David Černý

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Education

2018–Present Ph.D. student in Geophysical Sciences; University of Chicago

2014–2018 B.S. (Honors) in Ecology, Behavior, and Evolution; University of California, Los Angeles

Research Experience

Fall 2018–Present: Slater Lab

Affiliation: Department of Geophysical Sciences, University of Chicago

Position: Ph.D. student

Ph.D. advisor Graham J. Slater

Fall 2015–Summer 2018: Alfaro Lab

Affiliation: Department of Ecology and Evolutionary Biology, University of California, Los Angeles

Position: Undergraduate research assistant

Principal investigator: Michael E. Alfaro

Projects: Phylogenomic divergence dating of vertebrates; Exploration of form-function mapping using a C++ simulation of polygenic trait evolution

Winter 2018: Field & Marine Biology Quarter in Mo'orea

Affiliation: Department of Ecology and Evolutionary Biology, University of California, Los Angeles

Position: Undergraduate student

Principal investigator: Daniel T. Blumstein

Project: Applying Lanchester's laws to the interspecific competition of coral reef fish

Summer 2017: Kondrashov Lab

Affiliation: Evolutionary Genomics Group, Centre de Regulació Genòmica (Centre for Genomic Regulation), Barcelona, Spain

Position: Research intern

Principal investigators: Fyodor Kondrashov, Dinara Usmanova

Project: Detecting positive selection using molecular phylogenies

Publications

Peer-reviewed publications

2019 Friedman M, Feilich KL, Beckett HT, Alfaro ME, Faircloth BC, **Černý D**, Miya M, Near TJ, Harrington RC. Ancient adaptive radiation in the open ocean: rapid divergence in Pelagiaria (Acanthomorpha: Percomorpha) near the Cretaceous-Palaeogene boundary. *Proceedings of the Royal Society B* 286(1910): 20191502. doi:10.1098/rspb.2019.1502

2018 **Černý D**, Lee K, Medal J, Blumstein DT. Applying Lanchester's laws to the interspecific competition of coral reef fish. *Behavioral Ecology* 30(2): 426–433. doi:10.1093/beheco/ary182

2018 Lima MGM, de Sousa e Silva-Júnior J, **Černý D**, Buckner JC, Aleixo A, Chang J, Zheng J, Alfaro ME, Martins A, Di Fiore A, Boubli JP, Lynch Alfaro JW. A phylogenomic perspective on the robust capuchin monkey (*Sapajus*) radiation. *Molecular Phylogenetics and Evolution* 124: 137–50. doi:10.1016/j.ympev.2018.02.023

2018 Alfaro ME, Faircloth BC, Harrington RC, Sorenson L, Friedman M, Thacker CE, Oliveros CH, **Černý D**, Near TJ. Explosive diversification of marine fishes at the Cretaceous-Paleogene boundary. *Nature Ecology and Evolution* 2: 688–96. doi:10.1038/s41559-018-0494-6

Other publications

2018 **Černý D**. [Review of] *Birds of Stone: Chinese Avian Fossils from the Age of Dinosaus*. *Fossil News*, Summer 2018: 23–27.

Presentations and posters

2019 **Černý D**, Madzia D, Slater GJ. Evaluating the performance of diversification rate estimation methods in extinct clades with empirical and simulated data. 3rd Annual Great Lakes Student Paleoconference, November 8–10, Ann Arbor, MI.

2019 **Černý D**, Madzia D, Slater GJ. Inferring macroevolutionary dynamics of extinct clades: a test using 'bird-hipped' dinosaurs (Ornithischia). Evolution, June 21–25, Providence, RI.

2018 **Černý D**, Lee K, Medal J, Blumstein DT. A fish eat fish world: Applying Lanchester's laws of combat to the interspecific competition of coral reef fish. 21st UCLA Annual Biology Research Symposium, May 23, Los Angeles, CA. (Poster)

2016 **Černý D**, Alfaro ME. Phylogeny and divergence times of tetraodontiform fishes based on a new multi-locus dataset. 19th UCLA Annual Biology Research Symposium, May 11, Los Angeles, CA. (Poster, Honorable mention)

Fellowships & Awards

2018–Present Neubauer Family Distinguished Doctoral Fellowship. (Neubauer Family Foundation)

2014–2018 Bakala Foundation Scholarship. (Bakala Foundation)

Summer 2016 Whitcome Undergraduate Summer Research Fellowship. *Inferring the evolutionary timescale of tetraodontiform fishes (Acanthomorpha: Eupercarcia).* (Department of Ecology and Evolutionary Biology, UCLA). $3,000

Travel Awards

Winter 2018 A. R. Wallace Scholarship for International Field and Marine Research. (Department of Ecology and Evolutionary Biology, UCLA). $350

Teaching

Fall 2019, Fall 2018 PHSC 10800: Earth as a Planet: Exploring Our Place in the Universe. Teaching assistant. (2×)

Spring 2019 PHSC 11000: Environmental History of the Earth. Teaching assistant.

Winter 2019 GEOS 27300/13900: Biological Evolution. Teaching assistant.

Service

Professional

2019 Reviewer for *Proceedings of the Royal Society B*. (Publons profile)

University

Spring 2016 Stats 13 Focus Group: participated in a panel organized by the UCLA Department of Ecology and Evolutionary Biology to redesign its undergraduate statistics curriculum.

Outreach

2015–2016 Edited the Czech online popular science magazine *Wild Prehistory*; contributed articles focusing on vertebrate paleontology and evolutionary history.

Professional Organizations

2017–Present Society of Systematic Biologists (student member).

Fieldwork Experience

Winter 2019 Coastal geology and marine biology fieldwork. University of Chicago
One week of fieldwork focused on modern and ancient tropical carbonate environments in San Salvador, The Bahamas.

Winter 2018 Marine ecology fieldwork. University of California, Los Angeles
Three weeks of fieldwork in algology and behavioral ecology in Mo'orea, French Polynesia.

Summer 2013, Summer 2012 Paleontological fieldwork. Opole University / University of Warsaw
Two-week field seasons of paleontological excavations focused on collecting Triassic vertebrate macrofossils in Krasiejów, Poland.

Skills

Computing
Shell scripting
Computer programming (R, Python, some C++)
Version control (Git)
Document markup (Markdown, XML, LaTeX)

Software Geneious, SATé, PRANK, Gblocks, SIMMAP, Phyluce, PartitionFinder, SortaDate, RAxML, MrBayes, ExaBayes, Multidivtime, treePL, DPPDiv, PhyloBayes, MCMCTree, BEAST (1 & 2), RevBayes

Languages
Fluent in Czech
Good understanding of written scientific Spanish
Good understanding of written scientific Russian
Basic knowledge of Latin

Last updated December 4, 2019