

THE CHANGING SEASONS

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*A fall migration that brought
a wealth of surprises . . . and increasing
data on pelagics, at sea and inland*

Red-throated Loon, Bear River, Utah, August 7, 1973. Utah's first. Photo/Dave Beall.

The late Robert MacArthur of Princeton University revolutionized ecology, with much of his insight coming from his lifelong observations of birds. In his last book (*Geographical Ecology*, Harper & Row, 1973), which should be digested by all readers of this journal, he noted: "To do science is to search for repeated patterns, not simply to accumulate facts, and to do the science of geographical ecology is to search for patterns of plant and animal life that can be put on a map. The person best equipped to do this is the naturalist who loves to note changes in bird life . . ." My purpose in attempting to analyze the regional reports, and indeed, the purpose of the regional editors who summarize the thousands of individual records, is to try to dissect some of these repeating patterns out of the noise of observations made in an almost random fashion. Because most of the patterns that might be detectable from these sorts of data are extensive in space and/or time, I stand a better chance of seeing them than an individual regional editor, just as he has a better chance than any single field observer. I have been able to identify some patterns and trends that may not be particularly apparent in any single report, but I would be the first to caution against placing too much faith in their validity. Some have much stronger supportive evidence than others and some are part of con-

sistent trends evident during recent past years. In these we can place somewhat greater confidence.

MIGRATION EVENTS

Several interesting migration phenomena are reported in the regional reports which follow. Even given the uncoordinated observations making up the reports, it is occasionally possible to follow events over a broad geographical area. For example, in many years it is an early November snow storm that triggers the exodus of waterfowl from the northern breeding areas. This year such a storm occurred November 1-3, and resulted in a mass movement of ducks and geese. On the night of November 1-2, large flocks of Snow Geese were circling over Salmon, Idaho in the fog. By November 9, 12,500 of them had reached Bitter Lake, N.M. Further east, swans moved southward between November 4 and 8. During this passage they suffered more eastward displacement than usual, with three reaching Brier Island, N.S. and more than normal found their way to other parts of the Northeastern Maritime Region.

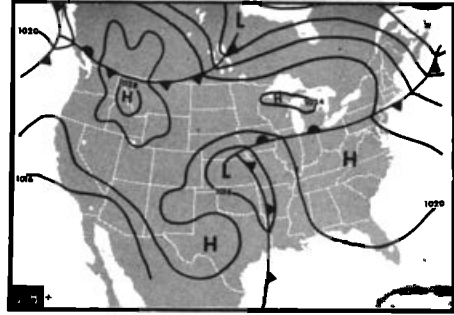
I was particularly interested in a number of jaeger reports from several regions. On the Great Lakes, the birds seemed more abundant than usual. Where and when they are seen depends

to a degree on local weather conditions (especially wind). The 40+ Parasitics and two Pomarines seen from Derby Hill, N. Y. on October 15 occurred in high northwest winds. Similarly, one sees the largest numbers in the western Great Lakes when easterly winds are blowing. Nevertheless, the occurrence of the birds is so regular that I suspect the wind patterns are simply superimposed on a basic migratory movement through the lakes. The origin of the Great Lakes birds is of interest and I think some other observations in this issue may bear on that question. Jaegers were observed on smaller inland bodies of water in West Virginia, the Southern Great Plains (three birds), Northern Rockies (seven Parasitics, one Long-tailed), and eastern Colorado (two Pomarine, one Parasitic?). In Florida a Parasitic was observed as it arrived on the coast from inland and went out to sea at New Smyrna Beach. It is possible, of course, that all of these inland occurrences (including the birds on the Great Lakes) represent strays. However, I am inclined to think that long overland migrations by jaegers and other pelagics may be regular occurrences. In spring on the southwest shore of Hudson Bay (e.g., at Churchill) one can observe the arrival from the southwest of large numbers of individuals of species that winter in the Pacific (Arctic Loon, Sabine's Gull, Long-tailed Jaeger, Thayer's Gull, and others). These birds obviously make an overland flight of many hundreds of miles, largely unobserved between the Pacific coast and Hudson Bay. It is a much shorter distance from James Bay to the Great Lakes and this is certainly the route taken by many waterfowl in autumn (including some Brant). Perhaps such an overland flight can also account for the jaegers and other pelagic species reported (including some uncertain records) in Ontario.

