The Changing Seasons

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The WINTER OF 1988–1989 IN North America could have begun with a line borrowed from a Western movie. Before the season had a chance to get underway, it seemed, a mysterious stranger stalked to the middle of the continent, faced the north, and barked out, "All right nobody move!" And for the most part, it worked. There were a few exceptions, but most of the northern birds did *not* move, and the non-invasion of all the invasive northern species added up to the biggest story of the season.

Can we paint a clear picture of this non-flight year? And can we identify the mysterious stranger who stopped the flight? Yes and no. The Regional Reports do give us a pretty thorough idea of where the birds were and, especially, where they were not. But no reason can be singled out for the lack of an invasion, because there were probably many reasons, at least one for every species that failed to move south. The one common theme is that the lack of a southward invasionwhile it might be bad news for birders-seems to reflect good news (at least in the short term) for the birds themselves.

What makes a detectable pattern?

A few times in recent years, firsttime writers in "The Changing Seasons" have complained that the Regional Reports revealed no patterns: one region would note that a given bird was unusually common, while another region would report the same bird as scarce. Seeing this as a contradiction, the writer would conclude that there was no pattern.

But when two Regional Editors

have such different impressions, is it really a contradiction? Not necessarily. It may be just the kind of pattern we're looking for.

When one region reports that a particular bird was unusually common, it could mean one of three things:

1. It might be just a false impression.

2. It might mean that this species, for some reason, is in high numbers throughout its range. If this is the case, presumably, some other regions will comment as well.

3. It might reflect a temporary shift in the population. Birds of many sorts do move around in response to changing conditions. This is especially true in winter, when the wild food supply and the overall weather patterns may vary wildly from year to year. If food is abundant in one area, attracting large numbers of birds, we could expect numbers of birds to be reduced somewhere else. This is no contradiction; this is a pattern.



A winter enigma: this Common Redpoll (shown consorting with American Goldfinches) photographed February 11, 1989 at Glen Rose, provided only the third acceptable record for Texas. One or two other individuals were noted exceptionally far south, but for the most part this and other "winter finches" were remarkably lacking in areas that they usually invade. Photograph/Greg Lasley.

Three easy patterns: Red-breasted Nuthatches stay in the North; Golden-crowned Kinglets blanket the East; Northern Shrikes invade the West

Examples culled from this winter's reports are three widespread patterns, confirmed by many regions, that are easy to describe (although perhaps not easy to explain).

From coast to coast, Red-breasted Nuthatches were scarce almost everywhere south of Canada. This was noted in so many regions that it was clearly no illusion. Evidently the birds had little reason to move South. In Quebec, they remained common in areas that are normally vacated in winter; in New England, they were numerous in the interior but scarce in more temperate areas near the coast. One area that Red-breasted Nuthatches did invade was southern Alaska, where an all-time high was counted at Anchorage, about as far north as the species gets at any season. The continental pattern seems clear enough, with low numbers in the south balanced by high numbers in the north. Incidentally, some western editors mentioned the absence of these nuthatches in connection with the lack of a downslope movement from the mountains. The continentwide nature of this non-flight suggests another interpretation. It suggests that the Red-breasted Nuthatches that are sometimes common in the western lowlands may come from the far north, not from the nearby mountains.

Golden-crowned Kinglets were apparently numerous at the northern and southern extremes of their range in eastern North America. These micro-birds remained in aboveaverage numbers in Quebec and in the Maritime Provinces, where the "woods were almost dripping" with them in Nova Scotia. At the same time, this was the northern species that "made the biggest impression on Florida observers," it was in higher than average numbers throughout the Central Southern Region, and it was common in eastern and southern Texas all winter. Between these extremes, and in the West, the kinglet drew few comments.

East of the Mississippi, no one seemed impressed with the movement of Northern Shrikes; they were noted as scarce in the Atlantic Provinces, New England, Quebec, Ontario, and around the western Great Lakes. Numbers picked up toward the west, however. Northerns were south of usual limits in Missouri, and in Texas one was as far south as the Guadalupe Mountains. New Mexico had its largest flight in over a decade, Arizona recorded its largest numbers ever, northern California had high numbers, and several reached southern California.

We might ask: did this southern push of Northern Shrikes represent spillover from a high total population, or was it just an exceptional movement by small numbers of birds? But we'll get no clear answers. The Spokane area of eastern Washington had a high count, but coastal sections of the Pacific Northwest had low numbers, and other areas had no comment. In the interior of the Northwest, birders and Northern Shrikes are both too thinly spread for us to expect one to monitor the other.

