

# Thomas A. Stewart

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## Education

- 2015 Ph.D., Integrative Biology, The University of Chicago  
Advisors: Michael I. Coates and Robert K. Ho
- 2009 B.S., Biology, Syracuse University  
Advisor: R. Craig Albertson

## Appointments

- 2022-present Assistant Professor, Department of Biology, The Pennsylvania State University
- 2017-2022 Postdoctoral Scholar, Department of Organismal Biology & Anatomy at The University of Chicago, Advisor: Neil H. Shubin
- 2015-2017 Postdoctoral Fellow, Department of Ecology and Evolution at Yale University, Advisor: Günter P. Wagner
- 2015-2017 Postdoctoral Fellow, Minnesota Center for Philosophy of Science at the University of Minnesota, Advisor: Alan C. Love

## Publications

Asterisk (\*) indicates equal contribution. Dagger (†) indicates corresponding author. Double dagger (‡) indicates a lab member or mentee.

15. **Stewart, TA<sup>†</sup>**, JB Lemberg, EJ Hillan, I Magallanes, EB Daeschler, N.H. Shubin<sup>†</sup>. 2024 The axial skeleton of *Tiktaalik roseae*. *Proceedings of the National Academy of Sciences USA*. 121(15): e2316106121  
<https://doi.org/10.1073/pnas.2316106121>  
-Featured in *PNAS* as an ‘In This Issue’ highlight: *PNAS* 121(15) eiti1524121
14. Aiello BR, MS Bhamla, J Gau, JGL Morris, K Bomar, S da Cunha, H Fu, J Laws, H Minoguchi, M Sripathi, K Washington, G Wong, NH Shubin<sup>†</sup>, S Sponberg<sup>†</sup>, **TA Stewart<sup>†</sup>**. 2023. The origin of blinking in mudskippers and tetrapods is linked to life on land. *Proceedings of the National Academy of Sciences USA* 120(18): e2220404120.  
<https://doi.org/10.1073/pnas.2220404120>  
-Featured in *Nature* as a ‘Research Highlight’: *Nature* 617: 10  
-Featured in *PNAS* as an ‘In This Issue’ highlight: *PNAS* 120(18): eiti1823120

-Featured in *Current Biology* as a ‘Dispatch’: *Curr. Biol.* 33(24): PR1292-R1293

