

## Luiz A. Rocha

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### EDUCATION

- Ph.D., Fisheries and Aquatic Sciences**, University of Florida, 1999 – 2003.
- M.Sc., Zoology, with honors**, Universidade Federal da Paraiba, Brazil, 1997 – 1999.
- B.Sc., Biological Sciences**, Universidade Federal da Paraiba, Brazil, 1991 – 1996.

### PROFESSIONAL EXPERIENCE

- Assistant Researcher**, Hawaii Institute of Marine Biology, University of Hawaii, 2005-*present*.
- Postdoctoral Fellow**, Smithsonian Tropical Research Institute, Panama City, Panama, 2003-2005.
- Food and Agriculture Organization of the United Nations**, Consultant, 2003-*present*.
- IUCN Species Survival Commission**, Groupers and Wrasses Specialist, 2001-*present*.

### FELLOWSHIPS, GRANTS & AWARDS

- 2006 “Marine population connectivity at St. Paul’s Rocks, central Atlantic Ocean” **CNPq, Brazilian Ministry of Science and Technology**; with Co-PI Carlos E. L. Ferreira (US\$ 23,000 for one year)
- 2005 “The evolution and ecology of a poorly known eastern Atlantic biodiversity hotspot” **National Geographic Society**; with Co-PI Sergio Floeter (US\$ 20,960 for one year)
- 2005 “Phylogeography of Indo-Pacific Reef Fishes” **NSF - Biological Oceanography**; with P.I. Brian Bowen and 4 other Co-PIs (US\$ 510,000 for three years)
- 2004 “Revisiting connectivity among coral reef fish populations: are abrupt discontinuities in ranges due to self-recruitment or ecological constraints?” **National Geographic Society**; sole P.I. (US\$ 15,000 for one year)
- 2004 **DIALOG VI** (Dissertations Initiative for the Advancement of Limnology and Oceanography) symposium participant, sponsored by the American Society of Limnology and Oceanography (ASLO)
- 2003 **Post-Doctoral Fellowship**, Smithsonian Institution Marine Science Network (US\$ 80,000 for two years)
- 2003 **Post-Doctoral Fellowship**, Smithsonian Institution (US\$ 35,000 for one year; awarded but declined in order to receive MSN fellowship above)
- 2002 **PADI Project Aware** research grant (US\$ 2,500)
- 2000 **Academic Achievement Award**, University of Florida
- 1999 **Doctorate Scholarship**, Brazilian Ministry of Education (US\$ 100,000 for four years of stipend and tuition)
- 1999 **M.Sc. with First Class Honors**, UFPB, Brazil
- 1997 **Graduate Student Scholarship**, Brazilian Ministry of Education

### ACADEMIC EXPERIENCE

#### Teaching Assistant

- Ichthyology - University of Florida - Spring 2003.
- Vertebrate Zoology - Universidade Federal da Paraiba, Brazil - Spring 1998, 1999.
- Invertebrate Zoology - Universidade Federal da Paraiba, Brazil - Fall 1996, 1997.

### Guest Lectures

Reef fish ecology and evolution, STRI/Princeton University, 2004.  
Reef fish diversity and evolution, University of Florida, 2003.

### Symposium Organization

Organized a mini-symposium, "Ecology, Biology and Biogeography of Brazilian Reef Fishes" within the 10th Brazilian Congress of Ichthyology - São Leopoldo, Brazil – Jan. 2001.

### Institutional Activities

Member, Organization Committee, DNA Barcoding Workshop, STRI, 2005.  
Member, Commission on Academic Affairs, STRI, 2004.

### Molecular Laboratory Experience

Learned DNA isolation, polymerase chain reaction, and DNA sequencing techniques, directly contributing to the successful sequencing of more than 1,500 samples. Trained a molecular laboratory manager in 2001.

### Scientific Expeditions

Participated in 29 international scientific expeditions and three oceanographic cruises to tropical Atlantic and Pacific Ocean locations to conduct reef fish surveys.

