FEATURED PALEONTOLOGICAL SOCIETY AWARDEE:

Steve Brusatte, Columbia University

Dinosaurs came to prominence 200 million years ago just as another clade of archosaurs, the crurotarsans, declined. This major transition has traditionally been attributed to the competitive superiority of dinosaurs over the cold-blooded and sprawling crurotarsans. Steve's grant funded museum visits across Europe to build one of the largest data sets of morphological characters of Triassic archosaurs ever compiled. His analysis of these data showed that during the Late Triassic Period (235 to 200 million years ago), crurotarsans had twice the morphological disparity of dinosaurs and were evolving at the same rate, refuting the idea that dinosaurs were outcompeting their relatives. Dinosaurs would have remained second fiddle to the dominant crurotarsans had not many crurotarsan groups become extinct at the end of the Triassic. Luck, not superiority, precipitated the rise of dinosaurs.

Steve's proposal, "Morphological Diversity and Evolution of Triassic Archosaurs", was awarded the 2008 MAPS Outstanding Research Award, the highest student award given by the Paleontological Society. His research was carried out while a M.Sc. student at the University of Bristol, UK.

You can read more about Steve's work here:

http://palaeo.gly.bris.ac.uk/macro/origins.html, with links to PDFs of his publications.

http://www.bristol.ac.uk/news/2008/5884.html

http://www.bristol.ac.uk/news/2008/5928.html

http://www.amnh.org/science/papers/crurotarsan.php

Perhaps crurotarsans had the last laugh, though. Ancestors of the crurotarsans survived the end-Cretaceous mass extinction and evolved into modern crocodiles, while the non-avian dinosaurs, after dominating terrestrial environments for 160 million years, did not.