

Journal of Sport & Social Issues

<http://jss.sagepub.com>

Environmental Sporting: Birding at Superfund Sites, Landfills, and Sewage Ponds

Spencer Schaffner

Journal of Sport and Social Issues 2009; 33; 206

DOI: 10.1177/0193723509338862

The online version of this article can be found at:
<http://jss.sagepub.com/cgi/content/abstract/33/3/206>

Published by:



<http://www.sagepublications.com>

On behalf of:

[Northeastern University's Center for the Study of Sport in Society](#)

Additional services and information for *Journal of Sport & Social Issues* can be found at:

Email Alerts: <http://jss.sagepub.com/cgi/alerts>

Subscriptions: <http://jss.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations <http://jss.sagepub.com/cgi/content/refs/33/3/206>

Environmental Sporting

Birding at Superfund Sites, Landfills, and Sewage Ponds

Spencer Schaffner

University of Illinois, Urbana-Champaign

This article describes birding as an example of what I call environmental sporting, an ostensibly green category of sport that relies on both environmental protection and degradation. Three competitive forms of birding are explored in relation to three toxic sites: the birding event called the World Series of Birding and Environmental Protection Agency (EPA) Superfund sites, big-year birding and landfills, and the competitive practice of listing and sewage ponds. At each site and in each competitive instantiation of birding, birders seek birds in close proximity with potent environmental toxins. The presence of active birds and birders at such sites works to make toxicity seem both hospitable and harmless. By discussing how birding relies on and ultimately masks the perils of toxic sites, the article suggests contradictions that arise from the relationship between sport and environmentalism.

Keywords *birdwatching; birding; pollution; sport; environment*

The playing fields of competitive birding are toxic. The birding event called the World Series of Birding, North America's most publicized big-day competitive birding event, takes place in New Jersey, the state with the highest density and number of Environmental Protection Agency (EPA) Superfund sites in the nation (Environmental Protection Agency 2007b, 2007c). Another competitive form of birding, known as big-year birding, regularly involves participants looking for rare birds at active trash dumps such as the Brownsville dump in south Texas (Kaufman, 1997, pp. 94-104; Obmascik, 2004, pp. 120-123) or reclaimed dumps such as the Montlake Landfill in Seattle. Similarly, birders involved in the sport practice known as listing sometimes look for birds at sewage treatment facilities, places where toxic sludge is processed for fertilizer. At these sites, birders find virtue in toxic waste, masking the environmental hazards of such pollution.

Although birders take advantage of toxicity and pollution, competitive birding is frequently billed as environmentalist and has historically benefited from environmental policy, habitat protection, and environmentalist protest. For instance, federal legislation to protect birds such as the Migratory Bird Treaty Act of 1918 and the

Author's Note: Please address correspondence to Spencer Schaffner, Department of English, Center for Writing Studies, University of Illinois, Urbana-Champaign, 208 English Building, MC-718, 608 South Wright Street, Urbana, IL 61801; e-mail: spencers@illinois.edu.

Endangered Species Act of 1973¹ have limited over hunting and human impact to several endangered bird species. The establishment of wildlife refuges and bird sanctuaries has helped sustain breeding bird populations in particular (Philippon, 2004, pp. 72-105). Furthermore, environmental activist groups such as Earth First! have used direct action protests to intervene in the logging of forests that serve as critical habitats of threatened species such as the Spotted Owl (Moore, 1993). Although these multiple forms of environmentalism have helped protect birds, thus benefiting birders, birding at toxic sites makes the pressing environmental problem of toxic pollution seem benign. Some competitive birding events do raise funds for environmental advocacy groups, but constructing birding at toxic sites as environmentalist overlooks the dangerous presence of toxicity while diminishing the likelihood of more robust environmentalist instantiations of birding. Phaedra Pezzullo, in her book *Toxic Tourism: Rhetorics of Pollution, Travel, and Environmental Justice* (2007), describes a form of environmental activism in which participants tour polluted landscapes, bringing attention to the problems associated with toxicity. Birders tour such sites as well, but they engage in *anti* toxic tours, overlooking and even reveling in the presence of toxicity. If birds and birdwatchers can inhabit a landfill or sewage treatment facility, are contaminants really a problem?

In this article, I outline the parameters of a class of sport activities I call environmental sporting, discussing a number of sports that fit this profile before focusing on a case study of birding. By attending to birding as environmental sporting, we can see how environmental sports of this kind contribute to an ideology in which buying, doing, acting, and sporting “green,” whether locally or through ecotourism, tends to stand in for more substantive environmentalist practice. The fractious relationship between environmental sporting and environmentalism shows how a sport such as birding depends on environmental degradation and protection simultaneously, something that is bound up in the ideology of this kind of sport. In ways that birding masks environmental toxicity and makes it seem benign, it is a sport that inoculates us to the problems associated with human waste in our environments. As my examples will show, some of the birds competitive birders seek live amid toxins that travel readily into ground water, lakes, streams, and food chains; yet birding at toxic sites makes that movement seem anything but serious.

Birding as Sport

Based on popular perceptions of birders as folks who stand in fields or parks watching birds through binoculars, it may seem odd to classify birding as a sport. Is a person studying a Yellow-headed Blackbird or looking for warblers participating in a sport? The reluctance to see birding as a sport results from two things: a narrow definition of sport and a similarly narrow understanding of what birders do. To address the first problem, note that many North Americans tend to associate sport with sports

such as football, basketball, baseball, and other sports that one can watch in a stadium or see in large-scale sporting events such as the Olympic games. And indeed, some textbooks provide equally narrow definitions of sport, calling sports “institutionalized competitive activities that involve rigorous physical exertion or the use of relatively complex physical skills by participants motivated by internal and external rewards” (Coakley, 2006, p. 11). Other authors define sport much more broadly, however. Michael Mandelbaum (2005), for instance, compares sport to religion, suggesting that sport can be categorized as those things that offer “a welcome diversion from the routines of daily life; a model of coherence and clarity; and heroic examples to admire and emulate” (p. 4). In this article I follow Sheard (1999) and Korpi (1999) who showed how competitive birding has many aspects of even the most mainstream sports. To see birding in this way, it is necessary to understand that there are three distinct forms of bird-identification activity, though not all are sports. These three forms are commonly referred to as bird-watching, birding, and twitching. All three forms are informed strongly by amateur-science in that bird-watchers, birders, and twitchers all share the ornithological preoccupation with identifying birds and sorting them into species categories. Bird-watching, birding, and twitching take up this amateur science interest in a different way, however.

The first and predominant bird-identification activity is often referred to as *bird-watching* (variably written *bird watching* or *bird-watching*), and it is the form that least conforms to the traditional definitions of sport. Bird-watching is a leisure-time pursuit, a hobby, and a pastime in which participants casually watch and identify birds. Bird-watchers carry field guides and binoculars with them, often traipsing through gardens, parks, and wooded areas in search of birds. Birdwatchers identify birds largely for the pleasure of it, tapping into a long tradition, in natural history writing (Welch, 1998) about birds, which finds emotional and aesthetic pleasure in watching birds.

The second form of bird identification, less predominant than bird-watching but still extremely popular, is often referred to as *birding*, and this is the form I will address in this essay. Birding is additive in relationship to bird-watching in that birding is informed by nature appreciation, aestheticism, and scientific classification, but birders are also preoccupied with the competitive activity called listing, which involves compiling lists of species that the birder has identified in the field either over a set period of time (a day, series of days, week, month, year, or lifespan of the birder) or in a particular region (a state, say, or ecological area).² Birding involves the active search for yet-unseen species, acquisition of species names on the list, and the occasional comparison of one birder’s list to another. Birders are like birdwatchers in that they rely on binoculars and field guides, but birders often use even more technical gear such as high-powered spotting scopes to make their identifications. As I will also go on to describe, birding becomes blatantly competitive when birders participate in organized competitive listing events such as the World Series of Birding and big-year birding. In these sporting events, teams and individuals compete for

victory, receive prizes for winning, and the competition is physically demanding. In some cases, corporate sponsorship is integral to the fund-raising structure. Listing competitions of this kind can be intense, with birders going nonstop for anywhere between 24 hr and a year, taking few if any breaks, and working exhaustively to identify every possible bird that they can.

