Neil C. Aschliman, Ph.D.

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EDUCATION

Ph.D., Biological Sciences. Florida State University, Tallahassee, Florida; 2005 – 2011.
Dissertation topic: The Batoid Tree of Life: Recovering the Patterns and Timing of the Evolution of Skates, Rays and Allies (Chondrichthyes: Batoidea). Defense 2 Jun. 2011. *Co-advisors:* Dr. Gavin J. P. Naylor, Dr. Scott J. Steppan.

Bachelor of Science, Zoology. Summa cum laude. Foundation Honors. Texas A&M University, College Station, Texas; 2001 – 2005. GPR 3.976.

TEACHING EXPERIENCE AT SAU

Current regular courses taught:
BIOL-201 (4 cr.): Diversity of Living Systems with laboratory.
BIOL-230 (4 cr.): Human Anatomy and Physiology I with laboratory; in-person & online.
BIOL-232 (4 cr.): Human Anatomy and Physiology II with laboratory; in-person & online.
WI-BIOL-300 (3 cr.): Writing-Intensive Introduction to Biological Literature and Communication.
BIOL-348 (4 cr.): Evolution with laboratory.

Occasional courses taught:
BIOL-101 (4 cr.): Principles of Biology with laboratory.
HON-201/BIOL-223 (3 cr.): The Vertebrate Story; special topics course, Fall 2013.
BIOL-205 (4 cr.): Essentials of Human Anatomy and Physiology with laboratory.
BIOL-401 (1 cr.): Biological Research I.
BIOL-402 (1 cr.): Biological Research II.
NSS-101 (1 cr.): New Student Seminar.

TEACHING AWARDS

Faculty of the Month; Feb. 2025. St. Ambrose University.
Whalen-Fitzgibbon Award for Outstanding Innovative Teaching *[~Faculty of Year]*; 2023. St. Ambrose University.
Nomination, Faculty of the Month; Oct. 2021. St. Ambrose University.
Faculty of the Month; Mar. 2016. St. Ambrose University.
Renomination*, OTAA; 2010. Florida State University. **Cannot win twice.*
Outstanding Teaching Assistant Award (OTAA); 2007. Florida State University.

PRESENTATION AWARDS

Frederick H. Stoye Award, General Ichthyology *[best student paper]*, American Society of Ichthyologists and Herpetologists. Joint Meeting of Ichthyologists and Herpetologists, Providence, Rhode Island; 10 Jul. 2010.

Superior Poster Presentation Award *[top prize]*, Sigma Xi Scientific Research Society annual meeting, Montreal, Quebec, Canada; 12 – 13 Nov. 2004.

