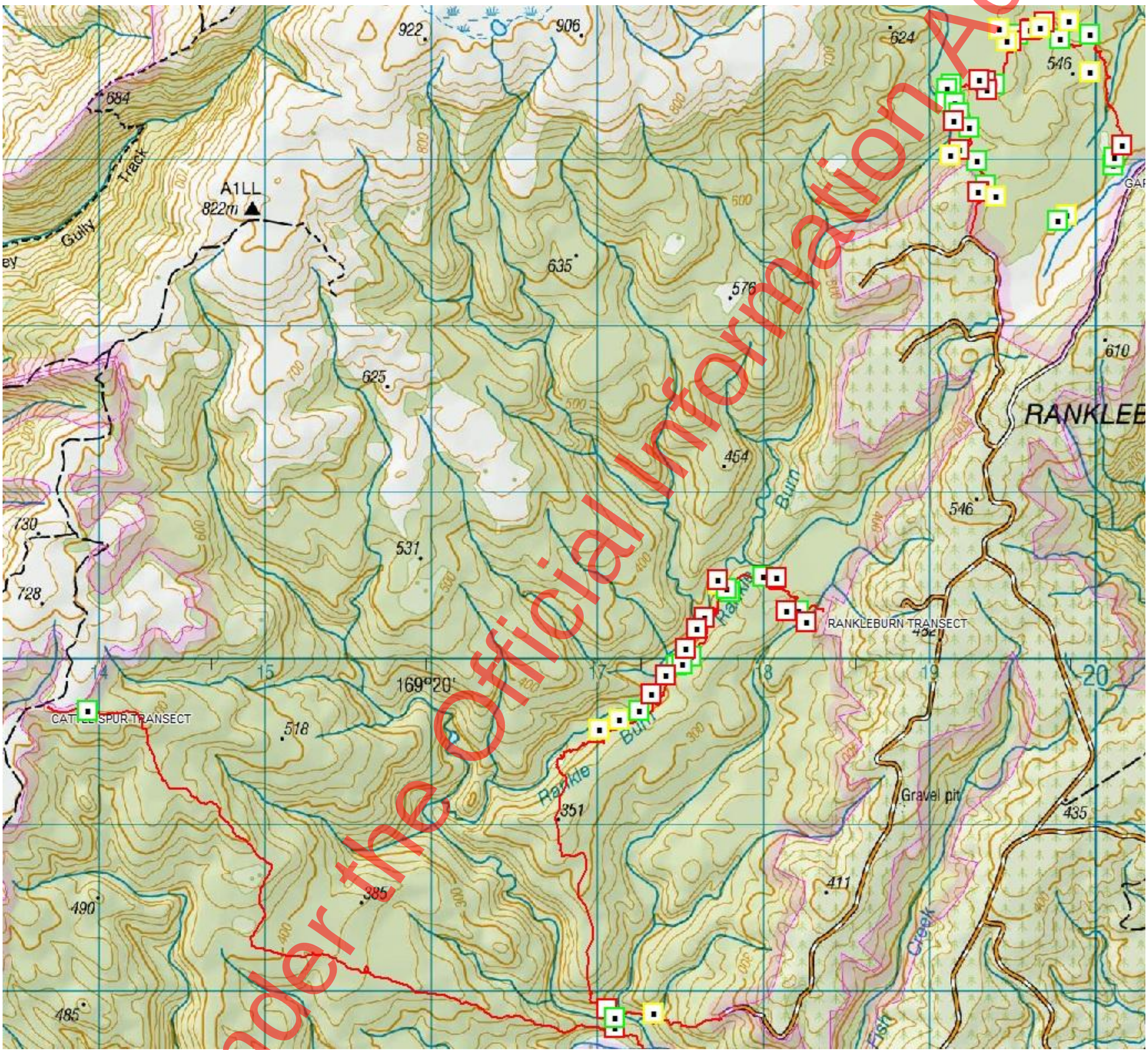
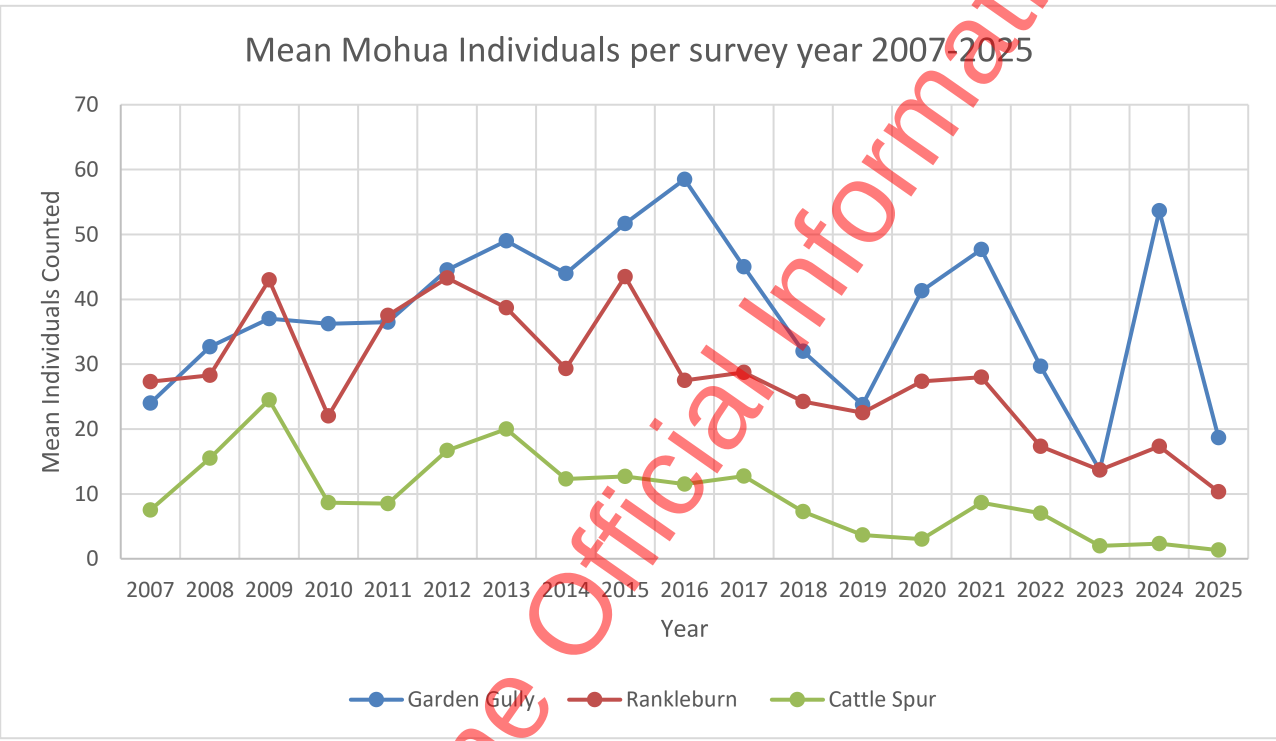



