

# Lars Schmitz

Associate Professor of Integrated Sciences: Biology  
Kravis Department of Integrated Sciences  
Claremont McKenna College

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## EDUCATION

- 06/2008 **Ph.D.** in Geology (emphasis: Paleobiology), University of California, Davis. Supervisor: Ryosuke Motani.  
  
Thesis title: "**The inference of diel activity pattern in fossil archosaurs using eyeball morphology and visual optics**".
- 03/2003 **Diplom** (M.Sc. equivalent) in Geology and Paleontology, University of Bonn, Germany. Supervisor: Martin Sander.  
  
Thesis title: "**The Mixosaurs (Ichthyosauria, Mixosauridae) from the Middle Triassic of the Augusta Mountains (Nevada, USA)**".
- 06/2000 **Vordiplom** (B.Sc. equivalent) in Geology and Paleontology, University of Bonn, Germany

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## ACADEMIC APPOINTMENTS

- Since 09/2023 **Kravis Associate Professor of Integrated Sciences: Biology**, Kravis Department of Integrated Sciences, Claremont McKenna College
- Since 07/2023 **Associate Professor of Integrated Sciences: Biology**, Kravis Department of Integrated Sciences, Claremont McKenna College
- 07/2018 – 06/2023 **Associate Professor of Biology**, W.M. Keck Science Department, Claremont McKenna College, Scripps College, and Pitzer College
- Since 01/2014 **Research Associate** at the Dinosaur Institute, Natural History Museum of Los Angeles County
- 07/2012 – 06/2018 **Assistant Professor of Biology**, W.M. Keck Science Department, Claremont McKenna College, Scripps College, and Pitzer College  
Classes taught: BIOL44 Introductory Biology, BIOL 120 Research Methods in Organismal Biology, BIOL141L Vertebrate Anatomy, BIOL150L Functional Human Anatomy and Biomechanics, BIOL167 Sensory Evolution, BIOL182L Applied Phylogenetics
- 07/2009 – 06/2012 **Postdoctoral Researcher** at UC Davis, Department of Evolution and Ecology, Wainwright Lab, including a 3-months research project in Shaun Collin's neuro-ecology lab at the University of Western Australia, Perth (December 2010 – March 2011)
- 04 – 06 /2009 **Lecturer** at UC Davis

Classes taught: GEL 16 The Oceans, GEL 17 Earthquakes and other Natural Hazards

01 – 03/2009

**Postdoctoral Researcher** at UC Davis, Department of Geology, Motani Lab

06/2008 – 12/2008

**Lecturer** at UC Davis  
Classes taught: FRS 2 Dinosaurs in the Movies: Science vs. Fiction, GEL 3 History of Life, GEL 17 Earthquakes and other Natural Hazards, GEL 107 Paleobiology

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FELLOWSHIPS, AWARDS, PRIZES, AND GRANTS

2023

**Faculty Scholarship Award**, Claremont McKenna College

2020

**Ellen Browning Scripps Foundation** (with Jenna Monroy and Jason Borchert; awarded to **Scripps College**), purchase of electroretinography devices for use by students and faculty within the W.M. Keck Science Department. **[\$46,000]**

2019

Collaborator on **Major International (Regional) Joint Research Project** (National Science Foundation of China), PI Jiang Da-yong, Peking University, 2020-2024: Emergence and first radiation of Mesozoic marine reptiles and its evolutionary-migration pattern.

2014

**PI for National Geographic Research and Exploration Grant** (“The marine reptile fauna of the Middle Triassic of Nevada: New finds including one of the oldest pregnant ichthyosaurs and the first definite Early Triassic ichthyosaurs from North America”). **[\$20,000]**

2014

**NSF MRI: “Acquisition of a Leica TCS SPE confocal microscope for a shared facility to advance undergraduate research and teaching in the W.M. Keck Science Department”**, co-PI of Jennifer Armstrong, Patrick Ferree, and Melissa Coleman. **[\$233,000]**

2014

**ARC Discovery Project**, co-PI of John Long (Flinders University, Australia) and Kate Trinajstic, Curtin University, Australia); other co-PIs include Per Ahlberg (UK), Zhu Min (China), Glenn Northcutt (USA), Zerina Johanson (UK), and Gavin Young (Australia): **“Did electroreception and nocturnality drive major evolutionary radiations in the earliest known jawed vertebrates?”**

2014

**PI** (with Samantha Price and Graham Slater) for a **NESCent Academy**: “Paleobiological and Phylogenetic Approaches to Macroevolution”

2013

**W.M. Keck Science Research Grant** **[\$15,000]**

2013

**HHMI Claremont Colleges Research Fund** (with Adam Landsberg and Tom Donnelly **[\$13,000]**)

2012 **PI** (with Samantha Price and Graham Slater) for a **NESCent Catalysis meeting**: “Integrating approaches to macroevolution: combining fossils and phylogenies”

2010 **PI** for **National Geographic Research and Exploration Grant** (8817-10: The enigmatic *Omphalosaurus* and the diversification of marine reptiles) [\$19,000]

2009-2011 **DFG Research Fellowship** [\$84,000]

2008 **M.A. Fritz Travel Award**, Royal Ontario Museum, Toronto

2008 **Co-PI** for **National Geographic Research and Exploration Grant** (8385-08: The marine vertebrate fauna of the Middle Triassic of Nevada) [\$19,000]

10/2007 **Student Travel Grant**, Society of Vertebrate Paleontology

08/2005 – 07/2007 **DAAD** (German Academic Exchange Service) **Doctoral Stipend** [\$54,000]

2007 Award for **best student presentation** at CalPaleo

2005 **Bernd-Rendel Prize of DFG** (Deutsche Forschungs-Gemeinschaft) [\$3,000]

2005 **UC Davis and Humanities Graduate Research Award** [\$1,500]

02 and 09/2004 **Travel Grant**, Peking University [amount unrevealed]

10/2003 **Travel Grant**, Dept. of Geological Sciences, University of Oregon, Eugene [\$300]

09/2003 – 06/2004 **Graduate Teaching Fellowship**, University of Oregon, Eugene [\$8,000]

10/2002 **HIGH LAT Award**, European Commission's program for "Improving the Human Research Potential and the Socio-Economic Knowledge Base" (IHP), NRM Stockholm (Sweden) [\$2,000]

07/2002 **Samuel P. and Doris Welles Award**, UCMP Berkeley, California [\$500]

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**PUBLICATIONS** (all peer-reviewed)

*In review:*

STERNES, P., **SCHMITZ, L.**, & T.E. HIGHAM. In review. The rise of pelagic sharks and adaptive evolution of pectoral fin morphology during the hot climates of the Cretaceous. **Proceedings of the National Academy of Sciences.**

*In press:*

**SCHMITZ, L.** In press. Physiology of Dinosaurs. In: *The Complete Dinosaur* (eds. V. Arbor, T. Holtz, and L. Zanno). Indiana University Press.