There is little direct evidence of such jaeger migrations, but they might be expected to occur at very high altitudes over land. I once observed Parasitic Jaegers departing overland from the southwest end of Lake Ontario in northeast winds (*Prothonotary*, 28:110-111, 1962). Three of four birds circled in hawk-like fashion, gained altitude both over the water and land, and sailed off in a southwesterly direction toward Lake Erie. None of these birds ascended to very high altitudes, but their behavior might be different if they were embarking on a long flight over land.

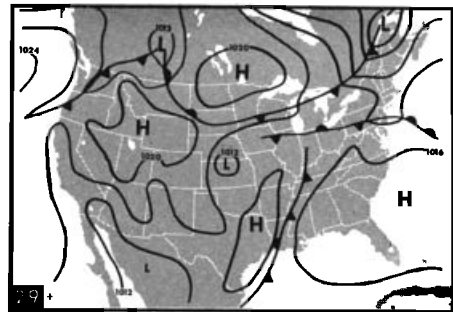
A particularly interesting series of weather and migration events occurred during the period September 27-October 6 (see weather maps). At the beginning of this period, a high pressure center was over the north Atlantic off the East Coast. A cold front moved southeastward, becoming stationary on the night of September 27-28. A high over Idaho produced a westward

and northwestward flow of winds over the Southwest.



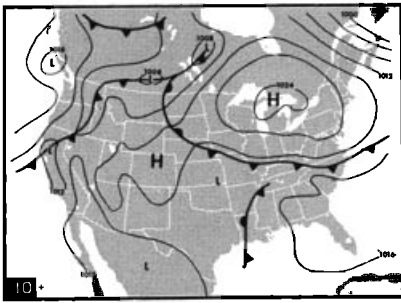
Closed low continues over SW—fast west flow over North—R+ continues cen. US: Des Moines 3.07", Valentine 2.45", Denver 1.37"—Lake Charles 1.21"—100° Palm Springs & Yuma; 23° Gallup NM.

September 28—Associated with the passage of the cold front during the night of September 27-28, the largest movement of the fall was noted in Western New York. It involved a TV tower kill of 465 birds. On the 28th a heavy flight of Blue Jays was seen over Seneca Co., N. Y. East winds established over the Mountain West probably triggered the beginning of a major influx of vagrants into southern California. On this first day, the strays were seen mostly on San Nicholas Is. and they had a strong Southwestern flavor—Scott's Oriole, Phainopepla and Summer Tanager.



Deep closed low over KS—trough over NE—frontal R Ohio Valley: Columbus 1.68", Cincinnati .83"—Des Moines 2.98", Chicago .90"—Birmingham 1.22"—104° Palm Springs; 30° NV/MT/NM.

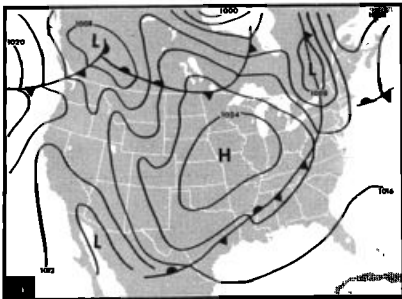
September 29—A large passerine movement occurred in the Midwest in post-frontal conditions. The invasion of vagrants hit the central California coast—Black-and-white Warbler, Tennessee Warbler, Magnolia Warbler, Black-poll Warbler and American Redstart. Vagrant sightings in southern California continued—Bendire's Thrasher, Cape May, Black-throated Blue, Black-throated Green, Blackpoll, and Hooded Warblers. A heavy influx of wintering species (sapsuckers, Hermit Thrushes, sparrows) accompanied the vagrants, a frequently noted correlation.



Closed low still over KS—trough West & East coasts—R area Midwest/SE: Montgomery 1.56°, Atlanta 1.03°—Springfield IL .63°, Springfield MO .71°—102° Blythe CA; 28° Wilmington VT.

