

SHORT NOTE

Successful fostering of a captive-reared New Zealand falcon
(*Falco novaeseelandiae*) into a natural nest containing 3 fledglings

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Placing additional chicks into the nest of a foster pair (fostering) is one of many management techniques that have been employed to aid the recovery of bird species worldwide (Pendleton *et al.* 1987), including some threatened species in New Zealand, such as the black robin (*Petroica traversi*) (Butler & Merton 1993) and the kakapo (*Strigops habroptilus*) (Eason & Moorhouse 2006). Fostering has not, however, been applied before to management of the endemic NZ falcon (*Falco novaeseelandiae*).

Internationally, translocations and fostering have especially been used to augment wild populations of other raptors, such as the Mauritius kestrel, (*Falco punctatus*) (Cade & Jones 1993), and the peregrine falcon (*Falco peregrinus*) (Cade 2003). Understanding how this technique could be employed with NZ falcon will be important in the development of a recovery programme for this species. Here we report the successful fostering of a captive-bred NZ falcon chick into a natural nest containing 3 chicks.

In Jan 2005, a pair of captive falcons from Otorohanga Zoological Park were rearing a single chick. It had been planned to release any captive-reared falcons by the process known as "hacking", in which fledgling falcons are released in groups so they learn from each another as they become independent. This was obviously not possible for a single chick, so we then considered fostering the chick into an existing wild brood. If successful, the chick would learn from its foster siblings, and be fed, and protected, by its foster parents.

A falcon nest was located in Kaingaroa pine

plantation, northeast of Lake Taupo, central North I, New Zealand, which contained 3 chicks of similar age to the captive-reared bird. On 4 Feb 2005, the 27-day-old chick was transferred to the nest occupied by the 30-34-day-old wild-bred chicks. It is generally thought that the earlier a chick is fostered into a nest the greater the chances of its being accepted, and surviving (Cade & Jones 1993). NZ falcon chicks fledged at 33-35 days of age, so this was the upper limit of the time at which the chick could be put into the nest. Before fostering, the bird was fitted with a radio transmitter and banded with metal and colour bands. Supplementary food was also placed into the nest for the chicks.

When the captive-reared chick was placed into the nest, 2 of the wild chicks had already left the immediate nest site but had not yet started flying. The remaining wild chick did not react to the new chick being placed beside it. We visited the nest 6 days later to check the condition and general health of the fostered chick. Its crop was half full and it had gained weight, indicating it was being fed by the adults and was thriving. The other 3 wild fledglings were still within 30 m of the nest: 1 fledgling was making short flights.

The nest was checked again after another 4 days (15 Feb), when the captive-reared chick was observed making short flights within 50 m of the nest. On 22 Feb a moving transmitter signal was located c.500 m from the nest, which indicated that the chick had fledged. In Apr, a final observation was made before the fledgling dispersed from the nest area. On this occasion all 4 juveniles were seen in the air and being fed by the adults, which confirmed that the fostering attempt had been successful.

Overall, our observations confirmed that the captive-reared chick was accepted immediately by the wild pair as part of the brood and it was fed, reared, and protected accordingly through to independence. The fostering of chicks from captivity therefore appears to be a feasible management tool if it should be needed for future conservation of the NZ falcon.

ACKNOWLEDGEMENTS

We thank the Waikato and Rotorua Conservancies, New Zealand Department of Conservation for permits to hold and manipulate NZ falcons, Kaingaroa Timberlands Ltd for access to Kaingaroa forest, and to the Otorohanga Zoological Society, Inc, for providing a healthy chick for the fostering experiment.

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Keywords NZ falcon; *Falco novaseelandiae*; fostering; management