HUTCHINSON, J.R., CLAESSENS, L., RAYFIELD, E., & **L. SCHMITZ**. In press. Form, function, and behaviour in the Dinosauria. In *Dinosauria III* (eds. P. Barrett and D. Weishampel), Cambridge University Press.

*Published:*

Higham, T.E., **Schmitz, L.**, & K.J. Niklas. 2022. The evolution of mechanical properties of conifer and angiosperm wood. **Integrative and Comparative Biology** 62(3): 668-682.

SANDER\*, P.M., GRIEBELER\*, E.-M., KLEIN, N., VELEZ JUARBE, J., WINTRICH, T., REVELL, L.J., & **L. SCHMITZ\***. 2021. Early giant reveals faster evolution of large size in ichthyosaurs than in cetaceans. **Science** 374 (6575): eabf5787. \*corresponding author

HIGHAM, T.E., FERRY, L.A., **SCHMITZ, L.**, IRSCHICK, D.J., STARKO, S., ANDERSON, P.S.L., BERGMANN, P.J., JAMNICZKY, H.A., MONTEIRO, L.R., DINA NAVON, D., MESSIER, J., CARRINGTON, E., FARINA, S.C., FEILICH, K.L., PATRICIA HERNANDEZ, L.P., JOHNSON, M.A., KAWANO, S.M., LAW, C.J., LONGO, S.J., MARTIN, C.H., MARTONE, P.T., RICO-GUEVARA, A., SANTANA, S.E., & K.J. NIKLAS. 2021. Linking biomechanical models and functional traits to investigate phenotypic diversity. **Trends in Ecology and Evolution**.

CHOINIÈRE, J.N., NEENAN, J.M., **SCHMITZ, L.**, FORD, D.P., CHAPPELLE, K.E.J., BALANOFF, A.M., SIPLA, J.S., GEORGI, J.A., WALSH, S.A., NORELL, M.A., XU, X., CLARK, J.M., & R.B.J. BENSON. 2021. Evolution of vision and hearing modalities in theropod dinosaurs and specialized nocturnality in a long-lived lineage. **Science**, 372 (6542): 610-613.

KRUPPERT, S., CHU, F., STEWART<sup>ψ</sup>, M.C., **SCHMITZ, L.**, & A.P. SUMMERS. 2020. Ontogeny and potential function of poacher armor (Actinopterygii: Agonidae). **Journal of Morphology** 281 (9): 1018-1028. <sup>ψ</sup> *undergraduate student*

KLEIN, N., **SCHMITZ, L.**, WINTRICH, T., & P.M. SANDER. 2020. A new cymbospondylid ichthyosaur (Ichthyosauria) from the Middle Triassic (Anisian) of Nevada; USA. **Journal of Systematic Palaeontology** 18 (14): 1167-1191.

XING, L., O'CONNOR, J.K., **SCHMITZ, L.**, CHIAPPE, L.M., MCKELLAR, R.C., YI, Q., & G. LI. 2020. Hummingbird-sized dinosaur from the Cretaceous period of Myanmar. **Nature** 579: 245–249. *We retracted this study because a [new specimen](#) suggested that the phylogenetic placement of this fossil was wrong. Importantly, the taxon and data remain valid.*

WINTRICH, T., JONAS, R., WILKE, H.-J., **SCHMITZ, L.** & P.M. SANDER. 2019. Neck mobility in the Jurassic plesiosaur *Cryptoclidus eurymerus* – a finite element analysis as a new approach to understanding the cervical skeleton in fossil vertebrates. **PeerJ**:e7658.

HIGHAM, T.E., & **L. SCHMITZ** (2019). A hierarchical view of gecko locomotion: photic environment, physiological optics, and locomotor performance. **Integrative and Comparative Biology**, 59: 443-455.

FOSTER, K.L., GARLAND, T. JR., **SCHMITZ, L.**, & T.E. HIGHAM (2018). Skink ecomorphology: forelimb and hind limb lengths, but not static stability, correlate with habitat use and demonstrate multiple solutions. **Biological Journal of the Linnean Society** 125: 673-692.

- IGLESIAS, T.L., DORNBURG, A., WARREN, D.L., WAINWRIGHT, P.C., **SCHMITZ, L.**, & E.P. ECONOMO (2018). Eyes wide shut: the impact of dim-light vision on neural investment in marine teleosts. **Journal of Evolutionary Biology** 31:1082-1092.
- SMITH, S., ANGIELCZYK, K.A., **SCHMITZ, L.**, & S.C. WANG (2018). Do bony orbit dimensions predict diel activity pattern in sciurid rodents? **The Anatomical Record** 301, 1774-1787.
- Schmitz, L.** & T.E. Higham (2018). Non-uniform evolutionary response of gecko eye size to changes in diel activity patterns. **Biology Letters** 14:20180064.
- MACIVER, M.A.\*, **SCHMITZ, L.\***, UGURCAN, M., MURPHY, T.D., & C. D. MOBLEY (2017). Massive increase in visual range preceded the origin of terrestrial vertebrates. **Proceedings of the National Academy of Sciences** 114(12): E2375-2384. *\*corresponding author*
- SMODLAKA, H., KHAMAS, W.A., PALMER, L., LUI, B., BOROVAC, J.A., COHN, B.A. <sup>ψ</sup>, & **L. SCHMITZ** (2016). Eye histology and ganglion cell topography of the Northern Elephant Seal (*Mirounga angustirostris*). **The Anatomical Record**, 299(6):798-806. <sup>ψ</sup> undergraduate student
- PRICE, S.A.\*, & **L. SCHMITZ\*** (2016). A promising future for integrative biodiversity research: an increased role of scale-dependency and functional biology. **Philosophical Transactions of the Royal Society B**, 371: 20150228. *\*authors contributed equally*
- FANG, C. <sup>ψ</sup>, **SCHMITZ, L.**, & P. M. FERREE (2015). An Unusually Simple HP1 Gene Set in Hymenopteran Insects. **Biochemistry and Cell Biology**, 93(6): 596-603. <sup>ψ</sup> *undergraduate student*
- COHN, B.A. <sup>ψ</sup>, COLLIN, S.P., WAINWRIGHT, P.C., & **L. SCHMITZ\*** (2015). Retinal topography maps in R: new tools for the analysis and visualization of spatial retinal data. **Journal of Vision**, 15(9):19, 1–10. <sup>ψ</sup> *undergraduate student \*corresponding author*
- ANGIELCZYK, K. D. & **L. SCHMITZ\*** (2014). Nocturnality in synapsids predates the origin of mammals by over 100 million years. **Proceedings of the Royal Society of London B**, 281: 20141642. *\*corresponding author*
- PRICE, S. A., **SCHMITZ, L.**, OUFIERO, C.E., EYTAN, R., DORNBURG, A., SMITH, W., FRIEDMAN, M., NEAR, T. & P.C. WAINWRIGHT (2014). Two waves of niche-filling straddling the K-Pg boundary formed the modern reef fish fauna. **Proceedings of the Royal Society of London B**, 281: 20140321.
- SCHMITZ, L.**, MOTANI, R., OUFIERO, C.E., MARTIN, C.H., MCGEE, M.D., & P.C. WAINWRIGHT (2013). Enhanced ability of giant squid to detect sperm whale is an exaptation tied to their large body size. **BMC Evolutionary Biology**, 13:226.
- FRÖBISCH, N., FRÖBISCH, J., SANDER, M.\*, **SCHMITZ, L.\*** & O. RIEPPEL (2013). A macropredatory ichthyosaur from the Middle Triassic and the origin of modern trophic networks. **Proceedings of the National Academy of Sciences**, 110 (4): 1393-1397. *\*corresponding author*
- NIEMILLER, M.L., FITZPATRICK, B.M., SHAH, P., **SCHMITZ, L.** & T.J. NEAR (2013). Evidence for repeated loss of selective constraint in rhodopsin of amblyopsid cavefishes (Teleostei: Amblyopsidae). **Evolution**, 67 (3):732-748.
- SCHMITZ, L.**, MOTANI, R., OUFIERO, C.E., MARTIN, C.H., MCGEE, M.D., GAMARRA, A.R. <sup>ψ</sup>, LEE, J.J. <sup>ψ</sup>, & P.C. WAINWRIGHT (2013). Allometry indicates the giant eyes of giant squid are not exceptional. **BMC Evolutionary Biology**, 13: 45. <sup>ψ</sup>*undergraduate student*
- KELLEY, N.P., MOTANI, R., JIANG, D., RIEPPEL, O. & **L. SCHMITZ** (2012). Selective extinction of Triassic marine reptiles during long-term sea level changes illuminated by seawater strontium isotopes. **Palaeogeography, Palaeoclimatology, Palaeoecology**. *Published online Aug. 3<sup>rd</sup> 2012*

