

CHRISTOPHER JOHN RAXWORTHY
ASSOCIATE DEAN OF SCIENCE FOR EDUCATION AND EXHIBITION
CURATOR-IN-CHARGE AND ASSOCIATE CURATOR
DEPARTMENT OF HERPETOLOGY
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HIGHEST DEGREE EARNED

Ph.D.

AREA OF SPECIALIZATION

Systematics, biogeography, ecology, ethology, and conservation biology of reptiles and amphibians

EDUCATIONAL EXPERIENCE

Ph.D. in Biology , The Open University, Milton Keynes, England, 1985-1989
B.Sc. in Zoology, Royal Holloway and Bedford New College, University of London, Egham, England, 1982-1985

PREVIOUS EXPERIENCE IN DOCTORAL EDUCATION

FACULTY APPOINTMENTS

Adjunct Professor, Department of Ecology, Evolution and Environmental Biology, Columbia University, 2000 -
Assistant Professor, Department of Ecology and Evolutionary Biology, University of Kansas, 1998 – 2000
Assistant Professor, Center for Environmental Research and Conservation, Columbia University, 1996 – 1998

COURSES TAUGHT

Biotic Surveys and Inventories, Columbia University, 2002
Principles of Biogeography, University of Kansas, 1999
Topics in Reptile Research, University of Kansas, 1999
Biogeography, Columbia University, 1997-98
Evolution Core Courses I and II, Columbia University, 1996-97 (team taught)
Ecology Core Courses I and II, Columbia University, 1996 (team taught)
Biogeography Seminar, University of Antananarivo, 1997

GRADUATE COMMITTEES

Mike Friedman, CUNY, 2000-present
Valeria Tavares, CUNY, 2002-present
Ryan P. Kelly, Columbia University, 2003-06
Adrian Tejedor, CUNY, 2002-07
Julian Faivovich, Columbia University, 2000-05
Taran Grant, Columbia University, 2000-05
Sushma Reddy, Columbia University , 2001-04
Liliana Dávalos, Columbia University, 2002-04

Evon Hekkala, Columbia University, 2000-03
Ana Luz Porzecanski, Columbia University, 1996-98
Andrea Peffley, Columbia University, 1996-98
Eugenia F.S. Naro, Columbia University, 1996-98
Peter Makovicky, Columbia University, 1996-98

GRADUATE ADVISEES

Kris Karsten, Oklahoma State University, 2000-present
Nirhy Rabibisoa, University of Antananarivo, 2000-present
Paule Razafimahatratra, University of Antananarivo, 2006-present
Miora Randriambahiniarime, University of Antananarivo, 2004-present
Tsoa Ranjanahaisoa, University of Antananarivo, 2004-07
Minh Le, Columbia University, 2000-06
Ny Rakondrazafy, University of Antananarivo, 2001-06
Claudette Maminirina, University of Antananarivo, 2000-04
Valerie Clark, Columbia University, 2002-03
Rosalie Razafindrasoa, University of Antananarivo, 2001-02
Nadine Harilanto, University of Antananarivo, 2000-01
Achille Raselimanana, University of Antananarivo, 1991-00
Anna Clark, University of Kansas, 1998-00
Jenny Pramuk, University of Kansas, 1998-00
Eli Greenbaum, University of Kansas, 1999-00
Jennifer Garrison, University of Kansas, 1999-00
Faly Rabemananjara, University of Antananarivo, 1996-98
Andry Ravoninjatovo, University of Antananarivo, 1996-98
Jean-Baptiste Ramanamanjato, University of Antananarivo, 1991-93

RESEARCH GRANT SUPPORT

National Science Foundation, "CAREER: Amhibians, Reptiles and Small Mammals in the Tsaratanana Massif Complex of Northern Madagascar," \$397,649, September 15, 2000 – August 31, 2006
National Science Foundation, "Curation and Data Capture for Reptilian and Amphibian Biodiversity at AMNH," \$307,400, May 1, 2002 – April 30, 2006
National Science Foundation, (co-PI A.T. Peterson) "SGER BS&I: Accelerating discovery of new species in Madagascar using remotely sensed data and ecological niche modeling," \$80,142, September 1, 2004 – February 28, 2006.
National Science Foundation (co-PIs C. Ingram, R. Pearson). Chameleon (Reptilia: Chamaeleonidae) phylogeny, biogeography, and continental speciation in Madagascar. \$480,000, February 1 2007- 2010.