SERVICE AT SAU

Associate Dean, College of Arts and Sciences; Oct. 2023 – current.
Program Director, Bachelor of Arts in Integrative Studies; Oct. 2023 – current.
Acting Director (sabbatical replacement) of General Education; Fall 2024.
Ex officio member, General Education Committee; Fall 2024.
Co-coordinator, 2024-2025 College of Arts and Sciences Annual Theme ("Being Human in the Age of A.I.").
Elected member, Faculty Finance Committee; 2023 – current [2026].
Member, College of Arts and Sciences Strategic Planning Committee. Appointed member (STEM Cognate Rep.) Fall 2022 – Oct. 2023; *ex officio* member Oct. 2023 – current.
Chair, Hauber Endowment; Jul 2022 – Jun 2024.
Advisor, Doctors to Bee; 2014 – current.
Appointed member, VR/AR Design group, Fall 2022 – current.
Chair, Biology Department; Jul. 2020 – Jun. 2023.
Appointed member, Higgins Hall of Innovation and Human-Centered Design group, 2022 – 2023.
Appointed member, College Structure and Academic Program Alignment Committee; 2020 – 2021.
*Elected member, Faculty Handbook Committee; 2018 – 2020. **Elected committee Chair 2018 – 2019.*
Advisor, "The Green House" Residence Life Housing Theme, 2020 – 2021.
Member, Cadaver Laboratory Selection Committee; 2012 – 2013, 2017, 2020.
Member, ad hoc committee to develop Biomedical Laboratory Science program, 2017 – 2019.
Co-advisor, Biology Club; 2011 – 2018.
*Elected member, Faculty Handbook Committee; 2016 – 2018. **Elected committee Chair 2017 – 2018.*
Elected member, ad hoc committee to nominate Faculty Assembly Chair, Spring 2018.
*Elected member, Faculty Evaluation of Administrators Committee; Nov. 2017 – May 2018. **Elected committee Chair.*
Study Abroad Regional Advisor (SARE); 2011 – 2018.
Advisor, University League of Legends; 2016 – 2018.
Organizer, Early Career Faculty Events; 2012 – 2017.
Manager, SAU Biology webpage; 2012 – 2017.
*Elected member, Faculty Evaluation of Administrators Committee; Nov. 2016 – May 2017. **Filled vacant Chair Apr. 2017.*
*Elected member, Board of Studies; 2014 – 2016. **Elected committee Chair Jun. 2015 – Jun. 2016.*
*Elected member, University Life Committee; 2012 – 2014. **Elected committee Chair Apr. 2013 – May 2014.*
Advisor, Fighting Bee Jiu-jitsu; 2011 – 2014.
Member, Psychology Search Committees x2 (2 positions); Spring 2014, Fall 2014.
Member, Mechanical Engineering Search Committees x2 (3 positions); Spring 2014, Fall 2014.
Member, Faculty Handbook Review Committee; 2012.
Member, Nursing Search Committee (2 positions); 2012.
Member, Assessment and Evaluation Advisory Board; 2011 – 2012.

RESEARCH EXPERIENCE

Ph.D. program in Biological Sciences, Florida State University, Tallahassee, Florida; 2005 – 2011.
Research Assistant to Dr. John McEachran, Texas A&M University, College Station, Texas; 2002 – 2005.
Research Assistant to Dr. Bruce Riley, Texas A&M University, College Station, Texas; 2004 – 2005.
Research Training Program (RTP) Fellow for Dr. Bruce Collette, Smithsonian Institution, National Museum of Natural History, Washington, D.C.; May – Aug. 2004.
Research Experiences for Undergraduates (REU) Intern for Dr. Jim Gelsleichter, Center for Shark Research, Mote Marine Laboratory, Sarasota, Florida; May – Aug. 2003.
Research Assistant, various marine biology cruises.

GRANTS AND FELLOWSHIPS

Faculty Development Committee conference presentation travel grant, St. Ambrose University; 2013.

Council for an Integrative Learning Environment Integrative Learning Grant, St. Ambrose University; 2013.

Teaching assistantship, Florida State University Department of Biology; 2005 – 2011.

Travel grant, American Society of Ichthyologists and Herpetologists. Funding to attend the Joint Meeting of Ichthyologists and Herpetologists in Providence, Rhode Island; Jul. 2010.

Travel grant, American Elasmobranch Society. Funding to attend the Joint Meeting of Ichthyologists and Herpetologists in Portland, Oregon; Jul. 2009.

Fellowship, National Science Foundation East Asia and Pacific Summer Institutes. Host: Prof. Mutsumi Nishida, Ocean Research Institute (ORI), University of Tokyo, Tokyo, Japan. Funding for resident work at the ORI to study batoid mitochondrial genomics, Jun. – Aug. 2007.

Travel grant, Texas A&M College of Science, Office of Professional School Advising, Honors Department, Office of the Vice President for Research. Funding to attend the annual meeting of the Sigma Xi Scientific Research Society in Montreal, Quebec, Canada; Oct. 2004.

Fellowship, Alice Eve Kennington Endowment; Research Training Program fellowship at the National Museum of Natural History, Washington, D.C.; May – Aug. 2004.

