

Editorial

Niles Eldredge

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I first met Dr. Rolando González-José at a conference in Porto Alegre in southern Brazil a few years back. Dr. González-José is Argentinian, working in Puerto Madryn at CONICET (Centro Nacional Patagónico) along the Atlantic coastline in Patagonia. He invited me to come see Patagonia—and in particular to look for the living species of rhea—the South American “ostrich” which played such an important role in the early “evolution” of Darwin’s evolutionary thinking. This I eventually did: under Dr. González-José’s expert guidance, I managed to see both “Darwin’s rhea” and the all-important “mara” (“Patagonian cavy”—third largest species of rodents now living)—the other species that caught Darwin’s attention when he visited the region on the H.M.S. *Beagle* in the early 1830s.

Dr. González-José also put me in touch with Dr. Teresa Manera—a paleontologist working in the city of Bahia Blanca further northwards along the coast. Bahia Blanca is a bay famous for having the fossil localities of Punta Alta (unfortunately now destroyed) and Monte Hermoso along its shoreline—sites explored by Darwin in the fall of 1832. Dr. Manera kindly took me to “Farola Monte Hermoso” where Darwin thought he had discovered the remains of a species ancestral to the “mara.” She also showed me the “greater rhea”—the other “ostrich” species that also played a role in Darwin’s thinking.

And, not least, Dr. Manera showed me some of those fantastic trackways of ancient, and mostly extinct, mam-

mals (and birds) that are preserved further up the beach from the point where Darwin was collecting fossils: footprints that Darwin evidently never saw.

In the older layers of footprints of mostly now-extinct “megafauna” (large mammals like mastodons and the huge *Megatherium*), there are also the telltale footprints of humans. The younger layers show human footprints in profusion—but the megafauna is gone—to my mind, at least, mute but deeply eloquent testimony of the impact that humans had on the fauna they encountered when they arrived in South America.

In my opinion, the fossils and living fauna of Bahia Blanca—which Darwin encountered nearly three years before he got to the Galapagos in 1835—were at least as important to the development of his evolutionary ideas as were the Galapagos mockingbirds—and for this reason, I am convinced that the Bahia Blanca shoreline deserves to be named a World Heritage Site. I have written up my thoughts on the importance of the fauna and flora of Bahia Blanca in the development of Darwin’s evolutionary ideas (in Eldredge, N. 2009. *Experimenting with transmutation. Darwin, the Beagle and transmutation—this journal, volume 2, pp. 35–54.*)

So it was only natural that, when Dr. González-José suggested that we publish an issue devoted to the question of what evolutionary biology has to say about the “settlement of the Americas”—i.e., who were the original, pre-European colonizers of the “New World,” when did they come, and how do we know about them—we jumped at the chance. The result is this issue, with its fascinating array of stimulating papers.

And our cover is especially riveting: Dr. Manera has let us publish a photo of two parallel trackways: the very deep

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huge prints of *Megatherium*, and the smaller but unmistakable prints of a human being alongside. When I first saw the deep prints of *Megatherium* as I walked up the Bahia Blancan beach, I sensed being there with the living, breathing animal: those footprints brought the animal back to life for me even more than the skeletons we see in

museums. And when I saw the photo of the human trackways alongside the *Megatherium* prints, I recognized myself—and realized afresh what impact we humans have had on the rest of life on this planet.

I hope you, the reader, enjoy this issue of *E:E&O* as much as we have enjoyed bringing it to you!