
A science and conservation success story: insights from 30 years of research on Seychelles warblers

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Abstract

Once brought to the brink of extinction due to habitat destruction, the Seychelles warbler population has made a spectacular recovery following intensive conservation efforts. These conservation efforts were so successful that this species is no longer threatened with extinction. Apart from being a prime example of successful conservation, the Seychelles warbler has also become an iconic model species for ecological and evolutionary research. It has been studied intensively since 1985 and this long-term research program has yielded numerous significant insights in conservation, ecology and evolution. Intriguingly, this species went through a many-year bottleneck of only 25 individuals, but it does not seem to have suffered from the resultant high degree of inbreeding. We showcase how targeted conservation efforts, including habitat restoration and translocations, have saved this species from extinction and highlight the importance of long-term monitoring programs and in-depth knowledge of the species' ecological requirements, life-history and previous conservation actions. In addition, we show several scientific highlights of the ongoing long-term study, including new insights into the evolution of sociality and ageing and the impacts of inbreeding and genetic variation on behaviour. Our results show how scientific research and successful conservation go hand in hand and underline the crucial importance of long-term studies for successful conservation of island species and ecosystems.

Keywords: Seychelles warbler, Birds, Translocations, Inbreeding, Cooperative Breeding, Ageing, Long term studies

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