



Global Re-introduction Perspectives: 2016

Case-studies from around the globe

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IUCN/SSC Re-introduction Specialist Group (RSG)



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Cover photo: Clockwise starting from top-left:
i. Bolson's tortoise, USA @ Turner Endangered Species Fund
ii. Wetapunga, New Zealand @ Richard Gibson
iii. Morelos minnow, Mexico @ Topiltzin Contreras-MacBeath
iv. *Silene cambessedesii*, Spain @ Emilio Laguna
v. Tasmanian Devil, Maria Island, Tasmania @ Simon DeSalis
vi. Agile frog, Jersey @ States of Jersey Department of the Environment

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Re-introduction of the vinaceous-breasted Amazon at the Araucárias National Park, Santa Catarina, Brazil

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Introduction

The Psittacidae family has some of the most threatened species. Two of the main reasons for the rapid and on-going population decline are habitat destruction and illegal nest poaching. The vinaceous-breasted Amazon (*Amazona vinacea*) is the most endangered parrot species of the Atlantic Forest, one of the world's top biodiversity hotspots. *A. vinacea* historically occurred in Brazil from south of Bahia to Rio Grande do Sul, inland to southeastern Paraguay and southern Misiones, Argentina. It has become rare throughout its extensive range and its estimated population ranges from 1,000 - 2,500 individuals. Currently, it is listed on CITES Appendix I and II, the IUCN Red List (1) as Endangered with "a very high risk of becoming extinct in the wild in the immediate future". In Brazil, the species is considered Vulnerable C1. Populations are considered extinct in some areas, including the Araucarias National Park (ANP), Santa Catarina, Brazil. The project to re-introduce *A. vinacea* in the Araucárias National Park, started in 2010. A total of 76 birds (69 victims of illegal wildlife trade, six offspring of confiscated birds which were born at the Curitiba Zoo and one fledgling rescued at the ANP) have been rehabilitated, released and monitored as part of the first parrot re-introduction effort in a National Conservation Unit approved by the Chico Mendes Institute for Biodiversity Conservation (ICMBio).



Vinaceous-breasted Amazon

Goals

- Goal 1: Select and rehabilitate *A. vinacea* victims of the illegal wildlife trade for release, according to their origin, health and behavioral status.
- Goal 2: Evaluate rehabilitated *A. vinacea* during the acclimation period at the Araucárias National Park and monitor released birds and their offspring.

- Goal 3: Search for and monitor nests used by released *A. vinacea*.
- Goal 4: Generate and provide scientifically sound information about *A. vinacea* conservation issues to stakeholders, including the local community, general public, scientific community and decision makers and regulators.
- Goal 5: Create socioeconomic opportunities for the local community based on the principles of green economy, having *A. vinacea* as a theme.

Success Indicators

- Indicator 1: Physically and behaviorally healthy *A. vinacea* confiscated in southern Brazil are selected for release in the Araucárias National Park.
- Indicator 2: Birds are evaluated during the acclimation period at the Araucárias National Park, released and monitored by researchers and local citizen scientists.
- Indicator 3: Nests used by released *A. vinacea* are identified and monitored.
- Indicator 4: Scientifically sound information about *A. vinacea* are generated and provided to stakeholders.
- Indicator 5: Socioeconomic opportunities for the local community based on the principles of green economy, having *A. vinacea* as a theme, are created.

Project Summary

Feasibility: Aiming to contribute to *A. vinacea* conservation, an on-going project was initiated in 2010 in order to re-introduce the species at the Araucárias National Park (ANP) giving it the social-environmental support necessary for the long term establishment of a viable population. *A. vinacea* was historically present the municipalities of Ponte Serrada and Passos Maia in Santa Catarina, Brazil (S 26° 39'-26°52', W 51° 47'-52° 02') which now constitutes the ANP. The 12,000 ha area was suggested as a viable re-introduction location at ANP management plan (ICMBio, 2010) (Rupp, 2009). ANP provides high quality habitat for the vinaceous-breasted parrot, as it provide both nest cavities and food availability from many trees, including the *Araucaria angustifolia* tree (ICMBio, 2010; Rupp, 2009). The local threats include the presence of domestic animals, over-harvesting of Araucária seeds and illegal nest poaching, which was the probable cause for local extirpation. In order to improve the chances of re-introduction success, a program to educate and generate work and extra income to the local community was implemented to contribute to the socio-economic development and environmental protection. Scientific information gathered has been shared with the scientific community and general public.