Our detection of patterns: how tight is the grid?

It seems obvious that we could detect avian trends and movements with great accuracy if we had a network of birders stationed at one-mile intervals across the continent, a grid system of observers. It seems equally obvious that no such network exists. Birders are spread more patchily than birds: numerous in some areas, absent in others. This has a major effect on our ability to detect patterns.

In the great expanse of Northwestern Canada, most of the reports come from small areas around Whitehorse and Fort St. John. In the vastness of Alaska, winter reports come from only a handful of locations. And this scarcity of observers is not limited to the Far North. In a footnote to me from Colorado, Hugh Kingery wrote, "No bird watcher (and certainly no birder) has ever set foot in vast expanses of Nevada. A lot of observers fail to appreciate the immensity of the West or the dearth of bird watchers here ... We have just one reporter who lives in spruce/fir, so we don't hear much about spruce/fir birds. But we have a bunch of reporters who live in ponderosa pine, so when the crossbills show up there, we hear about it."

Variations on this theme could be repeated for most parts of the continent. there are some areas with heavy birding coverage, and more areas without.

To really understand any pattern of bird distribution, it helps to have an idea of *birder* distribution, or at least an appreciation of the fact that some areas will be under reported.

The main event: in a massive noninvasion, the "winter finches" moved late or, mostly, never

As Bill Boyle stated for the Hudson-Delaware Region, "The winter finch story is easy to summarize: there were virtually none." Blair Nikula wrote that "for many of us in southern New England, the term 'winter finch' evokes only the vaguest of memories." From the Midwest, Bruce Peterjohn reported that "it was the poorest year in a decade for winter finches." Veteran George Hall, who started editing the Appalachian report before most of us started birding, put it in a longer perspective: "Probably only those birders whose memory goes back to the 1940s could recall a winter season so deficient in Evening Grosbeaks or other northern finches."

All across the continent, south of the Canadian border, there were no dissenting opinions. Of course, there were some purely local exceptions. The Middle Pacific Coast Region had very few Evening Grosbeaks, except for one spot that hosted an all-time regional record number. The Mountain West had high numbers of some finches in the Englemann spruce zone, but low numbers of most in most places. A few redpolls moved late in the season, as often happens, into Wisconsin and North Dakota (the timing of this flight is one example of why the Christmas Bird Counts cannot give the full winter picture) But all these exceptions were mentioned only as exceptions. The rule, endorsed by virtually all United States regions, was that the winter finches did not come south.

So where were they?

We know where the White-winged Crossbills were. Throughout northern Ontario, they were "numerous." In central Quebec, they were "abundant." In the Atlantic Provinces, Ian McLaren termed them "outstandingly abundant." Responding to a mas-

sive cone crop, the White-wingeds swarmed in the spruces, and many were evidently breeding. Bruce Mactavish dropped me a postcard from Newfoundland to say, "When all these cones disappear in six or 12 months from now . . . there is the potential for the biggest White-winged Crossbill invasion in decades. Look out Florida!" And it may be no exaggeration. At any rate, the great food supply was undoubtedly the reason for the species' abundance in eastern Canada; and its abundance there was undoubtedly the reason why it was not present in appreciable numbers elsewhere.

Pine Siskins (which, as David Powell commented from Michigan, "held a record non-invasion" south of the Canadian border) were also scarce in most observed areas of Alaska, Ontario, and Quebec. However, they were common (away from feeders) in the Atlantic Provinces, where wild food apparently was plentiful.

Pine Grosbeaks were considered scarce in Alaska but common in northwestern Canada; in Quebec and Ontario, they stayed in the boreal forests. In the Mountain West, with a good spruce-cone crop, the resident populations had high visibility for those observers that ventured up to the spruce zones to see them.

Redpolls were in average numbers in Alaska but very scarce in northwestern Canada. In eastern Canada, they generally stayed in the northern sections of the provinces at least until mid-winter, and the flight that developed late in the season was not major in numbers or extent.

The winter finches that seemed scarce *everywhere* were Evening Grosbeaks. Few reached New England or southern Ontario. In the Atlantic Provinces, New Brunswick had good numbers but they were scarce elsewhere. They were scarcest of all the winter finches around the western Great Lakes. Few were seen on the northern Great Plains, they were scarce throughout the Northern Pacific Coast area, and northeastern British Columbia had only half the usual numbers.

