use of the lake. In 1983, a trail which bears his name was established on the site where his original plans have been implemented, largely unchanged.

Disillusioned, Carhart quit the Forest Service in 1923. As a writer, advocate and general curmudgeon working outside of government, he had few friends in official circles. But many not-for-profit advocacy groups enlisted him as their champion, and he responded generously from his personal ideals as well as developing and presenting ideas of viable alternatives to the *status quo* or official management plans. Often his writings were severely criticized, and his attempts to contact the directors of the Forest Service and the National Park Service or to work with both of them brought only animosity from internal bureaucratic kingdoms.

Due to his advocacy and refusal to compromise the zoning principles which he had developed over the years, his final battle was with the creation of the US Wilderness Act of 1964. Currently the definitive statement on land use and the provisions for recreation,

grazing, tree harvesting, and maintenance of wilderness "primitive" areas, this act was a political document directing wilderness areas to be identified and managed by both the Park Service and the Forest Service. Carhart finally stood by and refused to support the bill.

In his final battle, Carhart showed his stature as a wilderness architect and planner. He was always on the side of nature but included people in his view of how nature would unfold. The sites he identified and planned were for people to use, not simply to be left unvisited or unrestricted. Hunting and fishing were his passions, as were camping, growing flowers, and planting trees imported to beautify urban settings or to enhance natural forest regeneration. His home in Denver was a model of city planning and suburban fit to the landscape. His priorities for the wilderness were the same: use the existing conditions, alter the site minimally, and let all enjoy the effect.

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Of a Feather: A Brief History of American Birding

By S. Weidensaul. 2007. Harcourt Inc., 6277 Sea Harbor Drive, Orlando, Florida 32887 USA. 358 pages, 24 USD Cloth.

Author Scott Weidensaul belongs to the field glass fraternity: obsessed with seeing birds, he is one of these "nerds with a binocular and an anorak". This book explains such birders to the lay person. It summarizes a great cultural phenomenon that has the potential to help us reach global sustainability. We currently experience nothing but the Golden Age of Birding. And imagine—birding is basically free and for everyone. This book covers in its 380 pages not only famous and tight-lipped "Ueberbirders" like R. T. Peterson but also the American history of birding (and its formative stages). Naming the book a "brief history" is somewhat of an understatement, though. This book is especially strong on the early history of ornithology (bird study). But ornithology is not birding, really, and it is here where the book blurs the lines somewhat and deviates from classic definitions.

The author does a good job showing that American birding and ornithology went through three phases: collecting (shotgun ornithology), maturing, and birding. The ongoing conflict in America between invasive ornithological collectors (Weidensaul states, for instance, that R. Beck personally collected some species to extinction) and non-invasive birders is well presented. This is demonstrated by C. B. Cory, a former president of the American Omithologists' Union (AOU) who amassed over 19 000 bird skins and who argued strongly against the "Audubonians". As presented in this book, these organizations became some of the most prominent forces for birds in the US and thus shaped a new (global) bird and conservation culture that

helped to set the stage for benign bird studies that advance global sustainability.

Egg collection (leading to the discipline of oology) is another recurring theme in the history of (American) ornithology. The relevance and impact of this sometimes doubtful exercise become obvious when you realize that 30 000 eggs were collected by Arthur C. Bent alone (another former president of the AOU; the collection is now stored in the Smithsonian).

With America having "Birds more beautiful than in Europe" I liked the sections that showed the English influence on American ornithology and on birding. At least in its early days, the AOU (founded in 1883) followed the British Ornithologists' Union (founded in 1858) almost blindly. Settlers in America named species as they were used to from Europe and thus created a "nomenclatural mess". Traditional ornithological knowledge held by North American aboriginal people was virtually lost due to warfare and disease. Therefore, most North American bird accounts came from white (male) sources. The Spaniards left during their colonial rule virtually no bird accounts for Florida or the southwestern US. But the British—often land speculators-liked to present exotic birds to make the land more attractive. Famous representatives of this period are presented in this book: G. Percy (1606), F. Higginson (1629), and J. Lawson (1709). And Lewis's Woodpecker and Clark's Nutcracker remind us that M. Lewis and W. Clark started a flood of new bird discoveries from the western US, "almost all of them a result of military expeditions". The S. Long

expedition of 1819 across the southern plains to the Rockies in Colorado, with T. Peale as one of the first trained naturalists on such an expedition, helped further the descriptions of new avian features of this fascinating continent.