September 30—Associated with the cold front stretching across the eastern United States, a large passerine concentration was grounded in the middle Atlantic states and 2,500 Blue Jays passed over Chevy Chase, Md. In Ohio, 2,000 birds were killed at an unlighted 1,103-ft. smoke stack in fog. Perhaps correlated with the easterly winds over the northeastern states, over 100 Blackpoll Warblers were banded at the Allegheny Front Migration Observatory, W. Va. This is well inland from the usual fall migration route of this species.

Between October 1 and 4, a low pressure area moved northeastward along the Atlantic coast. It was a fairly weak system and by October 4 high pressure centered over West Virginia dominated. On October 5, however, a stronger low with trailing cold front moved across the Great Lakes.



Upper low Hudson Bay SE to Carolinas—trough on West Coast—R in NE: Syracuse 93°, Hartford 80°—in TX: C. Christi 1.00°, Junction .62°—in NW: Astoria .22°—99° Phoenix; 19° Winnemucca NV.

Weather maps courtesy Weatherwise, Princeton, N. J.

Ahead of the front winds from the southwest accompanied the arrival of 16 Yellow-breasted Chats on Seal Is., N.S. with 10 others elsewhere in the Maritimes. The passage of the front during the night of October 5-6 brought strong northwesterly winds to New England, and the first wave of the hundreds of White-crowned Sparrows that were to reach the Northeast during the month—150 were on Monomoy October 8. A second pulse seems to have occurred around October

19. Also related to these weather patterns may have been Western Tanagers in New Jersey and Pennsylvania on October 5, and a Scissor-tailed Flycatcher in Ontario on October 8.

POPULATION TRENDS

One of the most important functions the records in the following regional summaries could perform is to tell us what is happening in the populations of declining or increasing species. All too often the data are frustratingly sketchy and variable. A trend which seems to emerge from a couple of regions will all too often be shattered in the next report. Thus the impressions that follow are quite subjective. In many cases, they should be used as indicators of things to study systematically rather than statements of what is really happening. It is in this area that organized efforts by bird clubs (even on a local level) could greatly add to our knowledge.

Raptors—There was a continued consensus that Cooper's Hawks are declining markedly, at least in the East, but there was great variability in the numbers reported. The Northeastern Maritime Region had 30 reports; the 20 that passed Hook Mountain, N. Y. was only half as many as during the past two years; Western New York—13 records; Middlewestern Prairie Region—scarce, with none in the Chicago area. On the other hand, the 284 seen at Pt. Pelee, Ont., with 150 in a single day, is extraordinary. Unfortunately, no data are given with which to compare these figures.

Red-shouldered Hawk counts were also mixed. While declines were still obvious in the Midwest, a record high of 146 passed Hook Mountain. This is probably deceiving because the records kept for this hawk watch do not encompass many years. The Southern Great Plains reported no apparent change. The numbers of Ospreys in the East give some hope that this species may not be declining any further. Impressive migration counts of 223 at S. Harpswell, Me. and 133 on September 29 alone at Kiptopeke Beach, Va. were made. The Midwest had more than normal numbers of reports, but in the West, especially on the Pacific coast, the species still seems to be declining.

It is not clear from the reports herein that Peregrines are still declining. It is very certain that they are already reduced to pitifully small numbers. Only two were seen on Long Island on September 28, a falcon flight day. Between September 20 and October 19, 136 were counted in systematic watches on Assateague Is., Va. (47 banded with 28 on October 5 marking the best day). The survey on the Texas coast during late September-early October yielded a good

count of 400 birds. In other areas, the number of reports by region was: Northeastern Maritime—57 (about the same as recent years); Ontario—17; Western New York—4; Appalachian—10; Middlewestern Prairie—18; Central Southern—9; Northern Great Plains—15; Southern Great Plains—9; Southwest—5. Every effort should be made to note the age of all Peregrines so that we can get some index of reproduction within the populations. Merlins were reported to be in good numbers in most areas except Florida (where more Peregrines were seen) and southern California. The American Kestrel was not mentioned in most reports. It was thought to be holding its own in Western New York, but is almost rare in some inland Florida localities. No decline in Prairie Falcons seems evident, but data are needed.

There seems to be no clear trend in Bald Eagle reports. All observations should be reported so that a data base sufficient for comparison can be accumulated. Golden Eagles seem to be increasing slightly in the Northeast and Southern Great Plains.