-Featured in *JEB* as an ‘Outside JEB’ spotlight: *JEB* 226 (13): JEB245013

13. **Stewart, TA\***, JB Lemberg\*, A Daly<sup>‡</sup>, EB Daeschler, NH Shubin<sup>†</sup>. 2022. A New Elpistostegalian from the Late Devonian of Arctic Canada. *Nature* 608: 563–568.  
<https://doi.org/10.1038/s41586-022-04990-w>
12. **Stewart, TA<sup>†</sup>**, JB Lemberg, NK Taft, I Yoo<sup>‡</sup>, EB Daeschler, and NH Shubin<sup>†</sup>. 2020. Fin ray patterns at the fin-to-limb transition. *Proceedings of the National Academy of Sciences USA* 117(3): 1612-1620.  
<https://doi.org/10.1073/pnas.1915983117>
11. **Stewart, TA<sup>†</sup>**, C Liang, JL Cotney, JP Noonan, TJ Sanger, and GP Wagner<sup>†</sup>. 2019. Evidence against tetrapod-wide digit identities and for a limited frame shift in bird wings. *Nature Communications* 10: 3244.  
<https://doi.org/10.1038/s41467-019-11215-8>
10. **Stewart, TA<sup>†</sup>**, MM Bonilla, RK Ho, and ME Hale. 2019. Adipose fin development and its relation to the evolutionary origins of median fins. *Scientific Reports* 9: 512.  
<https://doi.org/10.1038/s41598-018-37040-5>
9. **Stewart, TA<sup>†</sup>**, R Bhat, and SE Newman. 2017. The evolutionary origin of digit patterning. *EvoDevo* 8: 21.  
<https://doi.org/10.1186/s13227-017-0084-8>
8. Love, AC, **TA Stewart<sup>†</sup>**, GP Wagner, and SE Newman. 2017. Perspectives on Integrating Generic and Genetic Explanations of Evolution and Development. *Integrative and Comparative Biology* 57(6): 1258-1268.  
<https://doi.org/10.1093/icb/icx121>
7. Aiello, BR\*<sup>†</sup>, **TA Stewart\*<sup>†</sup>**, and ME Hale. 2016. Mechanosensation in an adipose fin. *Proceedings of the Royal Society B.* 283(1826): 1-5.  
<https://doi.org/10.1098/rspb.2015.2794>
6. Ross, CF<sup>†</sup>, J Iriarte-Diaz, DA Reed, **TA Stewart**, and AB Taylor. 2016. *In vivo* bone strain in the mandibular corpus of *Cebus (Sapajus) apella* during different feeding behaviors. *The Journal of Human Evolution* 98: 36-65.  
<https://doi.org/10.1016/j.jhevol.2016.06.004>
5. Bhatt<sup>†</sup>, R, M Chakraborty, T Glimm, **TA Stewart**, and SA Newman<sup>†</sup>. 2016. Deep phylogenomics of a galectin-based tetrapod limb patterning network. *BMC Evolutionary Biology* 16(162): 1-11.  
<https://doi.org/10.1186/s12862-016-0729-6>
4. **Stewart, TA<sup>†</sup>**. 2015. The origin of a new fin skeleton through tinkering. *Biology Letters* 11(7): 20150415.  
<https://doi.org/10.1098/rsbl.2015.0415>
3. **Stewart, TA<sup>†</sup>**, WL Smith, and MI Coates. 2014. The origins of adipose fins: an analysis of homoplasy and the serial homology of vertebrate appendages. *Proceedings of the Royal Society B.* 281(1781): 20133120.  
<https://doi.org/10.1098/rspb.2013.3120>

-Featured in *Nature* as a ‘Research Highlight’: *Nature* 507: 142

2. **Stewart, TA<sup>†</sup>** and ME Hale. 2013. First description of a musculoskeletal linkage in an adipose fin: Innovations for active control in a primitively passive appendage. *Proceedings of the Royal Society B*. 280(1750): 20122159.  
<http://doi.org/10.1098/rspb.2012.2159>
1. **Stewart, TA** and RC Albertson<sup>†</sup>. 2010. Evolution of a unique predatory feeding apparatus: functional anatomy, development and a genetic locus for jaw laterality in Lake Tanganyika scale-eating cichlids. *BMC Biology* 8: 8.  
<https://doi.org/10.1186/1741-7007-8-8>

## Manuscripts

2. J Wei, TWP Wood, K Flaherty, A Enny, A Andrescavage, D Brazer, D Navon, H Cohen, A Shanabag, S Kuroda, **TA Stewart**, I Braasch, T Nakamura. Distinct ossification trade-offs illuminate the shoulder girdle reconfiguration at the water-to-land transition. In revision for *Nature Communication*  
Preprint on bioRxiv: <https://www.biorxiv.org/content/10.1101/2023.07.17.547998v1>
1. **Stewart, TA\*<sup>†</sup>**, I Yoo<sup>‡</sup>, and NS Upham\*<sup>†</sup>. The coevolution of mammae number and litter size. In revision.  
Preprint on bioRxiv: <https://www.biorxiv.org/content/10.1101/2020.10.08.331983v1>

## Non Peer-Reviewed Publications

3. **Stewart, TA**. 2022. Meet *Qikiqtania*, a fossil fish with the good sense to stay in the water while others ventured onto land. *The Conversation* \*reprinted in >20 newspapers and *Ars Technica*
2. **Stewart, TA**. 2019. The evolution of digits and the origin of the bird wing. *Nature Ecology and Evolution Blog*
1. **Stewart, TA**. 2019. Like the back of my hand. *Earth Science Club of Northern Illinois Newsletter*

