OBSERVERS OBSERVED: HOW WE AFFECT THE BIRDS WE WATCH

by Marta Hersek

Most of us are painfully aware of the many large-scale, negative impacts the ever-increasing human population has on other species. We watch in dismay as millions of acres in the tropics are deforested, as the last of the North American wetlands become housing developments, and as the few remaining tall-grass prairies are invaded by introduced species. But many of you might be surprised, as I was, to discover that even small-scale intrusions like hiking and nature-watching also negatively affect birds. As a researcher who regularly follows, records, traps, and otherwise bothers birds, I became interested — and concerned — about the effect my presence has. I was aware that I would influence my study animals, but I was interested in just how much I changed their behavior. I also wondered how much my research activities put the birds and their nests at risk of higher predation. A variety of researchers and managers have asked these questions, and the observations and experimental results are interesting — if a little sobering. It seems that even the lowest level of intrusion can change how animals behave, and can threaten their well-being.

It seems intuitive that disturbing birds near their nests could have detrimental effects, and some studies document such impact. For example, in the California Gnatcatcher, a threatened species, Sockman (1997) found that some birds abandoned the nest if it was discovered during construction. Also, pairs whose nests were frequently visited by researchers suffered higher rates of predation than those visited less frequently. Red-winged Blackbirds, American Goldfinches, and American Robins became more aggressive toward researchers who regularly visited their nests, and Black-billed Magpies began nesting in less accessible spots when exposed to increasing human disturbance (Knight and Fitzner 1985, Knight and Temple 1986a, Knight and Temple 1986b, Knight and Temple 1986c). A more extreme example comes from Safina and Burger (1983), who studied Black Skimmers. These beach-nesting birds often moved from disturbed nesting areas, where researchers walked through the colony regularly, into undisturbed areas, even if this meant abandoning a nest at an early stage. The human-disturbed birds that didn't leave the area had lower hatching success, probably due to thermal stress to eggs which were left unattended more often and for longer periods than normal. Nestlings often left nests prematurely and ran when humans entered a colony, and it's likely that many of these chicks were not reunited with their parents: observers found young chicks up to 100 meters from their nesting area, and many chicks were found dead. Both cannibalism and attempted predation on young, wandering chicks were also observed by researchers. Obviously, the effects of human

disturbance can have a large impact on the success of a Black Skimmer colony. Finally, there is also some evidence that predators may follow humans, or their signs, to nests. For example, avian predators may learn to forage near where people are visiting bird nests. Parasitic Jaegers were regularly observed circling overhead while researchers were checking the nests of waterfowl, and in some cases they took advantage of the researchers having flushed the parents to predate a nest before the parents returned (MacInnes and Misra 1972, Strang 1980). Similarly, predation on Brown Pelican nests by Western Gulls and Ravens increased after closely-approaching humans flushed the parents (Anderson and Keith 1980).

Most birders, however, probably do not regularly disturb nests, so the issue of importance to them is how lower-level disturbances affect birds. A number of studies have found that people simply walking through an area can cause changes in behavior. For example, Ruby-crowned Kinglets and Yellow-rumped Warblers sang less in areas in which observers regularly walked through the birds' territories, compared with areas that were surveyed only from the perimeter (Gutzwiller et al. 1994). Since song can function in both territorial behavior and mate attraction, such disturbance may lead to decreased pairing success, later nesting, and decreased nesting success (Gutzwiller et al. 1994). Some of the birds were even sensitive to the clothing worn by observers: orange hunter's vests reduced researchers' probability of detecting Carolina Chickadees, Tufted Titmice, and American Goldfinches (Gutzwiller and Marcum 1993). Other studies have shown that many shorebirds will flush from nests or move into sub-optimal foraging areas if recreationists, including fishermen and birdwatchers, approach too closely (summarized in Knight and Cole 1995). Norling et al. (1992) found that the thousands of birders who annually gather to observe migrating Sandhill Cranes along the Platte River in Nebraska often cause the cranes to flush. Since the birds are fattening up for breeding, this wasteful use of energy can be significant, especially for young birds. Furthermore, flushed cranes may be more likely to fly into deadly power lines. Overall, these relatively subtle behavioral changes may affect breeding success of individual pairs, or they may reduce the overall size of the breeding population through redistribution of animals (Knight and Cole 1995). In fact, it has been suggested that the decline in North American waterfowl may in part be blamed on a loss of disturbance-free nesting sites for birds (Knight and Cole 1995).

Perhaps most significantly, these relatively small-scale changes in behavior and populations can lead to larger-scale changes at the community level. For example, Skagen et al. (1991) studied a guild of scavengers in the Pacific Northwest. These birds — Bald Eagles, American Crows, and Glaucous-winged Gulls — all forage on salmon carcasses that wash up on gravel bars during the spawning season. In general, there is a dominance hierarchy among these

Safina, C. and J. Burger. 1983. Effects of Human Disturbance on Reproductive Success in the Black Skimmer. *Condor* 85:164-171.