Fellowship, National Science Foundation # OCE0139392; Research Experience for Undergraduates fellowship at Mote Marine Laboratory, Sarasota, Florida; May – Aug. 2003.

REFEREEING

National Science Foundation, *Journal of Morphology* (x6), *Molecular Phylogenetics and Evolution, Journal of Fish Biology* (x5), *Zoological Journal of the Linnean Society* (x5), *Zoological Scripta* (x4), *GENE, Deep Sea Research II, Marine Biodiversity Records, Marine Freshwater Research, African Journal of Marine Science, Memoirs of Museum Victoria, Ichthyological Research, Evolution & Development, ZooKeys, Neotropical Ichthyology*.

ACTIVE SOCIETY MEMBERSHIPS

Member of the Society of Integrative and Comparative Biology.

Member of the Council of Colleges of Arts & Sciences.

Member of the American Association for the Advancement of Science.

Member of the Society of Systematic Biologists.

Member of the National Science Teaching Association.

JOURNAL ARTICLES

R. William Stein, Christopher G. Mull, Tyler S. Kuhn, *Neil C. Aschliman*, Lindsay N.K. Davidson, Jeffrey B. Joy, Gordon J. Smith, Nicholas K. Dulvy, and Arne O. Mooers. 2018. Global Priorities for conserving the evolutionary history of sharks, rays, and chimaeras. *Nature Ecology & Evolution* 2:288-298.

Neil C. Aschliman. 2014. Interrelationships of the durophagous stingrays (Batoidea: Myliobatidae). *Environmental Biology of Fishes* 97(9):967-979. doi: 10.1007/s10641-014-0261-8

Neil C. Aschliman, Mutsumi Nishida, Masaki Miya, Jun G. Inoue, Kerri M. Rosana and Gavin J.P. Naylor. 2012. Body Plan Convergence in the Evolution of Skates and Rays (Chondrichthyes: Batoidea). *Molecular Phylogenetics and Evolution* 63:28-42.

Neil C. Aschliman, David A. Ebert, and Leonard J.V. Compagno. 2010. Redescription of *Cruriraja 'parcomaculata'* sensu Smith, 1964 (Rajoidei: Anacanthobatidae), a new legskate from Southern Africa. *Copeia* 2010(3):364-372.

Neil C. Aschliman, Ian R. Tibbetts and Bruce B. Collette. 2005. Relationships of sauries and needlefishes (Teleostei: Scomberesocoidea) to the internally fertilizing halfbeaks (Zenarchopteridae) based on the pharyngeal jaw apparatus. *Proceedings of the Biological Society of Washington* 118(2):416-427.

BOOKS AND BOOK CHAPTERS

Neil Aschliman. 2024. Essential Biodiversity, 2.0. Open Educational Resource. 273 pp. https://tinyurl.com/y32djr76

Neil C. Aschliman and David A. Ebert. 2022. Anacanthobatidae. Pp. 592 – 594 *in* Coastal Fishes of the Western Indian Ocean, vol. 1. P.C. Heemstra et al. (eds.). National Research Foundation, South African Institute for Aquatic Biodiversity.

Neil C. Aschliman and David A. Ebert. 2022. Arhynchobatidae. Pp. 591 – 592 *in* Coastal Fishes of the Western Indian Ocean, vol. 1. P.C. Heemstra et al. (eds.). National Research Foundation, South African Institute for Aquatic Biodiversity.

Neil C. Aschliman and David A. Ebert. 2022. Gurgesiellidae. Pp. 594 – 596 *in* Coastal Fishes of the Western Indian Ocean, vol. 1. P.C. Heemstra et al. (eds.). National Research Foundation, South African Institute for Aquatic Biodiversity.

David A. Ebert and Neil C. Aschliman. 2022. Hexatrygonidae. P. 597 *in* Coastal Fishes of the Western Indian Ocean, vol. 1. P.C. Heemstra et al. (eds.). National Research Foundation, South African Institute for Aquatic Biodiversity.