### PEER-REVIEWED PUBLICATIONS

- 2006 BOWEN, B. W., A. MUSS, L. A. ROCHA AND W. S. GRANT. Shallow mtDNA coalescence in Atlantic pygmy angelfish (genus *Centropyge*) indicates a recent invasion from the Indian Ocean. *Journal of Heredity* 97(1): 1-12. [Featured on journal cover]
- SMITH-VANIZ, W. F., H. L. JELKS AND L. A. ROCHA. Relevance of cryptic fishes in biodiversity assessments: a case study at Buck Island Reef National Monument, St. Croix, U.S. Virgin Islands. *Bulletin of Marine Science*. Accepted pending review.
- 2005 ROCHA, L. A., D. R. ROBERTSON, J. ROMAN AND B. W. BOWEN. Ecological speciation in tropical reef fishes. *Proceedings of the Royal Society, B* 272: 573-579. [Featured on journal cover]
- ROCHA, L. A., D. R. ROBERTSON, C. R. ROCHA, J. L. VAN TASSELL, M. CRAIG AND B. W. BOWEN. Recent invasion of the tropical Atlantic by an Indo-Pacific coral reef fish. *Molecular Ecology* 14: 3921-3928. [Fast-Track]
- FEITOZA, B. M., R. S. ROSA AND L. A. ROCHA. Ecology and zoogeography of deep reef fishes in northeastern Brazil. *Bulletin of Marine Science* 76: 725-742.
- 2004 ROCHA, L. A. Mitochondrial DNA and color pattern variation in three western Atlantic *Halichoeres* (Labridae), with the revalidation of two species. *Copeia* 2004(4): 770-782.
- GUIMARÃES, R. Z. P., J. L. GASPARINI AND L. A. ROCHA. A new cleaner goby of the genus *Elacatinus* (Teleostei: Gobiidae) from Trindade Island, off Brazil. *Zootaxa* 770: 1-8.
- 2003 ROCHA, L. A. Patterns of distribution and processes of speciation in Brazilian reef fishes. *Journal of Biogeography* 30(8): 1161-1171.
- FEITOZA, B. M., L. A. ROCHA, O. J. LUIZ-JUNIOR, S. R. FLOETER AND J. L. GASPARINI. Reef fishes of St. Paul's Rocks: new records and notes on biology and zoogeography. *Aqua, Journal of Ichthyology* 7(2): 61-82.

- RAMOS, R. T. C., C. ROCHA AND L. A. ROCHA. New species of *Emblemaria* (Teleostei: Chaenopsidae) from Northern Brazil. *Copeia* 2003(1): 95-98.
- 2002 ROCHA, L. A., A. L. BASS, D. R. ROBERTSON AND B. W. BOWEN. Adult habitat preferences, larval dispersal and the comparative phylogeography of three Atlantic *Acanthurus* (Teleostei: Acanthuridae). *Molecular Ecology* 11(2): 243-252.
- FEITOZA, B. M., L. A. ROCHA, J. L. GASPARINI AND T. L. DIAS. First record of cleaning activity in the slippery dick, *Halichoeres bivittatus* (Perciformes: Labridae) off northeastern Brazil. *Aqua, Journal of Ichthyology* 5(2): 73-76.
- 2001 BOWEN, B. W., A. L. BASS, L. A. ROCHA, W. S. GRANT AND D. R. ROBERTSON. Phylogeography of the trumpetfish (*Aulostomus*): Ring species complex on a global scale? *Evolution* 55(5): 1029-1039.
- ROCHA, L. A. AND I. L. ROSA. Baseline assessment of reef fish assemblages of Parcel Manuel Luiz Marine State Park, Maranhao, north-east Brazil. *Journal of Fish Biology* 58: 985-998.
- ROCHA, L. A. AND R. S. ROSA. *Halichoeres brasiliensis* (Bloch, 1791), a valid wrasse species (Teleostei: Labridae) from Brazil, with notes on the Caribbean species *Halichoeres radiatus* (Linnaeus, 1758). *Aqua, Journal of Ichthyology* 4(4): 161-166.
- ROCHA, L. A., GUIMARAES, R. Z. AND J. L. GASPARINI. Redescription of the Brazilian wrasse *Thalassoma noronhanum* (Boulenger, 1890) (Teleostei: Labridae). *Aqua, Journal of Ichthyology* 4(3): 105-108.
- FLOETER, S. R., R. Z. P. GUIMARÃES, L. A. ROCHA, C. E. L. FERREIRA, C. A. RANGEL AND J. L. GASPARINI. Geographic variation in reef-fish assemblages along the Brazilian coast. *Global Ecology and Biogeography* 10(4): 423-432.
- GASPARINI, J. L., L. A. ROCHA AND S. R. FLOETER. A new *Ptereleotris* (TELEOSTEI: MICRODESMIDAE) from the Brazilian coast. *Aqua, Journal of Ichthyology* 4(3): 109-114.
- GUIMARAES, R. Z., J. L. GASPARINI, C. E. FERREIRA, L. A. ROCHA, S. R. FLOETER, C. A. RANGEL AND G. W. NUNAN. Brazilian reef fishes: threatened and unknown richness. *Ciencia Hoje* 28(168): 16-23. [Featured on journal cover] [In Portuguese]
- 2000 ROCHA, L. A., I. L. ROSA AND B. M. FEITOZA. Sponge dwelling fishes of northeastern Brazil. *Environmental Biology of Fishes* 59(4): 453-458.
- ROCHA, L. A. Aggressive behavior of male Spanish hogfish (*Bodianus rufus*), in northeastern Brazil. *Coral Reefs* 19: 184.
- 1999 ROCHA, L. A. AND I. L. ROSA. New Species of *Haemulon* (TELEOSTEI: HAEMULIDAE) from Northeastern Brazilian Coast. *Copeia* 1999: 447-452.
- 1998 ROCHA, L. A., I. L. ROSA AND R. S. ROSA. Reef fishes from the coast of Paraíba, Brazil. *Revista Brasileira de Zoologia* 15: 553-566. [In Portuguese, with abstract in English]
- 1997 ROSA, R. S., I. L. ROSA AND L. A. ROCHA. Diversity of the tide pool ichthyofauna from Cabo Branco Beach, João Pessoa, Paraíba, Brazil. *Revista Brasileira de Zoologia* 14: 201-212. [In Portuguese, with abstract in English]

