



## MARK L. MANDICA

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### PRESENT POSITIONS

President, Mandica Illustration & Design, Inc. Scientific and technical rendering for research articles and reviews. Illustration and Graphic Design

Graduate Student, O'Reilly Vertebrate Functional Morphology and Comparative Physiology Laboratory, Biology Department, University of Miami (Coral Gables, FL)

Collections Council, Miami Museum of Science, Miami, FL

### EDUCATION

Bachelor of Science (B.S.) in Biology, with a concentration in Evolutionary Biology. Bachelor of Arts (B.A.) in Sociology. Minor in Psychology (Graduated May 1999) University of Massachusetts, Amherst.

### EXPERIENCE

#### TEACHING EXPERIENCE

1996 - present Evolution, Biology, and Awareness of Reptiles and Amphibians, elementary through college level lectures, University of Massachusetts (Amherst, MA), Amherst Middle School (Amherst, MA), Smith Campus School (Northampton, MA), Dean Technical School (Holyoke, MA), Granite House (Quincy, MA) University of Connecticut (Storrs, CT), Hitchcock Center (Amherst, MA)

1998 Undergraduate Teaching Assistant, Bio 540, Herpetology, University of Massachusetts

#### CURATORIAL EXPERIENCE

2004 - present Collections Council, Miami Museum of Science, Miami, FL

2003 Curatorial Assistant, Department of Mammalogy, Division of Vertebrate Zoology, American Museum of Natural History (New York, NY)

1996 - 2002 Museum Assistant, Herpetological and Ichthyological Collections, Massachusetts Museum of Natural History, Bio. Department, University of Massachusetts (Amherst, MA)

1999 Collection and preparation of specimens for the Ichthyological Collection of the Massachusetts Museum of Natural History, Dauphin Island Sea Lab (Dauphin Island, AL)

#### RESEARCH EXPERIENCE

1999 - 2002 Amphibian population study of vernal ponds in the Quabbin Watershed Management Area. Daily surveys, data collection and analysis. Reports submitted to the Metropolitan District Commission (Spring 2000, Fall 2001)

2001 Field Biologist, supervised research team on a metapopulation study of the Marbled Salamander (*Ambystoma opacum*). Natural Resources Conservation, University of Massachusetts (Amherst, MA)

2001 Spotted turtle (*Clemmys guttata*) survey of Lily Pond (Vernon, VT)  
Report submitted to Vermont Fish and Wildlife Department (Waterbury, VT)

1998 Herpetological survey of Satan's Kingdom Wildlife Management Area (Northfield, MA)  
Report submitted to Massachusetts Natural Heritage Program (Westboro, MA)

Research techniques include: audio/visual diurnal and nocturnal surveys, terrestrial and aquatic transects, drift fencing with funnel and pitfall trap arrays, dipnet, trapping, and radio telemetry. Analytical and statistical analysis

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### OTHER PERTINENT EXPERIENCE

1996 - 2002 Primary care provider of the living herpetological teaching collection, Massachusetts Museum of Natural History, Biology Department, University of Massachusetts  
A strong familiarity with the amphibian and reptile species native to New England

### PUBLICATIONS

#### ARTICLES

*Scaphiopus holbrookii* (Eastern Spadefoot) Geographic Distribution. *Herpetological Review*. 31(2):110 (2000)

#### PUBLISHED ILLUSTRATIONS

D.B. Fenolio, M.E. Walvoord, F. Andreone, J.F. Stout, J.E. Randrianirina. 2004. A new *Platypelis* (Amphibia: Anura: Microhylidae) frog living in treeholes of low-altitude rainforests of the Masoala Peninsula, NE Madagascar. *Proceedings of the Biological Society of Washington*.

Meyers, J.J., O'Reilly, J.C., Monroy, J.M., and K.C. Nishikawa 2004. Mechanism of tongue protrusion in Microhylid frogs. *J. Exp. Biol* 207, 21-31, figs. 1 and 3.

Landberg, T., J. Mailhot, and E. Brainerd. Lung ventilation during treadmill locomotion in a terrestrial turtle *Terrapene carolina*. *Journal of Experimental Biology* 206: 3391-3304 (2003) Figs. 1-3, 6 and 7.

Azizi, M and T. Landberg. Effects of Metamorphosis on the Aquatic Escape response of the Two-Lined Salamander, *Eurycea bislineata*, *Journal of Experimental Biology* 205 (2002).

McCormick, Steven D. Endocrine Control of Osmoregulation in Teleost Fish. *American Zoologist* 41:781-794 (2001) Illustration on page 783.

Druziski, Kelly A. and E.L. Brainerd. Buccal oscillation and lung ventilation in a semi-aquatic turtle, *Platysternon megacephalum*. *Zoology* 104 (2001) 143-153 Illustration on page 146.

Tentaculata, a newsletter for caecilian researchers, (4) 1999

#### ILLUSTRATIONS IN POSTER PRESENTATIONS

Brainerd EL and T. Landberg 2001. Ventilatory Mechanisms of an Elongate Aquatic Salamander, *Amphiuma tridactylum*. University of Massachusetts (Amherst, MA) The Society for Integrative and Comparative Biology (Chicago, IL).

O'Reilly JC, Kley NJ, Richmond AM, Brainerd EL 2001. Prey Capture Kinematics in *Chelus fimbriatus* (Testudines: Pleurodira) University of Massachusetts (Amherst, MA) The Society for Integrative and Comparative Biology (Chicago, IL).

#### ILLUSTRATIONS FOR PRESENTATIONS AT PROFESSIONAL MEETINGS

Kley NJ, JC O'Reilly, AM Richmond, EL Brainerd 1999. Morphological Specializations of the Feeding Apparatus in the Matamata (*Chelus fimbriatus*). The Society for Integrative and Comparative Biology, Division of Vertebrate Morphology, Northeast regional meeting (Providence, RI).

### PRESENTATIONS AT PROFESSIONAL MEETINGS

Efficiency and Efficacy of Vernal Pond Amphibian Survey Techniques, presented to the Metropolitan District Commission (Natural Resources Conservation) University of Massachusetts (Amherst, MA) Oct 2001.

### RESEARCH SOCIETIES

The Society for Integrative and Comparative Biology  
The Society for the Study of Amphibians and Reptiles  
Tentaculata, Caecilian Research

### REFERENCES

Furnished upon request

For more information, or to see my abilities as an illustrator, graphic, and web designer please see my website: <http://www.mandica.com/>