

Teaching Evolution

This Special Edition of the the *McGill Journal of Education* (vol. 42, no.2) is **freely available online**. In its preface, the editors, Jason Wiles of McGill University and Anila Asghar of Johns Hopkins University write: "... the teaching and learning of evolution has faced difficulties ranging from pedagogical obstacles to social controversy. These include two distinctive sets of problems: one arising from the fact that many evolutionary concepts may seem, at least initially, counterintuitive to students, and the other deriving from objections rooted in religion. Despite the overwhelming acceptance of evolution among scientists and despite evolution's centrality to modern biology, virtually all national polls indicate approximately one-half of North Americans reject evolution -- suggesting that they think scientists, textbooks, and teachers are simply wrong."

Further excerpts from the editorial include:

"A past editor of *The American Biology Teacher*, one of the most widely circulated journals of life science education in North America, has argued that evolution education is the biggest failure of science education from top to bottom."

Three themes are emphasized: "the need for improved teacher training in pedagogical techniques and content knowledge with regard to evolution, the need for effective classroom tools for teaching evolution, and the need to confront specific issues related to social controversies surrounding evolution education."

Contributor **Randy Moore** summarizes the "reports from students in university classrooms, of what was taught about evolution in the high schools they attended." **Brian Alters** focuses on "research exploring the attitudes and understandings of pre-service elementary school teachers with regard to evolution [finding] that while their knowledge of evolutionary science is generally rudimentary at best, there is wide variation among these future teachers as to their intentions for teaching about evolution..."

Articles by **Robert Pennock**, **Judy Scotchmoor & Anastasia Thanukos**, and **Jeff Dodick** discuss several new resources for teaching evolution. **Glenn Branch** praised one book as being a useful handbook for "any instructor who teaches any aspect of evolution at the post-secondary level." **Andrew Petto** shares his review of another book he claims "might be revolutionary with regard to implications about how and what we teach about evolution."

Craig Nelson (one of the three co-directors of ENSI) "stresses the importance of addressing students' prior misconceptions about evolution" and strategies for doing this. **Massimo Pigliucci** calls for science educators to look to the science of neurobiology for new insight into how we should teach science in general and evolution in particular." Both of these authors, while encouraging educators to engage and work to dispel students' preconceptions about evolution, they also warn against misinterpretation and misuse of their suggestions that could support creationist campaigns to interject faith-based opposition to evolution in the classroom. **Eugenie Scott**, in her article, further alerts teachers to the seemingly innocuous "teach the controversy" or "critical analysis of evolution" ploys by creationists to subvert the teaching of evolution.

To read the online articles, go to <http://mje.mcgill.ca/issue/view/54>, and click on the ABSTRACT or PDF link to the right of each title desired.

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