



Mohua Translocation to the Eglinton Valley, October 2016

Hannah Edmonds



Shae and Isla Angus, with their mum Sinead Mulhern at the mōhua release, Eglinton Valley 21st October 2016.

Summary

In October 2016, 101 mōhua were captured from Anchor Island and released over two days to the Eglinton Valley, Fiordland to supplement the existing mōhua population. The translocation was made possible by funding from the Mōhua Charitable Trust.

Introduction

Mōhua were once abundant in the Eglinton Valley; however, due to rat and stoat predation the population dwindled to 18 individuals following two consecutive beech mast seasons in 1999-2001. Rat control was ramped up as a result of these losses, and the current regime is a combination of bait stations covering 4,800ha to control rats in moderate mast years, and aerial 1080 operations to control rats and stoats over 10,250ha in higher mast years, with a linear trap line along the valley to control stoats.

A supplemental translocation of 69 mohua was made to the Eglinton Valley from Chalky Island in October 2010, to enable the relict population to increase. A second translocation of 79 mohua was made to the Eglinton Valley from Anchor Island in October 2015, to allow for the emigration experienced after the 2010 translocation, coupled with low survival over winter 2014, and therefore allow the population to increase at a faster rate. Without the two translocations the mōhua in the Eglinton Valley would likely be functionally extinct.

In the 2015/16 season, 60 adult mōhua, including 24 from the 2015 Anchor Island release, set up territories in the valley. Twenty-nine pairs were found, 27 of whom are known to have had breeding attempts. Not all pairs had their nests found and monitored due to lack of staff and time. Nest success in monitored nests was once again high, with 15 (79%) of 19 found nests fledging young.

The islands of Fiordland have mōhua populations which are at carrying capacity, therefore it made sense to translocate surplus birds to the Eglinton Valley to enable the population to reach original levels, especially as rat control seems to be protecting the existing population.

Mainland translocations are more involved than island translocations, due to emigration, predation, weather, and other factors. Therefore, several translocations of decent numbers of birds are needed to increase the likelihood of success.

Most translocated populations have been started with a founder of <40 birds. Research suggests to retain genetic diversity, future translocations should strategically select natural founder populations that have maintained large population sizes (ideally ≥ 500 birds) as source populations and should use founders of C. 60 birds (Kevin Parker, pers.comm 2015).

On the 21st and 22nd of October 2016, 101 mōhua were translocated from Anchor Island to the Eglinton Valley.

Methods

Five teams of two experienced mōhua catchers spent two days catching groups of mōhua along the tracks on Anchor Island.

Mōhua were captured in mist-net rigs using single or double nets. Foxpro speakers were used to call birds into the net. The birds were individually colour banded and kept in purpose built boxes. These boxes are partitioned and two to three birds were kept each side. Boxes were equipped with natural perches and mealworms, and are kept in the shade to reduce stress to the birds. All birds caught were released the same day, with at least two hours to forage before dark. Mōhua were released at Kiosk Creek in the Eglinton Valley, via helicopter from Anchor Island.

Results

A total of 101 mōhua were caught on Anchor Island over two days. On the 21st October, 71 mōhua were caught and flown to Kiosk Creek in the Eglinton Valley where they were met by local staff and school children, iwi and released. On the 22nd of October, a further 30 birds were caught and flown to Kiosk Creek where they were released by catching teams. At least 36 of the released mōhua were sighted in the first few days following the release.

Discussion

The mōhua will be monitored this season to determine dispersal, nesting success and recruitment. It is necessary to determine whether three reasonably large translocations, coupled with the level of rat and stoat control is enough to re-establish a moderate to large sized self-sustaining population of mōhua in the Eglinton Valley.

Nesting success has been consistently high, and no predation of females on nests has been observed, however several factors may attribute to the population being slow to recover: emigration, initial survival following translocation, and winter survival.

Recommendations

The mōhua population in the Eglinton Valley needs to be monitored for at least the next three years to determine the success of the translocations. The learnings from this will benefit other translocations of mōhua to mainland sites around the country.

Anchor Island should be used as a source site for mōhua translocations in the future, like Chalky Island it has a very healthy population of mōhua and can easily sustain annual

harvesting. The extensive tracks enable access to much of the island. The use of the Kakapo Team dinghy the “Providence” when trained boat drivers are available is very useful for transporting at least one team to the Luncheon Cove area, as there is a good source of mōhua here. The main hut was able to house the majority of the catching team, we also housed one team of two at the bivvy “Bonny Doon”, to access mōhua in the area.

If available, it is worth taking the Southern Winds vessel to Anchor Island with teams and gear. It saves money on helicopter transport and means parts of the island can be accessed by boat if the Kakapo Team dinghy drivers are not available. However, it is difficult to know when the catching will be as it is highly dependent on fine weather, therefore booking the Southern Winds in advance when it is required for other trips is difficult.

The genetic pool on Anchor and Chalky Islands originates from the Blue Mountains. Hegg and Jamieson 2009 recommend to transfer a minimum of 60 individuals, especially when sourced from a reintroduced island population. The Blue Mountains has a high genetic diversity, although the source introduced from there to Breaksea Island was only c. 30 individuals.

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