Winter 2017 Orange-bellied Parrot Recovery Program Summary

Orange-bellied Parrot National Recovery Team

Summary of reports presented at the June 2017 Meeting

This summary is compiled from reports presented to the OBP National Recovery Team in June 2017. The summary is provided as an update to other recovery program partners, volunteers, and the broader interested community on the recovery program. If you would like to use parts of this summary to prepare other documents, for example media releases or articles, please contact the relevant organisation to obtain their approval for this use.

Overall progress of the recovery program

There are still fewer than 50 Orange-bellied Parrots known to exist in the wild. In spring 2016, 17 birds returned to the last known breeding location, only 4 of which were female. In December 2016 the Recovery Team met to discuss what priority actions should be undertaken to address the small population size, and in particular, poor survival of adult females and juveniles. The priorities identified then, and progress on those priorities so far, are presented in the table below:

Continue releases of captive-bred adults in spring at the breeding site to balance sex ratios and boost breeding opportunities Lead organisation DPIPWE	23 Orange-bellied Parrots were released at Melaleuca in spring 2015: 15 female and 8 male. As only 4 female and 13 male Orange-bellied Parrots returned to Melaleuca for breeding in spring 2016, and following release 17 nests were initiated, the release met the objective of (1) balancing the sex ratio and (2) increasing breeding opportunities.
Begin trials of egg and or nestling supplementation to boost output of wild nests Lead organisation ANU	Five nestlings were transferred from captive nests at the Hobart Wildlife Centre to nests at Melaleuca. One of five survived and has successfully migrated north to over-winter in Victoria.
Undertake a 'ranching' trial of females released in spring, by recapturing them in late summer/early Autumn and holding them in captivity for the winter prior to re-release at the breeding site the following spring Lead organisation Zoos Victoria	9 females were recaptured and transferred to Werribee Open Range Zoo. One female died shortly after arrival in care. It is anticipated the remaining females will be available for spring release later this year.
Undertake an 'aided migration' trial of males released in spring, by recapturing them in late summer/early Autumn and releasing them into mainland habitat for the winter Lead organisation DELWP	Only 1 male was available for aided migration. He was temporarily held at Werribee Open Range Zoo before joining the mainland release trial (see below). Unfortunately, this male died during the first month after release. Another aided migration trial is planned for 2018.
Undertake the first trial fledgling or juvenile release at the breeding site to test whether younger captive birds adapt to release and migration more effectively than adults	Juvenile release was not undertaken. The purpose of the wild release is for captive juveniles to learn wild behaviours from adult OBPs prior to migrating, which should increase

Lead organisation DPIPWE	their annual survival relative to captive-bred adults, who have spent longer in captivity. By the time that birds were available for release at Melaleuca this season, most wild adults were no longer present, and it was not desirable to release juveniles that would learn from other naïve birds (wild juveniles and captive-bred release adults).
Undertake a mainland release trial to compare the success of mainland and Tasmanian release options and test whether a mainland site occupied by a flock of released birds can act as a beacon to draw naturally migrating birds into the site to maximise their chances of finding suitable habitat and ultimately improve their survival over the non-breeding season Lead organisation DELWP	DELWP and Zoos Victoria, in partnership with BirdLife Australia, Melbourne Water, Parks Victoria, Moonlit Sanctuary and DPIPWE began the first year of a mainland release trial. 10 captive-bred males and the single aided migration male were released at the Western Treatment Plant Werribee in April 2017. Survival of the release group exceeded the target of 70% for the first month, and the release group has been joined by three wild adults and two wild juveniles that migrated to the site naturally. It is hoped the association between these individuals lasts until the spring migration, potentially allowing the released birds and wild juveniles some experienced companions for the journey.
Identification of alternative and/or additional Tasmanian release sites in the greater Melaleuca area (and further afield). Lead organisation DPIPWE	Alternative release sites in the Tasmanian Wilderness World Heritage Area have been identified, and include areas surveyed by researchers from the Australian National University in summer 2016-17 and found to contain a high abundance of food plants, and other areas within the Melaleuca valley that are planned to be burnt before 2020, which would enhance foraging habitat availability. Subject to bird availability, the first release event outside of Melaleuca will occur in 2017-18 or 2018-19 breeding seasons.
Appoint a Recovery Team Coordinator Lead organisation DPIPWE	The recruitment process for a Recovery Team Coordinator is underway.
Trial radio-tracking devices on mainland release birds Lead organisation DELWP	All mainland release birds in 2017 carried small radio-tracking devices. The birds have carried the devices well and radio-tracking has allowed us to collect detailed information on habitat use and flocking behaviour.
Continue winter monitoring program Lead organisation BirdLife Australia	The winter monitoring program is not fully funded for 2017, however across the range Regional Coordinators are still supporting volunteers to undertake winter surveys (in some cases by Coordinators volunteering their time as well). Two funding applications have been submitted to obtain additional funding support for this program, with the outcomes still pending.

Habitat burning at Melaleuca in the non-breeding season Lead organisation DPIPWE	An ecological burn to enhance Orange-bellied Parrot foraging habitat in their breeding area is planned for 2017. All approvals have been obtained, planning is complete and the Tasmanian Parks and Wildlife Service have finished preparation work. The burn will be conducted when a weather window conducive to burning is available.

In addition to these priority tasks, the Recovery Team and its partners have continued to work on a range of projects and important tasks, including:

A specialist team of veterinarians, ecologists and captive managers are continuing to work on health screening protocols and other disease concerns

The current captive population, including display institutions, is approximately 340 birds. The 2016-17 breeding season saw over 115 Orange-bellied parrot chicks fledge across all institutions. There are currently 5 institutions that are involved in the breeding of Orange-bellied parrots; these are the Department of Primary Industries, Parks, Water and Environment in Tasmania (Taroona), Healesville Sanctuary, Adelaide Zoo, Moonlit Sanctuary and Priam Psittaculture Centre. In the lead-up to the 2016-17 breeding season Moonlit Sanctuary constructed a new purpose-built breeding facility for Orange-bellied parrots with the support of funding from Zoos Victoria. This increased Moonlit's breeding capacity from 5 pairs up to 20 pairs. The facility has two breeding banks which both have flocking aviaries attached to the breeding flights, allowing the birds to flock together during the winter months.

Research led by ANU scientist Dejan Stojanovic indicates that Orange-bellied Parrots may suffer fitness costs from food limitation and dependence on supplementary food in the breeding grounds. In their breeding range, Orange-bellied Parrots appear to prefer to forage in vegetation with a time-since-last-fire of between one and eight years (Brown & Wilson 1980). A recent spatial analysis (December 2016) indicates that > 90% of the vegetation in the Melaleuca area has a time-since-last-fire of greater than eight years, which is not appropriate for the species. Supplementary seed is provided to Orange-bellied Parrots, but this is unlikely to meet all of their nutritional requirements, which may in turn be contributing to reduced reproductive output, poorer nestling condition, and potentially health issues. The research concluded that maximizing natural food plant availability at Melaleuca by implementing controlled burning at ecologically appropriate spatial scales should be considered an urgent management priority.

Two management actions are being implemented by DPIPWE to enhance foraging habitat at Melaleuca:
(1) An ecological burn has been planned and resourced for rollout at Melaleuca in 2017 (subject to a suitable weather window), and increased communication with the Tasmanian Parks and Wildlife Service of the critical importance of implementing planned burns in Orange-bellied Parrot habitat.
(2) Investigation of other sources of supplementary food in addition to seed that may better meet the nutritional requirements of the Orange-bellied Parrot, as there may be a one- to few-year lag before the benefits of ecological burning are experienced.