

Advances in the contribution of zoos to reintroduction programs

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Summary

Over the past 20 years, zoos have enhanced their contributions to reintroduction programs through active pursuit of collaborative partnerships with governments, academic institutions and NGOs, and the application of good science. A 'One Plan' approach that integrates conservation planning of *in situ* and *ex situ* populations is becoming standard practice. In support of this, zoos are broadening the range of training staff receive in field conservation skills and enabling them to apply relevant *ex situ* animal management techniques in direct support of field conservation. Zoos in Australia and New Zealand are therefore becoming true multi-disciplinary conservation organisations that are well positioned to make meaningful contributions to the continuing development and application of the science and art of reintroduction biology.

Introduction

As loss, fragmentation and degradation of natural environments continues with the inexorable expansion of the human population, wildlife species are rapidly declining, with habitat availability for many set to shrink even further as a result of climate change (Hoffmann *et al.* 2010; Thomas 2011). In response, increasingly intensive efforts are being used to conserve threatened wildlife and the formerly clear dividing line between *ex situ* (captive) and *in situ* (field) conservation approaches is becoming blurred (Lacy 2013; Redford *et al.* 2013).

Over the last 20 years, zoos have made significant advances in integrating their work with efforts

directed at conservation of wildlife in the wild. This is resulting in a greater exchange of specialised knowledge and practical skills between zoo-based and field-based conservation practitioners, much of which is directly relevant to wildlife reintroductions.

Global and regional zoo networks have been united by a World Zoo and Aquarium Conservation Strategy (WAZA 2005) under an organisational infrastructure that facilitates and encourages information exchange and collaboration. Closer linkages between zoos, wildlife agencies, researchers and other conservation practitioners have been established for some threatened species recovery programs, and are essential to the delivery of enhanced reintroduction outcomes for a range of species (Table 15.1).