Of course, when we talk about these birds being absent "everywhere," we mean "everywhere there was good birding coverage." Look at the example of the White-winged Crossbills. Their abundance in the Atlantic Provinces was recorded because that region has many active birders If the abundance had centered on northern Saskatchewan instead, for example, it might have gone virtually undetected. Indeed, that may have been where some of the "missing" finches were this season. The winter finches will go where the food is, whether or not any birders are there to notice them.

Following the fashion of the finches, frugivores failed to fly

Almost as dramatic as the non-invasion of winter finches was the noninvasion of fruit-eating birds, particularly robins and waxwings. Areas from southern California to Texas to the Gulf Coast reported that American Robins and Cedar Waxwings essentially never arrived; even in southern Ontario, the expected mid-winter influx of robins failed to materialize.

Again, their failure to appear in southern areas can mostly be traced to concentrations at good food supplies farther north. Ian McLaren called the holdback of robins in the Atlantic Provinces one of the two main events of the season, and laid it to the abundance of Mountain Ash berries there. (If your non-birding neighbors get a kick out of the "first robin of spring," don't tell them about the ten thousand that wintered in St. John's, Newfoundland!) Cedar Waxwings were also numerous in that region. Another center of abundance for frugivores was the area from Missouri through the northern parts of the Central Southern Region, where waxwings were plentiful and some large counts of robins were made.

Somewhere in the boreal wilderness there must have been good food supplies for Bohemian Waxwings, because these birds generally failed to reach our network of observers.

A disturbing late-winter flight of dying owls

Essential reading is David Powell's account of the owl invasion to the Western Great Lakes Region. That area saw a record flight of Boreal Owls, and a near-record flight of Great Gray Owls, mostly in the latter part of the winter. But birders derived little pleasure from this invasion. The connection between food supply and winter incursions has rarely been so graphically drawn, because the Boreals were apparently starving to death, and the transient nature of many of the Great Grays makes one wonder if they were also on the move with hunger. The source of this flight was undoubtedly somewhere in the vast and mostly unwatched boreal forest to the north of Minnesota.

Inching North: with another mild winter, we saw a continuing northward expansion of Carolina Wren and other species

When several mild winters follow in succession, can southern birds extend their ranges northward? Read what Ron Weir has to say about Carolina Wrens in Ontario. Five years ago, the province had five of these wrens wintering; this season, there were more than 80. New England also had record numbers, Quebec had an unprecedented dozen wintering, good numbers were in Michigan and Wisconsin, and extralimital birds were in Nova Scotia, New Brunswick, Minnesota, and even Colorado.

Other southern species also posted gains, albeit not so dramatically. Northern Cardinals, attempting to live up to their name, were advancing in Michigan, Minnesota, Ontario, Quebec, and New Brunswick. Redbellied Woodpeckers slipped a little in Ontario, but continued to consolidate their range in New England; adventurous individuals were well north in Nova Scotia, Quebec, Michigan, Minnesota, and North Dakota. Northern Mockingbird numbers were up in Ontario, and two even wintered in Newfoundland. Honorable mention also went to Mourning Doves and Black Vultures wintering in northerly areas. The latter two are partially migratory, however; individuals at their northern frontiers do not have the do-or-die commitment of essentially resident birds. A Carolina Wren wintering in Canada is a true pioneer.

Other on-going trends: House Finches and Lesser Black-backed Gulls are up; anis and Common Ground-Doves are down

As the introduced eastern population of House Finches continues to spread, each season brings new reports from the periphery This winter Prince Edward Island had its second record, the species was reported to be "spreading like wildfire" around the Western Great Lakes, and it proved its ability to survive a North Dakota winter. The Iowa population was said to be "increasing quite rapidly," and in the Central Southern Region, Arkansas was "receiving the brunt of the onslaught." At their farthest extension, House Finches are now turning up in eastern Nebraska, Kansas, and Oklahoma. Given the timing, it seems almost certain to me that these birds must be coming from the east, not from the long-established populations just to the west.

Lesser Black-backed Gulls in the East have entered a new phase: they are so numerous that many birders do not bother to mention them, so the total of actual reports is no longer a good indicator of their numbers. In the Hudson-Delaware Region, for example, there were "more than two dozen reported and many others not reported." Some tip-of-the-iceberg reports included 14 at one landfill in Florida, birds at 21 locations in the Middle Atlantic Coast Region, a few in every state of the Middlewestern Prairie Region, 13 birds in Ontario, and at least five birds in Texas.