## Fellowships, Awards, and Grants

### *Fellowships and Awards*

2024	W.M. Cobb Award in Morphological Sciences, American Association for Anatomy Early-Career Investigator Award
2012-2015	NSF Graduate Research Fellowship (\$123,000)
2010-2012	NSF Integrative Graduate Education and Research Traineeship for Motor Control and Movement (\$82,000)
2009	Reinventing Scholarship Award, Syracuse University Center for Graduate Preparation
2009	Donald G. Lundgren Memorial Award for Outstanding Scholarship and Research, Syracuse University Department of Biology
2008	Enhancing Linkages between Mathematics and Ecology Fellowship Michigan State University (\$3,400)

- 2007-2009 Ronald E. McNair Post-Baccalaureate Achievement Program (\$5,000)  
 2008 Barry M. Goldwater Scholarship and Excellence in Education Program (\$7,500)

*Research Grants*

- 2013 Raney Award, American Society of Ichthyologists and Herpetologists (\$1,000)  
 2013 RNA Grant Program Award, The University of Chicago Genomics Core (\$1,400)  
 2013 Hinds Fund, The University of Chicago (\$2,000)  
 2011 MotoIGERT Research Award (\$2,400)  
 2008 Crown Scholarship, Syracuse University (\$2,574)  
 2008 Ruth Meyer Scholarship, Syracuse University (\$2,000)

*Travel Grants*

- 2014 Broadening Participation Travel Award, Society for Integrative and Comparative Biology (\$500)  
 2013 Tinker Research Travel Award, The University of Chicago Center for Latin American Studies (\$1,050)  
 2012 Student Travel Award, The University of Chicago Division of the Biological Sciences (\$500)  
 2008 Undergraduate Diversity at Evolution Travel Award (\$500)

*Organizational Grants*

- 2017 The symposium ‘Physical and genetic mechanisms for evolutionary novelty’ was held at the 2017 Society for Comparative and Integrative Biology Meeting (co-organizers: TA Stewart, SA Newman, and GP Wagner). Funding for the symposium was awarded by The Company of Biologists (\$3,415); S.I.C.B. (\$2,500) and The John Templeton Foundation (\$3,000).

**Presentations**

*Invited Research Seminars*

- 2024 Bucknell University, Department of Biology, Darwin Day Celebration  
 2024 Drexel University, Department of Biodiversity, Earth and Environmental Science  
 2023 Arizona State University, Center for Evolutionary Medicine  
 2023 University of Tulsa, Department of Biology  
 2023 University of North Carolina, Biology Department \*graduate student invited speaker  
 2023 Salisbury University, Department of Biological Sciences  
 2022 Lycoming College, Department of Biology  
 2022 The Pennsylvania State University, Math and Biology Seminar Series  
 2021 Royal Ontario Museum Seminar Series  
 2021 Associated Colleges of Chicago Area  
 2020 The Stanford, Berkeley, and UCSF Next Generation Faculty Symposium  
 2020 Cornell University, Department of Ecology and Evolutionary Biology  
 2020 Loyola University Chicago, Biology Department  
 2019 University of Cambridge, Department of Earth Sciences

2019 Earth Science Club of Northern Illinois (ESCONI) at the College of DuPage  
 2017 International Society for the History, Philosophy and Social Studies of Biology  
 2017 Yale University, EvoDevo Symposium  
 2016 Duke University, Evolution and Development Seminar Series  
 2015 New York Medical College Seminar Series  
 2014 University of Massachusetts, Amherst, Department of Biology  
 2013 Escuela Politécnica Nacional, Quito, Ecuador  
 2009 Syracuse University, Biology Department

*Select Conference Presentations (first author; invited talks are designated by #)*

