Summaries of winter weather patterns in North America often have a patchwork quality, with contrasting extremes, a freeze-or-famine effect. But this year, comments about temperature were remarkably consistent: almost throughout the reporting areas of the continent, it was a mild season. Only in Quebec and the Maritime Provinces was it a cold winter. (Of course, this thumbnail summary ignores the

mary ignores the vast stretches of central and northern Canada whence we have no reports.) Precipitation was slightly more variable, but much of the continent was fairly dry, with wetter conditions toward the southwest (especially in waterlogged Texas). But overall it was a relatively comfortable winter almost everywhere.

Human responses to the temperature are clearly revealed by comments in the Regional Reports. The warmth of the season drew far more comment in the north; for example, Koes and Taylor were suitably impressed by the reading of 72 degrees in Calgary, Alberta, in February. By contrast, no one in California mentioned the temperature at all, and the mildness of the season was only a footnote in most southern regions. It figures: we can often predict what people will take for granted.

Predicting what the birds will do is another story. Some of this season's avian events fit well with what we might deem "logical" in a mild winter. Others were closer to the opposite of what we might expect.

Over many of the eastern regions, half-hardy ducks wintered farther north than usual. Blue-winged Teal, the "summer duck," offers a prime example: very few were in southern Florida, but several northerly regions commented on Blue-wingeds lingering into early winter or even staying for the season. Wood Duck, another fair-weather species, was often mentioned in the north. American Coot (which only thinks that it's a duck) offers a similar case: John Ogden remarked on exceptional scarcity in southern Florida, but good numbers were in northern Florida, and more than usual wintered in Ontario. All of these could represent birds that were never pushed south by freeze-up.

**HE CHANGING** 

Winter 1991–1992

By Kenn Kaufman

Was it a good season for lingering half-hardy birds, small insectivores and the like? Yes and no. Yes, if you were anywhere from the Appalachians east, or in the deep South, or in British Columbia. No, if you were in the upper Midwest or on the Great Plains. In the latter areas, although the winter was mild, it had been preceded by very harsh weather in late fall. In particular, a widespread freak storm that struck around Halloween 1991 was believed to have wiped out many of the semi-hardies. But even in areas hard-hit by that storm, some surprising birds survived and lingered, like the Cape May Warbler in Alberta in February. And elsewhere,

lingerers were plentiful, with regions from Central Southern to Ontario to New England offering numerous examples. Birds like Brown Thrashers, catbirds, phoebes, and American Pipits were often mentioned. New England recorded 15 species of warblers in December.

So in this very mild, benign winter, what was the big story? Oddly enough, it was the massive southward push by birds from the far north.

#### **Snapshot of the season**

In flipping through the photographs submitted with the regional reports for this winter, I received a powerful visual image of two major themes: owls and gulls. (In northern regions, Gyrfalcons provided a third subtheme.) Part of this has to do with the fact that these birds are relatively large, stationary targets for photography-more so than, say, kinglets or longspurs. But the season did seem better than average for odd gull records, especially inland. And this winter was a phenomenal season for southward movement by northern owls, along with some other predators from high latitudes.

#### **Owl the news that fits**

The flight of northern owls (and some other northern predators) was a very widespread phenomenon.

Snowy Owl, the most frequent invader, staged a big movement east of the hundredth meridian. At the periphery, good numbers reached the Atlantic Provinces, although the total reported was probably under three digits. Ten got south to New Jersey, one to Maryland, a couple to Virginia and West Virginia, and one to far southern Illinois. One each reached Kansas and Nebraska. But the main flight was concentrated from New England westward through the Great Lakes. More than 70 were in Massachusetts alone. Ontario may have had its biggest invasion ever, with more than 220 in the south of the province. More than 100 were found

in a limited area of western New York (and others elsewhere in the state), another 100+ in Minnesota, and good numbers in all the intervening areas. This flight did not carry over to the west; numbers were low from Manitoba west to British Columbia. The actual southward flight of the Snowies seemed to happen mainly in November, but most of the birds stayed south for the winter and did much wandering.