The third instantiation of bird-identification is commonly referred to as *twitching*, which is a British term first used in the 1950s (Moss, 2004, p. 265) and having since gained some popularity in North America. Like birding, twitching incorporates the values of bird-watching (nature appreciation, aestheticism, and scientific classification) and birding (listing) while adding to those forms a preoccupation with seeking and identifying rarities. A rarity (sometimes called a vagrant) is a species of bird that is previously unrecorded or seldom recorded in a specific geographic location or region. Twitchers are those bird enthusiasts who drop everything and travel hundreds or thousands of miles to tick, as it is called, a new bird (Moss, 2004, pp. 263-295), and recent accounts of twitching show the extent to which twitchers have made a sport out of this bird identification activity (Barnes, 2005, pp. 104-105). Twitching is fast paced, involves telephone- and Web-based reporting networks (Moss, 2004, pp. 263-295) and is informed by a similar set of motivations as one finds in sports such as river kayaking or sport climbing, in that being the first to identify a rarity is akin to being the first to run a set of rapids or climb a route, respectively. Twitching rare birds and adding them to one's list means acquiring a kind of capital that one can personally amass and circulate as prestige either online, in publications such as *Birding* (the journal of the American Birding Association), on one of the many birder list-serves, via a personal Web site, or in conversation. Furthermore, books about big-year birding often touch on the topic of twitching (*A Twitcher's Diary*, *The Big Twitch*), glorifying and dramatizing the practice.

The second and third forms of bird identification activities include many features and dispositions associated with even the most narrow definitions of sport cited above: birding and twitching are institutionalized through the American Birding Association and competitive events such as the World Series of Birding, competitive in multiple contexts, involve physical exertion in events such as marathon listing competitions, and include multiple motivations. For the purposes of this article, I will focus on the form of bird identification I have described as birding to foreground relationships between environmental sporting and environmentalism.

Environmental Sporting

Birding, with its focus on very particular types of practices "in nature," belongs to a class of sport that I call environmental sporting. Unlike other forms of sport, environmental sporting is not only defined by human actors, but relies on human interaction with animated and fixed elements in what is thought to be a natural³ or

sustainable⁴ environment. In fact, natural actors and environmental features have a large role to play in how environmental sporting is accomplished. Just as the running river or blowing wind are agents in river kayaking and windsurfing, respectively, so are bird migrations and characteristics the crux of competitive birding. Some of the most obvious instances of environmental sporting include sports such as rock climbing, kayaking, canoeing, hiking, skiing, mountaineering, open-water swimming, outdoor cycling, or outdoor running. These sports have certain environmental requisites (e.g., high river volumes, intact glaciers, or well-maintained trails) that make the sports possible, and the enjoyment of these sports is in part derived from direct interaction between the participant and an environment. Birders have an ongoing and pressing need for a wide variety of living bird species and adequate depth to those bird populations, so species degradation and extinction conflict with the needs of birders just as eroded trails and dry rivers conflict with the needs of hikers and river kayakers.

In using the word *environmental* in the term environmental sporting, it is important to note that environmental sporting is not necessarily *environmentalist*, in that such sports only infrequently involve advocacy for the two main environmentalist agendas of conservation and preservation. However, environmental sporting is generally reliant on the ongoing success of environmentalist initiatives (e.g., legislation, land preservation, and activism) that have historically protected the natural resources environmental sporting utilizes. Because of this indirect relationship to environmentalism, in recent decades environmental sporting has become part of what has been referred to as the greening of sport (Maguire, 2002, pp. 91-92). What are thought to be green sports involve an association between participation in the sport and green environmental politics, even if such a relationship is indirect or superficial. Many forms of environmental sporting damage landscapes and rely on the consumption of an array of environmental sporting products (which damage and pollute more landscapes)⁵—but engaging in environmental sporting is imagined, through the greening of sport, to contribute to environmentalist conservation and preservation. Said another way, engaging in environmental sporting is thought, through this logic, to be part of what it means to work to protect the environment.

With that said, it is important to note that this is not entirely unfounded. Many arguments and initiatives for environmental preservation and conservation have cited the needs of sport practitioners as a justification for environmental preservation and conservation. This was the case, for instance, with early lobbying efforts by hunters in the Boone and Crockett Club that resulted in the protection of National forest preserves and structured hunting laws (Philippon, 2004, pp. 52-53); and the needs of hikers, for instance, are routinely cited by habitat-preservation groups such as the Nature Conservancy (“Interpretive Trails Now Open”). So while this kind of sport may not directly contribute to environmental preservation and conservation, environmental sporting relies on environmentalism while environmentalism relies on the sport. Such mutual reliance is integral to environmental sporting. While the

relationship between environmental sporting and environmentalism has been symbiotic, an aim of this article is to show that environmental sporting short-circuits the realization of more comprehensive forms of environmental activism, putting in their place a kind of benign, myopic environmental sporting ethic.

The History of Birding as Environmental Sporting

The need for healthy and thriving bird populations has been anything but an abstraction to birders over the history of all three bird identification activities. In fact, it was because of a direct threat to many species of wild birds in the 1880s and 1890s that bird identification activities were first widely sponsored in North America by Audubon societies (Graham & Buchheister, 1992), the institution of national Bird Day in 1894 (Weidensaul, 2007, p. 155), and the publication of some of the first bird identification field guides (Schaffner, 2005). Environmentalism aimed at saving birds at the end of the 19th century was multipronged in that it involved sponsoring protective legislation, establishing bird reserves and refuges (Gibbons & Strom, 1988, pp. 136-137), and trying to undermine the popularity of fashions utilizing bird feathers (Price, 1999, 2004). In the 1880s and 1890s, sponsoring the pastime of bird-watching was an additional way that new, favorable attitudes toward birds and the environment could be produced and maintained. Note, however, that I did not say this was the case with the environmental sporting practice of birding. Instead, it was the hobby/pastime of bird-watching that was most popular in the late 19th century, with the sport practices of birding and twitching taking shape later and by the 1950s—the era that Steven Gelber describes as a heyday of hobbies in the United States (1999). But in the way that competitive birding incorporates and is built on the central concerns of bird-watching (nature appreciation, aestheticism, and scientific classification), birding also owes its existence as a form of environmental sporting to the multiple responses to the threat to bird populations.

With a focus on listing species, birding as we now know it took off in the 1950s and 1960s, based on the field mark identification system of Roger Tory Peterson's *A Field Guide to the Birds* (first published in 1934) and the support of the American Birding Association, established in 1969 (Weidensaul, 2007, pp. 257-258). As listing grew in popularity, it remained dependant on the success of ongoing environmentalist preservation to protect individual species such as the Peregrine Falcon, Bachman's Warbler, and Spotted Owl. Without these birds, lists would shrink. To attempt to protect these birds, particular environmental toxins (DDT) and habitats (wetlands and old-growth forests) have been the targets of advocacy. The most obvious recent demonstration of this reliance on the part of birding on environmental preservation is in relation to the 2004 rediscovery⁶ of the Ivory-billed Woodpecker, a species long thought to be extinct. That rediscovery was made public in 2005 and marked by two events: an announcement that 18,000 additional acres of the species' habitat had been purchased by the Nature Conservancy to protect the remaining birds (Fitzpatrick, 2005)

and the online publication by field-guide author David Allen Sibley of a new insert on the Ivory-billed Woodpecker for his *Sibley Guide to Birds*.⁷ Now birders had one more species to look for. In this example and others, conservation and birding go hand-in-hand in the U.S. context; the more living species of birds, the longer birders' lists can be. Birding can even be said to have transformed aspects of environmentalism in the United States, making environmentalist agendas that coincide with the needs of environmental sporting such as birding particularly salient, tangible, and compelling. Indeed, the relationship between birding as a popular sport and environmental movement aimed at protecting birds throughout the 20th century has had an effect on the public image of environmentalism.

