

**Shrikes, the only songbirds** that measure up to mankind's definition of a predator, are justifying predictions of an ever-widening environmental malaise. Unlike birds that disappear from a circumscribed region or habitat, shrikes apparently have plunged into a tailspin worldwide.

"Virtually every species of shrike that biologists have looked at around the world is in decline," says Reuven Josef, director of the International Birdwatching Center at Eilat, Israel. "In the United States, the Loggerhead Shrike shows a more persistent

**Around the globe, these songbird/predators appears to be losing ground. Scientists are looking for answers, and using the 'information superhighway,' including faxes and electronic mail, to share data and anecdotes.**

BY FRANK GRAHAM, JR.

continental decline than any other bird monitored on the annual Breeding Bird Survey. The Northern Shrike seems to be holding its own across undisturbed parts of Canada and Alaska, but in Europe—where they call it the Great Grey Shrike—it's gone from Switzerland and going fast from France, Sweden, Poland, and other countries. The Red-backed Shrike is now extinct in Britain."

Tom J. Cade, known for his work in restoring Peregrine Falcon populations, keeps an eye on shrikes in the United States as well.

"The decline, though widespread, isn't uniform," he says. "For instance, Loggerhead Shrikes are doing very well in the sagebrush country of southern Idaho. But the catch is that now we're losing sagebrush."

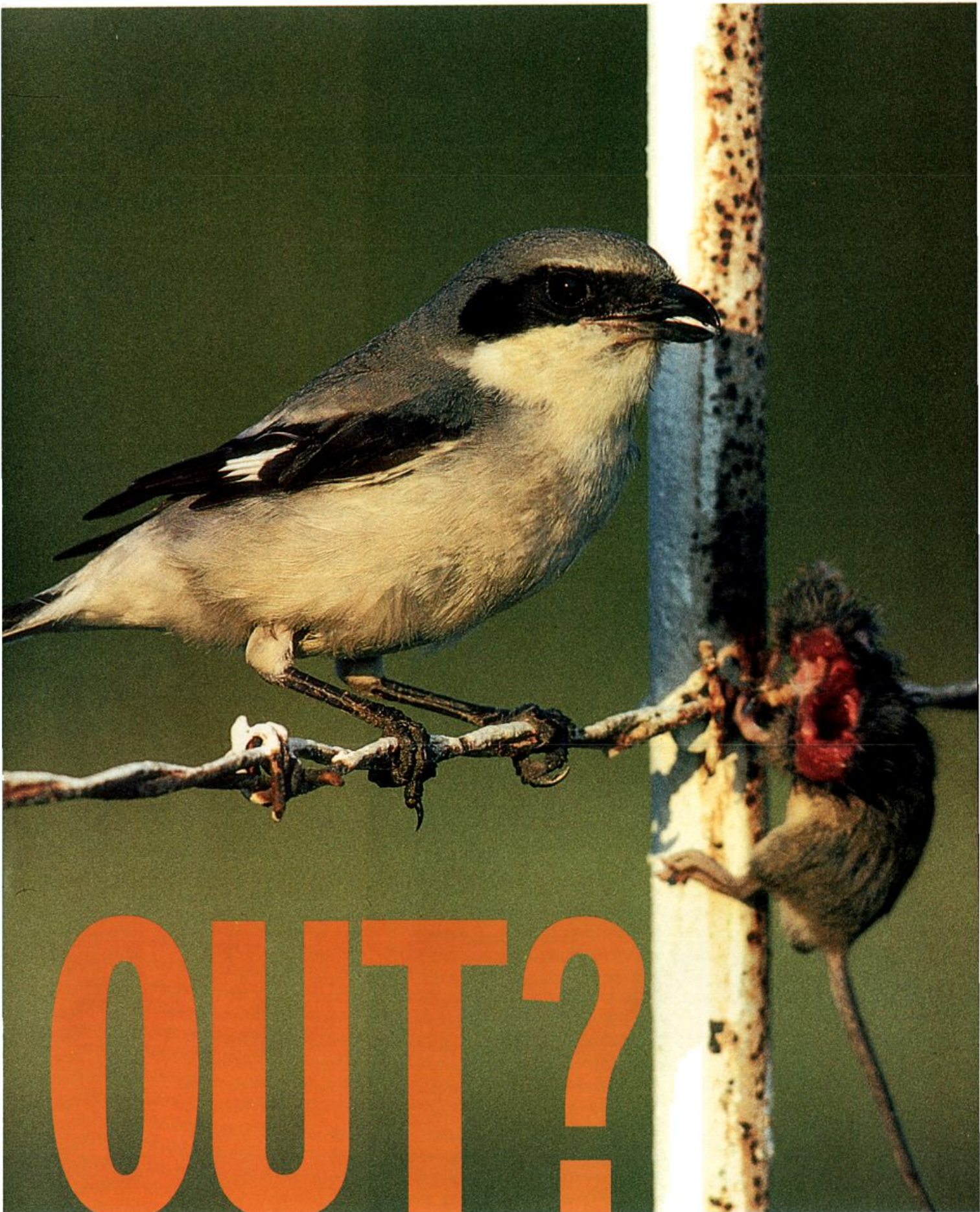
A 1992 report by the United States Fish & Wildlife Service, reflecting trends on the North American Breeding Bird Survey (BBS), pointed to a "statistically significant" decline of Loggerheads (3.5 percent a year) from 1966 through 1991.

"Most states and provinces with adequate sample sizes on

**The Loggerhead Shrike impales food on thorns or wire.**



# SHRIKE



the BBS also have declining numbers of shrikes,” wrote its compilers, Bruce G. Peterjohn and John R. Sauer. “Populations in Colorado, Louisiana, Montana, and South Dakota show nonsignificant increases, while no states or provinces had significantly increasing populations.”

