



# Global Re-introduction Perspectives: 2013

Further case-studies from around the globe

Edited by Pritpal S. Soorae



IUCN/SSC Re-introduction Specialist Group (RSG)





The designation of geographical entities in this book, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of IUCN or any of the funding organizations concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The views expressed in this publication do not necessarily reflect those of IUCN.

**Published by:** IUCN/SSC Re-introduction Specialist Group & Environment Agency-ABU DHABI

**Copyright:** © 2013 International Union for Conservation of Nature and Natural Resources

**Citation:** Soorae, P. S. (ed.) (2013). *Global Re-introduction Perspectives: 2013. Further case studies from around the globe*. Gland, Switzerland: IUCN/SSC Re-introduction Specialist Group and Abu Dhabi, UAE: Environment Agency-Abu Dhabi. xiv + 282 pp.

**ISBN:** 978-2-8317-1633-6

**Cover photo:** Clockwise starting from top-left:

- i. Fen Raft Spider, UK © Helen Smith
- ii. *Manglietia longipedunculata* © Late Prof. Qingwen Zeng
- iii. European Tree Frog, Latvia © Andris Eglitis
- iv. Red Wolf © USA John Froschauer/PDZA
- v. Hungarian Meadow Viper © Tamás Péchy
- vi. Westslope Cutthroat Trout, USA © Carter Kruse, Turner Enterprises, Inc./Turner Endangered Species Fund
- vii. Oriental White Stork, Japan © Yoko Mitsuhashi

**Cover design & layout by:** Pritpal S. Soorae, IUCN/SSC Re-introduction Specialist Group

**Produced by:** IUCN/SSC Re-introduction Specialist Group & Environment Agency-ABU DHABI

**Download at:** [www.iucnsscrg.org](http://www.iucnsscrg.org) / [www.iucn.org](http://www.iucn.org)

## Preliminary observations from a welfare release of woolly monkeys in the Colombian Amazon

Sara E. Bennett\*, Jhon Jairo Vásquez, Leoncio Sánchez, Luis Sinarahua, Aladino Murayari, Angélica Martínez, Lina Peláez & Juan Millán

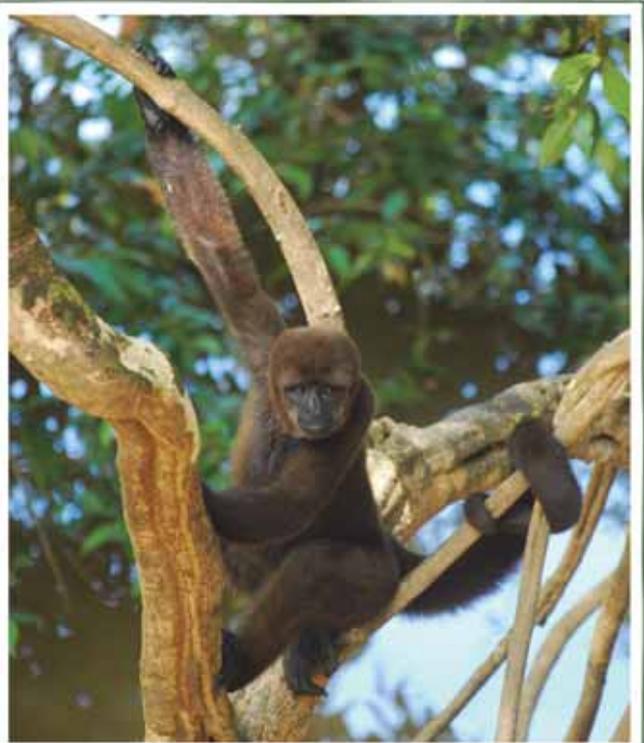
Fundación Maikuchiga, Parque Nacional Natural Amacayacu, Sede Administrativa, Av. Vásquez-Cobo No. 15-60, Leticia, Amazonas, Colombia

\* - [nomiosarabennett@yahoo.com](mailto:nomiosarabennett@yahoo.com)

### Introduction

Humboldt's woolly monkey (*Lagothrix lagotricha*), the largest primate throughout most of its geographical range, is a sensitive indicator of human influence in the Upper Amazon region due to its extremely low reproductive rate and need for large areas of undisturbed primary forest. Populations were decimated in the 1960s and 1970s due to the global demand for exotic pets and spotted cat skins (the monkeys were the preferred bait in the cat traps). National laws and the CITES convention reduced the volume of exploitation, but the species is still in decline due to habitat loss and overhunting. It is categorized as VU in Colombia and VU A3cd by the IUCN.