Declines and range contractions are always harder to detect than expansions, but this season John Ogden and Bill Smith noted that Common Ground-Doves seem to be fading out in parts of Florida where they were once numerous. Similar sentiments have been expressed recently elsewhere in the Southeast, and even locally in the Southwest. Clearly, the species needs close monitoring. Declines were also suggested for Smoothbilled Anis in Florida and for Groovebilled Anis in Louisiana and Texas. Even though these are only peripheral outliers of widespread species, their populations here are worth preserving.

Shuffling the ducks: a slight redistribution of waterfowl

There has been valid concern recently about populations of some waterfowl, but monitoring their numbers in winter can be complicated by the fact that their wintering areas shift from year to year. To be reliable, counts have to span the continent... or go even farther. This winter, for example, waterfowl numbers in Florida were unimpressive, while high numbers wintered in Quebec, probably responding to the overall mildness of the season. The number of migrant ducks reaching Hawaii this season was down, while ducks in Alaska (where the early season was also mild) wintered in increased numbers, Could there be connections here?

Ross' Geese are increasing, or at least being detected with increasing frequency, at the eastern limits of their range just east of the Great Plains. Greater White-fronted Geese are being found in higher numbers right across the Middlewestern Prairie Region to the Hudson-Delaware and New England. Many of these Whitefronteds, especially toward the eastern end of this continuum, are being identified as belonging to the Greenland subspecies, but Blair Nikula questions how reliable these racial determinations really are. His cautionary note should be heeded.

This season saw a notable flight of Harlequin Ducks south to New England, New York, New Jersey, and the southern Great Lakes, and a stray even reached Florida. In the Atlantic Provinces, however, numbers of Harlequins were so low as to cause concern. Barrow's Goldeneyes wandered far afield, with definite or probable records in Delaware, Iowa, New Mexico, and even Hawaii.

As noted by H. T. Armistead, the exotic water plant Hydrilla on the Potomac is supporting record numbers of some ducks, and large counts are still possible in the Chesapeake Bay complex, while nearby at Back Bay most duck numbers are declining. In the Hudson-Delaware Region, census results show that overall numbers of waterfowl are more or less steadybut a breakdown by species shows that Canada Geese (adapted to civilization) are sharply up, while many duck species are down. These examples illustrate the dangers of making blanket statements about the waterfowl. They must be analyzed site by site, species by species.

The interior of the continent hosted a diversity of gulls that should have been elsewhere

Every winter brings notable gull re-

ports. But this season, like the autumn that preceded it, was clearly above average for rare gull records inland. From the Middlewestern Prairie Region, Bruce Peterjohn wrote "Gulls generated the most excitement"; Joe Grzybowski, in the Southern Great Plains, wrote "Thank goodness for the gulls"; Greg Lasley and Chuck Sexton were enthusiastic about the diversity of gulls in north-central Texas. No obvious explanation for this larid bonanza comes to mind, since the species involved were such an eclectic group. The Mew Gulls in Texas should have been on the Pacific Coast, the Great Black-backed Gull in Nebraska should have been on the Atlantic Coast, the Ivory Gull in Wisconsın should have been in the Arctic, the Sabine's Gull in Ohio should have been somewhere in the southern oceans, and the Slaty-backed Gull on the Mississippi River should have been in Asia.

Perhaps most significant was the scattering of numbers of Franklin's Gulls in the interior. These prairienesting gulls generally winter on the west coast of South America, but this season birds were reported into the winter in Texas, Oklahoma, Kansas, Nebraska, South Dakota, Iowa, Missouri, Wisconsin, Tennessee, Louisiana, Mississippi, Alabama, Florida, and Oregon (as well as California, where a handful often winter). The numbers involved were not large, but the wide distribution was remarkable. Many of the birds in the deep interior were reported to be in full breeding plumage, surprising in midwinter.

Weather's effects on wintering birdlife were not universally noted

The early winter was mild in most parts of the continent, and in some areas the whole season continued mild. However, record-breaking cold hit Alaska in mid-January. This weather system gradually spread east and south to affect many regions of North America by sometime in February, with conditions moderating again afterwards.

This weather pattern is easy to trace, but for the most part its effects on birds were not obvious. Some regions felt that the warm early part of the season induced marginal species to linger, but not all shared this view Some half-hardy songbirds lingered in the Hudson-Delaware Region, for example, but next door in New England there were remarkably few lingering shorebirds despite the mild conditions. The only birds that seemed to be widely affected, as mentioned earlier, were some of the waterfowl that wintered north of normal limits.