David A. Ebert and Neil C. Aschliman. 2022. Plesiobatidae. P. 598 *in* Coastal Fishes of the Western Indian Ocean, vol. 1. P.C. Heemstra et al. (eds.). National Research Foundation, South African Institute for Aquatic Biodiversity.

Neil C. Aschliman and David A. Ebert. 2022. Rajidae. Pp. 576 – 591 *in* Coastal Fishes of the Western Indian Ocean, vol. 1. P.C. Heemstra et al. (eds.). National Research Foundation, South African Institute for Aquatic Biodiversity.

David A. Ebert, Neil C. Aschliman, and Brett A. Human. 2022. Rhinidae. Pp. 562 – 564 *in* Coastal Fishes of the Western Indian Ocean, vol. 1. P.C. Heemstra et al. (eds.). National Research Foundation, South African Institute for Aquatic Biodiversity.

Neil C. Aschliman and David A. Ebert. 2022. Sphyrnidae. Pp. 538 – 542 *in* Coastal Fishes of the Western Indian Ocean, vol. 1. P.C. Heemstra et al. (eds.). National Research Foundation, South African Institute for Aquatic Biodiversity.

Neil Aschliman. 2019. Essential Biodiversity, 1.0. Open Educational Resource. 264 pp.

Neil C. Aschliman, Kerin M. Claeson, and John D. McEachran. Phylogeny of Batoidea. 2012. Reviewed chapter. Pp. 57 – 95 *in* Biology of Sharks and Their Relatives, Edition 2. J.C. Carrier, J.A. Musick and M.R. Heithaus (eds.). CRC Press.

Neil C. Aschliman. 2011. Doctoral dissertation. The Batoid Tree of Life: Recovering the Patterns and Timing of the Evolution of Skates, Rays and Allies (Chondrichthyes: Batoidea). Florida State University, Tallahassee, Florida. 184 pp.

G.J.P. Naylor and N. Aschliman. How many species of living sharks, skates and rays are there, and how did they arise over the course of evolution? *In* Proceedings of the International Symposium on Reproduction in Marine Organisms. Uchida and Sato (eds.). Okinawa Press.

John D. McEachran and Neil Aschliman. 2004. Phylogeny of Batoidea. Pp. 79 – 113 *in* Biology of Sharks and Their Relatives. J.C. Carrier, J.A. Musick and M.R. Heithaus (eds.). CRC Press.

INVITED PRESENTATIONS

Essential Biodiversity: Writing and illustrating an Open Educational Resource text from scratch. *Invited speaker.* Faculty Development Committee, Friday Faculty Forum. St. Ambrose University, Davenport, Iowa; 5 Apr. 2024.

The Batoid Story: Convergence and Catastrophe in the Evolution of Skates and Rays. *Invited speaker.* Department of Biology rEvolutionary Research Club. University of Iowa, Iowa City, Iowa; 28 Apr. 2017.

T-Rex vs. Leviathan: Biology and Theology of Monsters. Neil Aschliman and Micah Kiel. *Invited speaker.* College of Arts and Sciences Liberal Arts Lecture. St. Ambrose University, Davenport, Iowa; 16 Apr. 2015.

Molecular systematics of stingrays and allies (Batoidea: Myliobatiformes). *Invited speaker.* Ocean Research Institute, University of Tokyo. Tokyo, Japan; 2 Jul. 2007.

Better living through phylogenetics! -or- Diversity and constraint in the evolution of skates and rays. *Invited speaker.* Summer Seminar Series. Mote Marine Laboratory, Sarasota, Florida; 26 May 2006.

FIRST-AUTHORED PAPER PRESENTATIONS

Twelve total. Selected presentations:

Essential Biodiversity, a new Open Educational Resource (OER) for biodiversity courses. On demand virtual talk. Evolution 2021. 21 – 25 Jun. 2021.