The taxonomy of *Lagothrix* is an unresolved issue of conservation importance. The IUCN follows Groves' recognition of 4 species, based on morphological characters, while the Colombia Red List follows more recent cytological and molecular evidence consistent with a single species with four geographical subspecies. Amacayacu National Park, like other protected areas in the Colombian Amazon, shares jurisdiction for most of its area with indigenous reserves whose inhabitants have legal rights to the traditional use of natural resources. Woollies have been locally extinguished from much of the southern part of the park.



Female Humboldt's woolly monkey

© Angélica Martínez A.



Rehabilitated individuals  
© Angélica Martínez A.

## Goals

- **Goal 1:** Establish a self-sustaining troop of woolly monkeys rescued from the wildlife trade in an area of local extinction that is now protected by the community.
- **Goal 2:** Consolidate and strengthen support in the local indigenous community for their ban on hunting woolly monkeys and other threatened game species in their territory.
- **Goal 3:** Evaluate re-introduction/supplementation of woolly monkeys as a potential conservation tool for the management of a threatened species, for ecosystem restoration in areas of local extinction, and as an element in the campaign against illegal wildlife trafficking.
- **Goal 4:** Use the specific case of woolly monkeys, a threatened and ecologically important species, to facilitate the improvement of coordination and interpretation of current legal norms so that re-introduction/supplementation can be a more available and better - defined

tool for species and ecosystem management in Colombia.

## Success Indicators

- **Indicator 1:** Survival of the liberated individuals.
- **Indicator 2:** Species-typical behavior of the liberated individuals in terms of social interactions, foraging, use of substrate, and use of habitat.
- **Indicator 3:** Support, participation, and cooperation from the local indigenous community for both the maintenance of the hunting ban and for protection of the liberated troop.
- **Indicator 4:** Application of lessons learned in regional and national natural resource management planning.

## Project Summary

**Feasibility:** Results reported here are from an ongoing pilot study for a possible long-term project conceived gradually as part of the evolution of the continuing discussion of natural resource use among Amacayacu National Park and the indigenous communities in its southern zone of influence. In 2004, the Mocagua Indigenous Reserve (most of which overlaps with the Park) made a collective decision to stop hunting threatened game species in its territory, with a

special emphasis on the woolly monkey. The creation in the Park of a rescue center for orphaned primates confiscated from the illegal wildlife trade and a small, community-based NGO to administer this function in collaboration with the Park and the regional government agency for natural resource management (Corpoamazonía) were direct results of this agreement. At first, the rescue center simply served as an organic regional solution to the enforcement of anti-wildlife trafficking laws; activities were focused on the humane management of the confiscated victims. Healthy orphans of various primate species were free-living in natural habitat with conspecifics and with human nutritional /veterinary support.

Free-living, rehabilitated woollies begin to present special management issues as they mature - the males become dangerous and the females begin to explore widely in search of a troop to join. For this reason we decided to relocate the eight young individuals under our care to a site more isolated from human activities and gradually help them become independent. Accumulating evidence that the future diversity of Amazonian forests is highly-dependent on the seed dispersal function of robust ateline populations, that the other indigenous communities in the southern part of the park are overhunting woollies, and that the species is one of the most frequently confiscated from the illegal pet trade led us to treat this as an experiment not only in the management of confiscated individuals, but also of the wild population and a fauna-depleted ecosystem.

**Implementation:** In July 2010, we took an adult male and two sub-adult females to the chosen site and confined them for a few days to adjust to the change (in the small cabin built for the human support team). Then we brought up the 5 remaining individuals (a younger sub-adult female, 3 juvenile females, and a juvenile male), who were released on the spot, and freed the older ones. There was relatively little stress involved, and all the individuals stayed together, exploring and foraging as a cohesive group.

**Post-release monitoring:** The relocation occurred at the beginning of the season of relative scarcity of ripe fruit in the forest and as the troop began to explore we continued to provide them with food and observe them nearly continuously for six months. As the availability of fruit became greater, we began to leave them on their own for longer periods, while continuing to observe their movements and behavior regularly. During the 2011 season of fruit scarcity, when it became clear that they were losing weight we began to provide food



Juvenile woolly monkey © Angélica Martínez A.



Field staff © Angélica Martínez A.

again. During the second season of abundance, they were completely independent and no longer “central-place foragers”. In their third season of scarcity they have begun supplementing again due to an obvious deterioration in the physical condition of the male. Two individuals have disappeared and one died after we brought her back in poor health for intensive care. During the first year of this experiment there was a

change in the national regulations for the management of impounded wildlife in which the release in protected areas of confiscated animals whose precise origin is unknown is prohibited, and we were no longer able to continue receiving orphans.