2024 European Society for Evolutionary Developmental Biology, Helsinki, Finland \*upcoming talk  
 2024 # Anatomy Connected, Annual meeting of the American Anatomical Association, Toronto, CA \*upcoming talk  
 2023 # Midwest Regional Meeting of the Society for Integrative and Comparative Biology, Chicago IL  
 2023 Society for Integrative and Comparative Biology, Austin, TX  
 2022 Society for Vertebrate Paleontology, Toronto, Canada  
 2022 European Society for Evolutionary Developmental Biology, Naples, Italy  
 2022 Society for Integrative and Comparative Biology, online due to COVID-19  
 2021 Society for Integrative and Comparative Biology, online due to COVID-19  
 2020 Society for Vertebrate Paleontology, online due to COVID-19  
 2020 Society for Integrative and Comparative Biology, Austin, TX  
 2019 Great Lakes Palaeoconference, Ann Arbor, MI  
 2019 International Congress of Vertebrate Morphology, Prague, Czechia  
 2019 Society for Integrative and Comparative Biology, Tampa, FL  
 2018 European Society for Evolutionary Developmental Biology, Galway, Ireland  
 2018 Society for Integrative and Comparative Biology, San Francisco, CA  
 2017 14th International Conference on Limb Development and Regeneration, Edinburgh, Scotland  
 2017 Society for Integrative and Comparative Biology, New Orleans, LA  
 2016 Society for Integrative and Comparative Biology, Portland, OR. \*finalist for Best Student Paper Award, Division of Evolutionary Developmental Biology  
 2015 Pan-American Society for Evolutionary Developmental Biology, Berkeley, CA  
 2015 13th International Conference on Limb Development and Regeneration, St. Petersburg, FL  
 2015 Society for Integrative and Comparative Biology, West Palm Beach, FL  
 2014 European Society for Evolutionary Developmental Biology, Vienna, Austria  
 2014 Evolution Meeting, Raleigh, NC  
 2014 Society for Integrative and Comparative Biology, Austin, TX  
 2013 Society for Integrative and Comparative Biology, San Francisco, CA  
 2012 Society for Integrative and Comparative Biology, Charleston, SC  
 2011 Northeastern and North-Central Meeting of the Geological Society of America, Pittsburgh, PA

- 2009 Society for Integrative and Comparative Biology, Boston, MA  
 2008 Evolution Meeting, Minneapolis, MN  
 2008 American Society for Ichthyology and Herpetology, Montreal, Canada

## Teaching

### *Faculty Instructor, The Pennsylvania State University*

- 2024 BIOL433: Evolution of Vertebrates— Discussion-based course for upper division Biology majors to introduce fundamentals of evolutionary theory and the history and anatomy of vertebrates  
 2023 PSU16: PSU First-Year Seminar—Discussion-based course for first year undergraduates in Biology to prepare them for the first year of college

### *Faculty Instructor, Columbia University in the City of New York*

- 2020 EEEB G6110: Fundamentals of Evolution—Discussion based course for graduate students in the Department of Ecology, Evolution, and Environmental Biology. Co-instructor: Prof. D.A.R. Eaton

### *Faculty Instructor, Yale University*

- 2016, 2017 BIO491: Comparative Anatomy of Vertebrates—Undergraduate dissection-based laboratory course

### *Teaching Assistant, The University of Chicago*

- 2010-2013 Natural History of North American Deserts, Field School  
 2012 Grants, Publications, and Professional Issues  
 2012 Biological Sciences Division Summer Graduate Research Program  
 2011 Developmental Biology  
 2010 Chordate Evolutionary Biology

### *Guest Lecturer*

- 2024 The Pennsylvania State University, “Science Outreach and Communication” (SCI 451)  
 2024 The Pennsylvania State University, Altoona, “Comparative Vertebrate Anatomy” (BIOL 421)  
 2024 The Pennsylvania State University, “Current Research Seminar” (MCIBS 592)  
 2024 University of Oklahoma, “Vertebrate Paleontology”  
 2023 The Pennsylvania State University, “Evolutionary and Developmental Biology”  
 2023 The Pennsylvania State University, “Developmental Biology”  
 2021 Chapman University, “Natural History”  
 2020 Concordia University, “Evolutionary Biology”  
 2020 Gonzaga University, “Vertebrate Evolution”  
 2018 Benedictine University, “Evolutionary Biology”  
 2017, 2018 The University of Chicago, “Teaching Assistant Training”  
 2014 The University of Chicago, “Ecology and Conservation Biology”  
 2014 The University of Chicago, “Scientific Ethics”