*Figure 2. Locations of mohua transect lines (red) and mohua group observation records (squares) from the 2025 transect survey. Each point indicates an observation of a group. The different colours represent three different days of the survey. Red is Day 1, Yellow is Day 2, Green is Day 3.*

Since 2007, the average number of Mohua detected on each transect has fluctuated. In Garden Gully there was an upward trend in number of birds and groups detected until 2016, then a decline until 2019. The 2021 count indicated the recovery seen in 2020 may be continuing, but surveys in 2022, 2023, and 2025 indicate further decline again.



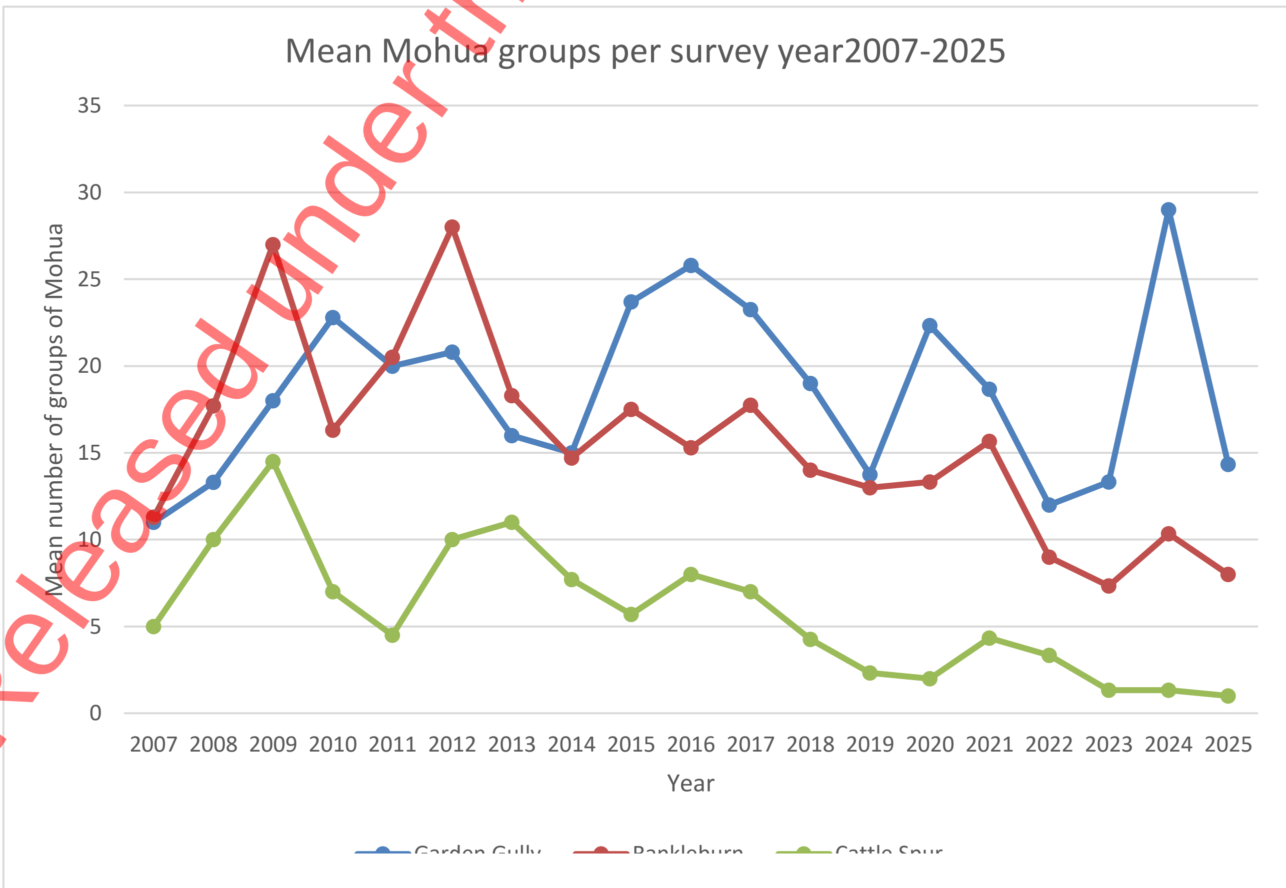




*Figure 3. Average number of mohua and groups detected on each transect between 2007 and 2025*

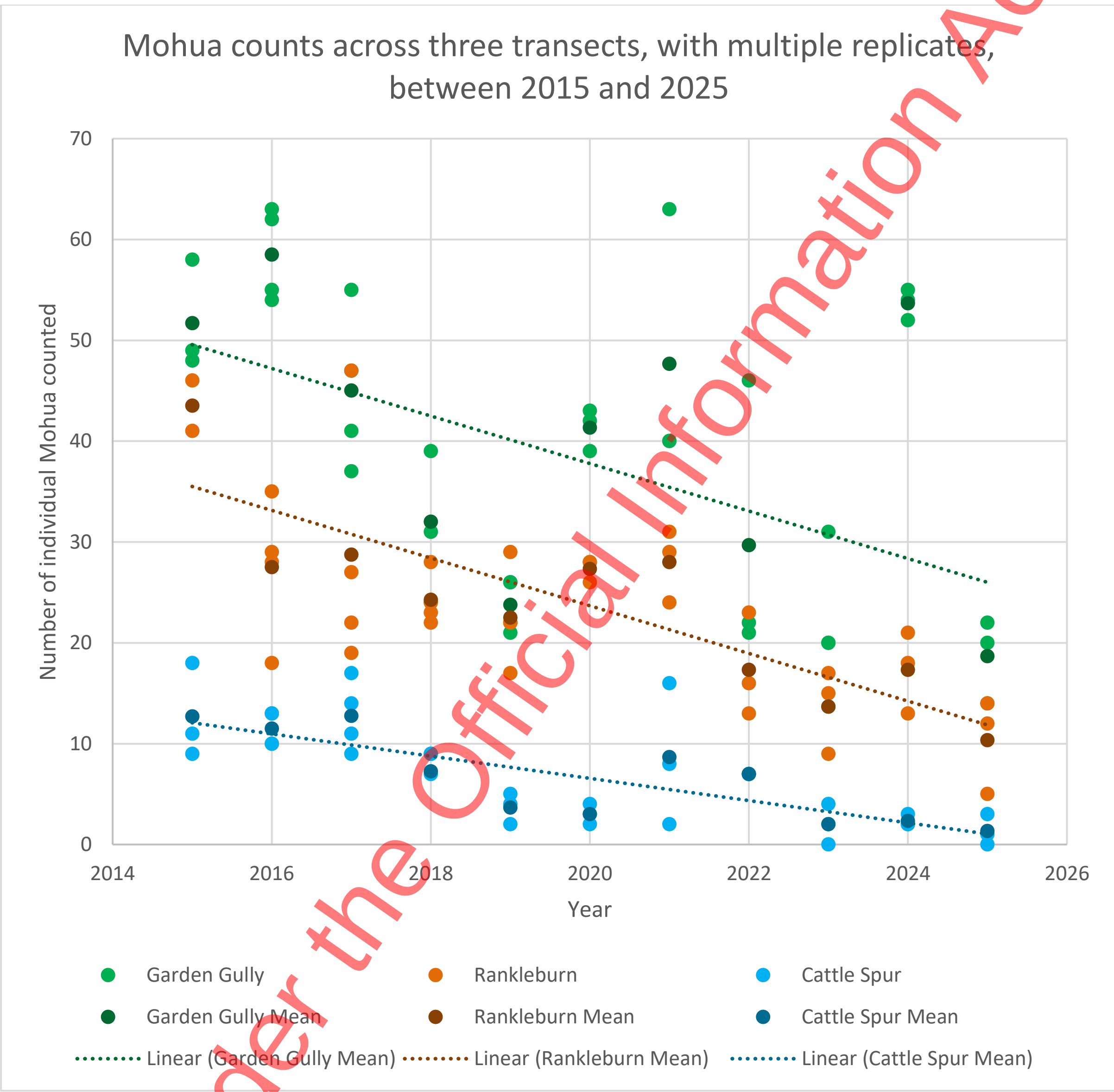



*Figure 4. Mohua individual counts across three transects (Garden Gully, Rankleburn, Cattle Spur) split between replicates, over a ten-year span (2015 to 2025). Mean of replicates shown in darker colour*

