

FACTS, INFERENCES, AND SHAMELESS SPECULATIONS

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Nintendo and other birds

THE UNITED STATES FISH AND Wildlife Service issued this summer a pamphlet on its strategies for the conservation of nongame birds. This should be vital stuff for every reader of *American Birds*.

But before I get to the bumps and grinds in that strategy, I confess I am puzzled by the nonchalance and acquiescence with which we accept nonness. There are game birds. And there are non-game birds. That means they don't play. Or at least they aren't important to the real players. In fact, the vast majority of North America's avian diversity falls into that black hole of non-ness.

Over much of the 20th century, real birds, Nintendo birds, have played critical roles in conservation. Efforts to preserve, protect, conserve, manipulate, reconstruct, restore, and otherwise improve marshes for waterfowl have contributed irreplaceably to habitat conservation. Ducks Unlimited has proven phenomenally successful at garnering support for worthy projects to protect and enhance marshes in the Canadian duck farms. The National Wildlife Refuge System has set aside remarkable acreages of land that otherwise might have disappeared. More recently, the National Fish and Wildlife Foundation has led work to

provide real money, not driblets and drabs, to comprehensive planning for waterfowl protection in the form of the North American Waterfowl Management Plan. Without these efforts, the face of North American avian diversity would already be far poorer than it is. Whatever your attitude toward hunting, the facts are that hunters have subsidized a great deal of good conservation for many species whose habitat needs overlap those of game birds.

But what of the future? Are Nintendo birds enough? Is non-ness acceptable? I would submit not, for two reasons. The first simply focuses on the old funding mechanism, the '56 Chevy that has propelled wildlife conservation through its first many decades. How much life remains in the old engine? Every state agency charged with managing wildlife resources must have a wary eye on the demography of hunting. Each year, proportionately fewer people submit their bodies to the chill of dawn on a November marsh, to those leaky boots, those bitterly cold barrels. The plain truth is that a wildlife conservation strategy built on old fundamentals cannot lurch along forever. Leaded gas is ever more difficult to find. That doesn't make you love the Chevy less. But sooner or later you have to switch to unleaded and get a more fuel-efficient car (or use additives and pay through the carburetor).

The second reason is more profound. Baldly put, waterfowl conservation alone won't save North American birds. We careen along some

mountain road in a fog of ignorance about how close the precipice may actually be. The few signs penetrating the haze are not reassuring: 90 percent drops in South Florida wading birds over the last 50 years; 80 percent decline in Sanderling on the United States east coast; forest fragmentation impacts throughout the Northeast; clear signals that Central American deforestation is depressing warbler populations; devastating decreases in waterfowl despite massive interventions and management.

True, some species have thrived—House Finches now plague feeders throughout the East; Starlings dim the skies of mid-Atlantic states and cavort as far northwest as Alaska; Cattle Egrets popcorn their way across the continent; Glossy Ibises gambol abundantly near New Jersey's Casinos. Few of these proliferations, however, gladden the souls of the descendants of Joseph Grinnell and Ludlow Griscom.

How ironic, to paraphrase John Terborgh, that a nation with four decades of experience at deriving energy and destruction from the atom should still remain so ineffectual at conserving its wild birds!

Before you read on, bear in mind one major point. That this document—the non-game strategy—exists at all is much to the Service's credit, not to mention the Congress, which mandated the Service to write it, and your clever allies in Washington that asked the right people the right questions so that the mandate would come to be. You might have thought that

requesting this document to emerge from a Service so disillusioned and demoralized by eight years of brutal, frontal assaults on its integrity and resources is rather like squeezing orange juice from a copralite. But lo, it is there for all of us to read. You can get your own copy by writing for it. Please do, and then let your comments be known. If you, the natural constituency for this effort, do not rise up and speak on this occasion, then I hope you will remember your inaction as species dwindle in the years to come.

So what does the U.S. Fish and Wildlife Service call for in its non-game bird conservation strategy? In fact the document starts unexpectedly well, boldly promoting a central goal to conserve all nongame bird species and their habitats, prevent any species from being listed as Endangered or Threatened, and ensure continued opportunities for people to enjoy these birds. What light bulb got lit when that was writ? Who among you readers will argue with that ambition?