It is primarily the mainstream, more conservative environmental organizations such as the National Audubon Society and National Geographic Society that have associated themselves with the cause of bird protection; in return, these groups benefit from this association and profit from the sale of the field guides they endorse. Environmentalist groups with more radical and controversial agendas such as Earth First!, People for the Ethical Treatment of Animals (PETA), and the Earth Liberation Front (ELF) remain unconnected to and unencumbered by moderate environmental practices such as birding. The brand of environmentalism promoted by mainstream environmental organizations is made in ways palatable, conservative, and legitimate through a relationship with the accepted sport practice of birding. Unlike the growing environmental movement to end global warming, for instance, which threatens to radically change entrenched aspects of industrial capitalism, protecting wild birds has only involved relatively undistruptive changes such as the establishment of trade and hunting laws, small-scale nature preserves, and pesticide regulation. The forms of environmental protection that benefit birds and sustain birding do not threaten to unsettle socioeconomic systems; instead, birding environmentalism works alongside and with that system.

What is unusual about birding, as I will go on to discuss in the following sections, is that the specter of environmental degradation is not always entirely masked by birders as is more frequently the case in other green environmental sports. Whereas hikers, for instance, generally tend to prefer hiking in what seem to the hiker to be unadulterated landscapes, and river kayakers generally prefer to run clean rivers, birders often seek out polluted environmental niches. Toxic, polluted environments are frequently where the birds are and, resultantly, where the birders are. There is a certain kind of black humor in birding at a toxic site, and because of the relationship between birding and toxicity, birding often functions as a form of environmental sporting that brings environmental pollution immediately into, not out of, view, even while making light of the seriousness of environmental pollution. The sport aspects of birding tend to minimize the dire significance of toxicity and mask the significance of the polluted sites where birds and birders are, but the proximity of birding, birds, and toxicity can also be revealing in that birders escape the confines of well-maintained parks and "natural areas" that otherwise contain and shelter most environmental sporting practitioners.

Toxic Encounter with Birds 1: Big-Day Birding and Superfund Sites

The most well-known competitive birding event in North America, the World Series of Birding, is an annual competition run by the New Jersey Audubon Society that attracts teams of expert birders and corporate sponsorship. The annual event was begun in 1984 and consists of, as the information at the Web site worldseriesof-birding.org describes, “a ‘competitive’ Big Day” in which “You have 24 hours to identify as many species by sight or sound. Each species seen or heard counts as one. The playing field is the state of New Jersey” (New Jersey Audubon Society, 2007). Participants can work alone or in groups; there are separate categories for youths and seniors and while there are options to travel the state looking for birds or stay fixed in a single location, the traveling, statewide competition is the most prestigious. In this event, competitive birders pile into cars in the early hours of the morning, scour the state in search of birds, and often finish at midnight, looking in the dark for owls and other nocturnal birds. Some species are spotted out of open car windows, others in gas station parking lots, and many in parks or along bodies of water. Self-described as “North America’s premier conservation event,” the World Series of Birding raises money (through entry fees, pledges relating to the number of species identified, and corporate sponsorship) for the New Jersey Audubon Society and an array of conservation efforts. Prominently displayed on the Web site for the event is the statistic that, as of 2007, the World Series of Birding has “raised over US\$8,000,000 for bird conservation” (New Jersey Audubon Society, 2007). Although funding conservation is a clear purpose and accomplishment of the event, the World Series of Birding also sponsors birding competition more broadly, raises awareness for what can be the plight of migratory birds, and supports stakeholders in North American birding and conservation: the New Jersey Audubon Society, the Cornell Lab of Ornithology, sponsoring optics manufacturers, and sponsoring utility companies. The event’s emphasis on migratory birds makes sense for several reasons: New Jersey is on the Eastern migratory flyway (a major thoroughfare for migrating birds), the World Series of Birding is held at the height of spring migration, and the event coincides with International Migratory Bird Day.⁸

The New Jersey Audubon Society describes the World Series of Birding as “focus[ing] national media attention on the challenge and adventure of birding” (2007) and news outlets such as National Public Radio (Sullivan, 2003) have run stories on the event. What remains unpublicized, however, is the way the participants in the World Series of Birding both coexist with and take advantage of polluted landscapes within New Jersey. The World Series of Birding is positioned as a green sporting event that raises money for conservation and awareness about migratory birds, but at the same time, it is a competitive environmental sporting event that thrives on and through toxic landscapes, with some key sightings each year taking place at landfills and toxic areas (Binns, 2003; Cornell Lab of Ornithology, 2007).

In the World Series of Birding, the context of team competition and the pressure of the clock lead to a diminishment of what could be termed an environmental conservation ethic. Such an ethic might focus directly on remediating the toxicity of New Jersey's more polluted habitats; instead, the event prioritizes raising money "for bird conservation" as the best, most effective, and/or only way to sponsor environmental conservation. In-your-face environmental activism of the kind practiced by EarthFirst! and Green Peace (DeLuca, 1999) or performance-oriented toxic tours (Pezzullo, 2007), for instance, never surface in this conservative conservation event. Instead of protest, culture jamming, confrontation, and direct action the environmental sporting practices of traveling the state by automobile and competitively searching for vast numbers of birds is what the World Series of Birding constructs as environmentalist. Driving in search of birds in polluted New Jersey is, in this formulation, a great way to protect birds.

To call New Jersey a toxic state is not hyperbolic. New Jersey has the largest number of EPA Superfund clean-up sites¹ of any state in the nation even though it is the fifth smallest state. Superfund sites are properties and areas that have been identified by the EPA as toxic enough to require immediate government intervention; reading descriptions of Superfund sites in New Jersey, they are usually abandoned or mismanaged properties where a range of contaminants, often in powerful combination, were dumped into the soil and water. The World Series of Birding may be "a heck of a lot of fun," as the New Jersey Audubon Society describes the event on their Web site, but part of that fun is derived from a direct interaction with toxic New Jersey. One participant, from 2007, describes one of his teammate's actions in this way: "Whatever he was hearing in his head, though, Brian made some amazing picks—like the Iceland Gull high atop the landfill 'mountain' across the river at Florence. That gave us four key birds to pay for our difficult decision to route in Florence, and a huge morale boost during the long trek to the south near midday" (Cornell Lab of Ornithology, 2007). The avian bounty provided by trash "mountains," in this account, boost the morale of the team and becomes absorbed in the thrill of the sport. There is a kind of thrill, in such accounts, in identifying birds amid the dirtiness of a landfill or otherwise toxic location.

Also in Florence, NJ, the city where this Iceland Gull was identified, is a site once occupied by Roebling Steel Company, now EPA Superfund site number NJD073732257. In a fact sheet about the site issued by the EPA, the property is described in this way:

The site includes two inactive sludge lagoons, an abandoned landfill, buildings containing pits and sumps, contaminated soils and slag material, contaminated river and creek sediments, impacted wetlands, and contaminated groundwater. . . . Buildings on the site contained contaminated process dust and exposed asbestos. Groundwater under the site is contaminated with various heavy metals including chromium, lead, cadmium, nickel, zinc, and copper. Soil all around the site is contaminated with heavy metals, including lead. River and creek sediments are contaminated with heavy metals

and polycyclic aromatic hydrocarbons. People on-site could come into direct contact with hazardous materials or could accidentally inhale contaminants from the soil and process dust in the buildings. Runoff from precipitation on the site may have contaminated the Delaware River, which is next to the site. (Environmental Protection Agency [EPA] 2007a)

Although I have no evidence that the Roebling Steel Company produced steel used in the binoculars or spotting scopes birders use, the EPA reminds us that such heavy metals as lead and cadmium, all used in the production of less environmentally friendly glass used in binoculars, are present at the site. Polluted sites of this kind can be directly hazardous to birds, as was the case in 1998 and 1999 when 500 to 1,000 birds died within a few days at Florida's Lake Apopka due to toxic levels of pesticide residues (Environmental News Service, 2003; Paterson, 1999). Similarly, toxic PCBs from polluted sites have been found to make their way into the bodies of birds, causing such symptoms as heart deformities and higher mortality rates (Indiana University, 2006). The threat to birds is just a small part of the larger environmental picture, however, with toxins at EPA Superfund sites such as the Roebling Steel Company property leaching into ground water and being distributed throughout various food chains.