White-tailed Kites continue to increase. In south Texas their expansion has been attributed to the expansion of grassland habitat with the clearing of more and more brushland. Does the same explanation apply to other portions of the species range? (See Eisenmann, *E. Am. Birds* 25: 529-36).

Declines in several species of diurnal raptors has been noted during the past decade or so. Frighteningly little information exists on the population of owls. In this issue, Screech Owls were reported to have enjoyed good nesting success in Western New York. I have the impression that this species has declined markedly in many areas and systematically collected data are badly needed on this and other owls.

Water Birds—The decline in Pacific coast Brown Pelican populations was noticed in the Northern Pacific Coast Region where fewer wanderers were seen. Cory's Shearwaters were thought to be down in the regular areas of abundance off southern New England. Double-crested Cormorants have declined for years in the Great Lakes. This fall, numbers appeared to be up some in Ontario. Impressive counts of this species were made in the northern Rockies. Wintering populations of Snow Geese and Whistling Swans in eastern Virginia consisted of *ca.* 40% immatures, indicating a good nesting season. Sabine's Gulls have been scarce along the California coast since 1969. Whereas in earlier years hundreds could be seen on a boat trip off Monterey, recent maxima have been under 20.

Others—In Rocky Mountain National Park, Colo., White-tailed Ptarmigan have shown a

severe decline owing to low hen survival and poor recruitment. Weather has apparently been responsible for a decrease in Sage Grouse in Bryce Canyon, Utah. *Catharus* thrushes were mentioned as being scarce in the Middle Atlantic Coast and Florida Regions, but were reported in high numbers in Ontario and the Appalachian Region recorded the best flights ever.

House Finches continue an explosive increase into the Middle Atlantic Coast Region and northward into New England. Monk Parakeets were mentioned at three new localities: Huron, Ohio, Plymouth, Ind., and Dallas, Tex.

Two southern invaders seem to be on the move again. Carolina Wren, which suffered a major setback in the early sixties, made a marked insurgence into the eastern Great Lakes, especially on the lake plains where southern species have traditionally established their footholds. There were reports north to Sault Ste. Marie, Ont. and in eastern Maine and New Hampshire. We should expect that these rather dramatic changes in abundance at the periphery of a species' range reflect population levels in the center of the range, although these may be considerably less obvious. In the case of the Carolina Wren, the population in the northern part of the Appalachian Region was reported to be booming. This species may be prospering as a result of the recent series of relatively mild, snowless winters in the Northeast. Cardinals are also increasing again. There was an invasion in the Ottawa area in mid-October and a pronounced fall movement into New England which brought unprecedented numbers to the Maritime Provinces.

Inexplicably, four separate regions in the Northeast mentioned unusually high numbers of Philadelphia Vireos, and Yellow-bellied Flycatchers were noted in large numbers in the Northeast, Midwest and Central Southern Region.

STATUS CHANGES

In perusing the regional reports which follow, one can find numerous cases in which the status of a species in a region is changing. In many cases, it is impossible to guess at the cause of the changes. Some may be due to real increases or decreases in populations, others attributable to range expansions or migration anomalies, still others to increased coverage and awareness on the part of field observers. For lack of a more obvious place to put them, these phenomena are discussed below.

One of the notable features of the fall migration season was the occurrence of unprecedented numbers of predominantly western shorebirds in the East. In the case of the Buff-breasted Sandpiper, the flight was spectacular, and may be a product of the recovery of populations of that

species from the market hunting of the last century. When such increases occur in a rare species they are more noticeable than similar increases in a commoner species. On Long Island a flock of 55 birds was found in a potato field. Large numbers were also found in the Middle and Southern Atlantic Coast Regions where peaks of 12-16 birds were seen. In Florida, up to 24 occurred at Zellwood. Inland, unprecedented numbers occurred in Ontario (35 at Pt. Pelee, 25 at Sudbury) and in the Midwest (52! at Red Rock Lakes Refuge, Mont.). Even in Texas absurd numbers were seen, with 100 following a plow near Corpus Christi and 62 in Lancaster Co. It is certainly gratifying to see such a genuine recovery in a species that was rare nearly everywhere just two decades ago. The same trend may account for the apparent increase in other shorebirds. Wilson's Phalaropes occurred in the largest numbers ever on the northern Atlantic coast, with Newfoundland getting its first record. Western Sandpipers were found in the largest numbers in memory in New England and American Avocets seem to be increasing in the East and Florida. Hudsonian Godwits have shown an encouraging recent increase and this fall they were found at five localities in Ontario and migrants were seen in Louisiana where fall records are unexpected.