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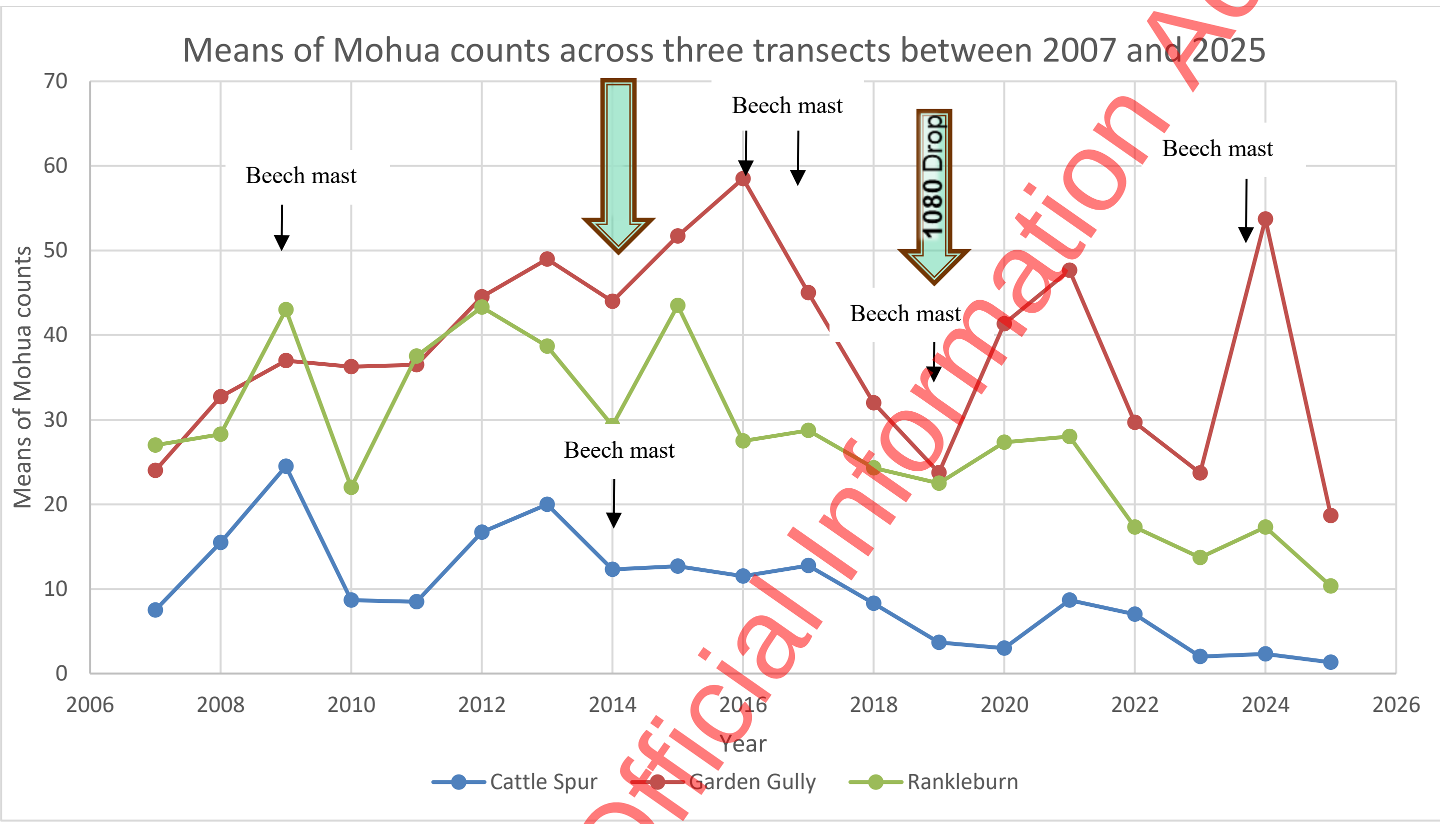


*Figure 5. Mean Mohua counts across three transects (Garden Gully, Cattle Spur, Rankleburn) from 2007 to 2025. Known Beech masts and 1080 drops marked.*

