

**BIOGRAPHICAL SKETCH**

NAME		POSITION TITLE		
<b>Alex M. Schreiber</b>		Associate Professor of Biology		
INSTITUTION AND LOCATION	DEGREE/TRAINING	YEARS	FIELD OF STUDY	
Carnegie Institution/Johns Hopkins University, Baltimore, MD	Post-doctoral research	1998-2002	Developmental Biology	
University of Rhode Island	Ph.D.	1994-98	Endocrinology	
Eastern Washington University	M.S.	1992-94	Eco-Physiology	
U.S. Peace Corps, Kenya, East Africa	Teacher training	1989-91	Science Education	
University of Colorado, Boulder	B.A.	1985-89	Ecology	

Positions and Employment

- 2013-now -Board of Editors Member, *International Journal of Endocrinology*  
(<http://www.hindawi.com/journals/ije/editors/>)
- 2014-now -Associate Professor of Biology, St. Lawrence University
- 2008-2014 -Assistant Professor of Biology, St. Lawrence University
- 2007-2008 -Visiting Assistant Professor of Biology, College of Notre Dame, Baltimore, MD
- 2007 (Spg) -Adjunct Professor of Biology, Gettysburg College, Gettysburg, PA
- 2002-2007 -Staff Associate (independent investigator), Carnegie Institution, Baltimore, MD
- 1998-2002 -Post-doctoral research in developmental biology, Carnegie Institution, Baltimore, MD

Research Fellowships

- 2008 -Norwegian Research Council visiting scientist, National Institute for Nutrition & Seafood Research, Bergen, Norway
- 2005 -Fukui Prefectural University visiting scientist, Research Center for Marine Bioresources, Obama, Japan
- 2000-02 -National Research Service Award (NRSA), National Institute of General Medical Sciences, National Institutes of Health
- 1995-98 -Graduate Research Fellowship, Univ. Rhode Island, Graduate School of Oceanography
- 1995 -National Science Foundation Summer Research Fellowship, Ocean Research Institute, Tokyo University, Japan

Courses Taught

- 2008-now **St. Lawrence University, Canton, New York**  
 BIOL370 General & Comparative Endocrinology, Lecture & Lab  
 BIOL247c Comparative Animal Physiology, Lecture & Lab  
 BIOL250 Cell Biology, Lecture  
 BIOL240/340 Human Anatomy & Physiology, Lecture and Lab  
 BIOL247 Neuroscience of Fear (Denmark, summer course)

Textbook Contract: Publisher: Sinauer Associates; forthcoming Fall, 2016  
“**Integrative Endocrinology**”, by A.M. Schreiber. A textbook for advanced undergraduate- and graduate-level courses in biomedical and comparative endocrinology.

Publications (23 total) [https://www.researchgate.net/profile/Alexander\\_Schreiber/](https://www.researchgate.net/profile/Alexander_Schreiber/)

