Changing Seasons

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THIS WAS, WITHOUT any question, a big winter. Aspects that made it big, however, varied substantially, depending on where you were. Over northeastern North America, it was a big season for snowplow operators and meteorologists, as the severity of the winter broke records in many places. In the same regions, it was a season for massive invasions of several bird species, some of the biggest flights ever.

Farther west, it was a big winter for being philosophical about the value of negative data: the weather was fine, fieldwork was comfortable, but birds were sparse. Still farther west, in Hawaii, it was a big winter for ducks, with many unexpected species having made the long overwater flight.

Regardless of locality, however, most Regional Editors had no trouble finding things to write about. In this column I can touch on only some of the biggest phenomena of the season. As always, the Regional Reports are well worth reading in their entirety.



With the harsh weather of late winter 1993-1994 in eastern North America, the Great Lakes were frozen over almost completely, forcing out many waterbirds that ordinarily winter there. Almost certainly as a result of this, an unprecedented "invasion" of Red-necked Grebes moved east to the Atlantic Coast and south into the interior of the east and midwest during February. This bird was picked up at Elizabethton, Tennessee, Feb. 13, 1994. Photograph/Rick Knight.

Winter weather in the Northeast: Dust off your superlatives.

What was the winter like? From Ontario, Ron Ridout put it succinctly: "There are few people alive who can recall a more brutal winter than that of 1993-1994." And that statement would have applied over much of the northeast.

The Great Lakes froze over almost completely, and so did many coastal bays as far south as New Jersey. Boston had more snowfall than in any winter in more than a century. It was the coldest January on record for Syracuse, New York, and for the Province of Quebec. Around Baltimore the ice on sidewalks remained as thick as 4 inches for nearly a month, temperatures hit 22 below zero as far south as Kentucky, and a devastating February ice storm killed large numbers of trees in Tennessee. The impact was worst in the northeast, and reporters as far west as North Dakota and as far south as Virginia said that this was merely the worst winter in fifteen years!

But the winter did not start off that bad. Indeed, early December was quite mild over a remarkably high percentage of the continent. The moderate temperatures must have had an influence on the high numbers of "summer" birds that lingered in many regions.

Not until around Christmastime did the severe cold set in, with one wintry storm after another advancing from the Plains to the Atlantic Coast.

Away from these heavily impacted areas, to the south and especially to the west, the weather remained mostly mild through the season.

As usual, it was difficult to trace the effects of the weather on local bird populations.

When considering a winter of exceptional severity, we naturally wonder about the effect on wild birds. In some cases we can guess: Waterfowl probably moved south as the waters froze, while stray insectivores attempting to winter far north of usual limits probably died. But it's harder to know about others.

Attention often focusses on "southern" birds at northern limits, such as the Carolina Wren. This species has been doing quite well in recent years, and some northerly Christmas Bird Counts this season had excellent totals—but, of course, the counts were taken before the harsh weather got under way. In the Middle Atlantic Coast region, censuses late in the winter suggested that numbers had crashed in many inland areas.

In New England and the Middlewestern Prairie region, numbers of Carolina Wrens appeared to be reduced by late winter, but there were some definite survivors (unlike some winters in the late 1970s, which scored a near wipeout of the wrens in some parts of the upper Midwest).

Eastern Bluebird is another species of concern, susceptible to extreme winters. In Delaware, where record numbers in early winter were a tribute to the success of nestbox efforts, the birds were thought to have come through the season in good shape. However, early spring cleaning of bluebird nestboxes in Kentucky suggested a harder reality there: About ten per cent of the boxes contained dead bluebirds, victims of the winter.

A massive flight of Red-necked Grebes was directly attributable to the freeze-up of the Great Lakes—or mostly, anyway.

Over much of the east-central United States, birders who had suffered through the cold of January and February were rewarded in the latter month by a major invasion of Red-necked Grebes. The magnitude of the flight is suggested by a few statistics: The Middlewestern Prairie Region, which averages about two Rednecked Grebes per winter, had at least seventy this season; a count of 174 off one county in Maryland was thought to represent more than the total reported for the state during the last 50 years!

The push of Red-neckeds was preceded in January by a southward flight of Horned Grebes, undoubtedly vacating the Great Lakes as the winter got worse. But the Red-necked Grebes appear to have held on as long as possible, so when they finally did leave the Great Lakes, it was an *en masse* migration.