- SCHMITZ, L. & R. MOTANI** (2011). Response to Comment on "Nocturnality in dinosaurs inferred from scleral ring and orbit morphology". **Science**, 334: 1461.
- SCHMITZ, L. & P.C. WAINWRIGHT** (2011). Nocturnality constrains morphological and functional diversity in the eyes of reef fishes. **BMC Evolutionary Biology**, 11: 338.
- SCHMITZ, L. & R. MOTANI** (2011). Nocturnality in dinosaurs inferred from scleral ring and orbit morphology. **Science**, 332: 705-708. *Featured on the cover page.*
- MOTANI, R. & **L. SCHMITZ** (2011). Phylogenetic versus functional signals in the evolution of form-function relationships in terrestrial vision. **Evolution**, 65: 2245-2257.
- SCHMITZ, L. & P.C. WAINWRIGHT** (2011). Ecomorphology of the eyes and skull in zooplanktivorous labrid fishes. **Coral Reefs**, 30:415-428.
- SCHMITZ, L. & R. MOTANI** (2010). Morphological differences between the eyeballs of nocturnal and diurnal amniotes revisited from optical perspectives of visual environments. **Vision Research**, 50: 936-946.
- SCHMITZ, L., THIES, D. & J. KRIWET** (2010). Two new lamniform sharks (*Leptostyrax stychi* sp. nov. and *Protolamna sarstedtensis* sp. nov.) from the Early Cretaceous of NW Germany. **Neues Jahrbuch für Geologie und Paläontologie**, 257: 283-296.
- JIANG., D., RIEPPEL., O., MOTANI, R., HAO, W., SUN, Y., TINTORI, A., SUN, Z. & **L. SCHMITZ** (2009): Biodiversity and sequence of the Middle Triassic Panxian Marine Reptile Fauna, Guizhou Province, China. **Acta Geologica Sinica**, 83: 451-459.
- SCHMITZ, L.** (2009): Quantitative estimates of visual performance features in fossil birds. **Journal of Morphology**, 270: 759-773.
- JIANG, D., RIEPPEL., O., MOTANI, R., HAO, W., SUN, Y., **SCHMITZ, L.** & Z. SUN (2008): A new Middle Triassic eosauroptrygian (Reptilia, Sauroptrygia) from Southwestern China. **Journal of Vertebrate Paleontology**, 28: 1055-1062.
- JIANG, D., MOTANI, R., HAO, W., **SCHMITZ, L.**, O. RIEPPEL, O., SUN, Y. & Z. SUN (2008): New primitive ichthyosaurian (Reptilia, Diapsida) from the Middle Triassic of Panxian (Guizhou, southwestern China) and its position in the Triassic Biotic Recovery. **Progress in Natural Science**, 18: 1315-1319.
- JIANG, D., MOTANI, R., RIEPPEL, O., **SCHMITZ, L.**, HAO, W., SUN, Y. & Z. SUN (2008): First record of Placodontoidea (Reptilia, Sauroptrygia, Placodontia) from the Eastern Tethys. **Journal of Vertebrate Paleontology**, 28: 904-908.
- MOTANI, R., JIANG, D., TINTORI, A. SUN, Y., HAO, W., BOYD, A., HINIC-FRLOG, S., **SCHMITZ, L.**, SHIN, J. & Z. SUN (2008): Horizons and assemblages of Middle Triassic marine reptiles from Panxian, Guizhou, China. **Journal of Vertebrate Paleontology**, 28: 900-903.
- JIANG, D., **SCHMITZ, L.\***, MOTANI, R., HAO, W., & Y. SUN (2007): The mixosaurid ichthyosaur *Phalarodon* cf. *P. fraasi* from the Middle Triassic of Guizhou Province, China. **Journal of Paleontology**, 81: 602-605. *\*designed the study, performed analyses, and wrote the manuscript*
- JIANG, D., **SCHMITZ, L.\***, HAO, W. & Y. SUN (2006): A new mixosaurid ichthyosaur from the Middle Triassic of China. **Journal of Vertebrate Paleontology**, 26: 60-69. *\*designed the study, performed analyses, and wrote the manuscript*

**SCHMITZ, L.** (2005): The taxonomic status of *Mixosaurus nordenskiöldii* (Ichthyosauria). **Journal of Vertebrate Paleontology**, 25: 983-985.

JIANG, D., MOTANI, R., LI, C., HAO, W., SUN, Y., SUN, Z., & L. SCHMITZ (2005): A marker of Triassic biotic recovery from the end-Permian extinction in the ancient Guizhou Sea. **Acta Geologica Sinica - English Edition**, 79: 729-738.

KRIWET, J. & L. SCHMITZ (2005): New insight into the distribution and palaeobiology of the pycnodont fish *Gyrodus*. **Acta Palaeontologica Polonica**, 50: 49-56.