References to J. J. Audubon are certainly found all over the book, including L. Audubon's protégé, G. Bird Grinnell. But the reader learns that it was M. Catesby who actually put habitat features in bird paintings, way before Audubon did. We learn in this informative book that Catesby was also progressive enough for his time to reject the idea, still widespread in the 18th century, that migratory birds hibernated in caves or hollow trees or in the depths of the ocean. Further, we learn that many of the North American bird scholars also studied native culture. B. Bartram and J. Burroughs (one of the most influential nature writers of the late 19th century) are representatives of such concepts.

Later, O. Sewall Pettingill and J. Lane moved birding in the modern direction by publishing for the first time for the lay public where to find and see birds in the US. And so, the old-fashioned opera glass birding led to birding as a noun. "Increasing availability of European optics made it easier to see birds," and Peterson's *Field Guide to the Birds*, a "birding bible," became another tool in this movement. But Weidensaul shows us that there is more to this cultural phenomenon: Peterson's work built a lot on B. Hornbeck, L. Griscom (*Birds of New York City Region*), E. Thompson Seton, and B. Vogt, among others. F. Chapman had already published a first colour key to North American birds in 1903, and the guidebooks by C. Reed published three years later were a sensation.

Peterson's field guide book publications have actually been around since the late 1930s. But they were initially criticized, and it wasn't until 1947 that his concept (drawn little arrows pointing at the relevant field identification features, a copyrighted approach that is by now also used in entomology, botany, for fishes and elsewhere) became the birding standard. Other milestone references such as the ones from R. Pough (with paintings by D. Eckelberry), The Golden Guide by C. S. Robbins (with artwork by A. Singer), the Master Birding Guide and the one from the National Geographic Society (Field Guide to the Birds of North America of 1983) are well described, too, and put into wider context. Eventually, it all fell to D. Sibley to publish a milestone field guide book in 2000 (the fastest selling field guide in history). As shown by the infamous Birds of Europe from L. Jonsson, impressionistic gesture sketches of birds are usually stronger for field identification than photos. However, photo guides like the National Audobon Society Field Guide to North American Birds by J. Bull and J. Farrand, or the one by M. Udvardy, still became hits. Weidensaul elaborates with great expertise on special guidebooks from Britain and the US on gulls, seabirds, shorebirds, and hawks.

A well-founded criticism that Weidensaul makes is that birding is still a phenomenon of the white race. And, unfortunately, this peculiar outdoors activity can be inherently cliquey as well. American ornithology is very hierarchical, as can be seen in who trained and mentored whom; it's hard to break into these circles from outside. Weidensaul devotes a larger and overdue chapter, entitled "Angry Ladies," to the female contribution to birding. As late as 1982, the Nuttall Ornithological Club did not allow women to join! Imagine G. Lewis—author of the great book, *A Natural History of Birds*—being denied a job simply because of her gender.

Weidensaul also does a fine job showing that birding actually grew up in the urban corridor of the east coast and then matured in Florida, Texas, and Chicago. But it really came of age in California, a society and culture fuelled by oil. In this fascinating text, guerrilla birding comes to life again. This Californian birding craze promoted and lived by G. McCaskie and R. Stallcup caught on world-wide. Later, and together with C. J. Ralph, these birders started the infamous Point Reyes Bird Observatory. Where would American birding have gone in the last 50 years had McCaskie stayed in Great Britain? Further, we learn in this birding milestone book that J. Carter was an avid birder and that Pacific pelagic birding started with R. Beck, I. Gabrielson, T. Wahl, and D. Robinson (who later changed her name legally to D. Love Shearwater). The Atlantic coastal waters off Maine were similarly well covered by seabird enthusiasts such as M. Libby and W. Drury. I liked learning from this book that the famous D. Sibley was a "bird bum" for parts of his life and that he did not enjoy studying at university (a feature widely shared by many experienced naturalists, outdoor enthusiasts, and conservationists). Descriptive ornithology, where amateurs often excel, was already disappearing from academic journals back then, a sad disconnect found in "modern" biology departments world-wide. What a tragedy.

