SOMETIMES YOU can find a single word to characterize the ornithological events of a season. For autumn 1993, one word summarizes what the birds were doing: "everything." Every notable avian happening that could have happened, *did* happen.

Of course, that's an exaggeration. But not by much. Even a quick overview of the big bird events of the fall would be quite lengthy; it's

practically easier to list the things that did not occur.

So, for example, there was no real invasion of finches or frugivores along most of the Pacific Coast (but in most parts of the continent, a high percentage of the potential invading species did invade). The fall trip to Attu Island, Alaska, did not find the overdue Yellow-browed Warbler (but it turned up Pine Bunting and other Asiatic species, and other strays from Asia made it as far as southern California, Ontario, and Delaware). There may have been some states and provinces in the east that did not record Rufous Hummingbirds, and some in the west that did not record Palm Warblers, but they were in the minority. Everything else happened: there were unusual numbers of western birds in the east, eastern birds in the west, coastal and oceanic birds found inland, southern birds pushing north, and northern birds pushing south. There was good news and bad news concerning numbers of migrants. And finally, for the first time in years, late fall saw a big flight of the "winter finches."

Digging for reasons

Sandy Williams made the comment, "Fall weather was unremarkable; how-

THE CHANGING SEASONS

Autumn 1993 By Kenn Kaufman

ever, the birding was anything but!" Although Williams was talking about New Mexico, he could have been describing the situation over much of the continent. Many of the regional editors reported a season of birding superlatives, but with no obvious factors—weatherwise or otherwise that could have been responsible.

Across the reporting regions of the continent, weather varied from the usual in only the usual ways: Depending on location, it was a little cooler, a little warmer, a little wetter or drier than normal. No major weather disturbances made news. I examined weather records for the period in some detail, but nothing that I could find looked like an obvious cause for far-out avian occurrences.

So although the regional reports contain a mother lode of rare records (practically an overlode), I was unable to dig out any major veins of explanation. All we can do for the moment is to admire some of the nuggets of discovery from an exciting autumn.

Western birds in the east

Searching for vagrants, birds out of normal range, is usually a needle-in-ahaystack proposition. Our chances of success can vary a lot with the nature of the haystack itself Because of this, finding eastern birds in the west is far easier than doing the reverse.

A bird from the forested east that wanders to the lowlands of the west 15 going to have to search hard for trees. Birders who search for trees also will have a reasonable chance of finding that stray bird. But a bird from almost any western habitat that wanders east will find an extraordinary number of possible places to pause in the modern mosaic of forest and open country in eastern North America. Except at a few strategic coastal points (like Assateague Island, Cape May, or eastern Newfoundland), an individual birder will have to search a very long time to run across a stray from the west.

Thus, the discovery of a western vagrant in the east is largely a matter of coincidence. But such coincidences occurred far more than usual during the fall of 1993.

Selasphorus hummingbirds are known to stray eastward often, but it takes a little luck or extra effort to prove that these are Rufous Hummingbirds and not the unlikely-butpossible Allen's Hummingbird. This fall, such efforts produced the first confirmed Rufous for New York state, with *five* different individuals; there were also first confirmed records for New Brunswick and Illinois, and a second record for New Hampshire. Meanwhile, Allen's Hummingbird was documented for the first time in Florida. The unrelated Anna's Hummingbird made news also, with a second record for Minnesota, and first and second records for Missouri. Most remarkable was a Blue-throated Hummingbird in South Carolina.

Western species of other families also were well represented. Rare-butregular types such as Say's Phoebe, Ash-throated Flycatcher, and Mountain Bluebird all registered multiple occurrences in the east. West Virginia recorded its first Varied Thrush, Maryland its first Rock Wren. Phainopepla, not at all expected east of normal range, established a first record for Wisconsin and first documented record for Kansas. Townsend's Warbler appeared in a number of areas, with first records for Maine and Georgia, second records for New Hampshire and Minnesota, and others in Newfoundland, Florida, and elsewhere.

Eastern birds in the west

Even putting aside the Palm Warbler, which was in a class all by itself this year (as described later), autumn 1993 was a very good season for eastern vagrants to some parts of the west.

This was most pronounced in northern California, a region where the birding coverage is very intensive and fairly consistent (aside from a gradual increase over the years). In that region, at least eight species of eastern warblers were in record or near-record high numbers; another six were in average to above average numbers. (Other strays from the east, including Philadelphia Vireo, Redeyed Vireo, "eastern" Solitary Vireo, and Clay-colored Sparrow, also set records.) Total numbers of eastern warblers were dampened only slightly by poor showings of a few species (including Blackpoll Warbler, with "only" 66 individuals).