And when the cold weather did arrive, it seemed to bring about only local movements, or none at all in some areas. In Alaska, where the conditions were most severe, there was some bird mortality. Another region where the harsh weather had notable effects on birds was the Northern Pacific Coast. There, coinciding with the freeze, several shorebirds moved out, while kittiwakes arrived from the north. A number of montane birds, such as Red-breasted Sapsuckers, Steller's Jays, and Varied Thrushes, moved into the lowlands.

Birding in Fashion: reports of Yellow-billed Loons have spread; will Common Pochard be next?

As Ted Eubanks pointed out in this column last year (American Birds 42:402), reports of a species can increase along with its "popularity"i.e., birders' awareness of its status or its field marks. I suspect that this point is partly illustrated by the recent surge of Yellow-billed Loon reports in the interior. To be sure, there are far more artificial bodies of water in the interior of the West than there once were, but the reports of Yellow-billeds started rolling in long after these reservoirs were available. The key factor seems to be that good information on identifying winter loons has become widely accessible only very recently. In regions of the interior where once birders would have made the "conservative" assumption that any loon must be a Common, such birds are now being studied critically. The possibility of rare visitors is being considered. With two Yellow-billed Loons in the interior of British Columbia and one in Colorado this season, the appearance of Oklahoma's first was exciting, but perhaps not totally unexpected. The species might eventually turn up in most of our states and provinces.

This winter a Common Pochard was found in southern California, and many felt that it was a genuine wild stray, not an escapee. Whichever it was, this is probably a species that has been *overlooked* in the past. Superficially it looks like something between a Redhead and a Canvasback; up to now, only a few astute observers might have picked it out. But in the wake of the California bird, everyone will be looking for more, and I predict that the Common Pochard will be found again.

The probable extinction of another American bird species

Some of the world's toughest endangered-species problems are in the United States ... in Hawaii. Strong conservation efforts are helping some of the endangered birds there; but for some of the ultra-rare native forest birds, there is little that can be done outside of monitoring their numbers. Monitors there may have seen the last of the 'O'o'a'a, that black-and-yellow phantom of the Alaka'i Wilderness. Bob Pyle relates the sad story. A loss for Hawaii is obviously a loss for all of us.

Read this or else

My aim in writing "The Changing Seasons" has been to trace the megapatterns, the avian events that were spread over several regions. As a result, I have said much about common birds such as American Robins and Pine Siskins, and nothing about mouth-watering rarities such as Bananaquits or Bramblings. But those birds are printed in boldface type in the Regional Reports, and you can find them yourself. You owe it to yourself to at least flip through the Regionals, checking out the boldfaced birds and reading the boxed essays.

A non-boxed essay that's worth a look is Dave Lambeth's discussion of winter waterbirds on the Northern Great Plains. First he describes the distribution of unfrozen water in his region, and then he details the birds that were found on that water during this season. It's far more informative than just listing the bird records out of context.

Speaking of context, here's another topic to think about. It's true that this winter was exceptionally poor for southward invaders, but many of these winter irruptives have seemed



Twenty years ago, who would have dared to report a Yellow-billed Loon in Oklahoma? Probably no one, but with better understanding of the species' field marks, it has been detected in such inland states as Minnesota, Colorado, and Arizona, so a pattern of rare dispersal to the interior has been established. This Yellow-billed Loon in first-winter plumage was photographed near Tulsa, Oklahoma, on December 20, 1988. Photograph/Steve Metz.

oddly scarce for a number of years now. At the same time, guite a few southern species have been spreading northward. Could these phenomena, seemingly very different, have the same cause? Your required reading assignment is Blair Nikula's introduction to the New England Region report, wherein he examines this possible connection. Remember the mysterious stranger we talked about, the one who stopped the flight of northern birds? Maybe his name was "Greenhouse Effect" or "Global Warming." The seasons are changing, and this is a good time for all of us to pay attention, to monitor the changes in our birdlife.

And finally, if your winter was on the dull side, you might find comfort in the account from the Atlantic Provinces. That Region had it all: swarms of finches and fruit-eaters, lots of lingerers, a northward surge of southern birds, and a healthy handful of strays from Europe. Ian McLaren writes about the season with obvious relish and zest. You can read it just for fun, and contemplate the possibility that next time your Region might be the lucky one.

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