#### INVITED BOOK CHAPTERS

- 2006 ROCHA, L. A. Family Acanthuridae. In: Carpenter, K.E. ed. FAO Species Identification Guide for Fishery Purposes. *The Living Marine Resources of the Eastern Central Atlantic*. Food and Agriculture Organization of the United Nations, Rome, Italy. In press.

ROCHA, L. A. Family Cirrhitidae. In: Carpenter, K.E. ed. FAO Species Identification Guide for Fishery Purposes. *The Living Marine Resources of the Eastern Central Atlantic*. Food and Agriculture Organization of the United Nations, Rome, Italy. In press.

2002 ROCHA, L. A. 2002. Brazilian Reef Fishes. In: Humann, P and N. Deloach eds. *Reef Fish Identification*, 3rd edn. New World Publications, Jacksonville, pp. 462-479.

#### MANUSCRIPTS IN PREPARATION

ROCHA, L. A., C. R. ROCHA, D. R. ROBERTSON AND B. W. BOWEN. Evidence of origin and accumulation of genetic diversity in the Caribbean region. To be submitted to *Evolution*.

ROCHA, L. A., C. R. ROCHA AND K. C. LINDEMAN. Molecular phylogeny of the new world genus *Haemulon*. To be submitted to *Molecular Phylogenetics and Evolution*.

FLOETER, S. R., L. A. ROCHA, D. R. ROBERTSON, J. C. JOYEUX, J. P. BARREIROS, W. S. SMITH-VANIZ, A. J. EDWARDS, P. WIRTZ, C. E. L. FERREIRA AND J. L. GASPARINI. Atlantic reef fish biogeography: concordance between phylogenies and distribution patterns. To be submitted to *Evolution*.

WEAVER, D. AND L. A. ROCHA. A new wrasse from the Gulf of Mexico, with a molecular phylogenetic analysis of New World *Halichoeres* (Labridae). To be submitted to *Copeia*.

#### CONFERENCE PRESENTATIONS (Last four years, out of a total of 51)

2005 ROCHA, L. A., D. R. ROBERTSON, C. R. ROCHA, J. L. VAN TASSELL, M. CRAIG AND B. W. BOWEN. Recent invasion of the tropical Atlantic by an Indo-Pacific coral reef fish. 85th Joint Meeting of the American Society of Ichthyologists and Herpetologists, Tampa, FL.

ROCHA, L. A., D. R. ROBERTSON, C. R. ROCHA, J. L. VAN TASSELL, M. CRAIG AND B. W. BOWEN. Recent invasion of the tropical Atlantic by an Indo-Pacific coral reef fish. 7th Indo-Pacific Fish Conference, Taipei, Taiwan.

ROCHA, L. A. Phylogeography of Atlantic reef fishes. Brazilian Ichthyology Meeting, Joao Pessoa, Brazil. [Invited]

2004 ROCHA, L. A. Ecological speciation in tropical reef fishes. ASLO DIALOG VI Workshop. Dauphin Island, AL. [Invited]

ROCHA, L. A. Climate change drives invasion of the Atlantic by an Indo-Pacific reef fish (Poster). ASLO DIALOG VI Workshop. Dauphin Island, Mobile, AL. [Invited]

ROCHA, L. A., D. R. ROBERTSON, C. R. ROCHA, J. L. VAN TASSELL AND B. W. BOWEN. Episodic global warming drives interoceanic invasion and transoceanic expansion by a coral-reef fish. Evolution Conference. Fort Collins, CO.

