Orange-bellied Parrot (OBP) Recovery Program News, May 2023

Prepared by Toby Galligan, OBP Recovery Program Coordinator, on behalf of the OBP Recovery Team.

Tasmania's Department of Natural Resources and Environment (NRE Tas) staff and volunteers have confirmed a record-breaking 77 Orange-bellied Parrots (OBPs) returned to Melaleuca in the 2022/2023 breeding season. The number of returnees has been increasing since the 2017/18 breeding season but took off in the last three breeding seasons when 51 then 70 and now 77 OBPs returned. We have not seen similar numbers of OBPs at Melaleuca for at least 15 years. The 77 OBPs comprised 45 males and 32 females. Five returnees had wintered around Lake Connewarre, three around Melbourne Water's Western Treatment Plant, and another three around Anderson's Inlet.

NRE Tas released 26 captive-bred adult OBPs during their Spring Release in 2022 to increase the size of the breeding population. A fifty-fifty male-female mix, these individuals were raised at NRE Tas's Five Mile Beach OBP Captive Breeding Facility (FMB), Zoos Victoria's Healesville Sanctuary (HS), and Moonlit Sanctuary Wildlife Conservation Park (MS).

Breeding in both the wild and captivity was encouraging. At Melaleuca, 21 pairs nested, with 17 of them raising up to 59 fledglings. For the wild population, every nesting metric that NRE Tas measured – i.e., clutch size, hatching success, fledging success, breeding success, and brood size (more detail below) – this year was similar to the 30-year average. Across the five captive breeding institutions – i.e., Zoos SA's Adelaide Zoo, FMB, HS, MS, and Priam Psitticulture Centre – 50 out of a possible 58 pairs nested and raised 134 fledglings. So, all in all, it has been another productive breeding season for OBPs.

But some of you are no doubt wondering a few things, like: Did any of the OBPs that disappeared last breeding season reappear this breeding season? Why did less than half of the possible 48 pairs nest at Melaleuca?

The answer to the first question is: no. None of the OBPs that disappeared shortly after returning to Melaleuca last breeding season was among those that returned this breeding season. This time last year, I reported that more than half of the wild and captive-released OBPs had disappeared from Melaleuca before nesting. I used the word "disappeared" because we did not know what happened to these individuals (for more details, refer to our OBPRP News, May 2022). One possibility is that these OBPs dispersed to other locations. If this was true, we had hoped to see them return this year with their offspring, but this did not happen. Last season, we could identify all but one OBP with a unique coloured leg band combination. NRE Tas staff and volunteers identified all OBPs returning this breeding season and none were the OBPs that disappear last breeding season. Further, only one known adult was unbanded; there were not the many unbanded first-year birds we would expect if OBPs fledged elsewhere. So, we must conclude that

the OBPs that "disappeared" actually died, most likely beyond Melaleuca, because we found no evidence of mass mortality there.

The answer to the second question is: because many wild and captive-released OBPs disappeared from Melaleuca again! The circumstances are the same (i.e., disappear before nesting, no evidence of mass mortality, etc.), but we hope the outcome will not be the same. It is possible, now that relatively large numbers of OBPs are returning to Melaleuca, that some pairs are dispersing to find alternative nesting sites. This is a good thing – we want the OBP population to expand, and for OBPs to establish new breeding sites in the south-west – therefore, we would not want to stop them, but we would like to help them. To this end, NRE Tas has begun work to establish a second breeding site for future OBP releases. So far, they have compared historic OBP breeding sites by several criteria of suitability to form a short list of potential sites, and have travelled to these sites to undertake on-ground assessments of suitability. A translocation proposal is currently in development, to inform any proposals for future releases, which given the remote and logistically challenging nature of the OBPs breeding range in the south-west Tasmanian Wilderness World Heritage Area, will require both extensive financial and human resourcing to succeed.

NRE Tas estimates 139 OBPs, including 23 of 24 captive-fledged juveniles released in the 2023 Juvenile Release, departed from Melaleuca for the mainland – the third largest group to do so in more than a decade. And, as I write, our mainland surveyors have already seen some on the mainland. I have a feeling it will be another good year to spot OBPs on the mainland. If you are in coastal Victoria, southeast South Australia or even western Tasmania, and you want to take part in our annual OBP Winter Survey, you can email me (thgalligan.obp@gmail.com) and I will hook you up with one of our Regional Coordinators.

OBP Winter Survey dates for 2023

- 1. 20-21 May
- 2. 22-23 July
- 3. 9-10 September



Above image: an adult female Orange-bellied Parrot on heath at Melaleuca, Tasmania, photographed by Marianne Gee.

Fast Facts:

OBPs (*Neophema chrysogaster*) are small ground-feeding parrots. Males are bright green, yellow, and blue with a prominent orange belly. The colours of females and juveniles are subdued and they have less prominent orange bellies.

In the summer, OBPs breed in southwestern Tasmania within 5km of the coast. In autumn and spring, they migrate via western Tasmania, the Hunter Island Group, and King Island. OBPs winter in coastal habitats in southeastern Australia. Each year, OBPs migrate at least 600 km over land and sea.

The IUCN Red List and the Australian EPBC Act 1999 classify the OBP as Critically Endangered. The species persists as a tiny wild population, breeding at a single location, after a recent rapid decline.

There is some uncertainty about the cause of the species' decline. Habitat loss and degradation plus introduced predators and competitors likely drove past declines. Today, several interacting

threats impact OBPs.

The Recovery Team comprises 28 government, non-government, and community groups. It develops, coordinates, and reviews the OBP Recovery Plan; and preserves expertise and advice in OBP biology, ecology, and conservation.

Volunteers contribute to the actions of the OBP Recovery Program. They assist by collecting data on OBPs in the field and captive institutions. They also raise public awareness and funds for recovery actions.

The organisations within the Recovery Team fund recovery actions. Government and nongovernment grants, and individual and corporate donations, provide extra financial support.

Nesting metrics used by NRE Tas and captive breeding institutes:

- Clutch size = the total number of eggs divided by the total number of nests
- Hatching success = the total number of nestlings divided by the total number of eggs
- Fledging success = the total number of fledglings divided by the total number of nestlings
- Breeding success = the total number of fledglings divided by the total number of eggs
- Brood size = the total number of fledglings divided by the total number of nests