

## **On the Backs of Tortoises: The Past and Future of Evolution in the Galápagos Islands**

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In a world plagued by environmental crises, the Galápagos Islands are often presented as an isolated reprieve, a last foothold of pristine nature. Tourists and scientists alike visit this Pacific archipelago to step back into a land before time. The islands' giant tortoises, with their leathery skin and worn carapaces, are icons of this vision: living remnants of prehistoric nature. As the islands' most famous visitor, Charles Darwin, wrote, such unusual species and the austere islands they inhabit provide a window onto the origins of life. Darwin's work sparked a movement to protect this "natural laboratory" where endemic species evolved apart from the humanized world. For fifty years, environmentalists have worked to conserve evolution itself by maintaining the islands' isolation, even trying to return them to a "pre-human condition." But this is a paradoxical objective considering that Darwin taught us that life is always moving forward, never backward. Why has such an un-Darwinian goal so captivated conservationists who idolize Darwin? How might it be possible to conserve the processes of evolution in a world where isolation is a thing of the past?

While I am in residence at the Rachel Carson Center, I'll be finishing drafting a book manuscript that traces the history of the islands' namesake species, giant tortoises (*galápagos* is an old Spanish word for tortoise). The book shows that far from being the pristine creation of nature alone, the Galápagos are a microcosm of evolution shaped by human action. Since Darwin rode on the backs of tortoises in 1835, the animals have morphed from food for buccaneers and whalers to exemplars of evolution and world-renowned conservation icons. In telling the giant tortoises' story, the book offers what I call a "species history" that combines approaches from environmental history and political ecology with history of science. It extends work in animal studies by engaging with the history of biology to show how animals once prized as god-given resources for human consumption became understood as endangered *species* with long evolutionary histories. But species, I argue, are not only biological beings—their histories are inseparable from global histories of human beings in the modern world. What rests on the backs of tortoises, then, is a history of ongoing coevolution in which humans and nonhumans alike are enmeshed in the web of life. The Galápagos are a paradigmatic place for thinking through modern understandings of nature, making this a story with broad ramifications beyond the bounds of this World Heritage Site.