Dr Luis Ortiz-Catedral

l.ortiz-catedral@massey.ac.nz
Tel: + 64 9 4140800 ext 41197
Fax: + 64 9 443 9790

Room 5.05
Building 5, Gate 4
Albany Campus
Massey University

Postdoctoral Fellow
Ecology, Behaviour & Conservation Group

Research

My research encompasses a range of topics in Conservation Biology including the taxonomy and conservation of New World monocotyledons; reproductive biology and management of threatened island birds; management of disease risk in small avian populations and the development of survey methods for threatened island vertebrates such as parrots and land iguanas. The largely human-driven biodiversity loss occurring at a global scale is an unprecedented phenomenon. Such loss ranges from erosion of genetic diversity of food crops and species extinctions, to disappearance of ecosystem-level processes. These changes have a severe effect in human societies as their wealth and wellbeing ultimately rely on the services and products ecosystems provide. The disappearance of species constitutes one of the most dramatic examples of biodiversity loss. Approximately 20, 000 species are threatened with extinction, due to habitat modification, introduction of invasive species and unsustainable harvest. The task of developing projects aimed at preventing species extinctions is clearly overwhelming. In collaboration with scientists and managers from around the world and from a wide range of disciplines, I develop topical projects aimed at stopping biodiversity loss on islands.

My PhD research project aimed at refining translocation practices for New Zealand native parakeets. I achieved this by conducting the largest transfer of red-fronted parakeets (*Cyanoramphus novaezelandiae*) to date: 120 individuals to two sites. Such effort resulted in the establishment of two breeding populations of the species. I also closely monitored a recently established population of captive-bred Orange-fronted parakeets (*Cyanoramphus malherbi*) on Maud Island examining their survival and reproductive success on a predator-free island for the first time. Such information will help improve reintroduction planning for captive-bred New Zealand parrots.

After completing my PhD research in 2010, I worked as Coordinator of the Ecological Restoration Group at the Charles Darwin Foundation in the Galapagos Islands. The Galapagos Islands represent a unique system to study the effects of humans on island ecosystems and also a trial ground for new restoration methodologies. Using the critically endangered Floreana Mockingbird (*Mimus trifasciatus*), Galapagos Land Iguanas

(*Conolophus subcristatus*) and Giant Tortoises (*Chenoloides* sp.) as study systems I developed survey techniques and studied the biology of these species to identify ways of maximising conservation efforts on a tropical archipelago.

My current research is focused on the molecular characterisation of haematological pathogens affecting parrots and cockatoos, the description of Monocotyledon species new to science, assessing control techniques for invasive birds, the use of museum specimens to address questions related to avian population dynamics, and developing survey methods for critically endangered island parrots. This work is done in collaboration with scientists from Australia, Ecuador, Germany, Jersey, New Zealand, Mexico and the United States.

Teaching

296.101: Biology of Animals
194.245: Animal Form and Function
199.206: Fauna of New Zealand
246.102: Science and Sustainability
196.217: Evolution
120.218: Flora of New Zealand

Collaborations

Arvind Varsani, University of Canterbury, NZ
Juan Masello, University of Giessen, Germany
Mark Hauber, City University New York, USA
Jim Briskie, University of Canterbury, NZ
Allizon Llerena, Charles Darwin Foundation, Ecuador
Dianne H. Brunton, Massey University, NZ
Robert Heinsohn, The Australian National University, Australia
Aaron Rodriguez, The University of Guadalajara
Paquita Hoeck, San Diego Zoo, USA
Glyn Young, Durrell Wildlife Conservation Trust, Jersey

Funding

Travel Grants

2010 Claude McCarthy Fellowship - NZ$3000
2009 Claude McCarthy Fellowship - NZ$3600
2006 Institute of Avian Research - NZ$800

Awards

2010 Bob Steward Environmental Award - NZ$5000

Research Grants to date (USD $241,550)