2012 Lane Technical High School, Chicago, IL, “Philosophy of Science”

### **Mentorship and Advising Experience**

#### *Postdoc Advising (Primary Advisor)*

2022-present Michelle Gilbert, The Pennsylvania State University, Department of Biology

#### *Graduate Student Advising (Primary Advisor)*

2023-present Yunyan Mo, PhD student, The Pennsylvania State University, Department of Biology  
–Awarded the University Graduate Fellowship by PSU (2023)

2023-present Ayesha Iqbal, PhD student, The Pennsylvania State University, Department of Biology

#### *Undergraduate Student Mentorship*

2023-present Gabriela Esposito, The Pennsylvania State University

2022-present Alex Kwiatkowski, The Pennsylvania State University  
–Awarded the Erickson Discovery Grant by PSU (2023)

2022-2024 Ciara Woodburn, The Pennsylvania State University

2017-2020 Ihna Yoo, The University of Chicago

2014 Joy Mao, The University of Chicago

2009-2010 Georgia Sampedro, The University of Chicago

#### *High School Student Mentorship*

2016 Emily Criscuolo, Amity Regional High School

2016 Himay Dharani, Amity Regional High School

#### *Dissertation Committee Member*

2023-present Johanna Beam, PhD student, The Pennsylvania State University, Department of Biology

#### *Qualifying Exam Committee Member*

2023 Saswat Mohanty, PhD student, The Pennsylvania State University

2023 Laurent Houle, PhD student, Université du Québec à Rimouski

### **Field Experience**

2022-present Paleontological collecting trips throughout Central Pennsylvania for Late Devonian vertebrates

2013 Collection trip to Southern Illinois with the Field Museum of Natural History Fishes Division

2008 Semester abroad studying Tropical Ecology, The Organization for Tropical Studies, Costa Rica

2007 Research Intern, Cornell Biological Field Station, Oneida Lake, NY

### **Professional Development**

- 2023 Mentoring Matters: Training Mentors in STEM, organized by the Eberly College of Science, The Pennsylvania State University
- 2023 Evidence Based Teaching Academy, organized by The Pennsylvania State University
- 2018 Workshop series on mentorship training for postdocs, organized by The University of Chicago's Division of Biological Sciences
- 2014 Seminar on Course Design, organized by The University of Chicago's Center for Teaching and Learning
- 2014 Seminar on Students in Distress: Student Mental Health and Today's College, organized by The University of Chicago's Center for Teaching and Learning
- 2013 Workshop on Teaching in the College, organized by The University of Chicago's Center for Teaching and Learning
- 2012 Approaches to Teaching in the Darwinian Sciences, a semester-long graduate course
- 2012 Workshop on Curriculum Studies and Design hosted by the Field Museum of Natural History

## Professional Service

### *Journal Referee*

18 journals, alphabetical: Anatomical Record, Aquaculture and Fisheries, Copeia, Ecology and Evolution, Evolution, EvoDevo, Evolution and Development, Developmental Dynamics, Fish and Fisheries, Hydrobiologia, Integrative and Comparative Biology, Journal of Anatomy, Journal of Fish Biology, Journal of Morphology, Proceedings of the Royal Society B: Biological Sciences, Proceedings of the National Academy of Sciences, Scientific Reports, Zoological Sciences, Zoology

### *Grant Referee*

- 2023 *Ad hoc* Referee for the National Science Foundation's Integrative Organismal Sciences Cluster
- 2023 *Ad hoc* Referee for the National Science Foundation's Developmental Systems Cluster
- 2022 Panel Referee for the National Science Foundation's Post-Doctoral Research Fellowship