Woolly monkeys typically live in large, multi-male, multi-female troops whose home ranges overlap. The males are philopatric and females tend to disperse from their natal troops at around 6 years. So far there has been no reproduction in the rehabilitated group, apparently due to a “kibbutz effect”. Our original intention to create a second group of rehabilitated individuals with this in mind is no longer possible. It seems likely that the females will soon begin to search for a wild troop to join and the male will become solitary. Our conclusion from the experience is that the re-introduction of confiscated and rehabilitated woollies in areas where the natural population is locally extinct, fragmented, or significantly reduced is a viable, not harmful, and probably beneficial conservation option if long-term follow-up is possible to ease them through their first seasons of fruit scarcity. Even if the released individuals do not reproduce, their foraging restores, at least temporarily, a significant ecosystem function, i.e., seed dispersal for the many plant species with large-seeded, nondehiscent fruits dependent on these large wide-ranging primate frugivores. We recommend modification of the national norms or their interpretation so that nonarbitrary, species-specific protocols for evaluating potential risks and benefits of re-introduction can be developed and applied.

## Major difficulties faced

- New national regulations for the management of impounded wildlife intended to prevent uncontrolled “dumping” of confiscated animals in effect now prevent re-introduction or supplementation as a practical option for the conservation management of protected areas in Colombia.
- There is little basic information about regional *Lagothrix* foraging ecology and our evaluation of habitat quality in the area of release, especially during the

long season of relative scarcity of ripe fleshy fruit, has been more intuitive and experiential than empirical. It is not clear whether the released individuals' difficulties in the season of fruit scarcity result from their inexperience or from the effects of selective logging for domestic use in the area, since some of the preferred timber species are also woolly monkey food plants.

## Major lessons learned

- Consideration of the details of dispersal biology is critical in the long-term planning of a re-introduction. For woolly monkeys, we think a minimum of two multi-male groups is necessary, so that females reaching reproductive age can disperse from their “natal” troop.
- This project, *sensu lato*, has provided highly visible positive reinforcement for a responsible local community decision with respect to threatened game species.
- The analysis of the issues relevant to the advisability of re-introduction brought about improved understanding of the status of and increased protection for the wild population. The woolly monkey is now recognized as an “integral conservation priority” in the management plan of Amacayacu National Park as a result, and a program for monitoring the wild population has been designed and initiated. The isolation of the Colombian “trapezius” from the rest of the country has been recognized in the process; the urgent need for international action to guarantee biological connectivity within the biogeographic unit defined by the Amazon, Putumayo, and Napo rivers and the eastern cordillera of the Andes is addressed in a joint action plan of the national parks department’s Amazonian subdivision and Corpoamazonía.
- The re-introduction of rehabilitated woollies appears to be a viable, not harmful, and probably beneficial possibility for conservation management, but only makes sense in the context of a comprehensive long-range strategy for species and ecosystem protection. Despite generally excellent environmental laws, Colombia lacks adequate planning and coordination mechanisms among government agencies with different functions and geographical scales of action for this to take place.

## Success of project

Highly Successful	Successful	Partially Successful	Failure
		√	

### Reason(s) for success/failure:

- Success: Total community involvement and participation from the project conception, with proactive support from national park and regional natural resource management agency.
- Success: Long-term commitment of those involved (community, national park, NGO), not only to reintroduction of woollies, but in general to biological conservation as a major aspect of cultural conservation, economic development, and human well-being.
- Failure: Top-down, arbitrary management from a national level with insufficient involvement from regional actors. In preventing the risks of pathogens,

invasive species, and exogamic depression associated with re-introduction or supplementation of wild populations in protected areas with rehabilitated individuals, the new national regulations in effect also prevent the potential benefits of increasing numbers and avoiding the loss of genetic variability associated with small and fragmented populations.

## References

Botero, S., L. Renjifo, M. Bueno, & P. Stevenson. (2010) How many species of woolly monkeys inhabit Colombian forests? *A. J. Prim.* 71: 1-10.

Palacios, E., Boubli, J.-P., Stevenson, P., Di Fiore, A. & de la Torre, S. (2008) *Lagothrix lagotricha*. In: IUCN 2010. IUCN Red List of Threatened Species. Version 2010.2. <[www.iucnredlist.org](http://www.iucnredlist.org)>.

Rodríguez-Mahecha, JV; M. Alberico; F. Trujillo, J. Jorgensen. (2006) Libro Rojo de los Mamíferos de Colombia. Serie libros Rojos Especiales Amenazadas de Colombia. Bogotá, Colombia: Conservación Internacional Colombia y Ministerio de Ambiente Vivienda y Desarrollo Territorial. 433 p.

Peres, C. (1990) Effects of hunting on western Amazonia primate communities. *Biol. Cons.* 54: 47-59.

Stevenson, P. R. (2010) The abundance of large Ateline monkeys is positively associated with the diversity of plants regenerating in neotropical forests. *Biotropica* 11 (11): 1-8.