Finding rare gulls at the landfill in Florence, NJ is nothing new to birders at the World Series of Birding. In fact, the same species (*Larus glaucooides*) that was sighted in 2007 was identified there by the winning team in 2003. This earlier sighting was described in this way: "Swinging into Florence, Great Cormorants are on the near marker and Lesser Black-backed Gull and a 2nd year Glaucous Gull on the Delaware [River]. It takes a little while but eventually an Iceland Gull shows itself on the landfill" (Binns, 2003, par. 4). This stretch of the Delaware River, of course, runs alongside what was Roebling Steel and is now an EPA Superfund site. In fact, the major danger posed by this site is its proximity to the river, as ground water is only 10 feet below the ground which is readily leaching contaminants into the river and water table (EPA, 2007a).

Florence is by no means the only polluted part of New Jersey that competitive birders frequent in their quest to tally a maximum number of birds in "North America's premier conservation event." Posting to an online forum from 2003, a participant asks "Where'd you get your Kingfisher?" referring to a relatively common species, the Belted Kingfisher (*Ceryle alcyon*), and notes that "Our one and only was at the Sussex Landfill" (Bernzweig, 2003). It seems almost as easy to find an EPA Superfund site in New Jersey as it is to locate a new species of bird: there are eight Superfund sites in Sussex county, NJ, each with profiles similar to or worse than that of Roebling Steel Company.¹⁰

Above, I said that fast-paced competition can override what might be an environmental ethic more attuned to the landscape of toxic New Jersey. In several ways, competitiveness may be to blame for leading participants to overlook environmental

conditions of toxicity and pollution. More so, however, in this environmental sporting competition, birders seem to rely on and even celebrate pollution. Indeed, a bird does not seem as rare a “find” unless it is sitting on top of a mountain of garbage. When searching for bird species in a finite amount of time and trying to win a competitive birding event such as the World Series of Birding, it becomes easier to overlook suspect environmental conditions that affect birds and other living things. It also becomes acceptable to find a bird absolutely anywhere inside the state. Furthermore, there are aspects of the structure of the event that are to blame for this way of thinking. The list of corporate sponsors for the World Series of Birding include the nuclear power plant company AmerGen Energy (Hoovers, 2008), several other utility companies, and a full range of binocular makers including Bushnell, Zeiss, Leica, Leupold & Stevens, Nikon, Pentax, Steiner, and Swarovski. These corporate sponsors make overlooking pollution and polluters something that is ultimately endorsed by New Jersey Audubon as the event organizers.

The relationship between utility companies and environmental preservation is fraught with challenges, and binocular makers have a history of making glass containing such pollutants as cadmium, lead, and arsenic. Sponsoring such “environmental” events is part of a strategic public-relations strategy that utility companies use to position their industries as somehow green.¹¹ This is to say that the corporate funding of the World Series of Birding is such that the event sustains its own problematic relationship between birding and environmentalism: the World Series of Birding aims to sponsor bird conservation while celebrating the coexistence of birds and toxic waste. As a result, the seemingly healthful and vibrant nature of environmental sporting of this kind ends up inculcating us to the perils toxic pollution poses to all living things. As Joseph Maguire has shown in his discussion of what were initially slated to be the most “green” Olympic games, the Summer 2000 Olympics in Sydney, even when efforts have been made to make large-scale sporting events less environmentally detrimental, such changes have not been realized. Maguire concludes: “Commercial imperatives dominating the culture of sport can often override practices that may protect the environment and human health” (2002, p. 91). The utility companies that sponsor the World Series of Birding clearly do so to green their images; the binocular companies sponsor the event to raise their profiles and sell more product. Both only invest in environmentalist efforts that aid their own economic agendas. Complicit with this, competitive birders out birding in the toxic environments of New Jersey enact the contradictions built into the sporting event, driving their automobiles around the state in search of as many birds as they can find in toxic landscapes while not, in tangible ways through the event itself, confronting the pollution or polluters of New Jersey. The type of competitive birding manifest in events such as the World Series of Birding both relies on and contributes to the degradation of the very landscape the birds of New Jersey migrate to and through.

Toxic Encounter with Birds 2: Big-Year Birding at Landfills

Big-day birding of the kind found at the World Series of Birding demonstrates how participating in an environmental sporting event can appear to be a major way to advocate for “the environment,” while such participation also stands in for alternate forms of environmental activism that might do more to challenge pressing environmental problems such as toxicity and pollution. In seeing how competitive birding and environmentalism are interdependent, we see that environmentalism takes a form (fundraising) that is so highly palatable as to be complicit with the environmentally damaging status quo. But not all competitive birding is as centralized, organized, and as heavily sponsored as the World Series of Birding. In what is known as big-year birding, the next form of competitive birding I want to discuss, birders spend a year trying to identify as many species of birds as possible. Since at least the late 1960s, birders seeking to set the big-year record have made regular stops at landfills. In big-year birding at landfills, we see a kind of divestiture in traditional environmentalist commitments to preservation and conservation of land, water, and air due to the demands of listing a record number of species in what is called a “big year.”

Big-year birding is a big deal in the birding community, with a steady stream of books having been published on the topic and celebrity status passing from each reigning big-year champion to the next.¹² Big-year birding is defined as the competition to identify the greatest number of birds in a bounded region in a single calendar year, and most publicized big years, as this kind of birding is called, have taken place on a large scale, being generally bounded by the national borders of the United States and Canada (excluding Hawaii). Within artificial boundaries and amid frequent changes to the number of species designated by the American Ornithologists' Union (Karnicky, 2007), big-year birders compete to see who can break the record and identify the largest number of species in a year.

Big-year birding is an outgrowth of 1950s birding culture in several ways. Although what is generally considered to be the first big year was conducted by the New York banker Guy Emerson in 1939 (Weidensaul, 2007, p. 289), big-year birding was first popularized on a grand scale by the field guide author Roger Tory Peterson in 1953, a year when Peterson set the record by identifying 572 species in North America. Much of this adventure by car and plane was described in Peterson and James Fisher's book *Wild America: The record of a 30,000-mile journey around the continent by a distinguished naturalist and his British colleague*; (1955). Although Peterson did not dedicate the entire year to birding in the way that later big-year birders would, Peterson and Fisher scoured most corners of North America in search of birds. The book is compelling, suspenseful, and reads like adventure writing. With the publication of *Wild America*, big-year birding was born in a spirit of 1950s automobile and hobby cultures (Gelber, 1999).

The obvious contradiction within big-year birding is that it has typically been practiced in ways that involve large expenditures of fossil fuels for transportation, and in this way big-year birding is similar to the World Series of Birding in adding to greenhouse gases. This problem does not stand out in all accounts and instances of big-year birding, however. Ken Kaufman's big year, which took place in 1972, involved Kaufman traveling largely by hitchhiking. Even more in tune with the connection between burning fossil fuels and environmental degradation, in 2007 the Boothroyd family set out on a big-year birding expedition across North America—traveling entirely by bicycle. Calling their adventure a “bird year” instead of a “big year,” to distinguish a new form of environmentally sensitive big-year birding, this self-publicized bicycling-and-birding adventure (near completion as this article goes to press) functions as a deliberate critique of the wastefulness and exorbitant cost of more traditional, 1950s-style big-year birding (Boothroyd, Boothroyd, & Boothroyd, 2007-2008).¹³

As big-year birders such as the bicycling Boothroyd family address environmental concerns associated automobile transportation and big-year birding, I want to focus this discussion on the implications of having landfills and trash dumps function as fixtures of big-year birding. As with the World Series of Birding, where participants sometimes visit landfills and other toxic sites to add hard-to-find birds to their lists, big-year birding has developed in such a way as to make certain well-known and heavily publicized landfills and trash dumps regular stopping points on a big-year birding odyssey. Landfills are popular with big-year birders because they are easily accessible and because scavenging species of birds thrive in active landfills, feeding on food scraps available on the surface. Beneath landfills, however, is where toxins can spread into ground water via moving leachate. I will focus on two well-known birding landfills in particular—the Brownsville dump in South Texas and the Montlake Landfill in Seattle—to highlight how the toxicity of such sites is not only overlooked or ignored by birders as part of environmental sporting but also relied on and even valued by practitioners. In a sense, I mean to describe toxic landscapes such as the Brownsville dump and Montlake Landfill as critical aspects of the polluted playing field of big-year birding.