The first big count in North Carolina was over the weekend of February 5–6, while in the Hudson-Delaware and Appalachian regions the start of the invasion was pegged at February 10. Birders in the North encountered these birds mainly as failed migrants: At least six were picked up dead or grounded in New England during February; in southern Ontario, dozens of grebes (Horned and Red-necked) were found grounded on roads in late January and early February.

A detailed analysis by Ned Brinkley *et al.* compared this flight to another Rednecked invasion that had occurred exactly 60 years earlier. In the 1934 flight, many of the grebes died. One observer on Long Island in late February 1934 found over 375 Red-neckeds, but over half of those were dead, and most of the others were seriously weakened.

This year the total Hudson-Delaware region tally came to at least 850 birds, and most appeared healthy. (Many that came down inland, e.g. in the Appalachian region, were in bad shape, but those that made it to the coast arrived in decent condition.) Brinkley *et al.* point out that hundreds of grebes made stops on the Finger Lakes in upstate New York this February, whereas in 1934 those lakes froze over completely. Perhaps such stopovers this year allowed more birds to get to the coast before becoming exhausted.

Although the correlation between the

Great Lakes freeze and the grebe exodus seems clear and complete, there are hints that more was involved: records from before the cold weather began. For example, one location in Vermont had an exceptional concentration of 30 in early December. In southerly areas where the species is very rare, Mississippi had one in early December, western Tennessee had one in late December, and Texas had one from November on and two more arriving in December.

Maybe these were mere coincidences—or just maybe the Red-necked Grebe population was at some kind of cyclic high, so that more individuals were available to take part in the invasion.

Alcids lived up to their reputation as birds of the North—North Carolina, that is.

Reports from eastern Canada and New England did not indicate that it was a particularly unusual winter for alcids there, although there was a small influx of murres in late January and a few more puffins than usual off Cape Cod. Toward the south, however, there were hints that something was going on. The Hudson-Delaware region recorded all six of the regular alcids, including the uncommon Common Murre, and most of the Razorbills seemed to be concentrated in the southern part of the region.

In Virginia, only three boat trips succeeded in getting offshore, but all three of them recorded Dovekie, Razorbill, and Atlantic Puffin, a surprising track record for that southern state, and one trip found Virginia's first Common Murre.

But remarkably, the real excitement was still farther south, off Cape Hatteras, where Razorbills showed up literally by the thousands! I can't improve on the vivid account of this event by Ricky Davis; see his essay in the report from the Southern Atlantic Coast region.

Snowy Owls moved south, but their invasion evidently had nothing to do with the weather.

Snowy Owls staged a fairly good southward flight, almost from coast to coast, though they were scarce in the easternmost Maritime Provinces and not especially numerous in New England. It was considered a "major invasion" in the Middlewestern Prairie Region, and Minnesota actually ran up a record total for the fall and winter. At first thought, it might seem appropriate for the Snowies to invade during such an extreme winter. However, the winter did not turn really bad until January, long after most of the Snowies had arrived; and it was also a big flight year for the species in the Pacific Northwest, where the whole winter was very mild. This suggests once again that mere temperature is not a driving force in the southward flights of these hyperboreal hunters.

Other northern owls made scant news, although decent numbers of Great Gray and Northern Hawk owls were found in southern Alberta (which was, this season, the mildest part of the Prairie Provinces). In a trend worth watching, several regional editors commented on a scarcity of Short-eared Owls.



A Snowy Owl in Pawnee County, Oklahoma was part of a mild invasion in that state, while other parts of the country reported major incursions. January 27, 1994. Photography/ Steve Metz

It was a warbler winter ... or at least it started that way.

Many regional editors—from the Maritimes to Florida, and west to Ontario and the Middlewestern Prairies—commented on the impressive diversity of warblers recorded during the beginning of the winter season.

Most birds in this category were singletons, of course, and any one of the records would have been considered just an oddity if taken in isolation; but viewed across the accumulation of regions, it becomes obvious that this was a significant and widespread (if low-density) phenomenon.

Consider some of these tallies of species. Ontario, in the calm before the storm, had no fewer than nine warbler species in December, including two Ovenbirds and a record-late Northern Parula. The Middlewestern Prairie region recorded eleven species, and the Hudson-Delaware region found twelve.