### *Other Reviews*

- 2016 Outreach materials for members of the U.S. Congress produced by the Federation of American Societies for Experimental Biology on developmental and regenerative biology

### *Society Service*

- 2020-2024 Member of the Broadening Participation Committee of the Society for Comparative and Integrative Biology
- 2022,2024 Mentor of students through the Broadening Participation Committee's Mentor-Mentee program at the annual meeting the Society for Comparative and Integrative Biology
- 2022, 2023 Judge of the Society for Integrative and Comparative Biology's Award for Promoting Diversity, Equity, Inclusion and Justice in Integrative Biology
- 2022 Mentor of students through the Broadening Participation Committee's Mentor-Mentee program at the annual meeting the Society for Comparative and Integrative Biology



- 2022 Judge of the Wake Award, given by the Society for Comparative and Integrative Biology's Division of Phylogenetic & Comparative Biology
- 2020 Moderator the Society for Vertebrate Paleontology's Q&A for the Fishes and Chondrichthyans Networking Session
- 2020 Session chair at the annual meeting the Society for Comparative and Integrative Biology
- 2019-2020 Mentor of students for EvoDevo Dinner through the Society for Comparative and Integrative Biology
- 2018 Mentor for the Broadening Participation Mentorship Program through the Society for Comparative and Integrative Biology
- 2017 Session Chair at the meeting of the International Society for History, Philosophy and Social Studies of Biology
- 2017 Organized the symposium 'Physical and genetic mechanisms for evolutionary novelty,' which was held at the 2017 Society for Comparative and Integrative Biology Meeting (co-organizers: SA Newman, GP Wagner)
- 2017 Session chair at the meeting the Society for Comparative and Integrative Biology
- 2014 Mentored two students through the Undergraduate Diversity at Evolution Program, which supports underrepresented minority students at the annual Evolution meeting
- 2013 Staff volunteer at the annual Society for Molecular Biology & Evolution meeting

### **University Service**

#### *The Pennsylvania State University*

- 2023-present Climate and Diversity Committee, Eberly College of Science
- 2023-present Outreach Liaison, Department of Biology
- 2023-2024 Faculty Search Committee, Department of Biology
- 2023-present Co-organizer of a weekly journal club on Evolutionary Biology
- 2023 Poster Judge for the Biology Department's 2023 Student Research Showcase
- 2023 Poster Judge for the 2023 Eberly College of Science Postdoctoral Research Symposium

#### *The University of Chicago*

- 2014 Moderator of a breakout session on postdoctoral and graduate student opportunities at the Marine Biological Laboratory and UChicago retreat
- 2011-2013 Graduate Student Representative to the Biological Sciences' Graduate Minority Committee
- 2013 Co-founded the University of Chicago's Multicultural Graduate Community, a registered student organization to promote success of scientists from underrepresented communities
- 2013 Panelist for a discussion on choosing an advisor and dissertation topic for first year graduate students
- 2012-2013 Organizer of Fish Group, a weekly seminar series
- 2013 Co-organizer of the Chicago Neuromechanics Symposium
- 2012 Served on a panel for incoming graduate students in the Division of Biological Sciences on issues faced by multi-cultural students
- 2012 Served on a panel about college experiences for middle school students of underrepresented groups organized by the Office of Multicultural Student Affairs
- 2012 Spoke to first year Ph.D. students on selecting an advisor

2009-2010 Mentor with the Chicago Multicultural Connection, advised undergraduate students from underrepresented groups considering careers in biology

### **Outreach and Science Communication**

2024 Elderwise Learning, spoke to a continuing education program for retired individuals about my research \*upcoming talk

2023 Worked with comic book illustrator Jordan Collver and other authors of *Aiello et al. 2023 PNAS* to produce a comic entitled “Mudskipper eye-volution” on the evolution of mudskipper blinking, which was also translated into Spanish.