In his account of big-year birding in the early 1970s, Ken Kaufman includes a chapter he titles “To the Promised Landfill.” He writes

Sometime in the 1960s, apparently, the crows wandered north and discovered that there was food in the huge dump at Matamoros, just south of the rio. From there it was only a short hop across to the Brownsville dump on Boca Chica Drive, where the pickings were richer, because American threw away more food than the Mexicans did. (1997)

Corvus imparatus—formerly called the Mexican Crow but renamed, by the American Ornithologists Union in 1997, the Tamaulipas Crow—remains a highly sought-after-bird when it comes to big-year birding (Obmascik, 2004; Scott,

1999-2002). While most nonbirders may think that all crows are pretty much the same, big-year birders are quite particular about listing each species of crow found in North America. With the American Ornithologists Union currently listing nine species of crow in North America (Banks et al., 2007), somewhere between four and nine species crows can be reasonably expected to show up on big-year birder's list. The prospects of adding one more crow to the list is what brings birders to the Brownsville dump. In his account of big-year birding, Obmascik describes birders arriving at the Brownsville dump by the carload, being routed to a special viewing area, and then forming "a neat line of scopes and tripods" with "Everyone seem[ing] to be breathing through the mouth" (2004, p. 122) due to the stench. Because of the volume of birders coming to the dump to see the Tamaulipas Crow, a special viewing area had to be set aside amid the garbage.

To understand how the Brownsville dump functions in the ideology of birding and big-year birding, it is crucial to understand that Tamaulipas Crows have not historically been hard to find. In fact, while inhabiting a relative small part of northeastern Mexico, the crows have been relatively abundant. The rules of big-year birding stipulate, however, that it is necessary to identify a species within a certain bounded geographic area, and the Brownsville dump has been one of the only places *within the lower forty-eight states* that is both readily accessible by car and frequented by the Tamaulipas Crow. The food scraps at the dump, in a sense, have served as the attractor for this species of North American crow, and along the borderlands of South Texas, it is the Brownsville dump where big-year birders have historically gone to add Tamaulipas Crows to their lists. "Nobody besides the crow liked going there," Mark Obmascik writes about the dump. "To say it stunk did injustice to the word *stunk*. It reeked. It rotted. It marinated decades of throwaway table scraps in the fecund humidity of the Rio Grande Valley and then roasted it under the South Texas sun" (2004, p. 121, emphasis in the original).

In recent years, however, the populations of Tamaulipas Crows have vanished from the dump (Scott, 1999-2002). Although carloads of birders once drove into the dump to add this species of crow to their list, the numbers of Tamaulipas Crows seem to be decreasing and/or their range is changing. In the case of this species of bird, birding in general and big-year birding in particular relied on this dump in South Texas to attract a species of crow into the United States so that it could be listed. The polluted site of the dump served as a playground for birders who could stand the smell (Obmascik, 2004, p. 122), a fabled destination mentioned in guides to birding hotspots (Zimmer, 2000, p. 240), and a kind of guaranteed border-opportunity for sighting this common-looking bird. For the Tamaulipas Crows in residence at the dump, the trash from El Norte ultimately provided insufficient refuge. In a socioenvironmental climate where crows have long been besieged by hunters who see them as pests, an attitude maintained by contemporary anticrow hunting groups such as Crowbusters.com, preserving crows, Tamaulipas or otherwise, was

never integral to the practices of big-year birders. Only spotting the species, listing it, and moving on mattered.

Another landfill, the Montlake Landfill on the banks of Lake Washington in Seattle, is a different kind of birding hotspot in comparison to the Brownsville dump. The Montlake Landfill differs from the Brownsville dump in that the Montlake Fill no longer accepts garbage. The landfill was active for both burning and burying waste from 1926 to 1966 (Montlake Landfill Work Group, pp. 10-11) but was finally “capped with two feet of clean soil” somewhere between 1969 and 1971 (Montlake Landfill Oversight Committee, 2002, p. 11). Since that time, attempts have been made to mask the history of the Montlake Landfill with the veneer of a more natural-sounding name (“Union Bay Natural Area”), but the original name of Montlake Landfill (or simply “the Fill”) has remained. What was once an active waste repository now looks just about like any other city park, landscaped as the cap of topsoil is with grasses, bushes, trees, walking trails, and small ponds.

That the Montlake Landfill borders on Lake Washington is significant for two reasons. The first is that this makes the Montlake Landfill a good place to find a wide range of bird species, with land, marsh, and water habitats at the site. The Montlake fill attracts birds and birders for this reason. The second importance of the lake is that, as a landfill that was capped in the late 1960s, the Montlake Fill poses significant dangers to the environment of Lake Washington. Damage to Lake Washington in the form of lateral peat movement (Montlake Landfill Work Group, 1999, p. 13) and toxic leachate, for instance, has surfaced as an ongoing concern in the two major reports about the site (the Montlake Landfill Work Group’s “Montlake Landfill Information Summary” [1999] and the Montlake Landfill Oversight Committee’s “Operational Guidance for Maintenance and Development Practices Over the Montlake Landfill” [2002]). As the “Montlake Landfill Information Summary” states,

Municipal solid waste landfills generate leachate from processes of decomposition and water percolation through the waste. Most of the water entering the Montlake landfill is through ground water and infiltration of rain and surface water runoff. The mass of garbage and debris stored in a municipal solid waste landfill represents a finite source of pollutants. Most of the water-soluble pollutants leach out of the landfill through successive volumes of water, their concentrations diminishing over time. Other materials remain in the landfill for many reasons, including but not limited to absorption, water solubility, and particle size. (Montlake Landfill Work Group, 1999, p. 16)

Although the lateral movement of compacted peat into the lake, which was caused by the daily compacting of garbage, was partially rectified in the 1950s with the construction of several underwater wooden containment dikes (Montlake Landfill Work

Group, 1999, p. 13), the leachate is not so easily contained or quantified. Undetermined substances were dumped at the site while the landfill was in use, including what has been described as a "black acid concentrate" dumped by the Seattle Gas Company circa 1955 (Montlake Landfill Work Group, 1999, p. 11). This is not, however, the most toxic landfill in Washington State, and the Washington State Department of Ecology has determined the site to be relatively stable (Montlake Landfill Oversight Committee, 2002, p. 6). In its current configuration, in accordance with the Model Toxics Control Act (WAC pp. 173-340), the Washington Department of Ecology has determined that "if the Montlake Landfill is left undisturbed, there is a low risk of adverse impact to human health and the environment, and no remedial cleanup actions will be required in the near future" (Montlake Landfill Oversight Committee, 2002, p. 6). This is despite "asbestos material" having been encountered during a recent parking lot renovation at the landfill, and speculation that "asbestos-containing material may also be encountered at other locations within the limits of the Montlake landfill" (Montlake Landfill Oversight Committee, 2002, p. 16). There is also constant off-gassing of methane at the landfill as a result of garbage decomposition, and though methane is relatively harmless in low concentrations, there is a risk of the entire landfill being destabilized in one of the earthquakes that sometimes hit Seattle. This risk is noted in the 2002 report which asserts that "The Montlake Landfill is a critical area as defined by the City of Seattle Department of Construction and Land Use (DCLU) for liquefaction and methane mitigation" (Montlake Landfill Oversight Committee, 2002, p. 11). Liquefaction refers to what would happen if a significant earthquake (of the kind that shook the area in 2001) were to disturb the landfill material and/or the thin soil cap coving the decomposing garbage.

At the Montlake Fill, a lakeside marsh became a landfill and was turned back into a "natural area." Today, the Montlake Fill looks like any other park.

At this site, a lakeside marsh became a landfill and was turned back into a "natural area." Today, the Montlake Fill looks like any other park. Birders now frequent the area, standing atop many cubic tons of compacted garbage that has been hidden from view by a layer of top soil and some clever landscaping. Big-year birders moving through the area may park their cars at the parking lot on site, perceiving the area as only and always a natural area which is a good place to see local birds. In this way, hidden garbage remains hidden thanks to the preoccupation with seeing birds, not the toxic history of the site. Unlike birding at the Brownsville Dump, for instance, where a kind of celebration of birds amid trash takes place, here toxic pollution is overlooked as a seemingly healthy habitat filled with birds comes into focus. The presence of thriving bird populations at sites such as the Montlake Fill make the toxicity of a capped landfill seem nonexistent. In a sense, the presence of birds and birders perform their own public relations work for a city harboring a toxic site such as the Montlake Fill.