Unfortunately, the rest of the document resorts to more of that same non-ness that has us in our current

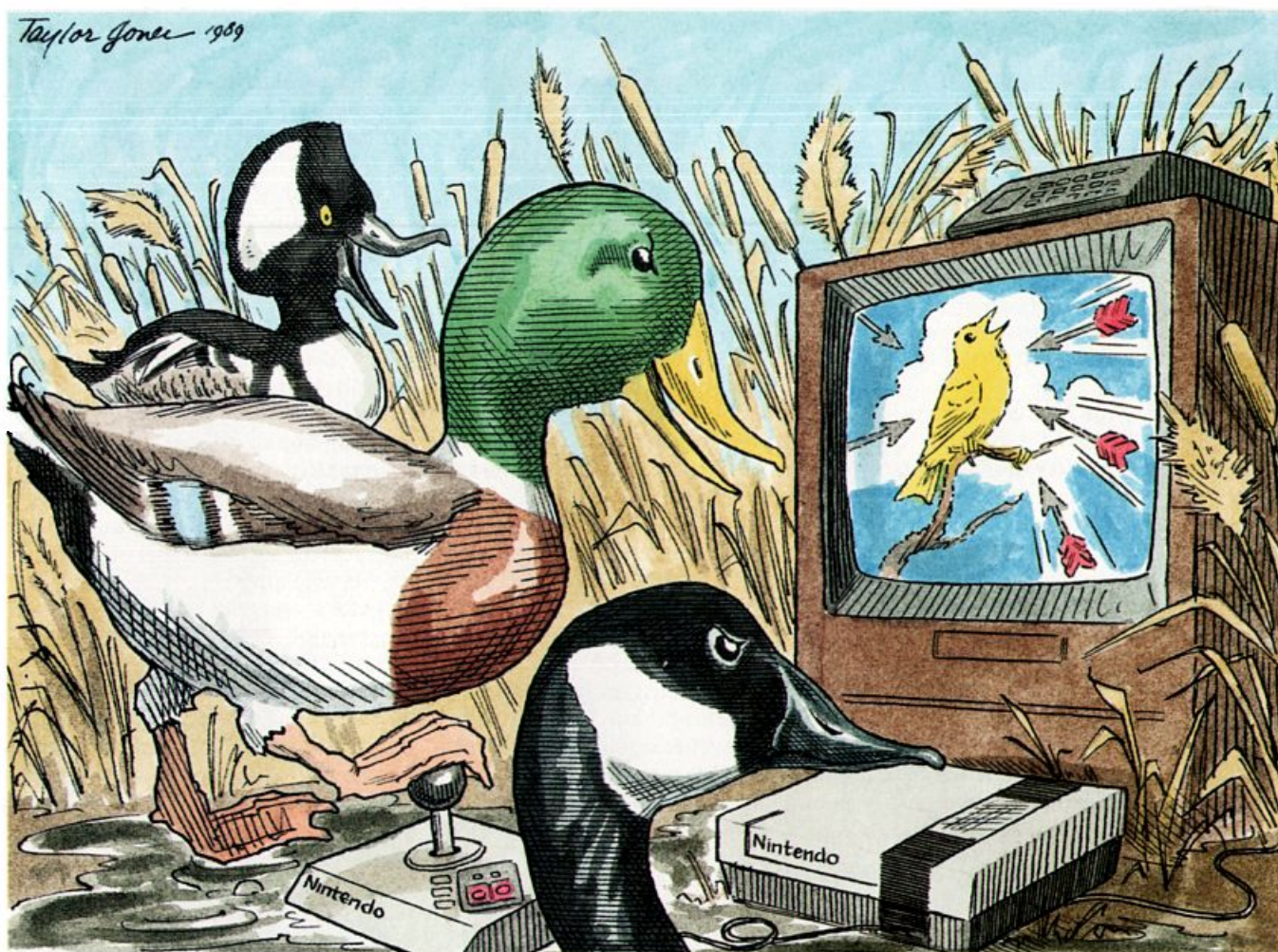
disarray. Too little, usually too late, and lacking any central vision of what can and must be done.

I won't recite chapter and verse here. You read it. Instead, I invite your ideas on what would truly be a comprehensive strategy for the conservation of avian diversity (enough of non-ness). Here are my basic building blocks:

First, the Service must recast its role to become a catalyst, facilitator, and leader, not the doer. It should use its spare resources to lever action rather than to flail ineffectively against a rising tide of extinctions and population declines. It should enlist—through inspiration, cajoling, bribery, seduction, and outright payment for services—those organizations capable of further leveraging the investments through their memberships and volunteer activists. A good example here is the Service's support of the International Shorebird Survey run by Manomet Bird Observatory. But in its efforts to work with and through such organizations, it should view realistically what their contributions cost and do what it can to deliver the resources necessary to get the job done.

Second, the Service must allocate its efforts among three essential building blocks of avian conservation: (1) current knowledge of what's happening, *i.e.*, monitoring and relevant ecological studies; (2) methodologies for management; and (3) strategic planning for management implementation. I am going to set aside the latter two for another column (Dr. Drennan isn't that indulgent) and focus on the first.

Comprehensive monitoring is no small challenge. Not that the federal mandate isn't there either—in some cases as conspicuous as a chachalaca chorus at dawn. Could there be a more blatant requirement for monitoring than that in the National Forest Management Act, specifying that the Forest Service must maintain viable populations of all vertebrates on its lands? Or the Mitchell Amendment which requires the U.S. Fish and Wildlife Service to monitor (MONITOR) all non-waterfowl birds and their habitats so that they will be able to identify management actions before species become threatened or endangered? Ask your Congressperson if he or she knows how well these two agencies



are doing in meeting this requirement—indeed if either agency has any idea how well it is doing.