Implementation: Since September of 2010, a total of 102 birds have been through the rehabilitation process and 76 birds have been released as part of the first parrot re-introduction effort in a Brazilian National Park approved by the Chico Mendes Institute for Biodiversity Conservation (ICMBio). Protocols were approved by IBAMA, the Chico Mendes Institute for Biodiversity Conservation (ICMBio protocol number 25133 and 41776) and the Federal University of Santa Catarina ethics committee for animal research (PP00589). During the pre-release phase, which lasted approximately 4 months, data on behavioral time budget, weight and biometry were collected. Candidates had behavioral deficiencies and were trained daily to look for and manipulate natural



Educational awareness activities

food items, to avoid humans, to stay off the ground and to fly continuously with a radio-collar on. All veterinary exams suggested by the IBAMA 2008 Instrução Normativa 179 (3) and SISBIO license were performed.

All birds received leg bands from the National Center for Bird Conservation (CEMAVE) of Brazil and went through an acclimation period at the release site. Only birds

which met the criteria necessary were released: 13 individuals in January, 2011 (Vanessa & Reche, 2012), 30 in September, 2013 and 33 in June, 2015. All birds were monitored throughout the study by a research team 2 days a month and daily by local citizen scientists through visualization, vocalizations and 48 birds were equipped with radio-collars (33 TXD-203C, Telenax, Mexico and 15 Pip Ag357, Lotek, Canada). More than 526,355 residents from local communities benefit from educational activities conducted monthly at properties, schools, local companies and through the radio by gaining new information about *A. vinacea*, the habitat they share and conservation issues. The species has become so popular locally that it was chosen by the community to represent the fauna in the logo of the Araucárias National Park, it is stamped on the back of local school buses and postage stamps. A line of “vinaceous-breasted amazon and Araucária” themed handcrafted products have been developed by a group of 5 local women named *Amigas dos Roxinhos*. The proceeds are used by the craftswomen as an extra source of income, which was an average of US\$ 13,123 in the beginning of the project. This program has created an economic value to the Amazons in the wild.

Post-release monitoring: The project has shown vinaceous-breasted Amazons, victims of wildlife illegal trade, can be successfully rehabilitated for re-introduction purposes. Released birds have adapted well to the natural environment, groups of 2 - 15 birds are observed frequently, although there was a confirmed mortality of 19.73% since January 2011. At least 6 pairs were identified, one tree hole used as a nest was located, a total of 9 offspring have been observed and one was rescued after falling in the ground and failure of reunion with the parents. These results indicate that it is possible to reduce threats at the release area with programs focused on socio-economic development and environmental protection. Data on parrots rehabilitation, release and monitoring, as well as the impact of the work on community members' perception have been generated through the scientific method and shared in order to educate stakeholders.

through reports, journal articles, and educational materials, such as pamphlets, educational campaigns, comic books, a website and social network updates, texts to the media/journalists.



Vinaceous-breasted Amazon in flight

Major difficulties faced

- Resistance from some Brazilian research scientists in recognizing re-introduction of Amazons victims of wildlife trade as a conservation tool.
- Demonstrating to the public that parrots are wild animals and should not be kept as companions.
- Coordinating a dialog among environmental agencies and stakeholder groups to reach agreement about patrolling of the release area.
- Assuring long-term financial resources to continue the project.
- Finding a good long distance monitoring equipment available for Amazons.

Major lessons learned

- It is possible to successfully release parrots victims from illegal wildlife trade, improving animal well-being, giving individuals a chance to play their ecological roles and contributing to species conservation.
- Involvement of local citizen scientists greatly increase monitoring success and improve patrolling efforts.
- Re-introduction success depends on close cooperation among diverse governmental agencies and local stakeholders and that can be achieved by the creation of a “*Amazona vinacea* protection network”.
- Creating an economic value to amazons in nature greatly contributes to community members collaboration with re-introduction efforts.
- Establishment of a viable population is a long-term goal which will be achieved by releasing small groups and long-term monitoring.

Success of project

Highly Successful	Successful	Partially Successful	Failure
	√		

Reason(s) for success/failure:

- Survival and reproduction of illegal wildlife trade victims released as part of the re-introduction effort.

- Decrease in the intensity of threats through the educational activities and socio-economic opportunities created to the local community.
- Creation of the “*Amazona vinacea* protection network” with government authorities and important stakeholders.
- Engagement of community and governmental agencies through local initiatives to support the species conservation (e.g. choice of species as symbol of the Araucarias National Park, picture of the species in all school buses, city stamp with the species as a theme)
- Scientifically sound information about *A. vinacea* and re-introduction efforts generated and provided to stakeholders.

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