Toxic Encounter with Birds 3: Listing and Sewage Sludge

Thus far I have focused on how competitive birding relates to environmentalism within some of the more highly competitive aspects of birding as environmental sporting: big-day and big-year birding. Here, I move to the more everyday and widespread practice of listing. Both big-day and big-year birders keep lists, but listing need not be part of the organized, competitive birding found in big-day or big-year events. The lengths of birders' life lists are compared online and in print in such places as *Birding*, the journal of the American Birding Association. Listing is motivated by a drive to see an ever increasing number of bird species, and birding guide books help listers by providing details about birding hotspots. Among such hotspots, it is common to find reference to yet another highly polluted ecological birding niche: sewage ponds.¹⁴ Joey Slinger's *Down and Dirty Birding* (1996), for instance, dedicates a page to birding at "sewage lagoons" (p. 46), and Pete Dunne mentions birding at sewage ponds multiple times in *The Feather Quest: A North American Birder's Year* (1999, pp. 73, 79, 80, 81). In Dunne's account, birding at sewage ponds is both comical (pp. 81, 85) and essential to finding certain species of birds (p. 80). But no guide is more singularly focused on this particular site of toxic encounter than William Tice's birding guide *A Birders Guide to the Sewage Ponds of Oregon* (1999). "There is no one else on the planet," Tice begins his introduction by stating, "that has a vested interest in sewage ponds like birders" (p. ii). True to its title, Tice's entire guide is dedicated to helping Oregon birders find mellifluent sewage ponds and the birds they attract. It is both the water and the sludge, blooming as they are with algae and oversized insects,¹⁵ that bring the birds and the birders to sewage ponds (Zimmerling, 2006). At sewage ponds, birders usually peer in through the fence, spotting birds wading and swimming around the pools of sewage.

In comparison to EPA Superfund sites and toxic landfills, sewage ponds may seem like anything but a problem. If sewage ponds only processed pure human waste and made it into fertilizer, they would function as they are intended to: as vital waste recycling centers. However, sewage sludge (the solids that result from processing human sewage) has been found to include a broad array of heavy metals and toxic chemicals; a congressional report has even found "several cases of radioactive contamination [to] have occurred at sewage treatment plants" (Well, Aloise, Olson, & Zavala, 1994, p. 14). To put it simply, anything that goes down the drain in a household, hospital, or factory winds up in the sludge at a sewage treatment facility, and because processed sludge is used as fertilizer, these toxins are then redistributed onto food crops.

It is important to note that sewage treatment facilities were originally intended as an environmental solution meant to circumvent the dumping of raw sewage into streams, rivers, lakes, and other large bodies of water. While officials at the EPA have attempted to rename sludge the more benign-sounding term "biosolids" (Perciasepe), many antisludge environmental advocacy groups (Parnell, 2001; Vermont Public

Interest Research Group, 1999) and scientists (Harrison, Oakes, Hysell, & Hay, 2006; Snyder, 2005) have published detailed accounts of the problems associated with spreading toxic sludge on food crops and near communities. As Caroline Snyder shows, the “EPA [has] forged a powerful alliance with municipalities that needed an inexpensive method of sludge disposal and sludge-management companies that profit from this practice. The alliance’s primary purpose was to control the flow of scientific information, manipulate public opinion, and cover up problems, in order to convince an increasingly skeptical public that sludge farming is safe and beneficial” (2005, p. 415). As these reports and research show, the widespread use of sludge as a fertilizer can spread heavy metals, chemicals, and disease both back to humans and up various food chains. So, although sewage treatment facilities seem to represent a triumph over the dumping of raw sewage into open bodies of water, sludge remains an unreconciled environmental problem.

Birders, however, lightheartedly and enthusiastically grow their lists of birds at sewage ponds internationally. It is quite common to find birders at sewage treatment facilities, with some of the more popular ponds even having permanent signage on-site stating where birders can and cannot go. Much like competitive birding at Superfund sites and active landfills, birding at sewage ponds makes light of the toxic playing field of birding. This toxicity of sludge is never fully addressed by birders, but instead fully accepted in exchange for the chance to grow one’s list. Birders who engage in their environmental sport at sewage ponds make sludge seem anything but the toxic environmental problem that it is.

It is sometimes true that some toxic sites are too polluted for any human use other than bird-watching. Certainly there are few other recreational uses of active landfills and sewage ponds than birding. By rendering toxic landscapes of this kind useful for the purposes of environmental sporting, though, birders in a sense endorse ongoing environmental degradation on multiple levels. The environmental problems associated with sludge are completely disregarded in the literature I have surveyed on birding at sewage ponds; instead, sewage ponds are described as benign (if smelly) places to find more birds. Because of this, sewage-pond birders act in concert with the EPA in its efforts to deny the problems of sludge (a.k.a. “biosolids”).

Conclusion

In the case of competitive birding, the relationship between environmental sporting and environmentalism is such that environmental problems are either masked or made light of. And when birding becomes actively environmentalist, it is only in the most limited ways. In the case of birding, environmentalism is a central component of this “green” sport. Every new field guide to North American birds sold is affiliated with and raises money for nonprofit environmental conservation groups, for

instance, and competitive big-day events such as the World Series of Birding contribute funds to environmental efforts. Like other environmental sporting practitioners, birders are frequently cited as stakeholders in efforts to help justify a range of environmental protection efforts. Environmental sporting practitioners also benefit from conservation efforts. Because protecting the interests of environmental sporting stakeholders is politically salient in comparison to protecting environmental features with no tangible human beneficiaries, sports such as birding have played a role in shaping mainstream environmentalism in the United States. Said another way, environmental sporting justifies environmentalism on human terms, for human utility, not based on any intrinsic commitment to environmental protection in and of itself.

Although competitive birding has both aided in and been cited as a justification for environmentalism in North America, it is particularly problematic that birding at and near toxic locations such as Superfund sites, landfills, and sewage ponds obscures a range of pressing environmental hazards. As a form of what I have called environmental sporting, birding perpetually weakens and undermines what could be more robust and radical forms of environmentalism. As a component of conservative environmentalism, birding stands in for more radical environmentalist tactics. As Kevin DeLuca has argued in his study of radical environmentalist groups, most environmental activism runs the risk of becoming quickly coopted in ways that make it reproductive of mainstream ideologies (1999). That birds and birders appear to safely inhabit and enjoy toxic environments masks some of the real but less visible hazards associated with leaching toxins, in the case of Superfund sites and landfills, and redistributed toxic sludge, in the case of treated municipal sewage. It is not that the pollutants at the sites I have discussed directly harm birds in every case, though such cases certainly do exist, but rather that birds and birders thrive in such toxic environments, making toxicity appear like just another benign human alteration to an already altered nature. As birders seek the next bird to add to their lists, they move through toxic environments as if they were playing fields. Instead, birders could stop to engage in more rigorous forms of environmental activism that might challenge the presence and spread of toxic pollution.

With birders' intent preoccupation with looking at and identifying individual species of birds, these environmental sporting practitioners overlook problems in the larger environments birds inhabit and pass through. Among competitive birders, competition obviates engagement with environmental dangers. Birding is a form of environmental sporting that accepts environmental toxicity as just another part of a seemingly healthy ecosystem populated with resilient birds, and thus ultimately works in opposition to the goals of conservation and preservation. Even more insidiously, events such as the World Series of Birding masquerade as sponsoring just the kinds of environmental responsibilities they detract from.

What an examination of birding shows, ultimately, is that some of the more conservative forms of contemporary environmentalism, based largely on fund-raising

strategies, are implicated in perpetuating ongoing aspects of environmental degradation. Birding makes light of and takes advantage of Superfund sites, landfills, and toxic sludge, and by relation, contemporary mainstream environmentalism is allowed to maintain a myopic, partial approach to dealing with the troubling relationship between human pollution and the environment.

