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# Persistence in Adversity: Lessons from the Ivory-billed Woodpecker

WALTER D. KOENIG

**T**he thing about extinction is that it is by definition permanent. We will never again have the opportunity to see a passenger pigeon or a great auk, much less a *Tyrannosaurus rex*, despite the fantasy of reconstituting such a beast from bits of DNA preserved in the blood of mosquitoes recovered from amber. Nonetheless, every once in a while a species eludes even the most concerted efforts to find it and falls into a kind of limbo, in which we simply don't know for sure whether it's extinct or not. Most such species are all but forgotten, except by the occasional enthusiast, either professional or amateur, who knows of a species' existence and is sufficiently knowledgeable to recognize it should he or she happen to run across it.

This was never the case with the ivory-billed woodpecker. Although missing for the last 60 years, ivory-bills are so large and charismatic that they have long been the stuff of which dreams are made, an ornithological Holy Grail, a bird for which one would gladly journey into the darkest swamps in hopes of retrieving one's redemptive shadow self. It was consequently an astonishing and unprecedented scene on 28 April when John Fitzpatrick, the director of Cornell's Laboratory of Ornithology, and Scott Simon, the Arkansas state director of The Nature Conservancy, along with officials from the Departments of Interior and Agriculture, announced the rediscovery of the ivory-billed woodpecker in the Big Woods region of eastern Arkansas (Fitzpatrick et al. 2005).

The survival of the ivory-billed woodpecker is possibly the most uplifting conservation event in recent history, enough to make one giddy with the thought that almost anything is possible. At the very least, it's worth reveling in the progress we have made since the woodpecker

made its last appearance back in 1944, near the close of a period of American history characterized by the wanton destruction and pilfering of the nation's natural resource heritage. We've come a long way from the days when James Griswold, chief executive officer of the Chicago Mill and Lumber Company, was crass enough to state, "We are just money grubbers. We are not concerned...with ethical considerations," as he rejected a deal designed by state and federal officials to preserve part of the Singer Tract in Louisiana in an attempt to save what appeared to be the last remnant population of ivory-billed woodpeckers (Cokinos 2000).

Of course, not all the news is good, and many questions remain. Although the ivory-billed woodpecker made it this far in the face of almost complete neglect, it is extremely unlikely that it will survive the century without aggressive intervention. How many birds are out there? Two pairs? A dozen? We don't know, but given that this is not a small, retiring species, the difficulty that experienced observers have had in finding it—the existence of only a pair of birds has been confirmed—raises the question of whether there are enough birds left to constitute a viable population. And if there are only a handful of individuals, what then? Do we remove them from the wild and initiate a captive breeding program, as was done when the California condor population dropped to nine individuals in the mid-1980s? There was a time when I would have argued against such a move, but it's clear, at least in retrospect, that the condors wouldn't have lasted much longer had such draconian efforts not been implemented.

More generally, why do we wait until the 11th hour to try to recover species when it would have been cheaper and

easier to intervene when the situation was merely deteriorating, but not desperate? Sometimes, admittedly, it can be difficult to interpret the evidence, making a recovery plan difficult to implement. The condor fits into this category: early efforts to protect habitat failed to address the root cause of the decline, and even now there remains controversy over its primary cause, despite the mounting evidence that points to lead poisoning obtained through scavenging shot-contaminated carcasses (Snyder and Snyder 2005). In the case of the ivory-billed woodpecker, however, the cause was clearly the systematic destruction and conversion of all but a fraction of the tens of millions of acres of bottomland hardwood forest that originally covered the southeastern United States (Tanner 1942).