Despite "Roger Tory Peterson being the very personification of the tribe," neither his parents nor his teachers approved of the King Penguin (as he is widely known now) planning for a career in birding.

Weidensaul shows us that birders cater to their optical harem and are book addicts. Birders will also enjoy the description of *Birding* magazine and how it came to be. Detecting the "jizz" of a bird—its instantaneous impression—is crucial for its accurate identification in the field. The taxonomy of animals is still in flux; loons and Traill's Flycatcher (i.e., Willow Flycatcher or Alder Flycatcher) are examples of taxonomic toothaches. This list is easily expanded by the addition of Red-tailed Hawks with their many plumage varieties, the 18 recognized subspecies of Fox Sparrows, and the 24 to 39 distinguishable subspecies and up to 52 different forms of the Song Sparrow. I enjoyed reading about the pioneers of American sound record-

ings, A. Allen, P. P. Kellogg, and others, recording vanishing birds such as the Ivory-billed Woodpecker. But I fully agree with Weidensaul about sonograms basically being a waste of space in bird guides because one cannot interpret them meaningfully and they are hardly of help for species identification.

The phenomenon of listers occupies a wider section of the text. It was actually W. Stone, editor of *The Auk*, who publicized the idea of competition and listing in 1936: "Birding as a competitive pastime, one that places a premium on challenge." The sport of "binocular lifting" was born. Weidensaul describes in detail "Serious listing, the kind that empties bank accounts, ruins marriages, and borders on the pathologically compulsive." Many birders like to keep millennium lists (birds seen since 1 January 2001) or lists of birds seen but not photographed, for instance.

Flagship birders, super birders, such as T. Parker, S. Keith, K. Kaufmann, and J. Taylor, are described in detail as they reached the prominent 600 and 700 clubs (M. Smith is named as seeing 873 species; the initiation of the 900 Club is currently being discussed). I liked the way Weidensaul describes events like the Superbowl of Birding, held each year in Massachusetts, or the Big Birding Year with over 699 species (including its participants, such as K. Kaufman, F. Murdoch, J. Vardaman, and S. and A. Keith), or the World Series of Birding. Many adventures and cheating death several times aside, and before she actually died in a tragic car crash, P. Snetsinger probably saw the most birds in her lifetime world-wide. Her life list consisted of over 8000 birds. Another record holder is C. S. Robbins, who initiated the North American Breeding Bird Survey (BBS), now in its fifth decade. He also participated in over 350 Christmas Bird Counts, more than anyone else in history.

Historical oddities such as American economic ornithology and the acclimatisation movement are described in this unique book, which also mentions introduced starlings, mynahs, and House Sparrows. Cultural concepts in the history of bird studies, such as Aves non grata, e.g., raptors and wrens, and, when anthropomorphized, are elaborated on in the text, too. Citizen birds got labeled as good/bad and often were described as carrying an economic advantage for humans, so they were more easily accepted. Many early ornithologists (e.g., G. M. Sutton, G. Stratton-Porter) are reported to have fallen into this trap.

True conservation and its culture did not really emerge from the AOU itself, or from the society of experts, but from other groups and sources. And so Weidensaul states that birders have woefully neglected conservation issues: "Birders need to be more vocal on behalf of the things they care about" "in a world of burgeoning human population, diminishing natural habitat, changing climate, and shrinking resources." Scholars of environmental history will enjoy reading about R. Pough (who set up the Nature Conservancy)

or about R. Edge (one of the most important but somewhat overlooked forces in American conservation).

Eco-tourism and birding are actually not that new, as shown by Weidensaul when he refers to the Hawk Mountain Sanctuary already having thousands of weekend observers in the 1930s. Additional and similar birding sites and organizations are presented, such as the Manomet Bird Observatory (Manomet Conservation Science) and Point Reyes, where up to 490 bird species can be found, the highest diversity of birds in any North American national park. Another birding hotspot is the New Jersey Audubon's Cape May Bird Observatory, which has an impressive record of over 80 000 raptors, more than a million seabirds per year, 1.5 million shorebirds, and a quarter of a million passerines in fall at one site alone.