Environmental sporting operates not in spite of, but through oversights within environmentalism. In its most competitive forms, environmental sporting is about focusing on the summit, the rapids, the trail, the next big wave, or the exotic species of bird, while overlooking the costs associated with those activities. The most obvious costs—added greenhouse gases and environmental pollution—are part of all environmental sports; this could be called the Mount Everest effect, named after the vast quantities of trash that have accumulated on that famous peak. But more important, I mean to suggest that environmental sporting does ideological work, constructing environmental sporting as environmentalist while diminishing the perceived problems associated with toxic pollutants in the sporting playing field. Engaging in sport at toxic sites overwrites those sites as healthy. In their sport and play, birders are missing an opportunity to look beyond competitive bird identification to become environmental advocates on a larger scale.

Notes

1. The Migratory Bird Treaty Act came out of an agreement between Great Britain (acting for Canada) and the United States in 1918. The act has since been multiply amended, with additional countries signing on. The basic intention of the act is to protect migrating birds, though provisions in the act allow for regulated hunting. The U.S. Fish and Wildlife Service has detailed information about the act online at www.fws.gov/laws/lawsdigest/migtrea.html. The Endangered Species Act was passed some 50 years later, covers plants and animals, and allows for the protection of entire ecosystems. For more information on this act, see the U.S. Fish and Wildlife Service's Web site at www.fws.gov/laws/lawsdigest/ESACT.HTML.

2. Examples of such lists can be found by searching the social networking photo site Flickr. See <http://flickr.com/search/?q=bird+list> for examples.

3. Authors such as William Cronon, Anne Whiston Spirn, and Kenneth R. Olwig—all contributors to the collection *Uncommon Ground* (Cronon, 1996)—have discussed how even the most “natural,” “untouched” landscapes are often highly managed, planned, and even designed spaces.

4. Robert Markley (2007) argued that the concept of sustainability is both unfounded and, as a concept, “masks sets of jostling presuppositions about what systems are and how they function.” (p. 3)

5. Birding relies on a range of consumer goods, for instance, though it is certainly no worse than most other forms of environmental sporting. Notably, the field guides birders use are made with wood pulp, glues, petrochemical-based inks, and kaolinite (the clay used to make coated papers). Kaolite, for instance, is mined in open-pit mines internationally. The high-grade optics birders use require mined minerals, rubbers, and plastics made from processed petrochemicals. Until the creation of glasses such as Nikon's EcoGlass, the glass used in binoculars and spotting scopes was made using arsenic, lead, and the heavy-metal cadmium. As of 2007, however, Nikon reports that 97% of the glass it produces is free of these pollutants (Nikon Corporation, 2007).

6. The rediscovery of the Ivory-billed Woodpecker (*Campephilus principalis*) has been hotly debated since 2005, with all evidence of the species' existence being scrutinized by scientists and amateur birders alike. For a recent overview of this debate, see David Allen Sibley's "Ivory-billed Woodpecker—Status Review" online at <http://sibleyguides.blogspot.com/2007/10/ivory-billed-woodpecker-status-review.html>.

7. The insert is available online at <http://www.sibleyguides.com/ivorybilled.htm>.

8. International Migratory Bird Day (IMBD) is a newly distinguished "day," established in 1993 by the Cornell Lab of Ornithology. Although called a day, IMBD does not necessarily fall on any one day but is instead linkable, through promotion materials, to bird and birding events throughout the year. More on International Migratory Bird Day can be found at birdday.org, a Web site sponsored by the spin-off nonprofit that manages IMBD, Environment for the Americas. International Migratory Bird Day should not be confused with other days aimed at raising awareness about birds. Bird Day, for instance, was established to raise awareness about birds and connected, in 1894, to Arbor Day. Celebration of Bird Day seems largely to have fallen into desuetude. There is another Bird Day, which falls in January and focuses on birds in captivity, as well as World Migratory Bird Day, described at worldmigratorybirdday.org.

9. The federal Superfund program is the result of the 1980 Comprehensive Environmental Response, Compensation, and Liability Act and is under the auspices of the Environmental Protection Agency (EPA). A federally funded program aimed at cleaning up the nation's worst toxic sites, a history of the Superfund program can be found at the EPA's Web site: <http://www.epa.gov/superfund/20years/preface.htm>. A searchable database including reports on individual superfund sites is maintained by the EPA at <http://www.epa.gov/superfund>.

10. These sites in Sussex County are NJD030253355, A. O. Polymer; NJD047354832: Accurate Forming, NJD002389468, Ames Rubber; NJD000818518, Ames Rubber Corp. Wantage Plant; NJD982796450, Baldwin Enterprises, Inc.; NJD002517472, Metaltec/Aerosystems; NJD986627396, MKY Wolf Lake Site; NJ0000104919, NY Susquehanna & Western RR Property (EPA 2007c).

11. Blake Scott describes a similar tactics in the pharmaceutical industry with the publication of public citizenship reports. See Civic engagement as risk management and public relations: What the pharmaceutical industry can teach us about service-learning. *College Composition and Communication* (in press).

12. Books about big-year birding include but are not limited to Ken Kaufman's *Kingbird Highway: the Story of a Natural Obsession that Got a Little Out of Hand* (1997), Pete Dunne's *The Feather Quest: A North American Birder's Year* (1999), and Mark Obmascik's *The Big Year: a Tale of Man, Nature, and Fowl Obsession* (2004).

13. The adventures of this bicycling "bird-year" family can be followed via their blog, <http://birdyear.blogspot.com>. As this article goes to press, the family has identified 400+ individual species.

14. Alternately referred to as waste treatment facilities, waste water plants, municipal waste stabilization ponds, or simply lagoons.

15. Zimmerling cites a study that finds that among nine orders of arthropods (mainly insects) found at sewage ponds, eight were measured to be between 114% and 865% bigger at sewage treatment facilities than in the related habitat of a beaver pond (2006, pp. 5-6).

References

- Banks, R. C., Chesser, R. T., Cicero, C., Dunn, J. L., Kratter, A. W., Lovette, I. J., et al. (2007). Forty-eighth supplement to the American Ornithologists' Union check-list of North American birds. *Auk*, *124*, 1109-1115. Retrieved January 9, 2008, from <http://www.aou.org/checklist/index.php3>
- Barnes, S. (2005). *How to be a bad birdwatcher*. New York: Pantheon Books.
- Bernzweig, C. (2003, May 14). Where'd you get your Kingfisher? [Msg]. Message posted to <http://www.njaudubon.org/Tools.Net/Forum/TopicDetail.aspx?ftk=212>