**SCHMITZ, L.**, SANDER, M., RIEPPEL, O. & G. STORRS (2004): The mixosaurs (Ichthyosauria, Mixosauridae) from the Middle Triassic of the Augusta Mountains (Nevada, USA) with the description of a new species. **Palaeontographica**, A, 270: 133-162.

CUNY, G., OUAJA, M., SRARFU, D., **SCHMITZ, L.**, BUFFETAUT, E., & M. BENTON (2004): Fossil sharks from the Lower Cretaceous of Tunisia. **Revue de Paléobiologie**, volume spéciale, 9: 127-142.

**SCHMITZ, L.** (2003): Fischzähne (Neoselachii; Actinopterygii) aus dem Unter-Barremium von NW-Deutschland. **Neues Jahrbuch für Geologie und Paläontologie**, 227: 175-199; Stuttgart.

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#### BOOKS AND BOOK CHAPTERS (not peer reviewed)

*under contract*

**Schmitz, L.** (in prep.). Introduction to Sensory Biology. CRC/Taylor & Francis. *Please ask me for draft chapters if you are interested.*

*published*

**Schmitz, L.** (2016). Physiological optics in fishes. Reference Module in Life Sciences, Elsevier (update of an earlier version by B. Kröger).

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#### CONFERENCE CONTRIBUTIONS

**SCHMITZ, L.**, OST<sup>ψ</sup>, A., HOWELL<sup>ψ</sup>, B.R., BRADSHAW<sup>ψ</sup>, M.G., TOWERS<sup>ψ</sup>, A., BAUER, A.M., & J. DAZA. 2024. Evolution of scleral ring and orbit size in gekkotan lizards. Annual Meeting of the Society of Integrative and Comparative Biology. [poster]

TRINAJSTIC, K., HEARNE, S., LONG, J.A., & L. SCHMITZ. Visual niche separation in the Late Devonian Gogo Reef vertebrates. CAVEPS 2023. [talk]

STERNES, P., **SCHMITZ, L.**, & T.E. HIGHAM. 2023. Cretaceous origin of pelagic sharks coincides with major shifts in pectoral fin morphology. Annual Meeting of the Society of Integrative and Comparative Biology. [talk]

HIGHAM, T.E., **SCHMITZ, L.**, AND K.J. NIKLAS. 2022. The evolution of material properties in relation to ecology in plants. Annual Meeting of the Society of Integrative and Comparative Biology [symposium talk].

- SANDER, P.M., **SCHMITZ, L.**, WINTRICH, T. & N. KLEIN. 2020. Terrestrial vs. marine origin of viviparity in marine reptiles: evidence from a new *Cymbospondylus* skeleton. Annual Meeting of the Society of Vertebrate Paleontology. [talk; online]
- SANDER, P.M., KLEIN, N., WINTRICH, T., GRIEBELER, E.M., VELEZ JUARBE, J. & **L. SCHMITZ**. 2020. The first giant: a new Anisian (Middle Triassic) ichthyosaur and a comparison with whale body size evolution. GeoUtrecht. [talk; online]
- KRUPPERT, S., CHU, F., STEWART<sup>ψ</sup>, M.C., **SCHMITZ, L.** & A.P. SUMMERS. 2020. En Garde! The poachers' body armor is no show-off but a heavy defensive trait. Annual Meeting of the Society of Integrative and Comparative Biology [talk]. Integrative and Comparative Biology 60, E131. <sup>ψ</sup> *undergraduate student*
- SCANLAN<sup>ψ</sup>, L.G., HERNANDEZ<sup>ψ</sup>, A. & **L. SCHMITZ**. 2020. Eye Size Evolution in Mudskippers and Related Gobiid Fishes. Annual Meeting of the Society of Integrative and Comparative Biology [poster]. Integrative and Comparative Biology 60, E411. <sup>ψ</sup> *undergraduate student*
- CHANG<sup>ψ</sup>, M.L., ABALUSI<sup>ψ</sup>, D., MCFARLANE, D.A. & **L. SCHMITZ**. 2020. Exploring the Tempo of Eye Evolution through a Web Interface Application. Annual Meeting of the Society of Integrative and Comparative Biology [poster]. Integrative and Comparative Biology 60, E294. <sup>ψ</sup> *undergraduate student*
- JONES<sup>ψ</sup>, D.D. & **L. SCHMITZ**. 2020. Retinal Topography of Mudskippers and Related Gobiid Fishes. Annual Meeting of the Society of Integrative and Comparative Biology [poster]. Integrative and Comparative Biology 60, E353. <sup>ψ</sup> *undergraduate student*
- HERNANDEZ<sup>ψ</sup>, A., SCANLAN<sup>ψ</sup>, L.G., COOK, W. & **L. SCHMITZ**. 2020. Visual Fields in Mudskippers and Related Gobiid Fishes. Annual Meeting of the Society of Integrative and Comparative Biology [poster]. Integrative and Comparative Biology 60, E343. <sup>ψ</sup> *undergraduate student*
- SCHMITZ, L.** 2019. Evolution of Retinal Topography in Reef Fishes. International Congress of Vertebrate Morphology. [symposium talk]
- HIGHAM, T.E., **SCHMITZ, L.**, & R.W. CLARK (2019). Dynamic functional Integration in organismal biology: Integrating motor and sensory systems during predator-prey interactions. Annual Meeting of the Society of Integrative and Comparative Biology. [symposium talk]
- STEWART, M.S.<sup>ψ</sup>, KRUPPERT, S., **SCHMITZ, L.**, & A. SUMMERS (2019). Written in bone: damage patterns in *Agonopsis vulsa* armor plates. Annual Meeting of the Society of Integrative and Comparative Biology. [poster] <sup>ψ</sup> *undergraduate student*
- SANTOS, G., & **L. SCHMITZ** (2018). Utilizing museum collections in collaboration for experiential learning and citizen science in higher education. Society of Vertebrate Paleontology, Annual Meeting. [poster]
- SCHMITZ, L.**, & T.E. HIGHAM (2018). Gecko eye size evolution is driven by diel activity pattern and habitat clutter. Annual Meeting of the American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists. [poster]
- WARREN, D., IGLESIAS, T., ECONOMO, E., DORNBURG, A., WAINWRIGHT, P.C., & **L. SCHMITZ** (2018). Nocturnality and the evolution of the optic tectum in marine fishes. Annual Meeting of the American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists. [poster]
- CHISHOLM, K.L.<sup>ψ</sup>, PAPATHEOFANIS, C.F.<sup>ψ</sup>, REZK, C.A.<sup>ψ</sup>, WITSE, M.S.<sup>ψ</sup>, WEN, A.H.<sup>ψ</sup>, SMODLAKA, H., HIGHAM, T.E., & **L. SCHMITZ** (2018). Low retinal convergence in the nocturnal leopard gecko, *Eublepharis*