Northern Hawk Owls made headlines over an even broader front, east to west, although they did not travel nearly so far south. A few were as far east as Nova Scotia, where they rarely appear. Southern Quebec saw its biggest invasion ever, with another 40 birds added to the 70 tallied during late fall. Ontario recorded about a hundred. But the numbers were aptly described as "phenomenal" or "mindnumbing" farther west, in a band from Minnesota through southeast-Manitoba to east-central ern Saskatchewan. In Minnesota, 142 were seen, the biggest push in 29 years. Almost that many-135were banded in southeastern Manitoba. In a limited area of east-central Saskatchewan, 70 were banded and some 200 were seen. As Rudolf Koes and Peter Taylor commented, "Given the vast tracts of inaccessible country, one can only speculate on [this winter's Manitoba] population-a few thousand?" Farther west, numbers were fair in Alberta and British Columbia. Aside from Minnesota, few Hawk Owls came south of Canada. a dozen in northern New England, two in upstate New York, twenty in Michigan, a few in Wisconsin, three in North Dakota, one in Montana.

Continuing the roll call, Boreal Owls also moved, and in many of the same areas. Fifteen in mainland Quebec for the fall and winter was possibly the best flight ever, and 26 in Ontario set a record there. Five around St John's, Newfoundland, were about as far east as they could go. Fall

and winter saw six in one small area in Massachusetts, while one Boreal Owl in Connecticut was that state's first in 46 years. Others included one in upstate New York, two in Michigan, and four in southeastern Manitoba. One point must be stressed about these numbers: unlike Snowies and Hawk Owls, Boreals are so inconspicuous in winter that any discovery of one has to be considered a fluke. The discovery of multiples undoubtedly reflects a much larger invasion. Incidentally, last fall eastern Oregon and Washington found surprising numbers of Boreals, but there's no telling whether there's any connection to this eastern flight.

Great Gray Owls were also on the move. Their activity was centered farther west, with only one or two east to the Maritimes and Maine. The 60 in Quebec and 234 in Ontario were far below their record totals from the invasion eight winters ago, but were otherwise unsurpassed in past tallies. Michigan (with 55) and Minnesota (with 196) both had all-time highs. Southeastern Manitoba did not calculate a total, but the mention of 26 Great Grays in one day indicates that there were plenty around. All the way over in British Columbia, quite a few were detected in north-central areas. At the periphery of the flight, one Great Gray in western New York and one in northwestern Pennsylvania attracted hordes of birders.

## Other northern predators also moved south

One Gyrfalcon can make a winter; this winter was made many times over, and from coast to coast. At the eastern extreme, a record six were around St. John's, Newfoundland. New England had a dozen or more, the biggest invasion in years, and southern Quebec had an outstanding 30. Ontario saw at least 22, double last year's good flight, and more than a dozen reached the Western Great Lakes region. There were good numbers in the Prairie Provinces and a handful in the Dakotas and Montana, and British Columbia had possibly its biggest flight ever. Scattered singles got south to New Jersey, Nebraska, Wyoming, and Utah.

Reports were mixed on Roughlegged Hawks. They were numerous in some areas (such as western Pennsylvania and central New York), scarce in others (such as northern California), and drew no mention in others. Northern Shrikes, the micro-raptors, were generally in better-than-average numbers in most places east of the Rockies. It was one of the heaviest shrike invasions on record in western Pennsylvania and northeastern Ohio, but in most areas it was not up to the big flight of the preceding winter. In the west, as usual, numbers of Northern Shrikes came south as far as New Mexico and northern California.

## Looking for reasons

What was the driving force behind this massive, broad-front movement of northern owls and other predators? It's easy to say that the birds were looking for food (since birds are always looking for food), but it doesn't really answer the question. These birds all have different hunting styles and different food bases, and they come from different areas: Snowy Owls from the tundra, Northern Hawk Owl from high-latitude forest, *et cetera.* It's hard to imagine any one factor that could cause food shortages "at home" for all of them.