Perhaps related to the occurrence of large numbers of western shorebirds on the East Coast was the arrival of large numbers of Forster's Terns during the last half of September. Peak numbers seem to have occurred in the Middle Atlantic Coast Region where 735 were at Hill's Pt., Md. on September 23. Even in New England, however, the numbers were impressive: 20 on Plum Is., 25 at Provincetown, and 64 elsewhere on the Cape.

More or less random observations: Mexican Ducks have now been found breeding in Brewster, Presidio, Jeff Davis and Reeves Cos., Tex. Brandt's Cormorants appeared in Prince William Sound, Alas. for the second summer with 21 birds and three nests noted on August 16. Lark Sparrows bred at Sudbury, Ont. this past summer.

IRRUPTIONS

Fulvous Tree Ducks turned up in a couple of places on the middle Atlantic coast and there was a plethora of records in Florida November 9-10, with 50 near Gainesville, 75 over Everglades City and 200 in the Everglades. The unprecedented invasion of Arizona by Roseate Spoonbills continued into the fall with a maximum of 33 birds at Picacho Reservoir August 14. One bird lingered as late as November 11.

The conditions which precipitated last winter's historic Goshawk flight apparently persisted,

if to a lesser degree. The species was seen in larger than usual numbers throughout, except in the Northeastern Maritime and Pacific Coast Regions. Flights past Hook Mountain totaled 87 birds (vs. 112 in 1972) and included many immatures. In New Jersey, 47 were trapped for banding versus 82 last year. At Hawk Mountain 326 were counted for the third best season. There were invasions in Ottawa and Kingston and a notable flight began in the Great Plains in mid-September. Birds had reached Texas, Oklahoma and Kansas by the end of the period. In the West, there were many reports in the northern mountains and Alaska, but in Arizona none were seen away from the mountains.

In the absence of Goshawks, the Pacific coast had its own flight of Rough-legged Hawks. The movement was most pronounced along the coast and was termed "spectacular" and the "most conspicuous ornithological event this fall" by Remsen and Gaines. In their region there were 36 individuals between Pt. Reyes and Bodega Bay November 3 and 12 on the Farallons October 27. Further north, the astonishing invasion after mid-October surpassed anything in recent experience. Ten birds reached the Southern Pacific Coast Region during November. Correlated with the Rough-legged flight, Snowy Owls invaded the same areas. By the first week in November there were enough in the Northern Pacific Coast Region for the flight to be called spectacular and larger than that of 1966-67. Hawk Owls were noted at scattered localities from Québec to Oregon (first state record). They were common in interior Alaska with some dispersal noted. In the northern Great Plains there was an obvious influx, with 21 in the Edmonton area on October 13 alone.

Red-breasted Nuthatches were conspicuous by their absence in the East, but in the West a flight was noted. These birds, probably originating in the mountains, moved into the southern plains by early October with flocks of up to 45 birds in places like Hays, Kansas. They were noted in abundance north to Alaska and a mild invasion was evident in California's Central Valley.

The invader of the season was the Red Crossbill. In southern New England the birds appeared abruptly in late October and built up to large numbers on the coast. In early November there were large westward movements in Connecticut and on Long Island, with 700 passing Old Lyme in an hour on November 4 and 1800 in Riis Park, Long Island November 6. Further south on the coast the flight was noted in early-middle November (Atlanta on Dec. 1.) and as in areas to the north, the bulk of birds seemed to pass south within a few weeks. The species was conspicuously absent in eastern Maine and in Ontario there

were many more in the west (400 at Pt. Pelee) than to the east (61 at Kingston). In the Midwest the birds were everywhere by early November and unprecedented numbers had reached Nashville by November 3. In the West, the pattern was more complicated. The species was not mentioned in Alaska, arrived in good numbers in the northern Rockies, but was not reported outside of the mountains in Arizona. In most of the mountainous West they were scarce and a poor crop was reported. On the middle Pacific coast flocks occurred throughout the period. The continental distribution of the birds, the general absence of White-winged with the invaders, the poor cone crop in the western mountains and the pattern of occurrence of Red-breasted Nuthatches suggest an origin of the flight in the mountains of the western United States. However, as Dr. Allan Phillips has found, irruptions with multiple centers of origin are possible and for this reason it is important to obtain specimens of the birds whenever possible.