The shrike family is made up of some 25 species worldwide, plus several dozen near-relatives like bush-shrikes and boubous. The birds, which range across Africa, Eurasia, and North

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America, have always had a kind of sinister appeal for humans. Many songbirds take live prey. Chickadees deal with caterpillars quite as mercilessly as a Golden Eagle does with a rabbit. But few nonprofessional observers regard killing invertebrates as “predatory behavior.”

Shrikes, on the other hand, fit the more typical profile of a predator. Though no larger than a robin, they tend to be big-headed birds with a strongly hooked beak (like that of a falcon), a black mask across the eyes (like an eighteenth-century hangman), and a taste for flesh that often goes beyond

**Woodchat Shrike (below) of Europe and Africa. Asia's Brown Shrike (opposite page).**

large insects to include vertebrates such as lizards, small rodents, and other songbirds. Hovering over their grassland habitats, or perched on a tree or post, shrikes kill with a quick pounce and a blow from their heavy bills. They dispose of their victims by impaling them (as a butcher hangs slabs of beef from iron hooks) on sharp thorns or barbed wire.

Ill repute inevitably clings to creatures who fall into such habits. Early naturalists, finding “shrike trees” with a variety of cadavers hung like Christmas baubles, cited the trees as evidence that “butcher birds” kill for fun. During the 19th century, lovers of sparrows and other songbirds shot shrikes on Boston Common. Even its cry apparently jarred on the nerves of early observers; the word shrike derives from “shriek.”

But modern biologists are shoring up the shrikes' reputation. Tom Cade, a falconer, has flown trained shrikes as hunters and insists that they kill only for food. In Japan, an ornithologist located 68 shrike trees or bushes, and found that the proprietors returned regularly in midwinter when live prey was hard to find.

In the United States, shrikes were once familiar birds in cities such as Boston and Bangor, Maine. Northern Shrikes are today something of an “event,” making incursions from Canada every three or four winters as they follow the abundance of mice. Some Loggerheads are year-round residents in warm and mild regions; others migrate north to nest in spring, but retreat to southern states or Mexico in fall. Like its fellow shrikes, the Loggerhead hunts in grasslands and became common in the northeast only when Old World colonists cleared the land for crops and pastures. But the bird has been vanishing from the northeast for years, a decline attributed to changing land-use patterns—as forests crept back in, the grassland birds moved out.

Biologists worry that while the perils confronting rainforest species have grabbed much of the public attention, grassland birds on the whole are in as much or even more trouble. According to Bruce Peterjohn and John Sauer, “Native birds in North America's grasslands have suffered steeper, more consistent, and more widespread declines over the past 25 years than any other bird group.”

Seven of 12 species endemic to the Great Plains dropped in numbers during the past quarter-century. The Mountain Plover is now a candidate for the Endangered Species list.



Others decreasing in various parts of the country include Northern Bobwhites, Bobolinks, Eastern Meadowlarks, and a handful of native sparrows.

But the global nature of the shrikes' predicament truly astonished biologists.

"Back in 1984, when I was a graduate student, I studied Loggerheads in North Dakota," says Carola Haas, now on the faculty of Virginia Polytechnic Institute and State University. "That's one of the few areas in the country where they are holding their own. Other biologists kept telling me how scarce they were getting—one of them, Paul Novak, located only three breeding pairs in all of New York state, and they no longer bred in New England. The peculiar thing was that shrikes weren't breeding even where there was suitable habitat. So that made me start thinking."

Haas discovered that ornithologists in Europe and Israel were reporting similar problems. Those regions share certain agricultural practices with North America, including a movement toward converting land to row crops, rather than keeping it in pasture. Field studies indicated that shrikes hunt well over pastures, which mimic natural grasslands, but not over cropland, which is cut regularly and doused with chemicals.

"I decided to go to Japan, where they're moving from crops to beef and dairy products [the opposite of what is happening in North America]. I stayed for two years, working with a Japanese biologist named Iwao Ogawa who had studied shrikes in the 1970s. We looked at two different species—the Bull-headed Shrike, which is resident in Japan, and the Brown Shrike, which migrates to Southeast Asia, where fields are heavily sprayed. We compared our observations with records from the seventies. Bull-headed Shrikes were present at their former levels in habitats that remained intact, but Brown Shrikes had declined by about 80 percent."

Haas's experience convinced her that a worldwide communications network was needed to link biologists interested in shrikes, keeping them up-to-date on population trends and helping them exchange information on management techniques. She was one of the participants in the first International Shrike Symposium last winter at the Archbold Biological Station in Lake Placid, Florida, where researchers from 20 countries retailed their gloomy bits of news.

One concrete result of the symposium was the establishment of a communications system that includes an exchange of phone and fax

numbers and electronic mail addresses. Working groups have already begun operating in Europe, Africa, Asia, and North America, with Carola Haas writing a newsletter for the latter region.

But the big question remains: What's gone wrong for shrikes?

"It would be rare to trace a widespread, long-term problem to a single source," says Bruce Peterjohn of the United States Fish & Wildlife Service. "Land-use changes, like the disappearance of short-grass areas, play a role. Some researchers focus on shrikes' wintering areas, especially where there's pesticide contamination or severe weather. Regional problems may be important, like competition with fire ants in the southern United States for insect prey. Where shrikes nest along highways, there is a very high [incidence of] road kill."

Reuven Josef believes there should be "grasslands laws," similar to wetlands regulations, to protect habitat. In any case, shrike biologists will get together this summer during the International Ornithological Congress in Vienna.

"I'm optimistic that our working groups can pin this thing down," Israel's Josef says. "We mean business." ♣

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