

Marco Gamba

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Research profile

Dr Marco Gamba is Researcher in Zoology in the Department of Life Sciences And Systems Biology at the University of Torino. His long time interest in sounds and music led him to a growing interest in bioacoustics. His scientific career has started with his master thesis in lemur vocal communication at the University of Torino, in the Nineties. He followed this with professional contracts from the Museo Civico di Storia Naturale of Verona and University of Torino and a post-graduate Master degree in computer science. In these years, Marco worked on Primate skull morphology, distribution of Lepidoptera, conservation of loggerhead sea turtles, and amphibians communication. In 2001, Marco started his first contract as Research Assistant in the Department of Animal and Human Biology at the University of Torino, focused on the description of lemur vocal repertoires. In 2005, he received his PhD in Evolutionary Biology and Conservation of Biodiversity from the University of Torino. A common thread throughout Marco's research career has been the development of new methods for the quantitative description of animal vocalizations, including software for sound analysis. His work in Madagascar investigated vocal communication in many lemur species, comprising lemuroids, indris and other diurnal prosimians and demonstrated that patterns of vocal communication are much more complex than what usually thought. In 2004, funded by the Marie Curie Fellowship, Marco spent a period at the University of Sussex, in the Department of Experimental Psychology. When he was in Brighton, he designed playback experiments for prosimians using re-synthesized calls and co-worked at the development of non-supervised methods for call categorization. In 2004, Marco was scientific secretary of XX Congress of the International Primatological Society and editor of the *Folia Primatologica* abstract volume published by S. Karger AG, Basel. He was also in the Scientific Secretariat of the International Workshop "Climate Change: Adaptations And Extinctions" held in 2009. In recent years, Marco combined anatomical analyses of the vocal apparatus and acoustical analyses to create computational models of non-human primate vocal tract in order to simulate vocal tract resonance. Gamba's current works are focused on several distinct areas of research, all based around improving our understanding of Primate phonation and vocal abilities. Marco is member of the International Primatological Society, of the Italian Association of Anthropology, Secretary of the Italian Association of Primatology, Editorial Board Member of the *Open Acoustics Journal*. Marco's served as ad hoc reviewer for the following journals and institutions: *BMC Evolutionary Biology*, *Animal Behaviour*, *Journal of Acoustical Society America*, *Folia Primatologica*, *Italian Journal of Zoology*, *Computers and Electronics in Agriculture*, *Bioacoustics*, *BMC Evolutionary Biology*, Grant Agency of the Academy of Sciences of the Czech Republic.

Education and Qualifications

2011-: University of Torino:

Academic Researcher in Zoology at the Faculty of Science, Department of Life Sciences and Systems Biology.

- 2011: Unione Zoologica Italiana:
UZI Award for the contribution to Phylogeny and Systematics at the 72° Congress of Unione Zoologica Italiana (Italian Zoological Society).
- 2011: University of Torino:
Research fellowship at the Department of Agriculture and Pomology.
- 2010: Riken Brain Science Institute Tokyo, Japan
Invited seminar on the “Variation in Primate Vocalizations and Primate Songs: Effects of Species, Sex, Individuality and Phonatory Process”.
- 2010: University J. Fourier Grenoble, France
Invited seminar on the “Evolution of vocal communication” at the UMR CNRS 5553.
- 2010: University of Comoros, Comoros:
Contract Professor for the course “Bioacoustic Methods To Evaluate Biodiversity [Méthodes (bioacoustiques) d'évaluation de la biodiversité]” at the International Master of Sustainable Development and Biodiversity Conservation.
- 2010: University of Mahajanga, Madagascar:
Contract Professor for the course “Bioacoustic Methods To Evaluate Biodiversity [Méthodes (bioacoustiques) d'évaluation de la biodiversité]” at the International Master of Sustainable Development and Biodiversity Conservation.
- 2009-2011: University of Torino:
Research fellowship at the Department of Animal and Human Biology.
- 2007-2009: University of Torino:
Research Assistantship in “Evolution of the Acoustic Communication in Primates”.
- 2005-2007: University of Torino:
Research Assistantship in “Conservation, Biodiversity, Wildlife”.
- 2002-2005: University of Torino:
Ph.D. in “Evolutionary biology and conservation of biodiversity”. Thesis: “Evolution of vocal communication in lemurs”.
- 2004: University of Sussex:
Marie Curie Fellowship in Experimental Psychology at the University of Sussex at Brighton.

2001-2002: University of Torino:

Research Assistantship in “Description of the vocal repertoire in *Eulemur macaco macaco* and *Eulemur macaco flavifrons*”.

2000/2: University of Torino:

Research Fellowship in “Methods to reduce by-catch of *Caretta caretta* during pelagic long line fisheries”.

2000/1: University of Torino:

Research Fellowship in “Individuation and measuring of skull skeletal structures in Primates with relation to evolutionary aspects of human posture in extreme environments”.

1999/2: Museum of Natural Sciences of Verona:

Research Fellowship in “Census of Lepidoptera Rhopalocera in Northern Italy”.

1999/1: E.N.G.I.M. Torino:

Master in “Techniques of secure telematic data transmission”.

1991-1998: University of Torino:

B.A. in Biological Sciences and experimental thesis entitled “Vocalization development in *Varecia variegata variegata*”. Other subjects studied: Physics, Mathematics, Ethology and Zoology.