Ten years of monitoring and conservation of an endemic island parrot

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Abstract

The Seychelles archipelago consists of 115 islands and yet the national bird, the Seychelles black parrot *Coracopsis barklyi*, the females of which emit melodious, individually unique calls when breeding, is endemic to only the small (38.5km2) island of Praslin. *Coracopsis barklyi* is the only remaining parrot species in the Seychelles, but with a tiny and highly restricted population, is highly vulnerable to a range of threats including introduced species, habitat change, climate change impacts and disease. Despite its significance, little was known about *C. barklyi* until recently, and it was only declared a distinct species in 2014. Ten years ago a long-term monitoring programme was set up to understand the breeding behaviour, population dynamics and trends, and threats to *C. barklyi*. Methods included nest monitoring, ringing chicks, trapping trials to determine the impact of rats on breeding success, population surveys, mist-netting and ringing adults and disease-screening. Challenges have included *C. barklyi*'s tendency to nest in fragile dead palm trunks that cannot be directly climbed so a new method was developed and is used for nest monitoring. The monitoring programme has overturned previous assumptions; for example that there is a lack of nesting cavities, and that the species breeds on Curieuse. Our monitoring has shown highly variable breeding activity and relatively low overall breeding success. There are sufficient breeding cavities available in most seasons and drivers of low breeding success appear to include invasive species, among other factors. The population appears to be stable but invasive species, including rats and yellow crazy ants, are a significant concern. The presence of introduced ring-necked parakeets *Psittacula krameri* on nearby Mahé island posed a serious threat to *C. barklyi*, due to potential transmission of PBFD virus but the virus has not been detected in *C. barklyi* and *P. krameri* has now been eradicated from Seychelles. This long-term monitoring programme has substantially aided our understanding of *C. barklyi*'s ecology and conservation needs and will inform future conservation actions, such as translocations to other islands. The monitoring programme will continue and should prevent this species from following the Seychelles parakeet, *Psittacula wardi* to extinction.

Keywords: breeding success, invasive alien species, island endemic, long term monitoring programme, parrot conservation.

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