BIRDS *vs.* WEATHER

Learn how birds battle extreme conditions, and what you can do to help. By David Shaw

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Dark-eyed junco

It should have been spring, but winter clung to the landscape like a woodpecker to a treetop on a windy day. The snow refused to melt, and more kept falling across interior Alaska.

Eventually it began to run off into the creeks and rivers. The first migrant birds arrived, held up in their journey by the late spring. I spotted waterfowl and raptors first, followed by the first songbirds—American robins and dark-eyed juncos. I knew the others, the warblers and sparrows, wouldn't be far behind.

And then, like a tantrum, winter came rushing back. Cold wind tore down from the north, carrying snow and ice that fell in clouds. Feeders were emptied of seed in minutes, and songbirds lay like rugs on the few patches of open ground.

The birds hunkered down on roadsides and partly cleared fields, foraging for what little food they could find and waiting for the weather to clear. Eventually it did, and the migrants lifted again to the air to continue on their paths north.

A Dangerous Life

As much as I admired those birds that fought and prevailed, I couldn't help but think of the tens of thousands that didn't make it. Let's face it—migratory birds are up against a lot. Not only do they fly thousands of miles across continents and oceans (twice a year!), they have to survive hawks and owls, outdoor cats, habitat loss, windows, power lines and other man-made hazards. Each of these takes its toll, but severe weather at the wrong time and place can be devastating.

Fallouts—flocks of birds forced to the ground by bad weather during migration—are exciting for birders. But for all the joy we take in them, they can be extremely hard, even fatal, for the birds themselves. The Gulf Coast is famous for its spring fallouts. When storms and winds move out of the north during the peak of migration, this makes an already treacherous flight across open water just that much more dangerous.

Upon reaching the barrier islands, birds tumble from

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the air to the safety of the trees and brush below. But many don't make it that far, their energy giving out before they reach the shore.

Catastrophe is not a strong enough word for these events. Yet birds are resilient and have managed to persist for many millennia. So how do they do it? Take a look at a couple of amazing stories.

Surviving the Snow

A few years ago, I worked on a research project in Alaska studying the breeding ecology of the little-known arctic warbler, a species whose only North American breeding ground is in Alaska. In late June, right in the middle of nesting season, we got hit with an unseasonable snowfall. Every one of the nests we were monitoring got wiped out. Adults simply left, abandoning eggs and chicks alike, to seek shelter elsewhere.

For a few days we thought that was it, that the season was done. But when the snow melted, the birds returned and, amazingly, started over. New nests were built, eggs were laid and chicks were hatched. There were fewer eggs per nest than normal, but the birds persisted, and by late July we saw flocks of young arctic warblers.

Birds need only short periods to produce their young, meaning that if one nest fails, they can often try again. Songbirds often lay six, seven or even more eggs at once. This means populations can recover quickly if given the opportunity. It's very impressive when you think about it.

Facing the Hurricane

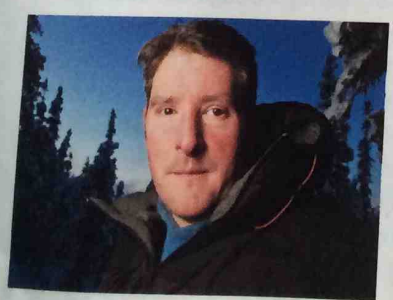
Here's another success story. On Oct. 8, 2001, Hurricane Iris came ashore in Belize, tearing through the lowland rainforest of the Caribbean coast, toppling trees and leveling the forest. The storm ripped through a field site where biologists were studying the ecology of the forest's birds. While the researchers, Andrew Johnson and Kevin Winker of the University of Alaska Museum of the North, were initially dismayed, they realized they had stumbled on a unique opportunity to see how birds react to such devastation.

Offer roosting spots by adding a birdhouse or nest box for birds like this eastern screech-owl.

Within a few days of the storm, the biologists were back at work, assessing how their study populations had fared. A few species disappeared entirely, the change in habitat from mature forest to shrubland simply taking away their homes. Other species persisted, making do in their new environment. And some, those known to frequent open habitats, moved in and made themselves at home. As a whole, the community of birds showed amazing resiliency. As the forest comes back, the original population makeup will likely return as well.

Lesson Learned

So it isn't all bad news. In fact, these species that survive extreme weather give us hope for birds in general, because they're able to move and adapt. We can and should be saddened by events like the spring storm in Alaska or the hurricanes that tear forests apart. But birds can handle them. Now it's our job to allow the birds enough habitat to recover.



David Shaw lives in Fairbanks, Alaska. He has seen firsthand how tough birds can be but is always impressed by black-capped chickadees, who endure temperatures of 40 below zero.

WANT TO *help?*

It might seem as if you can't do much for birds facing extreme conditions, but here are a few things you can tackle.

KEEP FEEDERS FILLED. Before and after a big storm or other severe weather hits, it's important to provide plenty of food for your feathered friends. During the storm, they'll probably be taking cover. So give them food to stock up on beforehand and for refueling after.

KEEP BIRDBATHS FRESH. Water often is forgotten, but clean, fresh water is essential for survival. This is especially important to remember during times of drought and in the heat of summer.

OFFER SHELTER. We know birds take cover when bad weather is on the way. You can offer extra roosting spots by putting up another birdhouse or two. Another way to offer shelter is to plant dense trees or shrubs.

HELP PRESERVE HABITAT. This might be the most essential of all. We must provide birds with plenty of habitat so they have space to recover. You can do this on a small scale in your backyard, but I would encourage you to support larger habitat restoration and conservation efforts in your area as well.