Year	USD	Project Title	Funder
2012	20K	Reintroduction of the Floreana Mockingbird	Galapagos Conservation Trust
2012	29K	Control the Smooth-billed ani in the Galapagos Islands	Keidanren Nature Conservation Fund
2012	50K	Reforestation and Agricultural Production on Floreana Island	COMON Foundation
2012	50K	Ecosystem responses to eradication practices on Pinzon and Rabida Islands	Galapagos Conservancy
2012	2K	Promoting cultivation of native plants on Floreana Island	LATA Foundation
2011	6K	Aspects of the biology of the critically endangered Floreana Mockingbird (Mimus trifasciatus) in the Galapagos Islands	Intrepid Travel, Australia
2011	10K	Molecular characterisation of BFDV in New Zealand parrots	Brian Mason Scientific and Technical Trust
2010	6K	Monitoring of Orange-fronted parakeets on Maud Island	Department of Conservation, New Zealand
2010	15K	Conservation Malherbe's parakeet on Maud Island	Mohamed bin Zayed Species Conservation Fund
2010	15K	Translocation of red-crowned kakariki to Tawharanui Regional Park	The Lion Foundation, New Zealand
2009	2K	Survey of BFDV on red-crowned and orange-fronted kakariki on Codfish and Maud Islands	Auckland Zoo Conservation Fund
2009	10K	Survey of BFDV on red-crowned parakeets inhabiting Raoul Island	Department of Conservation, New Zealand
2009	10K	Translocation of red-crowned kakariki to Tawharanui Regional Park	Tawharanui Open Sanctuary Supporters Inc.
2008	10K	Translocation of red-crowned kakariki to Motuihe Island	Motuihe Island Trust
2007	1.6K	Translocation of Orange-fronted parakeets on Maud Island	Department of Conservation, New Zealand
2006	0.9K	Reproductive biology of the red-crowned parakeet	Sigma Xi-The Scientific Research Society
2005	0.9K	Reproductive biology of the red-crowned kakariki	Stiftung Avifauna Protecta
2005	1.2K	Assessment of the effects of translocation on the reproductive biology of the red-crowned kakariki	Supporters of Tiritiri Matangi Island
2004	0.9K	Reproductive biology of the red-crowned kakariki	Supporters of Tiritiri Matangi Island
2003	1K	Evaluation of conservation categories of nine endemic Iridaceae of Mexico	CONABIO, Mexico

Publications

26. **Ortiz-Catedral L.** et al. 2012. Population increase of critically endangered Malherbe's parakeet *Cyanoramphus malherbi* introduced to Maud Island, New Zealand. *Conservation Evidence 9: 54-57*

25. **Ortiz-Catedral L.** 2012. Habitat use by the critically endangered orange- fronted parakeet (Cyanoramphus *malherbi)* on Maud Island, New Zealand. *Notornis* 59*: 148-152.*

24. Massaro, M., **Ortiz-Catedral L** et al. 2012. Molecular characterisation of Beak and feather disease virus (BFDV) in New Zealand and its implications for managing an infectious disease. *Archives of Virology* 157*: 1651-1663.*

23. **Ortiz-Catedral L** et al. 2011. Avian malaria in a remnant population of red- fronted parakeets on Little Barrier Island, New Zealand. *New Zealand Journal of Zoology* 38: 261-268.

22. Ismar S. M. H, Chong N. L., Igic B., Baird K., **Ortiz-Catedral L.,** Fidler A. E. & M. E. Hauber. 2011. Visual sensitivity, coloration and morphology of red- tailed tropicbirds *Phaeton rubricauda* breeding on the Kermadec Islands. *New Zealand Journal of Zoology* 38: 29-42.

21. **Ortiz-Catedral L.** 2010. No T-cell-mediated immune response detected in a red- fronted parakeet (Cyanoramphus *novaezelandiae)* infected with the Beak and Feather Disease Virus (BFDV). *Notornis* 57: 48-49.

20. **Ortiz-Catedral L.** 2010. Homing of a red-crowned parakeet (Cyanoramphus *novaezelandiae)* from Motuihe Island to Little Barrier Island, New Zealand. *Notornis* 57: 48-49.

19. **Ortiz-Catedral L** et al. 2010. A new isolate of beak and feather disease virus from endemic red-fronted parakeets (*Cyanoramphus novaezelandiae)* in New Zealand. *Archives of Virology* 155: 613-620.

18. **Ortiz-Catedral L** & Brunton D. H. 2010. Success of translocations of red- fronted parakeets *Cyanoramphus novaezelandiae novaezelandiae* from Little Barrier Island (Hauturu) to Motuihe Island, Auckland, New Zealand. *Conservation Evidence* 7: 21-26.

17. **Ortiz-Catedral L.** 2009. Some observations on the behaviour of the critically endangered orange-fronted parakeet (Cyanoramphus *malherbi)* on Maud Island, New Zealand. *Notornis* 56: 165-166.