It may be coincidence that these birds all moved in the same season, or it may not. Certainly most of them moved into areas that were having very mild winters, making it clear that local weather was not pushing the birds. The reasons behind the concerted flight are probably hidden deep in Canada, in northern wilderness areas where data are hard to come by. But by now, we have quite a few years of good information on owl flights: it is possible to glean a very good idea of the magnitude and geography of every invasion from the pages of *American Birds*. It would be worthwhile for some computer-literate biologist to gather any environmental data available from central and northern Canada, line it up with the information on owl flights, and run a multivariate analysis to see if any correlations appear.

At an avocational level, it would be satisfying to know the causes of these winter incursions. If we could predict an invasion by Great Gray Owls, for example, we could rush out and buy shares of Kodak stock before the big birds arrive. But much more importantly, such insights might help us to understand what these flights mean, if anything, relative to the total health of the species' population.

## **Gull surprises**

I originally said that owls and gulls made the news, so you're wondering if I'm going to mention the gulls again, right? Every winter seems to be good for gulls somewhere, and birders always photograph them, perhaps mostly out of a desire for self-defense. This season saw a wide scatter of Mew Gulls, including first confirmed records for New Mexico, Pennsylvania, and western Massachusetts, and notable records elsewhere, including Quebec, Wisconsin, and Nevada. (This could not have reflected any concerted movement, since the birds involved were split between the forms canus from Europe and brachyrhynchus from western North America-forms that may be split taxonomically, as well, in the future. If you find a stray Mew Gull, be sure you identify it to race!). Nevada observers documented a bewildering variety of gulls, as described by Hugh Kingery.

The so-called "white-winged gulls" (Glaucous, Iceland, and Thayer's) staged a better-than-average movement, but mainly in the interior, not on the coasts. In New York, for example, most were found upstate, not near the coast. One locality in Montana reported 17 Glaucous Gulls one day in December; Iowa had several Iceland Gulls; Kansas observers called 16 Thayer's Gulls during the winter. (Identification is always a problem—with any luck, Thayer's and Iceland will be lumped soon, making it easier to dismiss birds that look intermediate.)

With the charismatic high-arctic gulls, it takes only a couple of individuals to make a big impression. Ontario's third Ross' Gull was outdistanced by one that reached Missouri, for one of the southernmost records ever. Ivory Gulls made the hotlines with one in Chicago, one in Wisconsin, and two on the Mississippi River in Minnesota.

And the single most notable gull of the season? If you were predicting where the Slaty-backed Gull, from Siberia, might show up in North America, would you think about citrus-and-cotton country on the Rio Grande? If not, guess again, and read about it in the Texas report.

# Inland reservoirs and broad patterns of winter distribution

A gradual revolution has been taking place, not this year or even this decade, but over the long run: more and more birds that once might have wintered on coastal bays are now wintering on big inland reservoirs. As Steve Stedman points out this season, the numbers of Horned Grebes wintering on some such reservoirs in the mid-south can run into the hundreds. These presumably are birds that otherwise would have gone on to the Gulf Coast, but they are now regular wintering birds some 500 miles north of the Gulf.

Perhaps a different kind of pattern is revealed by the records of Yellowbilled Loons wintering inland. Hardly more than twenty years ago, such records were unheard of, so the inland tally for this past fall and winter is impressive. Fall produced four in interior British Columbia, one in Saskatchewan, one in Idaho, and first records for both Utah and Arkansas. This winter added two more in Idaho, and singles inland in California, Nevada, Colorado, New Mexico, Oklahoma, Texas, and Missouri. Many of these staved for extended periods. The one in Missouri, spending the whole season at Table Rock Lake for the third year in a row, is obviously wintering successfully. What makes these birds so different from the Horned Grebes is that they are not merely stopping short on their way south: all of these reservoirs are farther south than any regular wintering area on the coast. We may be seeing a pioneering effort that will establish a whole new wintering area for many Yellow-billed Loons.

## Following El Niño

Defining "normal climate" has always been a vexing problem for meteorologists, and pinning down "abnormal weather" has been even more so for the general public. Virtually all weather differs from the *average* to at least a slight degree, so it's hard to say what constitutes really abnormal weather. But recently I've heard mutterings from weather amateurs (and a few professionals) to the effect that strange weather is becoming stranger and more frequent. In other words, climatic instability might be increasing. If this were true, major ocean currents would probably be involved, as cause or effect or both.