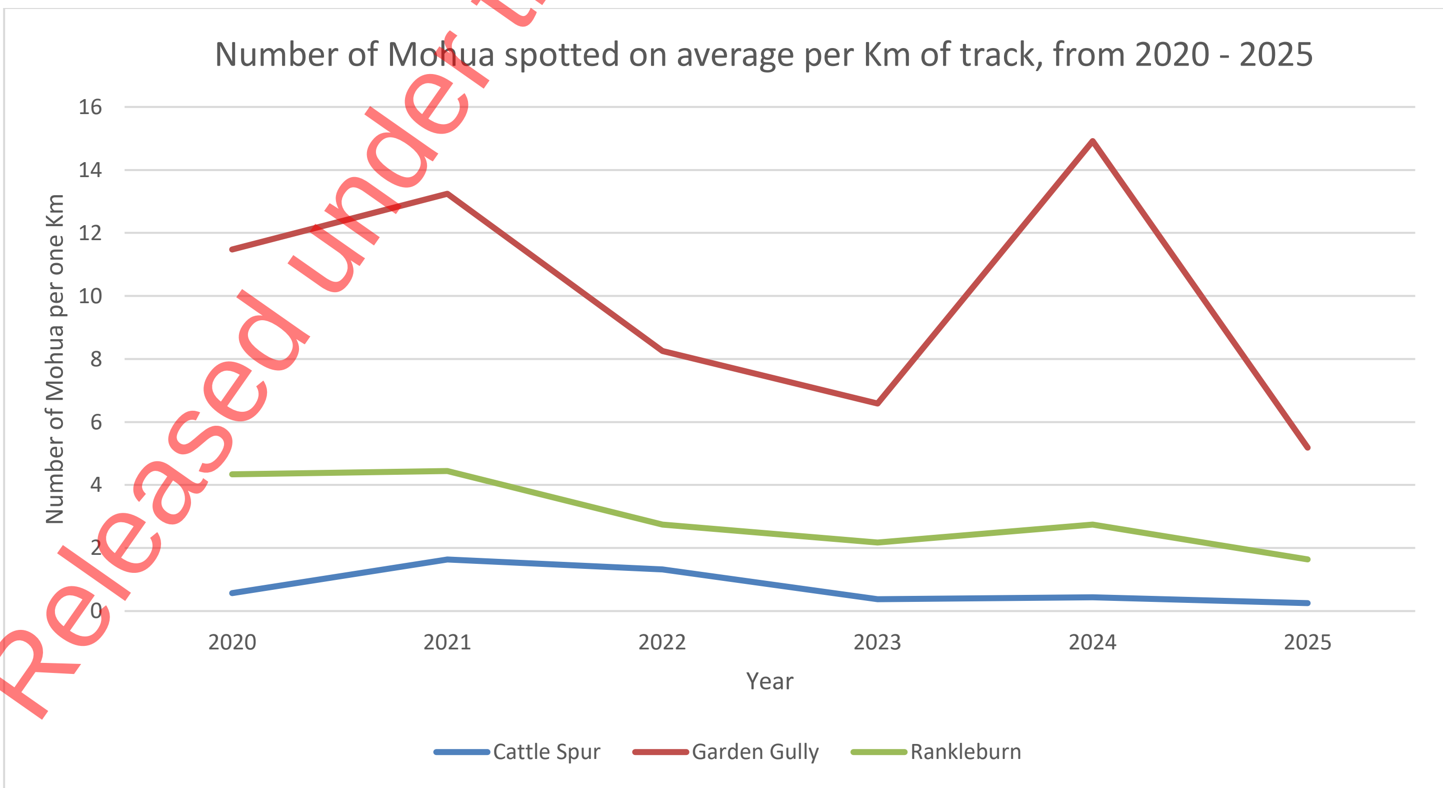


*Figure 6: Mean Mohua counts per kilometre across three transects (Gardn Guly, Cattle Spur, Rankleburn) over 5 years.*

**Discussion**

Following the declines observed between 2016 and 2019 (Figure 5), mohua detections increased across all three transects in 2020 and again in 2021, consistent with the expected short-term benefits of the 2019 aerial 1080 operation, which likely reduced predator pressure during the subsequent breeding seasons. However, detections dropped again in 2022, 2023, and 2025, with reductions evident in both individuals and group counts (Figures 3 and 4). The Mohua-per-kilometre index shows a similar pattern, with all transects exhibiting a sustained decline over the last five years (Figure 6), indicating that the downward trend is broad-scale rather than driven by any single line.

The 2024 survey produced a temporary spike in detections that was not maintained in 2025. The cause of this short-term increase is unclear. It may reflect localised predator suppression arising from the 2024 stoat toxic-bait trial in the Rankleburn area or natural variability in detectability, but the lack of persistence suggests that underlying pressures on the population remain.

Mohua numbers in the Blue Mountains have fluctuated over the last 30 years. Note that between 1990 and 2000 different methods were used to illicit a response (squeakers). The 2003-2007 data points for Cattle Spur are inconsistent due to the transect line being shortened temporarily (Figure 5).

Another variable that may have been overlooked in early reports is the translocation of birds. 40 birds from Garden gully, and 5 from Cattle spur were translocated in 1995. 27 birds were translocated in 2001 from Garden gully and Cattle spur. 21 birds were translocated from Garden gully in 2013.

The timing of this year's count was in the first week of November. This is consistent with previous years counts, where the measures have occurred either in the last week of October or the first week of November. Weather conditions were favourable on two of the three days; however, Day 2 experienced showers and increased wind, and counts on that day were noticeably lower. Although still within acceptable survey conditions, this likely contributed to a lower overall mean for 2025.