Pine Siskins pulsed along the East Coast in early October and had largely passed into the Middle Atlantic Coast Region by the end of the month. On October 29, 4,000 passed Cape May, N. J. Early flights were noted in Ontario, the Midwest and southern Great Plains and indications were that most of the birds had passed into the Southeast by the end of the reporting period.

Boreal Chickadees were noticeable in several areas of the northern Cascades. Purple Finches were noted in abundance only in Ontario which was also the only area reporting any Redpolls. Pine Grosbeaks were absent everywhere except in the northern Rockies where a spectacular movement into the lowlands followed the early November snow storm (no cause and effect implied).

RARITIES

The appearance of rare or accidental birds often appear to be essentially random events. This is probably to some extent an illusion. Some rarities may be part of patterns that are undetected because they involve very small numbers of individuals. In the following records some examples of such patterns may be seen (although their explanation remains obscure).

The Northeastern Maritime Region listed two province records for Nova Scotia (Black-headed Grosbeak and Harris' Sparrow), two for New Brunswick (Black Vulture and Sandhill Crane) and two for Newfoundland (Canvasback and Bar-tailed Godwit). Lightning struck again on Sable Island when a Gray Kingbird, the second record for Atlantic Canada, was found on October 20. In New England, a Black-browed Albatross in Nantucket Sound added to the growing list of

observations of that species and even Massachusetts got a state record when hordes of A.O.U. members ogled an obliging Ground Dove on Monomoy. The Sharp-tailed Sandpiper at Newburyport had plenty of company: one or more on a turf farm in Maryland, an uncertain Long Island record, Florida's second, ten in mainland Alaska and a handful of records on the West Coast including inland records in Washington and California. The two New Brunswick Black Vultures were part of a pattern of invasion of the Northeast; birds appeared at Mt. Washington, Mass. and Block Island, R. I. Black-throated Gray Warblers were in Massachusetts and Virginia. Swainson's Hawks continue to turn up in numbers in the Florida Keys and one banded at Cape May, N. J. was very noteworthy. Eurasian Whimbrels were seen at Stone Harbor, N. J. and Duxbury Beach, Mass., and a Long-billed Curlew was found in Virginia. Bar-tailed Godwits were found at Brigantine Refuge, N. J. and in Washington (state record). Lesser Black-backed Gulls on Cape Cod and coastal Virginia foretold the winter numbers to come. A Fork-tailed Flycatcher appeared at Bull's Island, S. C., late in October. A Townsend's Warbler produced excitement in inland Pennsylvania. Florida generated an impressive list of rarities including Bahama Duck, Long-tailed Jaeger, N. Skua, Band-tailed Pigeon, Black Phoebe, Lapland Longspur and Snow Bunting. A Smith's Longspur was a very good find at Kingston, Ont., but the occurrence of 1,000 on the Pawnee National Grassland was a strange way for Colorado to get a state record. An Ash-throated Flycatcher was Illinois' first while an Eastern Phoebe in Las Vegas was the first in Nevada. A Red Phalarope on the peculiar date of August 24 provided a state record for Arkansas. Along the Gulf coast, a Cory's shearwater at Dauphin Island was Alabama's first, and Louisiana and Texas can argue over the ownership of a White-tailed Tropicbird that appeared in Sabine Pass. Four Wandering Tattlers were out of place in Alberta as was Saskatchewan's second Wood Thrush. In the lower Rio Grande valley two Red-crowned Parrots again raised the question of escape from captivity. Eastern passerines made several records in the West: British Columbia's first Painted Redstart, California's first Veery on the Farallones, Bay-breasted and Blackburnian Warblers (state record) in southeastern Arizona, and Blackburnian Warbler and Rose-breasted Grosbeak (both firsts) in Nevada. One or two Cattle Egrets provided the first records for Washington and British Columbia. Two Common Pochards appeared on Adak.

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