A total of seven warbler species in Quebec was truly remarkable, given the continental climate of most birding areas there. The outlandish December warbler show at St. John's, Newfoundland—elucidated in recent years by Bruce Mactavish and others—outdid itself this year, with no fewer than fourteen warbler species concentrated in the ornamental plantings of that last-outpost vagrant trap.

Most of these northeastern warblers did not survive into January. Farther south, the phenomenon continued later in the season. A number of warbler species winter regularly in Florida, of course, but this season fifteen different species were found so far north in the state that they merited specific mention.



Notable numbers of lingering warblers were found in the Atlantic Provinces early in the winter, although few could cope with the harsh weather later in the season. Among the few warblers to make it past December was this Yellow-throated Warbler at St. John's, Newfoundland, on January 15, 1994. Photograph/Bruce Mactavish.

Many notables also were found in the Carolinas, Georgia, and the Gulf Coast states. A few records deserve specific mention. Normally among the earliest of fall migrants, single Yellow Warblers were found in Quebec, New Jersey, Florida, Michigan, North Carolina, and Newfoundland. A Cape May Warbler that wintered in North Carolina was notable, but two that survived the winter in St. Louis deserved some kind of medal. My vote for the prize warbler of the season, however, would go to the Blue-winged Warbler that spent February in North Carolina. This species is virtually unknown in winter north of southernmost Mexico.

In the west, where the winter never turned sour, records were widespread. Some of the traditionally hardy warblers remained very far north.

For example, Orange-crowneds wintered at two new locations in Idaho, while southern Alberta had a Yellowrumped Warbler and a Pine Warbler. These are cold inland locations, but surpassing them in latitude were birds that took advantage of the marine climate on two island groups. Kodiak Island, Alaska, hosted an Orange-crowned and a Wilson's Warbler past mid-January. The Queen Charlotte Islands, off the coast of central British Columbia, had five warbler species this season, including two Palm Warblers that overwintered successfully!

Western lowlands saw a general lack of invaders from the mountains or from the north, with a few exceptions.

In a number of western areas, from British Columbia to Colorado to southern California, regional editors commented on a general lack of winter influxes of birds. The west has a number of species, ordinarily sedentary or somewhat nomadic, that will invade the valleys in some winters but not in others.

This year they mostly failed to appear. The mildness of the season in the west may have been a factor, but the general assumption these days is that invasions to the lowlands are driven mainly by a lack of food on the breeding grounds; this season, wild food crops were thought to be good in most areas. Montane species of jays, parids, nuthatches, woodpeckers, finches, and others apparently all stayed at home.

Exceptions to the general lack of invaders involved a few frugivores.

Mountain Bluebird and Sage Thrasher, two that often seem to have juniper berries as a staple in winter, were widespread and common in parts of the southwest. Some New Mexico observers even termed this "the year of the Sage Thrasher." The notable numbers of these two species extended east into western and central Texas, a region also visited by massive numbers of American Robins, all these birds reportedly taking advantage of a "monster crop" of juniper berries. To the west, Mountain Bluebird was the only invader to make a real impact in southern California.

In parts of the Northwest where winter influxes of Bohemian Waxwings and Common Redpolls can be reasonably hoped for, these species generally failed to make much of an appearance. No wonder: They were busy elsewhere.

Out of the West came a flood of Bohemians.

Although birders sometimes think of the Bohemian Waxwing as a northern bird, it would be more instructive to consider it a western bird. Its breeding range lies almost entirely north of the Canadian border, true, but also west of Hudson Bay, with most of them breeding in far western Canada and Alaska. Bohemian Waxwings that arrive in the Atlantic Provinces or New England have probably traveled farther east than south.

This season they arrived in those regions in massive numbers. Ian McLaren called it the "most dramatic invasion in memory" in the Atlantic Provinces. The birds went literally as far east as they could go; at St. John's, Newfoundland, there were apparently at least 5000 in early January, and thousands more in Nova Scotia.