Since 2007 the mohua transect surveys on Garden Gully and Rankleburn surveys have mostly shown a trend of stable population or increase, followed by a single season decline after beech mast years (e.g. 2009, 2014). Between the 2016 mast and 2019 the population did not follow this trend of recovery after a mast, and instead continued to decline (Bogisch, 2020; Bogisch 2021). The beech mast in 2019 was followed by a 1080 operation, and in 2021 the mohua population was showing signs of recovery on all three transects. However, the past 5 survey years (2021- 2025) indicate a trend of steady decline in Mohua counts along all three transects.

The 2022 mast occurred without an accompanying 1080 operation, which may have contributed to increased predator pressure and the subsequent population declines observed in 2022–2025. With another mast predicted for the 2025/2026 summer and a scheduled 1080 operation planned, timely predator management may be crucial in preventing further declines. Spatial patterns provide further evidence of contraction.

## Recommendations

1. Repeat the annual transect surveys in October/November 2026 and subsequent years using the methods described in this report to continue to monitor mohua population trends. Provide a detailed report after each survey that includes explanation of any variables such as weather, observer experience etc. that may have affected the results of the counts.
2. Continued monitoring of seed fall and small mammal index results for informed population management.
3. Carry out the 5 yearly mohua distribution survey. There have been four major beech masts since the last distribution survey was conducted in 2008. The counts on the Cattle Spur transect have declined significantly since 2008. Carrying out distribution surveys would provide greater certainty about the status of the mohua population in the Blue Mountains.

**References and related reports**


Blue Mountains Home Page: DOCDM-630153 (links to previous mohua monitoring reports and data)

Blue Mountains mohua survey data 1990 onwards DOCDM-275173

[redacted] M. 2020: Mohua monitoring in the Blue Mountains (Southland) Novovember 2019. Unpublished report to the Department of Conservation, Invercargill, April 2020. (DOC-6412843)

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[redacted] (2019) Mohua monitoring in the Blue Mountains (Southland) November 2018. Unpublished report to the Department of Conservation, Invercargill, May 2019. DOC-5938233

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Robertson, H.A., Baird, K., Dowding, J.E., Elliott, G.P., Hitchmough, R.A., Miskelly, C.M., McArthur, N., O'Donnell, C.F.J., Sagar, P.M., Scofield, R.P., Taylor, G.A. (2017). Conservation status of New Zealand birds, 2016. New Zealand Threat Classification Series 19. Wellington, Department of Conservation, p.27.

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[redacted] 2024: Project update: Readymade stoat bait trial Blue Mountains 2024 Unpublished report to the Department of Conservation, Invercargill, December 2024. (DOC-7841242)

