## Yet even as the question haunted Norment through the years, the answer has been emerging everywhere in biology. Climate change and other large-scale anthropogenic changes

Return to Warden's Grove

Science, Desire, and the

Lives of Sparrows

by Christopher Norment

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t first glance, Return to Warden's Grove appears to be a simple book about a small, relatively unremarkable bird and a relatively unknown scientist in a tiny patch of habitat—all dwarfed by the vast setting of Canada's Northwest Territories. But like the mass-market publisher that reportedly rejected Christopher Norment's manuscript as "yet another 'man goes into nature and gets enlightened' deal," one would be mistaken to underestimate the scope and current importance of this natural history memoir. The life history of the Harris's sparrow (Zonotrichia querula) is the framework for a story that, almost by surprise, takes the reader on a grand tour of key themes that define our current juncture in the life sciences.

Norment (a professor of biology and environmental science at SUNY Brockport) is quietly confident in his writing. Readers won't find the gonzo natural history of Robert Sapolsky's uproarious A Primate's Memoir (1), nor the comically grotesque elaborations of tropical diseases that punctuate Tim Flannery's astounding *Throwim Way Leg* (2). But it is because of the understated voice and the near total lack of drama in the focal species that this book works. The construction of the book, as with any good natural history study, wanders along a spiral path that continually returns upon itself, each time with greater insight and broader vision. Norment traces this spiral around Warden's Grove, starting with a youthful expedition to the Northwest Territories, building in three successive field seasons as a graduate student years later, and only reaching its full expansive scope in this complete retelling 16 years after taking his last field notes.

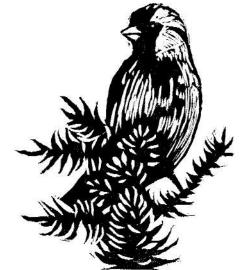
Norment is fascinated with the ecological concept of the ecotone—typically a zone of transition between habitat types. Here, Norment uses ecotones to describe all sorts of transitions: the choice nesting habitats of the sparrows between forest and tundra, the fissure in his personal life between devoted family man and far-afield scientist, and the space between the civilized world and the vast northern wildernesses in which he finds scientific data and personal solace. In constantly

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deconstructing these different ecotones, Norment ends up building a thoughtful exploration of feeling both drawn to the natural world and pulled away from it by the competing and sometimes self-contradictory demands of science and society.

But Norment also reminds us with an incredible anecdote that these ecotones are anything but fixed boundaries. During his first long northern expedition at Warden's Grove, a Soviet nuclear-powered satellite crashed just a few kilometers from his campsite, and with it came hazmat teams, government agents, and media hordes. The intrusion shattered the ecotone between wild and civilized in Norment's mind, but it seems also to have opened his worldview and challenged him to integrate his views of society with his observations of nature.

In this regard, Norment's account benefited from the decade-and-a-half delay since he finished his fieldwork at Warden's Grove. At the time of his graduate studies, the long-standing split between molecular biology and ecology was in its deepest abyss, and ecology itself had settled into self-satisfied cycling between experimental and theoretical reductionism. The disdain for descriptive natural history was curtly summarized for the author in a job interview question, "What good is your research?"



Harris's sparrow.

are shifting and shattering natural ecotones. This in turn is driving an ecotonal shift in science itself: both the boundaries between branches of sciences and the boundaries between science and other societal pursuits are moving radically or disappearing altogether. The urgency of

environmental change is

forcing us to reconcile our work on lab benches, computers, and experimental plots with the rapidly changing ecology of the real world around us. At the same time, the undisputable and ubiquitous role of human behavior in this change requires us to examine human social, economic, and political linkages to our work.

All this integration will require balance: of mechanistic hypothesis-testing and unbounded discovery, of small-scale observation and large-scale synthesis, and of quantitative and qualitative understandings of the world. Norment's book, while reflective of earlier forays along these ecotones [such as Ed Ricketts and John Steinbeck's Sea of Cortez (3)] is a modern field guide to how we might achieve such a balance. Even as he teeters on the edge of metaphysics when discussing an intuitive sense of where to find sparrows' nests, he backs up his speculations by roping a graduate student into an amusing (but scientific) test of his nest-finding sense. And even as he waxes poetically on the idiosyncrasies of the little sparrows and the beauty of their habitat, he ends up producing an impressive scientific understanding of their physiology and ecology. What comes out clearly above all in Warden's Grove is the "goodness" of natural history work. We are at a time when we need more than ever solid, thoughtful observation of places far and near and of organisms as complex as humans and as unassuming as Harris's sparrows.

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