Birding is almost free of ideology in North America. That's good and bad. Was it big oil that moved birding in the UK towards world birding? And is birding in the U.S. basically left to the rich that can afford to enter the elusive club of 700 (birders that have seen more than 700 species)? They usually achieve this by traveling intensively. Seeing 700 bird species in North America is possible only if one includes vagrants, which can be found in higher numbers on the Mexican border and the Aleutian Islands. The Aleutian Islands, namely Attu and Adak, have attracted people obsessed with ornitho-golfing (the occurrence of nearby Eurasian birds boosts their lists).

But without birders, who would have known that the Saw-whet Owl was actually one of the most common raptors in North America? With the new notion of citizen science, birders take on the (monitoring) job that was originally meant to be a governmental one. Unfortunately, it is pushing government agencies into the convenient role of real estate, or project, agents that supervise without knowing. "Birding with a purpose" (cited from F. Hamerstrom) is for instance achieved in Project Feederwatch, started in 1976 in Ontario and now jointly managed by the Cornell Lab of Ornithology and Bird Studies Canada. Projects like Magpie Monitors are other examples. Discussion about conservation and non-governmental organizations such as the Audubon Society are not new, and the author presents "A Crisis in Conservation" by W. Van Name charging as early as 1929 that Audubon was being derelict in its responsibility to (water) birds. It was R. Edge and others who sued that organization successfully, creating bad press and a massive loss in membership.

I liked many of the conservation statements in the text, for instance, the struggles that K. Kaufman had when turning to conservation rather than just being a birder. No wonder that this is an issue for a country that caters to the biggest polluting industry of the world. Weidensaul promotes landscapes, protected zones, and wilderness well, but he could be even more forthcoming on this issue. He provides us with a nice

discussion of the taxation of outdoor gear in support of bird and habitat conservation. The Baillie Birdathon by Bird Studies Canada, initiated 30 years ago, has raised more than half a million dollars in Canada. But that's almost nothing when compared with the daily profits made by oil and other industries that usually get subsidized with large government grants of taxpayers' money.

What will the future of birding bring? Electronics has already brought large changes, giving us iPods, bird songs, and digital cameras at our fingertips, democratizing bird photography by making for good digiscoping via a telescope and telephoto lens. Phonescoping provides additional confirmation of species. Birding in 2015 will probably see multimedia electronic field guides.

I liked the 24 informative black-and-white images and photos. And overall, I have nothing bad to say about this fine publication. Two things come to mind, though. For one, Weidensaul fails to mention the Cocker (2003) book or any relevant links with the large birding culture in the British world, namely in the UK and Australia, or in Heligoland and Scandinavia. This matters because an anthropological, cultural analysis of birding world-wide has still not been written. Second, Weidensaul does acknowledge that, without conservation, birding is a dead-end street. But, "For many birders, the sense of reciprocity, of obligation to the birds themselves, is missing". How true. What bothers me, though, is that Weidensaul does not expli-

citly deal with the core causes of (global) species and habitat loss, that is, the current economic scheme that constantly tries to sell us short-term solutions as the one and only paradigm. The American Congress can give the world almost anything money can buy. But it's typical that books like Weidensaul's stop at the rhetoric and leave us all puzzled about what to do next. Just buying shade-grown coffee is not enough, really, nor is counting birds in citizen science projects or, for instance, highly publicized outings like the Great Texas Birding Classic, where large corporate donations of over half a million dollars don't do us any good. Instead, by now, we need real action, revised policy, a justice system for nature (as promoted in Ecuador), and sound decision making. Unfortunately, I am not aware that birding data ever really stopped the development of large-scale industrial activities or that birding provided statistically sound data that held up in court for global sustainability. So it is here, beyond the description of the last subspecies-feather and feet coloration, including beak length and age classes—where Weidensaul and the birding community as a whole still need to provide us with real progress.

Literature Cited

Cocker, M. 2003. Birders: Tales of a Tribe. Visalia, California.

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