In New England, Blair Nikula underlined the Bohemian flight as the largest



invasion on record: "Their abundance this winter perhaps is summarized best by the comments of some contributors who compared them-only somewhat facetiously-to starlings!" At least 16 locations in Maine had flocks of 100+, with a couple of flocks over 1000. New Hampshire and Vermont had flocks numbering in the hundreds. The best perspective on the magnitude of the flight is in the numbers from Massachusetts, a state that has had intensive birding coverage for many decades. There, the statewide total of 3000+ was not just a new record; it was ten times as many as in the biggest previous invasion!

Reports elsewhere emphasized the fact that the waxwings moved mostly east, not south. Despite the numbers in Massachusetts, only a handful were found in Connecticut and none in Rhode Island. In New York, good numbers were found only in the northern reaches of upstate. Ontario's Bohemians avoided the southern end of the province, while those around the western Great Lakes were numerous mainly in northern Michigan and northern Minnesota. A few lone birds did cause excitement by edging south, including a couple in Pennsylvania and a first record for Maryland.

The long winter-finch drought was broken by a tide of redpolls.

Along with Red-necked Grebes and Bohemian Waxwings, the Common Redpoll was the third member of the triad that made headlines with invasions of the east. Redpolls were present in large flocks from the Atlantic Provinces south to Maryland and from the Prairie Provinces south to central Illinois. Within this area, flock sizes ranged from the hundreds in southerly areas to the thousands farther north. A few Common Redpolls made it south to South Carolina, Georgia, and Arkansas, and one in Dallas provided a fourth Texas record.

The magnitude of the flight invited comparisons to the invasions of past winters, and this one rated quite highly. Around the western Great Lakes, this was deemed the best redpoll flight in ten years. In Maryland it was considered easily the best since 1978.

In the Hudson-Delaware region, the invasion was felt to be the biggest one since the winter of 1959-1960. Most telling of all, in the Appalachian region, veteran George Hall—who was already writing his column in that 1959-1960 winter, before many of us had even picked up binoculars for the first time—considered this season's redpoll flight to be "Probably the best of which we have record."

The Redpoll Badge of Courage: Brave observers struggled with Hoary horrors.

For many birders in the Northeast, it had been a long time since their last opportunity to consider the separation of Common and Hoary redpolls. But with the big influx of Common Redpolls under way, keen observers were naturally hoping to spot the scarcer northern species.

The pattern of reports of Hoary Redpolls suggested that they were moving from the northwest, not the north. In the Prairie Provinces, Hoaries were thought to make up about one to two per cent of the major redpoll totals, and Ontario had reports of 136 individuals. By contrast, the Maritimes reported only about 20 Hoaries, with none at all noted in Newfoundland, and Massachusetts had only the most astute and reliable observers in the region. Czaplak prepared by studying specimens and all the literature, he documented each bird, and he tallied individuals through detailed comparisons of photographs. His results have to be considered very seriously.

Is it possible that observers farther north are overlooking some Hoary Redpolls? Of course it is. It may be that our image of the "typical" Hoary is really based on extreme individuals. The conservative approach to identifying this species is commendable, but may skew our perceptions of its actual numbers, with only the palest individuals being detected most of the time. If so, I don't see any good solution for field observers (throwing caution to the wind is not the answer).

But where redpolls can be studied really closely, as at window feeders or at



two or three.

But a southeastward sweep from the general direction of Ontario could have accounted for potential first records (or first confirmed records) of Hoaries in Pennsylvania, Delaware, Virginia, and West Virginia.

Most regional editors mentioned problems with identification, and couched their reports of Hoaries in conservative terms. But with such small numbers being reported south of Canada, what should we think about a report of at least 18 coming to a single feeder as far south as Maryland?

Our first instinct might be to reject it immediately. But wait: This report was based on a very careful season-long study, and it was made by David Czaplak, one of Regional observers had a rare opportunity to struggle with redpoll identification this season. This bird at Ashton, West Virginia, December 18, 1993, was judged to be the state's first Hoary Redpoll. Photograph/Wendell Argabrite.

banding operations, the question is worth pursuing further. (Notice that a quarter of all the Hoaries clearly identified in New York state were banded at a single feeder!)

The redpolls are not going to be lumped, so we're going to have to deal with them. Progress in their identification has been made; the points mentioned in the Hudson-Delaware column are very good ones, but not the last word. The separation of the redpolls in the field in North America is a challenge that remains to be worked out in detail. \mathbf{T}