**Appendix 1: Results of mohua transect counts in the Blue Mountains 1990 – 2023**
(data from docdm-275173).

| YEAR | DATE | MONTH | AREA | LOCATION | LINE | COUNT METHOD | COUNT | NOTES |
|---|---|---|---|---|---|---|---|---|
| 1990 | | Dec | MURIH. | BLUE MTNS | Cattle Spur | transect | | **no count recorded** |
| 1991 | | Dec | MURIH. | BLUE MTNS | Cattle Spur | transect | | **no count recorded** |
| 1993 | | Dec | MURIH. | BLUE MTNS | Cattle Spur | transect | 13 | G. Rasch, obs error & time c |
| 1994 | | Nov. | MURIH. | BLUE MTNS | Cattle Spur | transect | 50 | |
| 1995 | | Nov. | MURIH. | BLUE MTNS | Cattle Spur | transect | 82 | **5 birds transferred to Bre** |
| 1996 | | Nov. | MURIH. | BLUE MTNS | Cattle Spur | transect | 50 | spring after the "big freeze" |
| 1997 | | Nov. | MURIH. | BLUE MTNS | Cattle Spur | transect | 54 | notional total – two days/se |
| 1998 | | Nov. | MURIH. | BLUE MTNS | Cattle Spur | transect | 42 | |
| 1999 | | Nov. | MURIH. | BLUE MTNS | Cattle Spur | transect | 54 | |
| 2000 | | Nov. | MURIH. | BLUE MTNS | Cattle Spur | transect | 27 | **27 birds (mixed age/sex) 2001.** |
| 2003 | | Oct | MURIH. | BLUE MTNS | Cattle Spur | transect | 5.75 | average of 4 days? Transect |
| 2004 | | Oct | MURIH. | BLUE MTNS | Cattle Spur | transect | 2 | average of 4 days |
| 2005 | | Oct | MURIH. | BLUE MTNS | Cattle Spur | transect | 4 | average of 4 days |
| 2007 | 25-12 | Oct/Nov | MURIH. | BLUE MTNS | Cattle Spur | transect | 7.5 | average of 2 days |
| 2008 | 21-28 | Oct | MURIH. | BLUE MTNS | Cattle Spur | transect | 15.5 | average of 2 days. Transect |
| 2009 | 20-28 | Oct | MURIH. | BLUE MTNS | Cattle Spur | transect | 24.5 | average of 2 days |
| 2010 | 26-10 | Oct/Nov | MURIH. | BLUE MTNS | Cattle Spur | transect | 8.67 | average of 3 days |
| 2011 | 27-29 | Oct | MURIH. | BLUE MTNS | Cattle Spur | transect | 8.5 | average of 2 days |
| 2012 | 17-31 | Oct | MURIH. | BLUE MTNS | Cattle Spur | transect | 16.7 | average of 3 days |
| 2013 | 15-17 | Oct | MURIH. | BLUE MTNS | Cattle Spur | transect | 20 | average of 2 days |
| 2014 | 22-6 | Oct/Nov | MURIH. | BLUE MTNS | Cattle Spur | transect | 12.3 | average of 3 days |
| 2015 | 20-25 | Oct | MURIH. | BLUE MTNS | Cattle Spur | transect | 12.7 | average of 3 days, marginal |
| 2016 | 20-27 | Oct | MURIH. | BLUE MTNS | Cattle Spur | transect | 11.5 | average of 4 days |
| 2017 | 29-1 | Oct/Nov | MURIH. | BLUE MTNS | Cattle Spur | transect | 12.75 | average of 4 days |
| 2018 | 22-25 | Nov. | MURIH. | BLUE MTNS | Cattle Spur | transect | 8.3 | average of 3 days |
| 2019 | 31-3 | Oct/Nov | MURIH. | BLUE MTNS | Cattle Spur | transect | 3.67 | average of 3 days (windy) |
| 2020 | 28-30 | Oct. | MURIH. | BLUE MTNS | Cattle Spur | transect | 3 | average of 3 days |
| 2021 | 3-5 | Nov. | MURIH. | BLUE MTNS | Cattle Spur | transect | 8.67 | average of 3 days |
| 2022 | 30-1 | Oct/Nov | MURIH. | BLUE MTNS | Cattle Spur | transect | 7 | average of 3 days |
| 2023 | 10-12 | Nov. | MURIH. | BLUE MTNS | Cattle Spur | transect | 2 | average of 3 days |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2024 | 5-7 | Nov. | MURIH. | BLUE MTNS | Cattle Spur | transect | 2.3 | average of 3 days |
| 2025 | 1-3 | Nov. | MURIH. | BLUE MTNS | Cattle Spur | transect | 1.33 | average of 3 days |
| 1990 | | Dec | MURIH. | BLUE MTNS | Garden Gully | transect | 34 | a low count, not all birds fo |
| 1991 | | Dec | MURIH. | BLUE MTNS | Garden Gully | transect | 33 | |
| 1993 | | Dec | MURIH. | BLUE MTNS | Garden Gully | transect | 40 | G. Rasch, obs error & time c |
| 1994 | | Nov. | MURIH. | BLUE MTNS | Garden Gully | transect | 54 | |
| 1995 | | Nov. | MURIH. | BLUE MTNS | Garden Gully | transect | 27 | |
| 1996 | | Nov. | MURIH. | BLUE MTNS | Garden Gully | transect | 29 | |
| 1997 | | Nov. | MURIH. | BLUE MTNS | Garden Gully | transect | 53 | |
| 1998 | | Nov. | MURIH. | BLUE MTNS | Garden Gully | transect | 52 | |
| 1999 | | Nov. | MURIH. | BLUE MTNS | Garden Gully | transect | 33.2 | nesting underway |
| 2000 | | Nov. | MURIH. | BLUE MTNS | Garden Gully | transect | 28 | |
| 2003 | | Oct | MURIH. | BLUE MTNS | Garden Gully | transect | 10.5 | average of 4 days? |
| 2004 | | Nov. | MURIH. | BLUE MTNS | Garden Gully | transect | 16 | average of 4 days |
| 2005 | | Oct | MURIH. | BLUE MTNS | Garden Gully | transect | 17.75 | average of 4 days |
| 2007 | 25-12 | Oct/Nov | MURIH. | BLUE MTNS | Garden Gully | transect | 24 | average of 3 days |