ROCHA, L. A., D. R. ROBERTSON, J. ROMAN AND B. W. BOWEN. Ecological speciation in tropical reef fishes. Evolution Conference. Fort Collins, CO.

BOWEN, B. W., L. A. ROCHA AND D. R. ROBERTSON. Phylogeographic Patterns in Reef Fishes: Indo-Pacific versus Atlantic. 10th International Coral Reef Symposium. Okinawa, Japan.

2003 ROCHA, L. A. Ecological speciation in tropical seas. 83rd Joint Meeting of the American Society of Ichthyologists and Herpetologists. Manaus, Brazil.

ROCHA, L. A., D. R. ROBERTSON AND B. W. BOWEN. Ecological speciation in tropical seas. First International Biogeography Meeting, Las Vegas, NE.

- 2002 **ROCHA, L. A.** Adult habitat preferences predict genetic structure in widely distributed Atlantic reef fishes. 82nd Joint Meeting of the American Society of Ichthyologists and Herpetologists. Kansas City, MO.
- ROCHA, L. A.** AND I. SAZIMA. Use of rocks as anvils by wrasses (Teleostei: Labridae) in the tropical western Atlantic. 82nd Joint Meeting of the American Society of Ichthyologists and Herpetologists. Kansas City, MO.
- SMITH-VANIZ, W. F. AND **L. A. ROCHA.** The fish fauna of Buck Island Reef National Monument, St. Croix, USVI. 82nd Joint Meeting of the American Society of Ichthyologists and Herpetologists. Kansas City, MO.

#### **INVITED SEMINARS AND WORKSHOPS**

- 2005 Department of Genetics, Universidade Federal do Rio de Janeiro, Brazil  
Brazilian Ichthyology Society Meeting, Joao Pessoa, Brazil
- 2004 Hopkins Marine Station, Stanford University  
Dept. of Ecology, Evolution and Marine Biology, Univ. of California – Santa Barbara  
Bermuda Biological Station for Research, Bermuda  
Eastern Atlantic fish systematics workshop, FAO-UN, Tenerife, Canary Islands  
Rosenstiel School of Marine Science, University of Miami
- 2003 Department of Biology, University of Puerto Rico  
Department of Systematics and Ecology, Universidade Federal da Paraiba, Brazil
- 2002 Florida Museum of Natural History
- 2001 Brazilian Ichthyology Society Meeting, Unisinos, Brazil
- 2000 Undergraduate Marine Biology Club, University of Florida

#### **PROFESSIONAL MEMBERSHIPS**

American Society of Ichthyologists and Herpetologists  
Brazilian Ichthyology Society  
International Biogeography Society (Founding member)  
Society for the Study of Evolution  
Society of Systematic Biologists

#### **PROFESSIONAL SERVICE**

Manuscript reviews for:

*Animal Biology*  
*Aquatic Living Resources*  
*Biological Conservation*  
*Biota Neotropica*  
*Bulletin of Marine Science*  
*Caribbean Journal of Science*  
*Copeia*  
*Coral Reefs*  
*Cybium*  
*Evolution*  
*Food and Agriculture Organization of the United Nations*  
*Journal of Biogeography*  
*Journal of Heredity*  
*Marine Biology*  
*Molecular Ecology*  
*Molecular Phylogenetics and Evolution*

*Neotropical Ichthyology*  
*PLoS Biology*  
*Proceedings of the Meeting of the Association of Caribbean Marine Labs*

## REFERENCES

- Dr. Brian W. Bowen**, Ph.D. Advisor (1999-2002)  
University of Hawaii, bbowen@hawaii.edu, (808) 236-7426
- Dr. Gustav Paulay**, Ph.D. Advisor (2002-2003)  
Florida Museum of Natural History, paulay@flmnh.ufl.edu, (352) 392-1721
- Dr. D. Ross Robertson**, Smithsonian Institution Postdoctoral Sponsor  
Smithsonian Tropical Research Institute, drr@stri.org, +507 212-8704
- Dr. Harilaos Lessios**, Smithsonian Institution Postdoctoral Sponsor  
Smithsonian Tropical Research Institute, lessiosh@naos.si.edu, +507 212-8708