- Binns, A. (2003). *Delaware Valley Ornithological Club report: World Series of Birding*. Retrieved December 27, 2007, from <http://www.dvoc.org/WSB/WSB2003.htm>
- Boothroyd, M., Boothroyd, W., & Boothroyd, K. (2007-2008). *Bird year* (Blog). Available from <http://birdyear.com>
- Coakley, J. (2006). The sociology of sport: What is it and why study it? In *Sports in Society: Issues and Controversies*. New York: McGraw-Hill, pp. 2-28.
- Cornell Lab of Ornithology. (2007). *World Series of Birding big-day highlights*. Retrieved December 27, 2007, from <http://www.birds.cornell.edu/WSB/2007-highlights>
- Cronon, W. (1996). *Uncommon ground: rethinking the human place in nature*. New York: Norton.
- DeLuca, K. M. (1999). *Image politics: The new rhetoric of environmental activism*. New York: Guilford Press.
- Dunne, P. (1999). *The feather quest: A North American birder's year*. New York: Mariner Books.
- Environmental News Service. (2003). *Criminal claims over Florida bird fatalities resolved*. Retrieved April 4, 2007, from <http://www.ens-newswire.com/ens/oct2003/2003-10-08-04.asp>
- Environmental Protection Agency. (2007a). *Roebing Steel Co. EPA fact sheet*. Retrieved using search term "NJD980530430" December 27, 2007, from <http://nlquery.epa.gov/epasearch/epasearch>.
- Environmental Protection Agency. (2007b). *New Jersey sites by name*. Retrieved January 9, 2008, from http://www.epa.gov/region02/cleanup/sites/njtoc_name.htm
- Environmental Protection Agency. (2007c). *Superfund site information*. Retrieved 1/9/2007, from <http://www.epa.gov/superfund/sites/cursites>.
- Fitzpatrick, J. W. (2005). The Ivory-billed Woodpecker still lives. *Living Bird*, 24, 3. Retrieved 1/4/2007, from http://www.birds.cornell.edu/Publications/LivingBird/Summer2005/still_lives.html.
- Gelber, S. M. (1999). *Hobbies: Leisure and the culture of work in America*. New York: Columbia University Press.
- Graham, F. & Buchheister, C. (1992). *The Audubon ark: A history of the National Audubon Society*. Austin: U of Texas Press.
- Gibbons, F. and Strom, D. (1988). *Neighbors to the birds: A history of birdwatching in America*. New York: Norton.
- Harrison, E., Oakes, S. R., Hysell, M., & Hay, A. (2006). Organic chemicals in sewage sludges, *Science of the Total Environment* 367, pp. 481-497.
- Hoovers. (2008). *AmerGen Energy Company, LLC*. (Fact sheet). Retrieved December 27, 2007, from http://www.hoovers.com/amerGen-energy/--ID_57636--/free-co-factsheet.xhtml
- Indiana University. (2006). Studies find heart deformities, higher mortality rates in PCB-affected wildlife, *IU Newsroom*. Retrieved December 7, 2007, <http://newsinfo.iu.edu/news/page/normal/3224.html>
- Karnicky, J. (2007, November 1-4). *Included in this classification: Encoding American birds*. Paper presented at the 21st annual conference of the Society for Literature, Science, and the Arts, Portland, Maine. Retrieved December 27, 2007, from <http://www.slsa07.com/proposals.html>
- Kaufman, K. (1997). *Kingbird highway: the story of a natural obsession that got a little out of hand*. Boston & New York, Houghton Mifflin.
- Korpi, R. T. (1999). *A most engaging game: The evolution of bird field guides and their effects on environmentalism, ornithology, and birding, 1830-1998*. Unpublished doctoral dissertation, Washington State University, American Studies Program.
- Maguire, J. A. (2002). *Sport worlds: A sociological perspective*. Champaign, IL: Human Kinetics.
- Mandelbaum, M. (2005). *The meaning of sports*. New York: Public Affairs.
- Markley, R. (2007, November 1-4). *Climate change, techno-fixes, and systems theory*. Paper presented at the 21st annual conference of the Society for Literature, Science, and the Arts, Portland, Maine.
- Marten, E. F. (1958). "Bulldozer at Montlake Landfill, University of Washington, August 17, 1958." University of Washington Libraries, Special Collections Division. Retrieved June 1, 2009, from http://content.lib.washington.edu/cdm4/item_viewer.php?CISOROOT=/uwcampus&CISOPTR=150&CISOBOX=1&REC=1

- Montlake Landfill Oversight Committee. (2002). *Operational guidance for maintenance and development practices over the Montlake Landfill*. Retrieved December 27, 2007 from <http://www.ehs.washington.edu/epositeremed/index.shtml>
- Montlake Landfill Work Group. (1999). *Montlake Landfill information summary*. Retrieved December 27, 2007, from <http://depts.washington.edu/ubna/history.htm>
- Moore, M. P. (1993, September). Constructing irreconcilable conflict: The function of synecdoche in the Spotted Owl controversy. *Communication Monographs (ComM)*, 60, 258-274.
- Moss, S. (2004). *A bird in the bush: A social history of birdwatching*. London: Aurum Press.
- The Nature Conservancy. (n.d.). *Interpretive trails now open at Moody Forest Natural Area* (Press release). Retrieved January 4, 2008, from <http://www.nature.org/wherewework/northamerica/states/georgia/press/press2183.html>
- New Jersey Audubon Society. (2007). *Play-pledge or sponsor*. Retrieved December 27, 2007, from http://worldseriesofbirding.org/wsob_pps.shtml
- Nikon Corporation. (2007). *Environmentally sound optical glass ("Eco-glass")*. Retrieved December 27, 2007, from www.nikon.co.jp/main/eng/portfolio/csr/environment/products/products02/index.htm
- Obmascik, M. (2004). *The big year: A tale of man, nature, and a fowl obsession*. New York: Free press.
- Parnell, K. H. (2001). *Toxic sludge in our communities threatening public health and our farmlands*. Retrieved January 9, 2007, from <http://www.toxicsaction.org/sludgereport.pdf>
- Patterson, S. (1999). Lake Apopka: An environmental tragedy, *Florida Times Union*. Retrieved December 27, 2007, from www.jacksonville.com/tu-online/stories/022799/met_2a1apopk.html
- Perciasape, R. (n.d.). *U.S. Environmental Protection Agency use of the term biosolids* (Memorandum). Retrieved December 27, 2007, from <http://www.boostdam.net/stories/EPAPERCEPTION.html>
- Peterson, R. T. (1934). *A field guide to the birds* (1st ed.). Boston and New York: Houghton Mifflin.
- Peterson, R. T., & Fisher, J. (1955). *Wild America: The record of a 30,000-mile journey around the continent by a distinguished naturalist and his British colleague*. New York: Mariner Books.
- Pezzullo, P. (2007). *Toxic tourism: Rhetorics of pollution, travel, and environmental Justice*. Tuscaloosa: U of Alabama Press.
- Philippon, D. J. (2004). *Conserving words: How American nature writers shaped the environmental movement*. Athens: University of Georgia Press.
- Price, J. (1999). *Flight maps: Adventures with nature in modern America*. New York: Basic Books.
- Price, J. (2004). Hats off to Audubon. *Audubon Magazine*, November. Retrieved January 7, 2008, from <http://magazine.audubon.org/features0412/hats.html>
- Schaffner, S. (2005, January/February) Birding with the first American field guides to birds. *Birding*, 37(1).
- Scott, B. (in press). Civic engagement as risk management and public relations: What the pharmaceutical industry can teach us about service-learning. *College Composition and Communication*.
- Scott, M. (1999-2002). *Birding the Brownsville Dump*. Retrieved January 27, 2007, from <http://web.archive.org/web/20070807044200/http://www.birdingamerica.com/Texas/brownsvilledump.htm>
- Sheard, K. (1999). A twitch in time saves nine: Birdwatching, sport, and civilizing processes. *Sociology of Sport Journal* 16, 181-205.
- Snyder, C. (2005). The dirty work of promoting "recycling" of America's sewage sludge. *International Journal of Occupational and Environmental Health*, 11, 415-427.
- Sullivan, N. (2003). Birders World Series, *All Things Considered, National Public Radio*. Retrieved January 9, 2007, from <http://www.npr.org/templates/story/story.php?storyId=1260267>
- Tice, W. (1999). *A birders guide to the sewage ponds of Oregon: Creatures from the brown lagoons*. Falls City, OR: Author.
- Vermont Public Interest Research Group. (1999). *On the ground: The spreading of toxic sludge in Vermont*. Retrieved January 9, 2007, from www.vpirg.org/downloads/sludge.pdf
- Weidensaul, S. (2007). *Of a feather: A brief history of American birding*. Orlando, FL: Harcourt.
- Welch, M. (1998). *The book of nature: Natural history in the United States, 1825-1875*. Boston: Northeastern University Press.

- Well, J., Aloise, G., Olson, P., & Zavala, M. (1994, June 23). *Nuclear regulation: Action needed to control radioactive contamination at sewage treatment plants*, GAO Report No. B-255099. Retrieved January 9, 2008, from archive.gao.gov/t2pbat3/151920.pdf
- Zimmer, K. (2000). *Birding in the American West*. Ithaca, NY: Cornell University Press.
- Zimmerling, J. R. (2006). Why birds and birders flock to sewage lagoons, *BirdWatch Canada*, 36, 4-7.

Spencer Schaffner's work on birds and birdwatching has appeared in *Ecosee: Image, Rhetoric, Nature* (SUNY UP) and *Birding*, the journal of the American Birding Association. He teaches courses in the Center for Writing Studies at the University of Illinois, Urbana-Champaign.