16. **Ortiz-Catedral L** & Brunton D. H. 2009. Notes of the diet of the critically endangered orange-fronted parakeet (Cyanoramphus *malherbi)* on Maud Island. *New Zealand Journal of Zoology* 36: 385-388.

15. **Ortiz-Catedral L** et al. 2009. No evidence of *Campylobacter*, *Salmonella* and *Yersinia* in free-living populations of the red-crowned parakeet (*Cyanoramphus novaezelandiae). New Zealand Journal of Zoology* 36: 379- 383.

14. **Ortiz-Catedral L** et al. 2009. First report of beak and feather disease virus (BFDV) in wild Red-fronted parakeets (Cyanoramphus *novaezelandiae)* in New Zealand. *Emu* 109: 244-247.

13. **Ortiz-Catedral L** et al. 2009. Breeding biology of the critically endangered Malherbe's parakeet on Maud Island, New Zealand, following the release of captive- bred individuals. *Australian Journal of Zoology* 57: 433-439.

12. **Ortiz-Catedral L** et al. 2009. Recolonization of Raoul Island Kermadec red- crowned parakeets *Cyanoramphus novaezelandiae cyanurus* after eradication of invasive predators, Kermadec Islands archipelago, New Zealand. *Conservation Evidence* 6: 26-30.

11. **Ortiz-Catedral L** and Brunton D. H. 2009. Nesting sites and nesting success of reintroduced red-crowned parakeets (*Cyanoramphus novaezelandiae)* on Tiritiri Matangi Island, New Zealand. *New Zealand Journal of Zoology* 35: 1- 10

10. **Ortiz-Catedral L** and Brunton D. H. 2008. Clutch parameters and reproductive success of a translocated population of red-crowned parakeet (*Cyanoramphus novaezelandiae). Australian Journal of Zoology* 56: 389-393

9. Rodriguez A & **Ortiz-Catedral L.** 2006. *Tigridia pugana* (Iridaceae: Tigridieae), a new species from Jalisco, Mexico. *Acta Botanica Mexicana* 76: 59-66.

8. Rodriguez A & **Ortiz-Catedral L.** 2005. *Tigridia rzedowskiana* (Tigridieae: Iridaceae), una nueva especie del estado de Queretaro, Mexico. *Acta Botanica*

Mexicana 71:53-59. 7. Rodriguez A & **Ortiz-Catedral L.** 2005. *Tigridia suarezii* (Tigridia: Iraceae) a new species from Jalisco, Mexico. *Novon* 15: 354-357.

6. Rodriguez A & **Ortiz-Catedral L.** 2003. *Colima* (Tigridieae: Iridaceae) a new genus from western Mexico and a new species: *Colima tuitensis* from Jalisco. *Acta Botanica Mexicana* 65: 51-60.

5. Rodriguez A & **Ortiz-Catedral L.** 2003. *Tigridia gracielae* (Tigridieae: Iridaceae) a new species from Mexico. *Acta Botanica Mexicana* 64: 31-36.

4. Rodriguez A **Ortiz-Catedral L.** & Heaton E 2003. Tres nuevas localidades de tigridias endemicas de Mexico. *Acta Botanica Mexicana* 62: 1-8.

3. Rodriguez A & **Ortiz-Catedral L.** 2002. Nuevas localidades de tigridias mexicanas. *Ibugana* 10: 61-66.

2. Rodriguez A & **Ortiz-Catedral L.** 2002. Nuevos registros de Iridaceas mexicanas.Boletin *IBUG* 1-2: 25-36.

1. Rodriguez A & **Ortiz-Catedral L.** 2001. La tribu Tigridieae (Iridaceae) en Mexico. Scientia-CUCBA 3:123-136.

Book Chapters

2. **Ortiz-Catedral, L.** et al. 2010. Conservation translocations of red-fronted parakeet on Matiu/Somes Island and Motuihe Island, New Zealand. **Global Re- introduction Perspectives: Additional case studies from around the globe.** P. S. Soorae. Abu Dhabi, IUCN/SSC Reintroduction Specialist Group: 155-159.

1. **Ortiz-Catedral, L.,** et al. 2010. Re-introduction of captive-bred Malherbe's parakeet to Maud Island, Marlborough Sounds, New Zealand. **Global Re- introduction Perspectives: Additional case studies from around the globe.** P. S. Soorae. Abu Dhabi, IUCN/SSC Re-introduction Specialist Group: 151-154.