Making Tracks: Dan Lewis

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In the “Making Tracks” series, RCC fellows and alumni present their experiences in environmental humanities, retracing the paths that led them to the Rachel Carson Center. For more information, please click **here**.

Slow Down and Smell the Birds

by **Dan Lewis**

Rarely do things crash in on me like thunder and change my life in a minute, but my attraction to the world of birds happened just like that. Two decades ago, I was driving Alaska’s Dalton Highway, en route to the Arctic Ocean with my martial arts instructor, to go for a swim. We came to a gas station with a small convenience store attached. As I somewhat idly opened up a field guide to the birds of North America the heavens opened up, and I realized that I could quantify and identify birds— including ones we’d seen on that very trip—and tell them apart, finally making some sense of the natural world.

It took me another few years to realize something else: that being a historian means that you have a bully pulpit, as they say—it’s a chance to write about anything you find engaging and useful. Everything has a history, “up to and including what I had for breakfast,” as my advisor in grad school told me, and with that understanding I could satisfy my idiosyncratic passions for birds and scholarship. But as the years go by, I find myself wanting to do things that hybridize history with other activities, and make use of sources and techniques that most historians ignore, find daunting, or that seem irrelevant. These include the use of geographical information systems (GIS), of three-dimensional objects such as bird specimens, and of DNA to determine the kinds of birds whose feathers are used in the extravagant Hawaiian feather cloaks worn by chieftains. All of these elements can inform the historical record, and move historical analysis further down the road in very productive directions. All of these aspects are highly interdisciplinary, inkeeping with the RCC’s broad and heterogeneous audiences.

This path of discovery has led me to a new project, one that is a natural extension of my RCC project "**Chasing Extinction: Hawaiian Avifauna Among Tropical Culture, Politics, and Law**." One of my latest obsessions is for solving a mystery that's at least 130 years old—and it relates to a particularly bad smell, of all things. The story goes like this: since the last quarter of the nineteenth century, it's been well known that a particular family of bird—the Drepanididae, a kind of Hawaiian honeycreeper encompassing various genera and species—has a special odor. A bad odor. It's been likened by naturalists of the era as smelling like wet canvas, or moldy leaves. The smell was strongest when the bird was freshly killed, but could linger for months or even years in stuffed specimens. People have talked and asked about it a great deal for over a century. British ornithologist Alfred Newton, writing to a collector in Hawaii at the end of the nineteenth century, asked about the smell of the "Akialoa—a little green and yellow honeycreeper, now extinct, with a freakishly long bill . . . Do conceive some theory or two or three theories to explain the common odor that is so remarkable. Can't you bottle us a little of the stink that we may enjoy it too?"

Other naturalists speculated endlessly about the smell of this class of perching birds in Hawaii. "Do not I beg of you forget to bear in mind that odor question when in the field," another naturalist in Hawaii wrote to a friend in Washington DC. "I hardly think that you have ever killed birds with the odor of these Hawaiian woodland birds, since it is simply impossible that you should have done so without noting the smell. It is simply overpowering when the bird is fresh, and is very persistent. You should be able to detect it in the case of any skins made within five or ten years."

Collectors and scientists also speculated endlessly about the smell. "The odor of the Hawaiian Drepanididae is not due to fruit eating, as the members eat only insects and honey, while the thrush, which feeds almost entirely upon berries, has no odor," wrote a scientist in the early twentieth century. "The only rational explanation is of its origin that suggests itself to me is that it is of ancestral." But no one had any idea, and today still we have no clue as to the smell's origin or function. I've smelled it myself, several times, including on one freshly frozen specimen. It's almost sickly sweet, and is indeed strong. Was the smell for defense? Or for (improbably, by human standards) attracting a mate? Or for some other reason related to territory? Who knows?

Remarkably, no one has ever tried to figure out what the smell actually consists of, and, moving on from my research at the RCC, I plan to try. I need an organic chemist interested in birds, who also has a particular piece of equipment—something to sample

volatile organic compounds. Something is causing the smell, and if I can figure out what the cause is I can then make some very educated guesses as to its function. There are a number of examples of these honeycreepers still extant in Hawaii, and at least one of them is quite common. It won't be hard to obtain a sample to test. I just need someone with some "aloha spirit," as they call it in the islands, and some gear. So as soon as I can find someone—an organic chemist, perhaps, with a want to help me solve this puzzle, and who happens to have, oh, say, a gas chromatograph with olfactometric detection and a laboratory—well, I'm off and running!