- macularius*. Annual Meeting of the Society of Integrative and Comparative Biology. [poster] <sup>ψ</sup> undergraduate student
- WILTSE, M.S. <sup>ψ</sup>, WILLIAMS, S.E. <sup>ψ</sup>, WEN, A.H. <sup>ψ</sup>, CHISHOLM, K.L. <sup>ψ</sup>, PAPTATHEOFANIS, C.F. <sup>ψ</sup>, REZK, C.A. <sup>ψ</sup>, VALENZUELA, J.L. <sup>ψ</sup>, COHN, B.A., & L. SCHMITZ (2018). Evolution of visual acuity and trophic specialization in labrid and pomacentrid coral reef fishes. Annual Meeting of the Society of Integrative and Comparative Biology. [poster] <sup>ψ</sup> undergraduate student
- SCHMITZ, L., & T.E. HIGHAM (2018). Adaptive landscape of eye size evolution in geckos. Annual Meeting of the Society of Integrative and Comparative Biology.
- SANTOS, G.-P., & L. SCHMITZ (2017). Citizen science at the Raymond M. Alf Museum of Paleontology: providing engaging STEM opportunities for high school students, college students, and the greater community. GSA Annual meeting in Seattle, Washington. [talk]
- WILLIAMS, S.A. <sup>ψ</sup>, WILTSE, M.S. <sup>ψ</sup>, VALENZUELA, J. <sup>ψ</sup>, & L. SCHMITZ (2017). Evolution of diet and visual acuity in damselfishes (Pomacentridae). Annual Meeting of the American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists. [poster] <sup>ψ</sup> undergraduate student
- MACIVER, M.A., SCHMITZ, L. \*, UGURCAN, M., MURPHY, T.D., & C. D. MOBLEY (2017). Massive increase in visual range preceded the origin of terrestrial vertebrates. Annual Meeting of the American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists. [poster] \*presenting author
- MACIVER, M.A., & L. SCHMITZ (2016). A doubling of eye size and massive increase in visual range enabled complex visually guided behaviors in the first terrestrial vertebrates. J.B. Johnston Club of Evolutionary Neuroscience Annual Meeting. [talk]
- MACIVER, M.A., & L. SCHMITZ (2016). A doubling of eye size and massive increase in visual range enabled complex visually guided behaviors in early digitized tetrapods. Society of Vertebrate Paleontology, Annual Meeting. [poster] [talk]
- SMODLAKA, H., KHAMAS, W.A., PALMER, L., LUI, B., GALEX, I., PAN, R., BOROVAC, J.A., COHN, B.A., & L. SCHMITZ (2016). Special senses of the northern elephant seal (*Mirounga angustirostris*). Proceedings of the 31st Conference of the European Association of Veterinary Anatomists. [talk]
- SCHMITZ, L. (2016). Adaptive signals in the morphological evolution of vertebrate eyes. International Congress of Vertebrate Morphology. [talk]
- GEE, B. <sup>ψ</sup>, AUGUSTINE, E. <sup>ψ</sup>, CHIAPPE, L., & L. SCHMITZ (2015). The importance of sensitivity analyses for the inference of function from structure. Society of Vertebrate Paleontology, Annual Meeting. [poster] <sup>ψ</sup> undergraduate student
- WANG, S.S. <sup>ψ</sup>, & L. SCHMITZ (2015). The effect of eye size and habitat on the evolution of scleral thickness in mammals. Annual Meeting of the Society of Integrative and Comparative Biology. [talk] <sup>ψ</sup> undergraduate student
- WANG, S.S. <sup>ψ</sup>, & L. SCHMITZ (2014). The effect of eye size and habitat on scleral thickness in mammals. Annual Meeting of the American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists. [poster] <sup>ψ</sup> undergraduate student
- COHN, B.A. <sup>ψ</sup>, COLLIN, S., WAINWRIGHT, P.C. & L. SCHMITZ (2014). Influence of zooplanktivory on retinal ganglion cell topography in labrid reef fishes. Annual Meeting of the Society of Integrative and Comparative Biology. [talk] <sup>ψ</sup> undergraduate student

- NIEDERMEYER, P.M. <sup>ψ</sup>, SHIH, C. <sup>ψ</sup>, HALLEY, M.A. <sup>ψ</sup>, OSBORN, J.L. <sup>ψ</sup>. & **L. SCHMITZ** (2014). The effect of evolutionary transitions to diurnality on scleral ring and orbit morphology in birds. Annual Meeting of the Society of Integrative and Comparative Biology. [talk] \*undergraduate student
- SCHMITZ, L.**, MOTANI, R. & P.C. WAINWRIGHT (2013). Evolutionary drivers of giant eyes in large ocean predators. Society of Vertebrate Paleontology, Annual Meeting. [talk]
- ANGIELCZYK, K.D. & **L. SCHMITZ** (2013). Reconstructing the diel activity patterns of fossil nonmammalian synapsids. Annual Meeting of the Society of Integrative and Comparative Biology. [talk]
- PRICE, S.A., **SCHMITZ, L.**, ANDERSON, P.S.L., BOETTIGER, C.L. & P.C. WAINWRIGHT (2013). Comparing disparity between traits using the Ornstein-Uhlenbeck model: a test of functional constraints on the eyes of labrids. Annual Meeting of the Society of Integrative and Comparative Biology. [talk]
- SCHMITZ, L.**, MOTANI, R., OUFIERO, C.E., MARTIN, C.H., MCGEE, M.D., GAMARRA, A.R. <sup>ψ</sup>, LEE, J.J. <sup>ψ</sup>, & P.C. WAINWRIGHT (2013). Allometry indicates giant eyes of Giant Squid are not exceptional. Annual Meeting of the Society of Integrative and Comparative Biology. [talk] <sup>ψ</sup> undergraduate student
- SCHMITZ, L.**, MOTANI, R. & S. HINIC-FRLOG (2012). Glossy feathers and nocturnal activity: inference of Microraptor feather colors using a phylogenetic framework. Society of Vertebrate Paleontology, Annual Meeting. [symposium talk]
- SCHMITZ, L.** (2012). Phylogenetic discriminant analysis in ecomorphology: a case study on the inference of diel activity patterns and feather color in dinosaurs. Annual Meeting of the American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists. [invited symposium talk]
- PRICE, S., **SCHMITZ, L.**, ANDERSON, P., & P.C. WAINWRIGHT (2012). Do fish eyes evolve more slowly than fins, teeth and jaws? The promises and pitfalls of comparing rates of phenotypic evolution among functional systems. Annual Meeting of the American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists. [talk]
- SCHMITZ, L.** & P.C. WAINWRIGHT (2012). Nocturnality limits morphological and functional diversity in the eyes of reef fishes. Society of Integrative and Comparative Biology, Annual Meeting. [talk]
- SMITH, S.M., ANGIELCZYK, K.D., **SCHMITZ, L.** & S.C. WANG (2012). How well do orbit dimensions predict diel activity in sciurid rodents? Society of Integrative and Comparative Biology, Annual Meeting. [talk]
- SCHMITZ, L.** & P.C. WAINWRIGHT (2011). The effect of diel activity pattern on eye shape in reef fishes. Annual Meeting of the American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists. [talk]
- SCHMITZ, L.** & S.A. PRICE (2010). Influence of body mass on the evolution of diel activity pattern in herbivorous mammals and implications for paleobiology. Society of Vertebrate Paleontology, Program and Abstracts, 159A [talk]
- MOTANI, R. & **L. SCHMITZ** (2010). Phylogenetic bias in form-function relationships and its implication for the frequency of nocturnal dinosaurs. Society of Vertebrate Paleontology, Program and Abstracts, 138A.