- Schreiber, A.M.** (2013) Flatfish: an Asymmetric Perspective on Metamorphosis. Chapter in the book “Animal Metamorphosis” (edited by Yun-Bo Shi), part of the series Current Topics in Developmental Biology, volume 103, pp. 167-194.
- Schreiber, A.M.** (2011) Visualizing and quantifying the suppressive effects of glucocorticoids on the tadpole immune system in vivo. *American Physiological Society: Advances in Physiology Education*. 35, 445-453.
- Wang X., Tan Y., Sievers, Q., Sievers, B., Lee, M., Bural, K., Schreiber, A.M.** (2011). Thyroid hormone responsive genes mediate otolith growth and development during flatfish metamorphosis. *Comparative Biochemistry and Physiology, Part A*. 158, 163-168.
- Schreiber, A.M., Wang X., Tan Y., Sievers, Q., Sievers, B., Lee, M., Bural, K.** (2010). Thyroid hormone mediates otolith growth and development during flatfish metamorphosis. *General and Comparative Endocrinology*. 169, 130-137.
- Schreiber, A.M., and Gimbel, S.** (2010). Evolution and the Second Law of Thermodynamics: Effectively Communicating to Non-Technicians. *Evolution: Education and Outreach*. DOI 10.1007/s12052-009-0195-3
- Schreiber, A.M., Mukhi, S., Brown, D.** (2009). Cell-cell interactions during remodeling of the intestine at metamorphosis in *Xenopus laevis*. *Developmental Biology*. 331, 89-98.
- Katersky, R.S., **Schreiber, A.M.**, Specker, J.L., Bengtson, D.A. (2008). *Journal of Applied Ichthyology*. 24, 244-247.
- Kuan, Y-S, Gamse, J.T., **Schreiber, A.M.**, Halpern, M.E. (2007). Selective asymmetry in a conserved forebrain to midbrain projection. *Journal of Experimental Zoology*. 308, 669-678.
- Schreiber, A.M.** (2006). Asymmetric craniofacial remodeling and lateralized behavior in larval flatfish. *Journal of Experimental Biology*. 209, 610-621.
- Schreiber, A.M., Cai, L., Brown, D.D.** (2005). Remodeling of the intestine during metamorphosis of *Xenopus laevis*. *Proceedings of the National Academy of Sciences USA*. 102, 3720-3725.
- Brown, D.B., Cai, L., Das, B., Marsh-Armstrong, N., **Schreiber, A.M.**, Juste, R. (2005). Thyroid hormone controls multiple independent programs required for limb development in *Xenopus laevis* metamorphosis. *Proceedings of the National Academy of Sciences USA*. 102, 12455-12458.
- Schreiber, A.M.** and Brown, D.D. (2003). Tadpole skin dies autonomously in response to thyroid hormone at metamorphosis. *Proceedings of the National Academy of Sciences USA*. 100, 1769-1774.
- Das, B., **Schreiber, A.M.**, Huang, H., Brown, D.D. (2002). Multiple thyroid hormone-induced muscle growth and death programs during metamorphosis in *Xenopus laevis*. *Proceedings of the National Academy of Sciences USA*. 99, 12230-12235.
- Schreiber, A.M., Das, B., Huang, H., Marsh-Armstrong, N., Brown, D.D.** (2001). Diverse developmental programs of *Xenopus laevis* metamorphosis are inhibited

- by a dominant negative thyroid hormone receptor. *Proceedings of the National Academy of Sciences USA*. **98**, 10739-10744.
- Schreiber, A.M.** (2001). Metamorphosis and early larval development of flatfishes (Pleuronectiformes): an osmoregulatory perspective. *Comparative Biochemistry and Physiology Part B: Biochemistry and Molecular Biology* **129**, 587-595.
- Schreiber, A.M.** and Specker, J.L. (2000). Metamorphosis in the summer flounder, *Paralichthys dentatus*: thyroidal status influences changes in gill mitochondria-rich cells. *General and Comparative Endocrinology* **117**, 238–250.
- Bengtson, D.A., Simlick, T.L., Binette, E.W., Lovett, R.R., Alves, D., **Schreiber, A.M.**, Specker, J.L. (2000). Survival of larval summer flounder (*Paralichthys dentatus*) on formulated diets and failure of thyroid hormone treatment to improve performance. *Aquaculture Nutrition*. **6**, 193-198.
- Schreiber, A.M.** and Specker, J.L. (1999). Metamorphosis in the summer flounder, *Paralichthys dentatus*: changes in gill mitochondria-rich cells. *Journal of Experimental Biology* **202**, 2475–2484.
- Schreiber, A.M.** and Specker, J.L. (1999) Metamorphosis in the summer flounder, *Paralichthys dentatus*: thyroidal status influences salinity tolerance. *Journal of Experimental Zoology* **284**, 414–424.
- Schreiber, A.M.** and Specker, J.L. (1999). Early larval development and metamorphosis in the summer flounder (*Paralichthys dentatus*): changes in percent whole body water content and effects of altered thyroid status. *Journal of Fish Biology* **54**, 148-157.
- Specker, J.L., **Schreiber, A.M.**, McArdle, M.E., Poholek, A., Henderson, J., Bengtson, D.A. (1999). Metamorphosis in summer flounder: effects of acclimation to low and high salinities. *Aquaculture* **176**, 145-154.
- Schreiber, A.M.** and Specker, J.L. (1998). Metamorphosis in the summer flounder (*Paralichthys dentatus*): stage-specific developmental response to altered thyroid status. *General and Comparative Endocrinology* **111**, 156-166.
- Huang, L., **Schreiber, A.M.**, Soffientino, B., Bengtson, D.A., Specker, J.L. (1998). Metamorphosis of the summer flounder (*Paralichthys dentatus*): Thyroid status and the timing of gastric gland formation. *Journal of Experimental Zoology* **280**, 413-420.