The phenomenon of El Niño has crept into the public consciousness over the last decade or so. Most of us still scarcely know what it's about, but we know that this cyclic countercurrent can change ocean temperatures over broad areas and rearrange seabird distribution in major ways, at least temporarily. When it comes to understanding El Niño, Bob Pyle 1s far better situated than most of us, in two ways: he has a professional background in weather science, and he lives in Hawaii, where ocean phenomena cannot be ignored. Pyle reports that El Niño conditions are in process in the central Pacific, with obvious effects on Hawaiian weather. Possibly related to these wide-ranging conditions, Hawaii received two new species and two more extreme rarities during the season.

El Niño was also invoked to account for events in California's offshore waters. Some of the cold-water northern birds were scarce there, while many southern seabirds, like Black-vented Shearwater and Xantus' Murrelet, were unusually numerous for the season; California's first winter record of Least Storm-Petrel was another indication of the trend. As one contrary sign, there were records in both northern and southern California of Parakeet Auklet, a Beringian alcid that is thought to be rare this far south.

### **The Finches of History**

Winter 1991–1992 was a good season for the "winter finches." It really was, although that statement will be contested immediately by observers and Regional Editors almost everywhere. I'm not saying that the observers missed something, and I'm not necessarily just crazy; it's just that tumes have changed, and we'll have to re-think what constitutes a "good season" for these birds.

This season was "good," I maintain, because there was actually some movement of winter finches within the Atlantic Provinces of Canada, with almost all of the species (except Red Crossbill) noted in good numbers in the northern part of that region. Even Purple Finch, lamented as a vanishing species in many areas to the south, took part in this movement. In New England, Purple Finches and Evening Grosbeaks appeared in the northernmost areas. Otherwise and elsewhere, redpolls furnished the only real evidence of a finch flight. Most of the redpolls stayed near the Canadian border. However, small flocks or singles made it south to Maryland, Ohio, Iowa, Missouri, Kansas, Oklahoma, northern Colorado, and southern Idaho.

Under current conditions, I believe, these events add up to a big finch year.

Does this mean I'm advocating an era of reduced expectations? Sort of. I think Harry LeGrand has a good point, in discussing why finch flights never reach the Southern Atlantic Coast any more: it's not that there has been a great cone crop up north every season for the last 15 years; the finches are just being shortstopped by feeders. Southern Canada and the northern US have incredible numbers of bird feeders. A flock of finches that comes out of the boreal forest, looking for food, can hardly travel any distance without encountering them-without being intercepted by a kind of beneficent Maginot Line of feeders. And if the first feeder is crowded, or the first ten feeders, more will be waiting just down the road. Other factors may be involved, of course (there is concern, repeated this season by Bruce Peterjohn, that eastern Purple Finches have declined as House Finches have advanced). But in general, I don't think a lack of finch flights at southern latitudes reflects any trouble for the continent-wide population.

#### **Compensation from the south**

If the northern finches are going to travel southward less often, can birders at low latitudes hope for any compensating birds from the south?

Yes, in some cases. Cave Swallows, having expanded their range and numbers remarkably in recent years, are also expanding their seasonal occurrence. They have wintered in Texas several times; this season they were already back in January (if they had ever left) in both Florida and New Mexico. In the southwest, a number of Mexican birds wintered north of the border. A scattering of Ruddy Ground-Doves, Rufousbacked Robins, and Streak-backed Orioles was almost expected. Arizona had a Blue Mockingbird, and a pair of Eared Trogons wintered there for the first time. A Tufted Flycatcher and a Green-breasted Mango spent substantial parts of the winter in Texas.

The most sought-after bird in Texas, though, was the Aplomado Falcon in the wide-open grasslands of Presidio County. Popular opinion quickly rallied behind the idea that this was a genuine wild wanderer from Mexico. After decades of dubious sight records, and years of poor success with the attempted introduction in south Texas, it's a thrill to consider a "real" Aplomado—and the possibility that this lean raptor might re-establish itself here. The presence of even a few pairs would put a wild magic back into our desert grasslands.