Evolution of the durophagous stingrays (Batoidea: Myliobatidae). *Invited symposium speaker.* Joint Meeting of Ichthyologists and Herpetologists. Albuquerque, New Mexico; 12 Jul. 2013.

*A new framework for interpreting the evolution of skates and rays (Chondrichthyes: Batoidea). Joint Meeting of Ichthyologists and Herpetologists. Providence, Rhode Island; 10 Jul. 2010. **Winner of the Frederick H. Stoye Award, General Ichthyology [best student paper].*

The Batoid Tree of Life: Recovering the Patterns and Timing of the Evolution of Skates, Rays and Allies (Chondrichthyes: Batoidea). Dissertation Defense, Florida State University, Tallahassee, Florida; 2 Jun. 2011.

Diversity and constraint in the evolution of skates and rays. Ecology and Evolution Seminar, Florida State University, Tallahassee, Florida; 20 Mar. 2009.

Diversity and constraint in the evolution of skates and rays (Chondrichthyes: Batoidea). Ocean Research Institute, University of Tokyo. Tokyo, Japan; 20 Aug. 2007.

FIRST-AUTHORED POSTER PRESENTATIONS

Nine total. Selected presentations:

An Open Educational Resource for introductory/intermediate courses in eukaryotic biodiversity. Society for Integrative and Comparative Biology. Atlanta, Georgia; 7 Jan. 2025.

The Batoid Tree of Life: Synthesizing Morphological And Molecular Phylogenies of Skates, Rays And Allies (Chondrichthyes: Batoidea). Joint Meeting of Ichthyologists and Herpetologists. Minneapolis, Minnesota; 9 Jul. 2011.

Molecular phylogeny of stingrays and allies (Batoidea: Myliobatiformes) using nuclear and mitochondrial DNA sequence data. Southeastern Ecology and Evolution Conference (SEEC), Florida State University, Tallahassee, Florida; 29 Mar. 2008.

Reconstructing the interrelationships of skates and rays (Chondrichthyes: Batoidea) using mitochondrial genomes. NSF/JSPS EAPSI Program Poster Session. Sokendai Graduate University for Advanced Studies, Hayama, Japan; 15 Jun. 2007.

*Relationships of sauries and needlefishes (Teleostei: Scomberesocoidea) to the internally fertilizing halfbeaks (Zenarchopteridae) based on the pharyngeal jaw apparatus. Sigma Xi Scientific Research Society Annual Meeting. Montreal, Quebec, Canada; 12 – 13 Nov. 2004. **Winner of the Superior Poster Presentation Award [top prize].*

MENTORED UNDERGRADUATE PRESENTATIONS

Golf course effects on stream biodiversity and water quality. Cade Meek (student presenter) and *Neil Aschliman*. 2024 College of Arts and Sciences Undergraduate Scholars Conference. St. Ambrose University; 1 May 2024.

An analysis of the practicality and effectiveness of UV irradiation as a treatment method for 17-β estradiol. Issac Schwantes (student presenter), Joshua Stratton, and *Neil Aschliman*. 2016 College of Arts and Sciences Undergraduate Scholars Conference. St. Ambrose University; 28 Apr. 2016.

An analysis of the practicality and effectiveness of UV irradiation as a treatment method for 17-β estradiol. Issac Schwantes (student presenter), Joshua Stratton, and *Neil Aschliman*. 128th Annual Meeting of the Iowa Academy of Science. Grand View University, Des Moines, Iowa; 23 Apr. 2016.

Potential adverse effects of active ingredients in sunscreen on the behavior and histology of zebrafish (*Danio rerio*). Henri Alexandre Giblot Ducray (student presenter) and *Neil Aschliman*. 2015 College of Arts and Sciences Undergraduate Scholars Conference. St. Ambrose University; 24 Apr. 2015.

An evaluation of the use of DNA barcode sequences to improve the phylogenetic resolution of hardnose skates (Chondrichthyes: Rajinae). Averi Wilson (student presenter) and *Neil Aschliman*. 2014 College of Arts and Sciences Undergraduate Scholars Conference. St. Ambrose University; 24 Apr. 2014.