RECENT ARTICLES IN REFEREED JOURNALS

- Cramer, A., Rabibisoa, N., and Raxworthy, C.J. In press. Descriptions of two new *Spinomantis* frogs from Madagascar (Amphibia: Mantellidae), with new morphological data for two other poorly known species: *S. brunae* and *S. massorum*. *Novitates*
- Frost, D., Grant, T., Faivovich, J., Bain, R., Haas, A., Haddad, C.F.B., De Sa, R.O., Channing, A., Wilkinson, M., Donnellan .S.C., Raxworthy, C.J., Campbell, J.A., Blotto, B. L. , Moler, P., Drewes, R. C., Nussbaum, R.A., Lynch, J.D., Green, D. and Wheeler, W. Is the Amphibian Tree of Life really fatally flawed? In press. *Cladistics*.
- Maminirina, C.P., Goodman, S. M., and Raxworthy, C.J., In press. Les micro-mammifères (Rodentia et Afrosoricida) du massif du Tsaratanana et leur biogéographie dans les forêts des hautes montagnes de Madagascar. *Zoosystema*
- Rakotondrazafy, A.M. and Raxworthy, C.J., In press. Distribution et biogéographie des amphibiens pandanicoles dans le couloir forestier du Nord de Madagascar. Symposium Volume: Conservation Strategy for the Amphibians of Madagascar. *Bollettino del Museo rgionale di Scienze naturali Torino*.
- Rabibisoa, N., Ramilijaona, O., Raxworthy, C.J., In press. Diversité spécifique et endémisme inattendus dans le Nord de Madagascar : résultats biogéographiques préliminaires de *Mantidactylus* sous-genre *Ochthomantis*. Symposium Volume: Conservation Strategy for the Amphibians of Madagascar. *Bollettino del Museo rgionale di Scienze naturali Torino*.
- Raxworthy, C.J., In press. Global warming and extinction risks for amphibians in Madagascar: a preliminary assessment of potential upslope displacement. Symposium Volume: Conservation Strategy for the Amphibians of Madagascar. *Bollettino del Museo rgionale di Scienze naturali Torino*.
- Raxworthy, C.J. Les Reptiles de Madagascar. In press. In: *Histoire Naturelle de Madagascar* (Goodman, S.M. and Benstead, J.P. eds.). Second Edition. Chicago Press.
- Raxworthy, C.J., Pearson, R.G., Rabibisoa, N., Rakotondrazafy, A.M., Ramanamanjato, J.-B., Raselimanana, A.P., Wu, S., Nussbaum, R.A., and Stone, D. In press. Extinction vulnerability of tropical montane endemism from warming and upslope displacement: a preliminary appraisal for the highest massif in Madagascar. *Global Change Biology*.
- Raxworthy, C.J., Ingram, C. Rabibisoa, N. and Pearson, R. (2007). Applications of Ecological Niche Modeling for Species Delimitation: A Review and Empirical Evaluation using Day Geckos (*Phelsuma*) from Madagascar. *Systematic Biology* 56 (6): 907-923.
- Frost, D., Grant, T., Faivovich, J., Bain, R., Haas, A., Haddad, C.F.B., De Sa, R.O., Channing, A., Wilkinson, M., Donnellan .S.C., Raxworthy, C.J., Campbell, J.A., Blotto, B. L. , Moler, P., Drewes, R. C., Nussbaum, R.A., Lynch, J.D., Green, D. and Wheeler, W. (2006) The amphibian tree of life. *Bulletin of the American Museum of Natural History* 297: 1-370.
- Goodman, S. M., Raxworthy, C.J., Maminirina, C.P., and Olson, L.E. (2006) A new species of *Microgale* (Family Tenrecidae) from the Tsaratanana Massif of

