

FAUNA

WESTERN GROUND PARROTS DISTINCT FROM EASTERN GROUND PARROTS

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The western ground parrot is a Critically Endangered, cryptic, ground-dwelling parrot that lives in near-coastal heaths on the south coast. Recent survey and research have shown that population numbers are now reduced to about 110 individuals, with the majority in one population, in Cape Arid National Park.

Western ground parrots disappeared from the Manypeaks – Waychinicup area near Albany about five years ago and, more recently, they have declined drastically in the Fitzgerald River National Park, which was once thought to be their stronghold. The South Coast Threatened Birds Recovery Team believes that the situation is dire, and the deployment of integrated predator management on the south coast (for cats as well as foxes) and establishment of a captive breeding program are urgent and important priorities for conservation and recovery of this critically endangered bird. Because ground parrots are susceptible to large wildfires, ongoing careful fire management is also important.

The urgency of this situation has recently been highlighted by the preliminary results of genetic research that suggest that the western ground parrot is a separate species from the eastern ground parrot. This work was instigated by the WA South Coast Threatened Birds Recovery Team as a collaborative project between DEC, Steve Murphy of the Australian Wildlife Conservancy, and Leo Joseph of CSIRO.

Preliminary data suggest that western ground parrots may be quite distinct genetically from ground

parrots in Tasmania and down the east coast. This work has been steadily progressing, with important developments in the last couple of months.

One specimen that was always of interest was a bird collected at the Reedbeds, near Adelaide, in the early days of European settlement. The species became locally extinct long ago in the Adelaide region, but this population was the one geographically closest to the ones in WA. They were, therefore, the ones that might be expected to be similar genetically to the WA birds. However, because the specimen was so old, it was proving very difficult to extract DNA from it.

After a bit of frustration, the team running the genetics program decided to recruit the assistance of Dr Jeremy Austin, of the Australian Centre for Ancient DNA, at the University of Adelaide. Jeremy is an expert at extracting DNA from difficult sources, and rose to the challenge – he was able to extract DNA from this important specimen, and has confirmed that the test sequence matches closely the sequences from Victoria and Tasmania.

We now know that all the eastern birds, from south-eastern Queensland to Victoria and Tasmania, are very similar to each other genetically. The WA birds tested from the Fitzgerald area and Cape Arid National Park are also very similar to each other, but differ significantly from all the eastern birds. The result from the Reedbeds specimen was important because it demonstrated clearly that there is no gradual change from east to west – all ground parrot DNA

tested falls clearly into either the eastern group or the western group. This confirms that the two sets of birds have been clearly separate for a very long time, and have diverged in isolation. The extent of that difference is very similar to the genetic difference between buff-rumped and western thornbills, which everyone agrees are clearly differentiated species.

Whether the eastern and western ground parrots are confirmed as separate species awaits confirmation by acceptance in the scientific literature. However, what is certain is that the eastern and western birds are separate evolutionary lineages that have been diverging over a very long time. This adds even more urgency to efforts to conserve the western ground parrot, as it is one of the most endangered parrots in the world.

We urgently need help to conserve the western ground parrot. If you would like to volunteer with survey work, or help out in any other way, please contact the project officer, Abby Berryman (phone (08) 9842 4513; email abby.berryman@dec.wa.gov.au) or the Friends of the Western Ground Parrot (Brenda Newbey phone (08) 9337 5673; email wgparrot@exetel.com.au or Anne Bondin phone (08) 9844 1793; email wgparrot@exetel.com.au). The Friends group has just held a meeting to formalise its association. **If you can't help in person, they would be very pleased to accept any donations, however large or small!**

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