As for the current situation, it remains to be seen how the rediscovery of the ivory-billed woodpecker will influence government policy and public opinion. Less than a month after the announcement, the Army Corps of Engineers is reportedly ready to start draining and dredging the White River, deep in the Big Woods, to bail out Arkansas rice farmers (Borenstein 2005). Whether the corps will reevaluate such unfortunate plans remains to be seen. Worse yet, will the rediscovery of the ivory-billed woodpecker after so many years of neglect be exploited as an excuse to avoid intervention in other cases where species are endangered? And as a worst-case scenario, will the ivory-billed woodpecker be used to intimate that conservation biologists twist the evidence, making things sound worse than they are for their own political ends?

We can hope not. On the contrary, one has to applaud Gale Norton, the secretary of the interior, for taking part

in the announcement of the rediscovery of the ivory-billed woodpecker and for committing \$10 million in federal funds for its protection (USFWS 2005). This is clearly a step in the right direction for an administration that has shown general hostility toward environmental issues. Restoring the Big Woods region will do more than give us what Norton appropriately described as “a rare second chance to preserve...what was once thought lost forever” (USFWS 2005). It will also help protect the seven other endangered bird species, the unique population of black bears, and the legions of migratory birds that inhabit the area or use it as an important stopover on their way to and from their Neotropical wintering grounds. Comparable efforts in other key ecosystems throughout the country would go a long way toward protecting a significant fraction of the 1264 plants and animals that are currently listed as federally threatened or endangered, not to mention helping to reverse the decline of the many others headed in that direction.

In fact, the ivory-billed woodpecker would appear to be resurfacing at a relatively propitious time. Southeastern swamp and bottomland hardwood forests are on the comeback, helped along by as close to a consensus as we are likely to achieve on an environmental issue. Starting in the 1980s, long before the ivory-bill was known to still be with us, The Nature Conservancy, in concert with state and federal agencies, began

protecting land in the Big Woods region so as to preserve a remnant of this unique habitat. Now, thanks in part to a frenzy of land acquisition prompted by the rediscovery of the ivory-billed woodpecker, these entities have protected nearly 500 square kilometers (km<sup>2</sup>) of forest and have their sights set on an additional 800 km<sup>2</sup> in order to reconnect existing large tracts of forest. Although less than half of this area is currently mature, old-growth forest of the sort preferred by ivory-bills, the rest is growing quickly and becoming more suitable habitat for this species every year. Eventually such a vast area could support as many as 80 pairs of birds at the density of one pair per 16 km<sup>2</sup> reported by Tanner (1942). This not only could provide a good start toward a healthy population of these birds but, combined with transplants to other restored and protected areas within the species' former range, could eventually result in a truly recovered population no longer in danger of extinction.

So let us all savor the moment and give the ivory-billed woodpecker, along with those who believed in it all those years and especially those who are committed to helping it survive into the next century, a well-deserved round of applause. With continued effort, this magnificent creature will prosper. With luck, it could inspire a national rededication to facing and solving environmental problems, from loss of biodiversity to global warming, sooner rather than later.

## References cited

- Borenstein S. 2005. Water projects threaten woodpecker's habitat. *Monterey Herald*. 26 May. (13 June 2005; [www.montereyherald.com/mld/montereyherald/news/nation/11737406.htm](http://www.montereyherald.com/mld/montereyherald/news/nation/11737406.htm))
- Cokinis C. 2000. *Hope Is the Thing with Feathers*. Putnam: New York.
- Fitzpatrick JW, et al. 2005. Ivory-billed woodpecker (*Campephilus principalis*) persists in continental North America. *Science* 308: 1460–1462.
- Snyder NFR, Snyder HA. 2005. *Introduction to the California Condor*. Berkeley: University of California Press.
- Tanner JT. 1942. *The Ivory-billed Woodpecker*. New York: National Audubon Society.
- [USFWS] US Fish and Wildlife Service. 2005. Once-thought extinct ivory-billed woodpecker rediscovered in Arkansas. 28 April. (13 June 2005; <http://news.fws.gov/NewsReleases/showNews.cfm?newsId=897957A5-1143-3066-401A20C9DFF1CE36>)

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