- northern Madagascar: Description, phylogeny and biogeography. *Journal of Zoology* 270: 384-398.
- Greenbaum, E., Campbell, A.C., and Raxworthy, C.J. (2006). A revision of Sub-Saharan *Chalcides* (Squamata: Scincidae), with redescriptions of two East African Species. *Herpetologica* 62 (1): 71-89.
- Le, M., Raxworthy, C.J., McCord, W. and Mertz, L. (2006). A molecular phylogeny of tortoises (Testudines: Testudinidae) based on mitochondrial and nuclear genes. *Molecular Phylogenetics and Evolution*. Corrected Proof, Available online 5 May 2006.
- Mendelson, J.R., Lips, K.R., Gagliardo, R.W., Rabb, G. B., Collins, J.P., Diffendorfer, J.E., Daszak, P., Ibáñez, R., Zippel, K.C., Lawson, D.P., Wright, K.M., Stuart, S. N., Gascon, C., da Silva, H. R., Burrowes, P. A., Joglar, R. L., La Marca, E., Lötters, S., du Preez, L. H. , Weldon, C., Hyatt, A., Rodriguez-Mahecha, J. V., Hunt, S., Robertson, H. Lock, B., Raxworthy, C. J., Frost, D. R., Lacy, R.C., Alford, R.A., Campbell, J. A., Parra-Olea, G. Bolaños, F, Domingo, J. J. C., Halliday, T., Murphy, J. B., Wake, M. H., Coloma, L. A., Kuzmin, S. L., Price, M. S., Howell, K. M., Lau, M., Pethiyagoda, R., Boone, M., Lannoo, M. J., Blaustein, A. R., Dobson, A., Griffiths, R.A., and D. B. Wake. (2006). Mitigating Global Amphibian Extinctions: A Call For Fundamental Changes In Policy And Actions. *Science*. 313: 48.
- Pearson, R.G., Raxworthy, C.J. Nakamura, M. and A.T. Peterson. (2006). Predicting species distribution from small numbers of occurrence records: a test case using cryptic geckos in Madagascar. *Journal of Biogeography* 34: 102-117.
- Raselimanana, A.P., Nussbaum, R.A., and Raxworthy, C.J. (2006). Observations and re-description of *Zonosaurus boettgeri* Steindachner 1891 and description of a second new species of long-tailed *Zonosaurus* from Western Madagascar. *Occasional Papers of the Museum of Zoology University of Michigan*. 739: 1-16.
- Raxworthy, C.J., and Nussbaum, R.A. (2006). Six new species of occipital-lobes *Calumma* chameleons (Squamata: Chamaeleonidae) from montane regions of Madagascar, and a new description and revision of *Calumma brevicorne*. *Copeia* 2006: 711-734.
- Andreone, F., Cadle, J.A., Cox, N., Glaw, F., Nussbaum, R.A., Raxworthy, C.J., Stuart, S.N., Vallan, D. and Vences, M. (2005). Species Review of Amphibian Extinction Risks in Madagascar: Conclusions from the Global Amphibian Assessment. *Conservation Biology* 19: 1790-1802.
- Clark, C., Raxworthy, C.J., Rakotomalala, V., Sierwald, P. and Fisher, B.L. (2005). Convergent evolution of chemical defense in poison frogs and arthropod prey between Madagascar and the Neotropics. *Proceedings of the National Academy of Sciences* 102 (33): 11617-11622.
- Raxworthy, C.J., Martinez-Meyer, E., Horning, N., Nussbaum, R.A., Schneider, G.E., Ortega-Huerta, A., and Peterson, A.T. (2003). Predicting distributions of known and unknown reptiles species in Madagascar. *Nature*. 426: 837-841.
- Raxworthy, C.J. (2003). Introduction to the Reptiles. In: *The Natural History of Madagascar* (Goodman, S.M. and Benstead, J.P. eds.), pp. 934-949. Chicago Press, Chicago.