2020, 2023 Panelist for a symposium of McNair Scholars at Syracuse University on selecting a graduate program and Ph.D. advisor

2022 Participated in Skype a Scientist and spoke about my background and research to 3<sup>rd</sup> grade students in California

2022 Public presentation of research to Chicago’s End of the Line Humanists for Darwin Day.

2020 Participated in Skype a Scientist and spoke about my background and research to a middle school, Spanish-speaking class in Arizona

2020 Interviewed for a video presentation on *Tiktaalik roseae* and Arctic paleontological expeditions for the Canadian Museum of Nature

2012, 2019 Volunteered at the Field Museum of Natural History’s Members Night, explained collections-based research

2018 Panelist for a discussion on finding a postdoctoral position at the Great Lakes Student Palaeoconference held at the Field Museum of Natural History

2013-2015 Co-hosted The Groks Science Show, an hour-long science and technology radio program that aired on WHPK (88.5) Chicago, IL, which was also available as a podcast

2013 Judge for the Chicago Area Undergraduate Research Symposium

2013 Scientific advisor for Science Game Jam, a competition of indie video game developers to produce an educational video game, which was hosted at The Field Museum of Natural History

2012 Mentor with Brothers for Science, an afterschool program for high school boys in South Chicago, IL

2011 Co-organizer of Motorama, a spring break program on biomechanics for Chicago area high school students at The Museum of Science and Industry, Chicago, IL

2011 Speaker at the Oak Park Young Scientists Conference

2006 Liaison to the public during 50<sup>th</sup> Anniversary Celebrations for the Cornell Biological Field Station on Oneida Lake, NY

### **Select Media Coverage**

2024 National Geographic en Español, “Tiktaalik: Este pez de hace 375 millones de años ya mostraba cambios para desplazarse sobre la tierra”

2023 PBS Eons, “Why did blinking evolve?” (1.6 million views on YouTube in March 2024)

2023 SciShow, “Fish Don’t Blink” (1.2 million views on YouTube in March 2024)

2023 Stated Clearly, “Evidence for Evolution in the Mudskipper’s Eye”

- 2023 BBC, “Mudskippers: Blinking fish give insight into how life adapted to land”
- 2023 Popular Science, “Mudskippers blink—and that’s a huge evolutionary clue”
- 2023 National Geographic, “Why did humans evolve to blink?”
- 2022 PBS, “Our Ancient Relative That Said 'No Thanks' To Life On Land” (738k views on YouTube in March 2024)
- 2022 Defector, “New Fossil Fish Flirted With The Idea Of Legs But Kept On Swimming”
- 2022 New York Times, “These Fins Were Made for Walking ... and Then Swimming”
- 2022 Discover Magazine, “The Ancient Fish That Got Cold Feet and Returned to Water”
- 2022 New York Times, “Started Out as a Fish. How Did It End Up Like This?”
- 2020 El Comercio, “Así era el antepasado de los humanos que caminó sobre la tierra por primera vez”
- 2019 Futurity, “How fish fins evolved on the way to land-ready limbs”
- 2019 Phys.org, “How fish fins evolved just before the transition to land”
- 2015 Nature.com Blog, Accumulating Glitches, “Tinkering with fins”
- 2014 Nature.com Blog, Accumulating Glitches, “The evolution of adipose fins”
- 2014 Los Angeles Times, “Overlooked fish fin stirs the waters of evolution”
- 2014 Red Orbit, “Adipose fins evolve repeatedly in Teleost fishes”
- 2014 The Scientist, “Convergent Fish Fins”
- 2014 Futurity, “Re-run Evolution Puts Fin on Fish Backs”
- 2014 Nautilus, Three-Sentence Science, “Fish Fins Disrupt Evolution’s Path”
- 2010 Science Daily, “Lopsided fish show that symmetry is only skin deep”
- 2010 The Naked Scientists, “The fish with wonky mouths”

### **Academic Memberships**

European Society for Evolutionary Developmental Biology  
 Pan-American Society for Evolutionary Developmental Biology  
 Society for Integrative and Comparative Biology  
 Society for Vertebrate Paleontology  
 Society for the Advancement of Chicanos and Native Americans in Science