Only three continent-wide programs exist currently and each has its strengths and weaknesses. National Audubon's Christmas Bird Count is the oldest, most comprehensive in coverage, and broadest in involvement. Yet while the Christmas Bird Count provides the grist for some quantitative work, you can only push the numbers so far. Despite its analytic limitations, a considerable body of scientific literature has developed around it and its data appear in countless Environmental Impact Statements, court cases, and the like. The most dramatic of these uses is Terry Root's brand new Christmas Count Atlas, something that should be on the shelf of every Christmas Bird Count participant, birder, and student of bird distributions. The regular application of these data amply justify the investments required to make it happen as well provide testimony to the usefulness of monitoring programs.

Also pioneered by the National Audubon Society, the Breeding Bird Census rides rather ragged right now, struggling to recover from the impact that it suffered when *American Birds* cut back publication to just tabular summaries. Much credit should go to the census-takers who have persevered in their commitment and to the collaborative effort by the U.S. Fish and Wildlife Service, the *Journal of Field Ornithology*, the Cornell Laboratory of Ornithology, and *American Birds* to find ways to revive the censuses. This program deserves strategic redeployment at a continental scale into an effort with optimum conservation return and a fighting chance for long-term sustainability.

Led by the U.S. Fish and Wildlife Service, the Breeding Bird Survey stands as the most rigorously planned monitoring program currently in place on a continental scale. We are just now beginning to reap real benefits from the statistical care with which Chan Robbins and the Service put this together. It too, however, has limitations: it samples birds with territorially-dispersed breeding populations better than those without it; it does better with vocalizers than with silent species; and it samples only those parts of a population that are near

roads. Its ability to monitor interior forest species away from habitat edges is limited.

While not yet achieving continental coverage, Manomet Bird Observatory's International Shorebird Survey fills some critical taxonomic, geographic, and seasonal gaps left by these first three. Its great strengths involve the impressive coverage it has achieved of important wetland sites in the eastern United States. More than any of the other three, moreover, its data have fueled specific policy steps for conserving avian diversity: the Western Hemisphere Shorebird Reserve Network. With prospects emerging for real collaboration between Manomet in the east and Point Reyes Bird Observatory in the west, the ISS stands to move toward true continental coverage. If that can be coupled with sharper biological knowledge about details of the migratory biology of shorebirds, this collective effort may even solve its biggest problem: generating solid trend information about the health of specific populations from numbers tallied at migratory staging sites in which birds from different breeding and wintering populations mix to unknown degrees.

So there you have several efforts addressing different taxa during different seasons. All have too few resources. None, therefore, can cope adequately even within their own self-selected mandate. Collectively they miss large portions of the North American avifauna. Which one has comprehensive information about kingfishers and the cumulative impact of acid rain? What are the long-term effects of low-level oil pollution on wintering Western Grebes? How has deforestation in the Northwest affected Vaux's Swifts?

Like it or not, we continue to bathe in ignorance about population trends in much of our country's birdlife. Even in that small subset where we have some idea about trends, we usually have little information to reveal why the trends run as they do. Here I don't mean esoterica (however worthy) about the prevalence of some nematode infestation. Our ignorance begins at a much more basic level: Are populations beset by challenges in the breeding season or on migration? Do their numbers track nonbreeding habitat limitations in Central America? Do they reflect increases in mortality

or decreases in productivity? Do they reflect continuing emigrations because of the drift of United States politics?

So what must be done? First, we need a strategic plan for coordinating census efforts to obtain nationwide coverage of important taxonomic groups. In the forthcoming volume of the Audubon Wildlife Report, Russell Greenberg and Judy Gradwohl call for a mixed approach: use the Breeding Bird and the International Shorebird Surveys for broad overviews of national population trends but match these with carefully positioned censuses in large tracts of undisturbed habitats that can be followed long-term. Implement analogs for other groups of birds.

Second, select some model species for detailed ecological study. Which ones or how many remains to be determined, but they should be chosen because they represent major habitats, taxons, and conservation problems, and because the results will complement the broad population monitoring work with insight into processes.

Third, we need to move the level of inter-organizational cooperation to a new plane. Is it possible, for example, for the independent bird observatories to coordinate techniques and data processing and emerge with national indices of bird productivity? Can the ISS really become a national effort? Stan Senner's leadership in the US section of ICBP and the example he is setting with the independent hawk migration count observatories makes this all seem at least faintly plausible.

That all makes sense in the abstract. Making it work, however, will require a metamorphosis by the Fish and Wildlife Service and a new sense of shared responsibility and collaboration among the many non-government entities that now play in the field. Until we come to grips with a nationally-coordinated effort with strategic vision, those waters of ignorance will continue to wrinkle our toes, put rings in the birdbath, and render us less effective in bird conservation.

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