- SCHMITZ, L.** & P.C. WAINWRIGHT (2010). Evolution of eye morphology and diet in coral reef fishes. Annual Meeting of the American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists. [talk]
- SCHMITZ, L.** & R. MOTANI (2010). Inference of diel activity pattern suggests complex temporal resource and habitat partitioning among Mesozoic archosaurs. *Integrative and Comparative Biology*, 50 (supplement 1): e157. [talk]
- FRÖBISCH, N., FRÖBISCH, J., KLEIN, N., **SCHMITZ, L.** & M. SANDER (2009): A large predatory ichthyosaur from the Anisian of Nevada and the diversification of Ichthyosauria after the end-Permian extinction. *Journal of Vertebrate Paleontology*, 29 (3, supplement): 101A.
- SCHMITZ, L.** (2008): Inference of diel activity pattern suggests complex temporal resource and habitat partitioning among Mesozoic archosaurs. *Journal of Vertebrate Paleontology*, 28 (3, supplement): 137A. [talk]
- SCHMITZ, L.**, MOTANI, R., & A. MILNER (2007): Diel activity pattern of *Archaeopteryx*. *Journal of Vertebrate Paleontology*, 27 (3, supplement): 142A. [poster]
- SCHMITZ, L.** (2006): Visual optics as important link between anatomy and ecology in fossil amniotes. *Ancient Life and Modern Approaches. Abstracts of the Second International Paleontological Congress*: 397. [talk]
- TINTORI, A., **SCHMITZ, L.**, JIANG, D., LOMBARDO, C. & R. MOTANI (2006): Durophagy in Triassic marine vertebrates. *Ancient Life and Modern Approaches. Abstracts of the Second International Paleontological Congress*: 400.
- JIANG, D., HAO, W., SUN, Y., MOTANI, R. & **L. SCHMITZ** (2006): First record of Placodontoidea (Reptilia, Sauropterygia, Placodontia) from the eastern Tethys. *Journal of Vertebrate Paleontology*, 26 (3, supplement): 82A.
- MOTANI, R., MILNER, A., & **L. SCHMITZ** (2006): The first truly objective method for 3D removal of geological deformation with an application to the braincase of *Archaeopteryx*. *Journal of Vertebrate Paleontology*, 26 (3, supplement): 103A.
- SCHMITZ, L.**, JIANG, D., MOTANI, R., HAO, W., & Y. SUN (2005): Explosive radiation of durophagous marine reptiles during the post-Permian recovery. *Journal of Vertebrate Paleontology*, 25 (3, supplement): 110A. [talk]
- JIANG, D., HAO, W., SUN, Y., SUN, Z., & **L. SCHMITZ** (2005): Two nothosaurids (Reptilia, Sauropterygia) from the Anisian (Middle Triassic) of southwestern China. *Journal of Vertebrate Paleontology*, 25 (3, supplement): 75A.
- JIANG, D., MOTANI, R., **SCHMITZ, L.**, HAO, W., & Y. SUN (2005): Explosive radiation of shell-eating marine reptiles during the post-Permian recovery. *International Symposium on Triassic Chronostratigraphy and Biotic Recovery. Chaohu, China. Albertiana* 33: 43.
- SCHMITZ, L.**, JIANG, D., MOTANI, R., HAO, W., & Y. SUN (2005): Early radiation and geographic dispersal of ichthyopterygians (Reptilia, Diapsida). *International Symposium on Triassic Chronostratigraphy and Biotic Recovery. Chaohu, China. Albertiana* 33: 69. [talk]
- SCHMITZ, L.** (2004): Possibility of a thick sclera in ichthyosaurs and its implications for visual capabilities. *Journal of Vertebrate Paleontology*, 24 (3, supplement): 110A. [talk]

- JIANG, D., **SCHMITZ, L.**, & W. HAO (2004): Two species of Mixosauridae (Ichthyosauria) from the Middle Triassic of south-western China). *Journal of Vertebrate Paleontology*, 24 (3, supplement): 76A.
- SCHMITZ, L.** (2004): Inferring visual capabilities of the Triassic ichthyosaur *Mixosaurus callawayi*. International Geological Congress. [talk]
- SCHMITZ, L.** (2004): Mixosaurs (Ichthyosauria) from the Middle Triassic of Nevada (USA). *Proceedings of the Oregon Academy of Science*, XL: 34. [talk]
- MCCANN, T., HEIN, C., **SCHMITZ, L.**, & A. SAINTOT (2004): Cimmerian tectonics and the Upper Triassic-Lower Jurassic Tauric Series, Crimea, Ukraine. *Schriftenreihe der Deutschen Geologischen Gesellschaft*, 33: 104.
- SCHMITZ, L.** (2003): The mixosaurs (Ichthyosauria) from the Middle Triassic of Nevada (USA): implications for the systematics of the group. *Journal of Vertebrate Paleontology*, 23 (3, supplement): 74A. [poster]
- SCHMITZ, L.** & SANDER, M. (2002): Phylogenetic implications of new mixosaur (Ichthyosauria) material from the Middle Triassic of Nevada (USA). - *Schriftenreihe der Deutschen Geologischen Gesellschaft*, 21: 299-300. [poster]
- SCHMITZ, L.** (1999): Fischreste (Actinopterygier und Selachier) aus dem Osningsandstein (Unteres Barreme) von Halle/Westfalen im Teutoburger Wald [Fish teeth (actinopterygians and selachians from the Osning Sandstone (lower Barremian) of Halle/Westf. in the Teutoburg Forest]. - *Terra Nostra*, 99(8): 112; Berlin. [poster]

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INVITED TALKS (not including job interviews)

05/2020	Steinmann Institute of Geology, Mineralogy and Paleontology, <b>University of Bonn, Germany</b> [online]
10/2019	School of Integrative Biology, <b>University of Illinois Urbana Champaign</b>
06/2019	Department of Biology, <b>University of Toronto, Mississauga, Canada</b>
05/2019	Department of Integrative Anatomical Sciences, <b>University of Southern California</b>
10/2018	<b>Okinawa Institute of Science and Technology</b> , Japan
10/2017	Drexel University
09/2017	“Dino Fest” at the <b>LA County Museum of Natural History</b>
09/2017	Department of Biology, <b>California State University, Fullerton</b>
09/2017	W.M. Keck Science Department, <b>Claremont McKenna, Scripps, and Pitzer Colleges</b>
04/2015	Department of Biology, <b>Harvey Mudd College</b>