Skagen, S.K., R.L. Knight and G.H. Orians. 1991. Human Disturbance of an Avian Scavenging Guild. *Ecological Applications* 1:215-225.

Sockman, K.W. 1997. Variation in Life-history Traits and Nest-site Selection Affects Risk of Nest Predation in the California Gnatcatcher. *The Auk* 114:324-332.

Strang, C.A. 1980. Incidence of Avian Predators Near People Searching for Waterfowl Nests. *Journal of Wildlife Management* 44:220-222.

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Of interest to researchers and serious birders is a pamphlet titled Guidelines to the Use of Wild Birds in Research *(1997), produced by the Ornithological Council. This publication provides extensive recommendations on ethical practices for scientific researchers engaged in banding, field research, or laboratory studies. Topics covered include investigator impact, trapping and collecting, housing captive birds, marking wild birds, and manipulative procedures such as collection of tissue samples, use of artificial eggs, anesthesia, and surgery. Copies can be obtained by sending $8 to Dr. Max C. Thompson, Assistant Treasurer, AOU, Department of Biology, 100 College Street, Winfield, KS 67158-8382 (checks should be made out to the American Ornithologists' Union).*

AMERICAN BIRDING ASSOCIATION
PRINCIPLES OF BIRDING ETHICS

Everyone who enjoys birds and birding must always respect wildlife, its environment, and the rights of others. In any conflict of interest between birds and birders, the welfare of the birds and their environment comes first.

CODE OF BIRDING ETHICS

1. Promote the welfare of birds and their environment.

1(a) Support the protection of important bird habitat.

1(b) To avoid stressing birds or exposing them to danger, exercise restraint and caution during observation, photography, sound recording, or filming.

Limit the use of recordings and other methods of attracting birds, and never use such methods in heavily birded areas or for attracting any species that is Threatened, Endangered, or of Special Concern, or is rare in your local area.

Keep well back from nests and nesting colonies, roosts, display areas, and important feeding sites. In such sensitive areas, if there is a need for extended observation, photography, filming, or recording, try to use a blind or hide, and take advantage of natural cover.

Use artificial light sparingly for filming or photography, especially for close-ups.

1(c) Before advertising the presence of a rare bird, evaluate the potential for disturbance to the bird, its surroundings, and other people in the area, and proceed only if access can be controlled, disturbance can be minimized, and permission has been obtained from private land-owners. The sites of rare nesting birds should be divulged only to the proper conservation authorities.

1(d) Stay on roads, trails, and paths where they exist; otherwise keep habitat disturbance to a minimum.

2. Respect the law and the rights of others.

2(a) Do not enter private property without the owner's explicit permission.

2(b) Follow all laws, rules, and regulations governing use of roads and public areas, both at home and abroad.

2(c) Practice common courtesy in contacts with other people. Your exemplary behavior will generate goodwill with birders and non-birders alike.

3. Ensure that feeders, nest structures, and other artificial bird environments are safe.

3(a) Keep dispensers, water, and food clean and free of decay or disease. It is important to feed birds continually during harsh weather.

3(b) Maintain and clean nest structures regularly.

3(c) If you are attracting birds to an area, ensure the birds are not exposed to predation from cats and other domestic animals, or dangers posed by artificial hazards.

4. Group birding, whether organized or impromptu, requires special care.

Each individual in the group, in addition to the obligations spelled out in Items #1 and #2, has responsibilities as a Group Member.

4(a) Respect the interests, rights, and skills of fellow birders, as well as those of people participating in other legitimate outdoor activities. Freely share your knowledge and experience, except where code 1(c) applies. Be especially helpful to beginning birders.

4(b) If you witness unethical birding behavior, assess the situation and intervene if you think it prudent. When interceding, inform the person(s) of the inappropriate action and attempt, within reason, to have it stopped. If the behavior continues, document it and notify appropriate individuals or organizations.

Group Leader Responsibilities [amateur and professional trips and tours].

4(c) Be an exemplary ethical role model for the group. Teach through word and example.

4(d) Keep groups to a size that limits impact on the environment and does not interfere with others using the same area.

4(e) Ensure everyone in the group knows of and practices this code.

4(f) Learn and inform the group of any special circumstances applicable to the areas being visited (e.g., no tape recorders allowed).

4(g) Acknowledge that professional tour companies bear a special responsibility to place the welfare of birds and the benefits of public knowledge ahead of the company's commercial interests. Ideally, leaders should keep track of tour sightings, document unusual occurrences, and submit records to appropriate organizations.

PLEASE FOLLOW THIS CODE —
DISTRIBUTE IT AND TEACH IT TO OTHERS.

 Additional copies of the Code of Birding Ethics can be obtained from: ABA, PO Box 6599, Colorado Springs, CO 80934-6599, (800) 850-2473 or (719) 578-1614; fax: (800) 247-3329 or (719) 578-1480; e-mail: member@aba.org