| 2008 | 21-28 | Oct | MURIH. | BLUE MTNS | Garden Gully | transect | 32.7 | average of 3 days |
| 2009 | 20-28 | Oct | MURIH. | BLUE MTNS | Garden Gully | transect | 37 | average of 2 days |
| 2010 | 26-10 | Oct/Nov | MURIH. | BLUE MTNS | Garden Gully | transect | 36.25 | average of 4 days |
| 2011 | 27-29 | Oct | MURIH. | BLUE MTNS | Garden Gully | transect | 36.5 | average of 2 days |
| 2012 | 17-31 | Oct | MURIH. | BLUE MTNS | Garden Gully | transect | 44.5 | average of 4 days |
| 2013 | 15-17 | Oct | MURIH. | BLUE MTNS | Garden Gully | transect | 49 | average of 3 days |
| 2014 | 22-6 | Oct/Nov | MURIH. | BLUE MTNS | Garden Gully | transect | 44 | average of 3 days |
| 2015 | 20-25 | Oct | MURIH. | BLUE MTNS | Garden Gully | transect | 51.7 | average of 3 days (2 days ma |
| 2016 | 20-27 | Oct | MURIH. | BLUE MTNS | Garden Gully | transect | 58.5 | average of 4 days |
| 2017 | 29-1 | Oct/Nov | MURIH. | BLUE MTNS | Garden Gully | transect | 45 | average of 4 days |
| 2020 | 31-2 | Oct/Nov | MURIH. | BLUE MTNS | Garden Gully | transect | 41.33 | average of 3 days |
| 2021 | 3-5 | Nov. | MURIH. | BLUE MTNS | Garden Gully | transect | 47.67 | average of 3 days |
| 2022 | 30-1 | Oct/Nov | MURIH. | BLUE MTNS | Garden Gully | transect | 29.67 | average of 3 days |
| 2023 | 10-12 | Nov. | MURIH. | BLUE MTNS | Garden Gully | transect | 23.70 | average of 3 days |
| 1990 | | Nov. | MURIH. | BLUE MTNS | Rankleburn | transect | 83.00 | 7.2 km line – different from c |
| 1991 | | Dec | MURIH. | BLUE MTNS | Rankleburn | transect | 57.00 | 4.5 km – appears similar to cu |
| 1993 | | Dec | MURIH. | BLUE MTNS | Rankleburn | transect | 11.00 | G. Rasch, obs error & time of |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1994 | | Nov. | MURIH. | BLUE MTNS | Rankleburn | transect | 74.00 | |
| 1995 | | Nov. | MURIH. | BLUE MTNS | Rankleburn | transect | 82.00 | |
| 1996 | | Nov. | MURIH. | BLUE MTNS | Rankleburn | transect | 52.00 | spring after the "big freeze" |
| 1997 | | Nov. | MURIH. | BLUE MTNS | Rankleburn | transect | 47.00 | less than 66% of lines counte |
| 1998 | | Nov. | MURIH. | BLUE MTNS | Rankleburn | transect | 46.00 | |
| 1999 | | Nov. | MURIH. | BLUE MTNS | Rankleburn | transect | 37.00 | nesting underway |
| 2000 | | Nov. | MURIH. | BLUE MTNS | Rankleburn | transect | 29.00 | |
| 2003 | | Oct | MURIH. | BLUE MTNS | Rankleburn | transect | 13.75 | average of 4 days? |
| 2004 | | Nov. | MURIH. | BLUE MTNS | Rankleburn | transect | 17.00 | average of 4 days |
| 2005 | | Oct | MURIH. | BLUE MTNS | Rankleburn | transect | 13.00 | average of 4 days |
| 2007 | 25-12 | Oct/Nov | MURIH. | BLUE MTNS | Rankleburn | transect | 27.00 | average of 3 days |
| 2008 | 21-28 | Oct | MURIH. | BLUE MTNS | Rankleburn | transect | 28.30 | average of 3 days |
| 2009 | 20-28 | Oct | MURIH. | BLUE MTNS | Rankleburn | transect | 43.00 | average of 3 days |
| 2010 | 26-10 | Oct/Nov | MURIH. | BLUE MTNS | Rankleburn | transect | 22.00 | average of 4 days |
| 2011 | 27-29 | Oct | MURIH. | BLUE MTNS | Rankleburn | transect | 37.50 | average of 2 days |
| 2012 | 17-31 | Oct | MURIH. | BLUE MTNS | Rankleburn | transect | 43.30 | average of 3 days |
| 2013 | 15-17 | Oct | MURIH. | BLUE MTNS | Rankleburn | transect | 38.70 | average of 3 days |
| 2014 | 22-6 | Oct/Nov | MURIH. | BLUE MTNS | Rankleburn | transect | 29.30 | average of 3 days |
| 2015 | 20-25 | Oct | MURIH. | BLUE MTNS | Rankleburn | transect | 43.50 | average of 2 days (1 day marg |
| 2016 | 20-27 | Oct | MURIH. | BLUE MTNS | Rankleburn | transect | 27.50 | average of 4 days |
| 2017 | 29-1 | Oct/Nov | MURIH. | BLUE MTNS | Rankleburn | transect | 28.75 | average of 4 days |
| 2018 | 22-25 | Nov. | MURIH. | BLUE MTNS | Rankleburn | transect | 24.30 | average of 4 days |
| 2019 | 31-3 | Oct/Nov | MURIH. | BLUE MTNS | Rankleburn | transect | 22.50 | average of 4 days (windy) |
| 2020 | 31-2 | Oct/Nov | MURIH. | BLUE MTNS | Rankleburn | transect | 27.33 | average of 3 days |
| 2021 | 3-5 | Nov. | MURIH. | BLUE MTNS | Rankleburn | transect | 28.00 | average of 3 days |
| 2022 | 30-1 | Oct/Nov | MURIH. | BLUE MTNS | Rankleburn | transect | 17.33 | average of 3 days |
| 2023 | 10-12 | Nov. | MURIH. | BLUE MTNS | Rankleburn | transect | 13.70 | average of 3 days |
| 1993 | | Dec | MURIH. | BLUE MTNS | John O'Groats | transect | 25.00 | G. Rasch, obs error & time of |