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Born in 1960 in Mölln, Germany
Studied Zoology and Biochemistry at the University of California, Berkeley, Organismal and Evolutionary Biology at Harvard University, and Biology at the University of Miami, and at the Universities of Kiel and Marburg

FOCUS

PROJECT

Speciation and Diversification in the Adaptive Radiations of Cichlid Fishes

Charles Darwin recognized that new species can originate in several different kinds of geographic settings, including "allopatry" (from the Greek allos meaning "other" and patra meaning "fatherland"), where novel species arise resulting from geographical isolation and lack of homogenizing gene flow, as well as through "sympatric speciation" (from the Greek sym for "the same"), whereby populations diverge into separate species even in the absence of geographical isolation. However, the feasibility and frequency of the latter mechanism has been hotly debated ever since Darwin. Although theoretical as well as empirical evidence has been put forth regularly since the 1930s, biological assumptions of models and the level of support of empirical evidence in studies reporting on sympatric speciation are still often doubted, and, even today, few cases are widely accepted as bona fide evidence for sympatric speciation. While examples of sympatric speciation are published quite regularly, although rather infrequently, and rules for testing allopatric speciation are well-accepted, those for sympatric speciation remain controversial.
It is necessary to better understand the limitations of empirical work in determining crucial parameters of theoretical models such as the strength of selection in disruptive selection that is deemed necessary for sympatric speciation to occur. There is an obvious need for communication between theoretical and empirical evolutionary biologists interested in speciation.

Recommended Reading

Meyer, A., T. D. Kocher, P. Basasibwaki, and A. C. Wilson. 1990. "Monophyletic origin of Lake Victoria cichlid fishes suggested by mitochondrial DNA sequences." Nature 347: 550-553.
Verheyen, E., W. Salzburger, J. Snocks, and A. Meyer. 2003. "The origin of the superflock of cichlid fishes from Lake Victoria, East Africa." Science 300: 325-329.
Barluenga, M., K. Stölting, W. Salzburger, M. Muschick, and A. Meyer. 2006. "Sympatric speciation in Nicaraguan crater lake cichlid fish." Nature 439: 719-724.

Meyer, Axel (München,2015)

Adams Apfel und Evas Erbe : wie die Gene unser Leben bestimmen und warum Frauen anders sind als Männer

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1614217270

Adams Apfel und Evas Erbe

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Meyer, Axel (Hamburg,2011)

Evolution : die Entstehung des Lebens ; ein exklusives Zeit-Seminar

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=682891029

Zeit-Akademie

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Meyer, Axel (Hoboken, N.J.,2010)

Whole genome duplications and the radiation of vertebrates

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1856320936

Meyer, Axel (Bethesda, Md.,2009)

A microsatellite-based genetic linkage map of the cichlid fish, astatotilapia burtoni (Teleostei) : a comparison of genomic architectures among rapidly speciating cichlids

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1726277526

Meyer, Axel (London,2009)

The evolutionary significance of ancient genome duplications

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Meyer, Axel (Oxford,2009)

Space, sympatry and speciation

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1043289070

Meyer, Axel (2009)

Brain-Drain und Brain-Gain : Wie Deutschland seine Chancen als Land der Wissenschaft verpasst

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=670715425

Meyer, Axel (Mainz,2009)

ZDF Nachtstudio : Charles Darwin - der Kampf geht weiter ; Volker Panzer diskutiert mit der Verhaltensbiologin Julia Fischer, dem Evolutionsbiologen Axel Meyer, dem Philosophen Volker Gerhardt und dem Mediziner und Neurobiologen Joachim Bauer

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Meyer, Axel (Düsseldorf,2008)

Wir sind alle Mutanten! : die Evolution dauert an ; Alexander Weil im Gespräch mit Axel Meier

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News & Stories

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Meyer, Axel (Berlin,2008)

Algenraspler, Schneckenknacker, Schuppenfresser : Axel Meyer über den evolutionären Erfolg der Buntbarsche

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