- Raxworthy, C.J. (2003). Boidae, Boas. In: *The Natural History of Madagascar* (Goodman, S.M. and Benstead, J.P. eds.), pp. 993-997. Chicago Press, Chicago.
- Andreone, F., Glaw, F., Nussbaum, R. A., Randrianirina, J. E., Raxworthy C. J. and Vences, M (2003). Diversity and conservation of amphibians and reptiles on offshore islands: the case study of Nosy Be and nearby islets (NW Madagascar). *Journal of Natural History* 37 (17): 2119-2149.
- Vences, M., Raxworthy C. J., Glaw, F., Andreone, F., Nussbaum, R. A (2003). A revision of the *Scaphiophryne marmorata* complex of marbled toads (Amphibia: Microhylidae) from Madagascar, including the description of a new species. *Herpetological Journal* 13 (2): 69-80.
- Vences, M., Raxworthy C. J., Nussbaum, R. A., and Glaw, F. (2003). A new microhylid frog (*Plethodontohyla*) from Madagascar, with semi-arboreal habits and possible parental care. *Journal of Herpetology* 37: 629-636.
- Raxworthy, C.J., Forstner, M.R.J. and Nussbaum, R.A. (2002). Chameleon radiation by oceanic dispersal. *Nature*. 415, 784-787.
- Andreone, F., Cadle, J.A., Cox, N., Glaw, F., Nussbaum, R.A., Raxworthy, C.J., Stuart, S.N., Vallan, D. and Vences, M. (in press). A Species Review of Amphibian Extinction Risks in Madagascar: Conclusions from the Global Amphibian Assessment Program. *Conservation Biology*.
- Greenbaum, E., Campbell, A.C., and Raxworthy, C.J. (in press). Redescription of two East African lizards, *Chalcides bottegi* and *C. ragazzii* (Squamata: Scincidae), with new data on Sub-Saharan populations of *Chalcides ocellatus*. *Herpetologica*.
- Clark, C., Raxworthy, C.J., Rakotomalala, V., Sierwald, P. and Fisher, B.L. (2005). Convergent evolution of chemical defense in poison frogs and arthropod prey between Madagascar and the Neotropics. *Proceedings of the National Academy of Sciences* 102 (33): 11617-11622.
- Raxworthy, C.J., Martinez-Meyer, E., Horning, N., Nussbaum, R.A., Schneider, G.E., Ortega-Huerta, A., and Peterson, A.T. (2003). Predicting distributions of known and unknown reptiles species in Madagascar. *Nature*. 426: 837-841.
- Andreone, F., Glaw, F., Nussbaum, R. A., Randrianirina, J. E., Raxworthy C. J. and Vences, M (2003). Diversity and conservation of amphibians and reptiles on offshore islands: the case study of Nosy Be and nearby islets (NW Madagascar). *Journal of Natural History* 37 (17): 2119-2149.
- Vences, M., Raxworthy C. J., Glaw, F., Andreone, F., Nussbaum, R. A (2003). A revision of the *Scaphiophryne marmorata* complex of marbled toads (Amphibia: Microhylidae) from Madagascar, including the description of a new species. *Herpetological Journal* 13 (2): 69-80.
- Vences, M., Raxworthy C. J., Nussbaum, R. A., and Glaw, F. (2003). A new microhylid frog (*Plethodontohyla*) from Madagascar, with semi-arboreal habits and possible parental care. *Journal of Herpetology* 37: 629-636.
- Raxworthy, C.J., Forstner, M.R.J. and Nussbaum, R.A. (2002). Chameleon radiation by oceanic dispersal. *Nature*. 415, 784-787.