04/2015	W.M. Keck Science Department, <b>Claremont McKenna, Scripps, and Pitzer Colleges</b>
04/2014	<b>Los Angeles County Museum of Natural History</b>
03/2014	Department of Biology, <b>Pomona College</b>
03/2014	Department of Biology, <b>Embry-Riddle Aeronautical University, Prescott</b>
02/2014	<b>Scripps College</b> Noon Academy
01/2014	Department of Ecology and Evolutionary Biology, <b>UCLA</b>
08/2013	Department of Ecology and Evolutionary Biology, <b>UC Irvine</b>
05/2013	Department of Biology, <b>UC Riverside</b>
09/2012	Department of Biology, <b>CSU San Bernardino</b>
04/2011	Department of Geological Sciences, <b>UT Austin</b>
02/2011	School of Animal Biology, <b>University of Western Australia</b> , Perth, Australia
01/2009	<b>Royal Ontario Museum</b> , Toronto, Canada
05/2007	<b>California Academy of Sciences</b> , San Francisco
02/2007	<b>University of California Museum of Paleontology</b> , Berkeley

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SERVICE FOR DEPARTMENT AND COLLEGES

01/2023 – 06/2023	<b>Appointment, Promotion, and Tenure Committee</b> , Claremont McKenna College
07/2021 – 06/2022	<b>Convener</b> of the Biology discipline at the W.M. Keck Science Department.
07/2021 – 06/2022	<b>Academic Standards Committee</b> , Claremont McKenna College. Responsible for the application and formulation of college policies relating to academic standards and academic integrity.
Since 07/2020	<b>Facilitator of the external review of the biology discipline</b> in the W.M. Keck Science Department (with Donald McFarlane). Collect data on scholarly and curricular activities of faculty, identify infrastructural needs, perform surveys on work environment and climate, write a self-assessment report, invite and organize visits of external reviewers.
09/2020 – 06/2022	<b>Admission and Financial Aid Committee</b> , Claremont McKenna College. Primary tasks: Review the implementation of existing admission and financial aid policies; discuss the college's marketing for admission purposes, making sure that marketing reflects accurately the academic strengths of the institution.

- 09/2020 – 06/2021 **College Conduct Board**, Claremont McKenna College. Review all non-academic cases which result from alleged violations of the Basic Rule of Conduct of the college.
- 09/2020 – 06/2021 Member of the **Anti-racism Task Force**, W.M. Keck Science Department. The primary goal of the task force is to promote diversity, equity, and inclusion in the department.
- 09/2019 – 06/2020 **Academic Affairs Committee**, Claremont McKenna College. A Board of Trustee committee where faculty have advisory roles.
- 01/2019 – 06/2019 **Organizer** of the interdisciplinary curricular initiative on “**Biodiversity, Earth Sciences, and Society**”.
- Leading a group of more than 20 faculty members from the sciences, humanities, and arts to develop specific core elements of a new initiative on biodiversity, earth sciences, and society. These core elements are being developed under the premise to achieve the following:
- Build bridges** between natural and social scientists and other disciplines,
- Leverage existing strengths** in faculty expertise in evolution, global climate change, and environmental analysis (in a broad sense),
- Leverage the existing infrastructure** such as the Robert Redford Conservancy and the Costa Rica Firestone Center.
- 01/2019 – 06/2019 Elected member of the **Pitzer-Scripps Science Planning** committee.
- Major achievements:
- Held two **departmental retreats** to solicit ideas in terms of programming and organization of the future Pitzer-Scripps science department. Made a call for "big ideas" to reinvigorate the department's curriculum and profile.
- Gauged faculty interest in a variety of **introductory computational/data science courses** and found strong preference for small-scope changes of the curriculum.
- Encouraged the formation of **curricular initiatives** led by interested faculty. One such seed initiative happened (Biodiversity, Earth Science, and Society) and produced a proposal for a new major which resonated well with the Pitzer faculty, and subsequently helped to inform one of the major pillars of Pitzer's strategic plan.
- Discovered that the **department as a whole and some disciplines have not been reviewed externally** in quite some time and hence the committee encouraged faculty to consider the possibility of such reviews now, in anticipation of new hires to be made in the near future.
- Drafted a **mission statement** with faculty feedback and laid out a road map for the crafting of a final version. The mission statement was ultimately approved by the faculty with super majority.

- 09/2018 – 12/2018 Member of the **Academic Planning working group** for strategic planning at Pitzer College. Primary task was the planning and implementation of a college-wide faculty read as the initial step of strategic planning.
- 05/2017 – 06/2018 Member of the **Academic Planning Committee** at Pitzer College. Work focused on preparation of strategic planning at Pitzer. Responsible for considering and recommending major changes in academic policies and for planning the long-term academic direction of the College.
- 05/2017 – 06/2018 W.M. Keck Science Department, **Building Planning Committee**. Represented the biology faculty during the building planning process, attended building planning meetings, reviewed and evaluated drafts, ensured biology requirements are met, solicited feedback from biology faculty members (by meeting 1-on-1, as a group, and by email), wrote detailed meeting minutes to ensure transparency of the process.
- 05/2017 – 01/2018 **Search committee member** (Disease Ecology), W.M. Keck Science Department. Read all applications, rank applications, perform skype interviews, participate in campus-interviews, discuss candidates.
- 09/2016 – 06/2018 W.M. Keck Science Department **Executive Committee**. Weekly meetings to discuss curriculum, staffing, planning, advising, budgeting, and agendas for departmental meetings, develop and review proposals submitted by disciplines or faculty members for presentation to the department; drafting funding requests, especially in preparation for meetings with Deans and Presidents; reporting back to the biology discipline.
- 09/2016 – 06/2018 **Seminar organizer** at the W.M. Keck Science Department. Inviting and hosting speakers from across biology, physics, and environmental science for our weekly seminar.
- 01/2014 – 06/2018 **IACUC committee** member of the W.M. Keck Science Department. Reading and evaluating research proposals with vertebrate animal subjects, careful inspection of the animal facilities.
- 09/2016 – 06/2017 **IRB committee** of Pitzer College. Carefully read and evaluated research proposals with human study subjects.
- 09 – 12/2016 **Ad-hoc Advancement, Promotion, and Tenure (APT)** committee at Pitzer College. Preparing report for candidate and subsequent presentation to the full APT committee.
- 09 – 12/2015 **Search committee member** (Animal Physiology), W.M. Keck Science Department. Read all applications, rank applications, perform skype interviews, participate in campus-interviews, discuss candidates.
- 09/2014 – 12/2015 **Teaching and Learning Committee** member at Pitzer College (**Chair** from 09-12/2015). Helped faculty improve their teaching, helped students improve their learning, and developed opportunities for conversation and reflection among faculty, students, and staff around topics of teaching and learning.