#### Press and Broadcast Media About My Research

- 2015 - **British Broadcasting Corporation 4** (BBC4, UK) 1 hour television documentary (“Quantum”) exploring the development of Quantum Mechanics from the birth of the idea to present
- 2014 -**British Broadcasting Corporation** (BBC, UK) 1 hour television documentary (“Natural World – Attenborough’s Fabulous Frogs”) exploring the science of metamorphosis
- Nova Next** (<http://www.pbs.org/wgbh/nova/next/evolution/flatfish-evolution/>) “The Improbable—but True—Evolutionary Tale of Flatfishes”. Article, with accompanying video, on flatfish evolution, by Ferris Jabr
- **Studio Natur**, Sveriges Television AB, the Swedish national public service TV broadcaster. (solicited by editor to contribute my “Flatfish Metamorphosis” video for public education use)

- **PBS WLVT-39 (Bethlehem, PA)** Science Time, 15 minute science videos for teachers
- 2013 - **National Geographic Society** television documentary ('Worlds Weirdest: Brainy Beasts & Bizarre Babies') (to be released in 2013)
  - **British Broadcasting Corporation** (BBC, UK) 1 hour television documentary ("Metamorphosis: the Science of Change") exploring the science of metamorphosis
  - **Radio Universidad Autonoma de Queretaro, Mexico.** 30 minute live interview on the radio program "*Signos en Rotacion*" on the topic "Metamorphosis and Endocrine-disrupting Chemicals"
  - **Jacques Cousteau National Estuarine Research Reserve**, Tuckerton, NJ Video display ("Flatfish Metamorphosis")
  - **Primorye Oceanarium**, Vladivostok, Russia. Video display ("Flatfish Metamorphosis")
  - **CLICK Magazine**, Carus Publishing, Chicago, IL (solicited by editor to contribute my "Flatfish Metamorphosis" video to the March 2013 digital issue on fish)
- 2012 - **North Country Public Radio interview.** "Biologist passes along his fascination with metamorphosis",  
<http://www.northcountrypublicradio.org/news/story/19844/20120518/biologist-passes-along-his-fascination-with-metamorphosis>
- 2008 - **Science News** profile, July 9, "A Wandering Eye", by Ashley Yeager,
- 2007 - **Cell** (magazine) profile, "Superpostdocs Reach for the Stars", by Andreas von Bubnoff.
  - **The Scientist** profile, "Research Goes Flat", by Brendan Maher.
- 2006 - **The Baltimore Sun** profile, "Top Scientists Get Freedom to Work", by Michael Stroh.
- 2003 - **Spectra Magazine** profile, "Flounder: Not Just for Dinner Anymore", by Audrey M. Huang.

#### Active Society Memberships

- Society for Integrative and Comparative Biology (SICB)
- North American Society for Comparative Endocrinology (NASCE)
- International Congress of Comparative Endocrinology (ICCE)
- The Endocrine Society