

Mammal secrets

February 9 2012, By Joshua E. Brown



An Olympic runner might envy the armadillo. These wandering tunnel-diggers can exercise vigorously without oxygen for up to four minutes. Facts like this, any many more, can be found in a new Peterson Reference Guide written by UVM doctoral student Kurt Rinehart. Credit: Tom Friedel

You probably don't need a field guide to identify a raccoon. Or a grey squirrel. You're not likely to say, "that big white shaggy beast, hmm, yes, might be a polar bear. Let's check." It's just not that hard to identify most mammals.

But what in the heck are those [mammals](#) doing all day, or all year, scurrying, burrowing, butting heads, running hither and yon, chomping leaves, vanishing under logs, and mating like, well, rabbits?

Kurt Rinehart has answers. He is the co-author, with Mark Elbroch, of a new book, "Behavior of North American Mammals," published by

Houghton Mifflin Harcourt, part of the publishing house's ongoing Peterson Reference Guide series.

Armadillos unveiled

“Think of the subtitle for this guide as 'The Secret Lives of Mammals,'” suggests Rinehart G '07, a professional animal tracker and current doctoral student in UVM's Rubenstein School of Environment and Natural Resources.

Consider the armadillo's secrets. That's the nine-banded armadillo. You may have been under the impression that this armored creature can roll into a perfect ball to avoid danger. It cannot. Unlike its cousins south of the border, it can, at best, “curl up and tuck its head and legs against its vulnerable belly,” Rinehart and Elbroch write.

What it can do is swim, and swim like no other mammal. Adapted to a life of tunneling, armadillos “can withstand a severe oxygen debt, and if the distance across the water is short, they simply walk across the bottom of the pool,” the new book notes.

If the distance is farther, armadillos will start paddling, like a dog, lifting their noses above the surface and filling their bellies with air, which doubles in size. Like a slowly filling balloon, they ride higher and higher in the water, the farther they swim.



“This book gives you a good feeling for all the weird things animals can do,” Rinehart says. “Mark and I worked hard looking for information that’s not readily available in a typical wildlife or tracking book.

For example, he says, it’s well known that red foxes and coyotes hunt small mammals, like mice. What’s less well known, as the book reports, is that they can hear the scurrying of voles or other prey under a foot or more of snow. Listening intently, they’ll leap and “descend upon their victim” in a graceful arc, the new guide reports. “Playful coyotes may even fling their prey into the air several times before giving it a quick chew and swallowing it whole.”

Airborne rabbits

Let’s get back to the mating rabbits. As the saying goes, they do, in fact, breed like rabbits: “early and often,” Rinehart and Elbroch write. What’s

less well known are their eye-popping courtship behaviors. A rabbit couple begins with a prolonged stare-down called a “face-off.” If the male advances, the female may rise on her feet and strike him, and “if one is too slow,” the guidebook notes, “he may find himself pinned under the female’s hind foot being bitten repeatedly.” This is her mate, remember.

After this inauspicious beginning, the rabbits may well rush at each other, which causes one “to leap straight up in the air as the charging rabbit passes beneath,” the guide notes. In the case of swamp rabbits, this over/under jumping may repeat up to thirty times. Or, the male sometimes literally runs circles around his mate, twenty or more laps. Other times he may “throw his rump at her, unleashing a spray of urine.”

Similar fascinating accounts and gorgeous photographs can be found, throughout this book’s 374 pages, of the opossum, manatee, Northern short-tailed shrew, star-nosed mole, Mexican free-tailed bat, bobcat, lynx, wolf, walrus, elephant seal, moose — and dozens of others from the ubiquitous skunk to the elusive wolverine.

The accounts are divided into sections on activity, habitat, food, communication, courtship, development, and interactions. “This was originally going to be a tool for trackers,” Rinehart says, but the focus got wider as the two animal scientists worked on the book, “so now it’s good for anybody who’s interested in animals.”

Back to the track

Rinehart’s doctoral work, under the guidance of associate professor Teri Donovan, a wildlife scientist, focuses on the management of black bears in Vermont. He completed his master’s degree in wildlife ecology at UVM in 2007 working with professor David Hirth.

Rinehart has worked on numerous studies of wildlife and served as a professional tracker for conservation organizations, landowners, and others. Rinehart teaches animal tracking too. This kind of on-the-ground work involves “a real or imagined relationship with one animal to see what it did in one place,” he says.

But his doctoral dissertation is directed at developing better plans and population models for bear management across the state. “The wildlife science I’m doing now is not about individuals; it’s about populations and lots of places.”

“This book represents to me a way of getting back to what an individual animal is doing in one place at one time,” Rinehart says.

“I had the idea to do the book because when you track, new trackers are interested in the detection of the track, but they have a hard time understanding that’s just a bit of what’s going on,” he says. “To have a better understanding, it’s good to have as much information about an animal’s ecology and behavior as you can.” For that, it would be good to keep this new book at the top of your pack.

Provided by University of Vermont

Citation: Mammal secrets (2012, February 9) retrieved 27 April 2024 from <https://phys.org/news/2012-02-mammal-secrets.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.