- 09 – 12/2014      **Search committee member** (Animal Physiology), W.M. Keck Science Department. Read all applications, rank applications, perform skype interviews, participate in campus-interviews, discuss candidates.
- 09/2013 –06/2014      Member of the **Affirmative Action Task Force** at Pitzer College: extensive faculty handbook and hiring procedure revisions with the goal to create one of the most progressive guidelines in the nation.
- 09/2013 – 06/2014      **Judicial Panel Member** at Pitzer College. Review all non-academic cases which result from alleged violations of the Basic Rule of Conduct of the college.
- 03 – 12/2013      **Seminar organizer** at the W.M. Keck Science Department. Inviting and hosting speakers from across biology, physics, and environmental science for our weekly seminar. Also organized the HHMI-funded summer series.
- 01/2007 – 01/2008      **Seminar Organizer** in the Department of Geology, UC Davis, (with Ryan Gold): scheduling, invitation of speakers, organization of travel arrangements.

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SERVICE FOR THE SCIENTIFIC COMMUNITY

- Ongoing      **Peer review:** I review approximately 1 paper per month, for the following journals:  
  
American Naturalist, BMC Evolutionary Biology, Brain Behavior and Evolution, Evolution, Functional Ecology, Geology Quarterly, Historical Biology, Journal of Anatomy, Journal of Fish Biology, Journal of Morphology, Journal of the Optical Society of America, Journal of Vertebrate Paleontology, Methods in Evolution and Ecology, Nature Communications, Naturwissenschaften, Palaeobiology, Palaeontology, PeerJ, PLoS Biology, PLoS ONE, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society B, Scientific Reports, Systematic Biology, Zoology
- Ongoing      Whenever I attend the SICB meeting I offer to evaluate oral and poster presentations for **Wake Award** of the Division Phylogenetic and Comparative Biology (Society of Integrative and Comparative Biology)
- Since 01/2012      **Dawson Award Committee Member** (Society of Vertebrate Paleontology). Read and evaluate applications for this predoctoral award.
- 10/2023      Co-organizer of the **Southwest Regional Meeting of Organismal Biologists** at the Claremont Colleges.
- 07/2018 – 06/2021      **Committee member** of MSc student Katerina Zapfe, Clemson University
- 01/2014 – 01/2019      **Editorial Board Member** of “Integrative and Comparative Biology”
- 10/2017      Co-organizer of the **Southwest Regional Meeting of Organismal Biologists** at the Claremont Colleges.



- 2014 **Co-organizer of the Society for the Study of Evolution symposium:** “Reuniting fossil and extant approaches to macroevolution” [with Samantha Price and Graham Slater]
- 2014 **Co-organizer of a NESCent Academy:** “Paleobiological and Phylogenetic Approaches to Macroevolution” [with Samantha Price and Graham Slater]
- 2014 **Judge** for Best Student Paper in the Divisions of Vertebrate Morphology and Phylogenetic and Comparative Biology (Society of Integrative and Comparative Biology)
- 04/2103 Co-organizer of a **NESCent Catalysis meeting:** “Integrating approaches to macroevolution: combining fossils and phylogenies” [with Samantha Price and Graham Slater]
- 01/2012 – 12/2015 **Committee member** of MSc student Katie Brown (UT Austin)
- 2012 **Co-organizer of the SVP symposium:** “Phylogenetic and comparative paleobiology: new quantitative approaches to the study of vertebrate paleontology” [with Kerin Claeson, Tobin Hieronymus, and Graham Slater]
- 01/2010 **Judge** for Best Student Paper in the Division of Comparative Biomechanics (Society of Integrative and Comparative Biology)
- 09/2004 – 05/2006 **Website Editor** for 3DMuseum.org: using 3D processing software to create interactive, rotatable objects on websites

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#### FIELD WORK EXPERIENCE

- 08/2019 **Co-PI of Martin Sander**, excavation of Triassic marine reptiles in Nevada
- 10/2018 Ichthyological field trip to Okinawa
- 08/2014 **PI**, excavation of Triassic marine reptiles in Nevada
- 09 – 10/2011 **PI**, excavation of Triassic marine reptiles in Nevada
- 08/2010 Ichthyological field trip to Curacao
- 07/2008 **Co-PI of Nadia Fröbisch and Martin Sander**, excavation of Triassic marine reptiles in Nevada. *This excavation was featured in two National Geographic documentaries: Wild Chronicles (2009) and Ancient Sea Monsters (2010)*
- 07/2006 **Field Assistant**, excavation in South China: Triassic marine reptiles
- 05/2006 Brief **geological and paleontological** survey in the Middle Triassic of Nevada (1 week)
- 09/2004 Field trip to Triassic fossil lagerstaetten in South China.

- 08 – 09/2002      **Geological mapping**, Mesozoic and Cenozoic, Crimea Island, Ukraine
- 1998 – 2002      Various field trips (1-3 weeks each) to localities in Europe and the USA, organized by University of Bonn
- 1994 – 1998      **Field Assistant**, geological-paleontological excavations of University of Münster (Germany). Duration: Two months each summer

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#### CURATORIAL EXPERIENCE

- 10/1998 – 10/2002      **Student Assistant** at the Institut für Paläontologie, Universität Bonn (Germany): curatorial tasks and mechanical preparation of fossils
- 03 – 04/2001      **Curatorial Assistant**: designing and preparing exhibit: "Sea scorpions and armored fish" in the "Siebengebirgsmuseum" in Koenigswinter (Germany)
- 03 – 04/2000      **Curatorial Assistant**: designing and preparing exhibit: "Allgemeine Paläontologie" in the "Goldfussmuseum", Bonn (Germany)
- 02/1999      **Curatorial Assistant**: designing and preparing exhibit: "240 Mio. Jahre Erdgeschichte im Teutoburger Wald" in Halle, (Germany)

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#### SOCIETY MEMBERSHIPS

Society of Integrative and Comparative Biology, The Society for the Study of Evolution, The Society of American Naturalists, The Society of Vertebrate Paleontology

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#### SELECTED MEDIA EXPERIENCE

- 2022      New York Times:  
<https://www.nytimes.com/2021/12/23/science/ichthyosaurs-whale-dinosaur-evolution.html>
- 2017      **"Our short-sighted inner fish: Vision explains why our fish ancestors came on to land."** Outreach video featuring my research on tetrapod evolution:  
<https://www.youtube.com/watch?v=l19usgWHJLc>  
[87,5931 views as of 07/10/2022]
- 2015      Terra-X, Evolution (German TV)
- 2014      Destination America
- 2011      New York Times:  
<https://www.nytimes.com/2011/04/19/science/19obdinosaurs.html>

2010

National Geographic Channel, Naked Science: Ancient Sea Monsters

2008

National Geographic Channel, Wild Chronicles: The Life Aquatic