OTHER PUBLISHED ABSTRACTS

Using trees to save sharks and rays. Nicholas Dulvy (presenter), Will Stein, Chris Mull, Tyler Kuhn, *Neil Aschliman*, Lindsay Davidson, Jeff Joy, Gordon Smith, and Arne Mooers. Joint Meeting of Ichthyologists and Herpetologists, New Orleans, Louisiana; 10 Jul. 2016.

Using trees to save sharks and rays. Nicholas K. Dulvy (presenter), R. Will Stein, Chris G. Mull, Tyler S. Kuhn, *Neil C. Aschliman*, Lindsay N.K. Davidson, Jeff B. Joy, Gordon J. Smith, and Arne Ø Mooers. Northeastern Pacific Shark Symposium 2016. USC Wrigley Marine Science Center, Catalina Island, California; 18 Mar. 2016.

The role of guitarfish in the origin of skates and rays. K.M. Claeson (presenter), *N.C. Aschliman* and C.J. Underwood. Society for Integrative and Comparative Biology Annual Meeting. Austin, Texas; 4 Jan. 2014.

Guitarfish paraphyly and the origin of skates and rays: estimating accumulation rates of vertebral fusion among batoid fishes. K.M. Claeson (presenter), *N.C. Aschliman* and C.J. Underwood. Society of Vertebrate Paleontology Annual Meeting. Raleigh, South Carolina; 19 Oct. 2012.

PUBLISHED ILLUSTRATIONS

[Numerous original illustrations.] Neil Aschliman. 2019. Essential Biodiversity, 1.0. Open Educational Resource. 264 pp. http://www.neilaschliman.com/biodiversity.htm

Perciformes key. John D. McEachran. Pp. 85 – 96 in Fishes of the Gulf of Mexico volume 2. John D. McEachran and Janice D. Fechhelm. University of Texas Press. 2005. Produced line drawing of Moronidae on p. 92.

Hormonal regulation of elasmobranch physiology. James Gelsleichter. Pp. 287 – 323 in Biology of Sharks and Their Relatives. Editors J.C. Carrier, J.A. Musick, M.R. Heithaus. CRC Press. 2004. Produced raw line drawings on pp. 289, 293 – 294, 296, 299, 301.

*Illustrations and cartoons may be commissioned for published works or presentations. Sample: "Zoloft Shark" for Jim Gelsleichter, UNF. http://www.neilaschliman.com/art/commissions/zoloft.jpg

OUTREACH

Host area high school biology students in the cadaver lab, multiple schools each year; 2011 – current.

Run, plan, and/or assist with youth STEM programs at Frances Banta Waggoner Community Library; 2016 – 2020.

Biology demo at Riverdale Heights Elementary Science Club; Jan. 2020.

Author of the biology outreach blog This reView of Life, http://thisreviewoflife.blogspot.com; Apr. 2010 – 2017.

Run, plan, and/or assist with youth STEM programs at LeClaire Community Library; 2013 – 2016.

Guest post on manta rays and taxonomy, Southern Fried Science, http://www.southernfriedscience.com/?p=15248; Jul. 2013.

Invited panelist, "Directing Your Journey," Black Graduate Student Association (BGSA) Linkages Symposium. Florida State University; 9 Apr. 2011.

Judge, Zoology, Capital Regional Science and Engineering Fair. Florida State University; 2008 – 2010.

TEACHING / OUTREACH TRAINING

National Center for Case Study Teaching in Science Summer Workshop; University at Buffalo, May 2014.

Teaching Science to Maximize Learning and Retention (BSC5936); Florida State University; Spring 2011.

COMPASS Media Training Workshop: "Meet the Press: Opportunities and Challenges for Scientists in a Changing World"; Apr. 2010.

FSU Department of Biological Science Teaching Workshop; Aug. 2005 [one-week program].