David Yee pointed out that this autumn's harvest of eastern strays in that region rivalled the big vagrant years of the 1970s. The general decline in numbers of stray eastern warblers in the west over the last two decades has been interpreted as reflecting a decline in overall populations; the big influx recorded this season might indicate only that conditions were extremely good for allowing these wrong-way migrants to reach the California coast.

Elsewhere in the west, the numbers or diversity of eastern vagrants were often impressive this fall. New Mex-100, Arizona, and the Mountain West had a good selection, and Idaho had first records of both Blackpoll and Prothonotary warblers. In the Oregon/Washington region, however, only one eastern warbler species was in unusually high numbers. In southern California, the notable numbers of vagrants found were considered to be entirely the product of heavy birding coverage.

Southward invasions, major and minor

Winter owl flights are often not apparent until actual winter arrives, but this season a major push of Snowy Owls developed early. In the far northwest, Snowies were seen moving through some areas of the southern Yukon where they are rarely encountered. Throughout the prairie provinces, northern Great Plains, and western Great Lakes areas, the birds showed up during early October (for example, two arrived at Grand Forks, North Dakota, on October 11). Numbers were impressive also, with Minnesota tallying 70 by the end of November. The owls apparently had been driven south by hunger; many emaciated young birds were brought in to rehabilitators, and evidently many died. According to Peter Whelan (quoted by Peter Taylor and Rudolf Koes), there was a major crash in the lemming population in northern Canada in midsummer, following a big hatch of young Snowies there. The relation between food supply and winter invasions is rarely so obvious as this.

A big southward push of Blackcapped Chickadees was quite evident in parts of southeastern Canada and the northeastern United States, including well south in the Appalachians. As typically happens with these irregular invasions of Blackcappeds, some Boreal Chickadees came with them, making news in the Prairie Provinces and Ontario, one bird getting south to Connecticut.

A much larger invasion (in terms of geographic area and probably total numbers) involved Red-breasted Nuthatches. In western Massachusetts, Seth Kellogg referred to a "monster" flight (although it's hard to imagine how many of these little nerdlers it would take to add up to one monster). On the southern Great Plains, the "virtual explosion" of the species was "perhaps the event of the season." Practically all the regions in between reported similarly impressive numbers and early arrivals. The flight stopped short of the Gulf Coast, and one individual that reached the Miami area was all alone. The flight was evident as far west as British Columbia, but drew little comment south of Canada and west of the Great Plains.

By late fall, it was apparent that this was going to be a big winter for Bohemian Waxwing throughout much of the northeast. Some individuals showed up remarkably early, and outriders of the flight made news at Chicago and several points in Pennsylvania. However, the main story remained to be told in the winter season that followed.

In contrast to these large-scale invasions, a notable low-density invasion brought an unusual number of Northern Wheatears to the eastern provinces and states. These are birds that ordinarily vacate their breeding grounds (in northeastern Canada and Greenland) by migrating across to Europe and south to Africa. The factors that might bring them south on the "wrong" side of the Atlantic are not yet known. But this season there were definitely more than usual. Seven in Quebec matched the record set last fall. Nine in New England and 11 in the Maritime Provinces were new all-time highs. New York had five, New Jersey had one, Ontario had two, and one in Michigan established a fourth state record. Farthest afield were an amazing two in Alabama.

Finches, finally

I'm afraid it has become traditional in this column to bemoan the lack of any kind of "winter finch" flight. Tradition will have to be broken this season and the next, however; because by late in the fall it was obvious that a major invasion of finches was building up in the northeastern quadrant of the continent. For most areas it had been at least eight years since the last really big redpoll flight, and even longer since the last notable incursion of Evening Grosbeaks and Purple Finches. The invasion was destined to become even bigger news as the winter season progressed; details will be in the next issue.

Strays from the south and from the deep south

It seemed a better-than-average season for tropical birds wandering north. Some of the headliners were hummingbirds; a Broad-billed Hummingbird in far northern California was no less out of range than a Cinnamon Hummingbird in El Paso, but the latter furnished only a second record north of the Mexican border. Two *Anthracothorax* hummingbirds, almost certainly Green-breasted Mango, made it to southern Texas.

Flycatchers furnished much of the excitement in this category. The species involved represented a number of different patterns of distribution. Thus, the Gray Kingbirds wandering north to the Carolinas and New Jersey, and the good numbers of Tropical Kingbirds moving up the Pacific Coast, were likely all young birds of the year making a 180-degree mistake and migrating north instead of south. The same may have been true for Sulphur-bellied Flycatchers far from home, including singles in coastal Texas and northern Caolifornia. Regardless of explanation, the Sulphur-bellied that made it all the way to the eastern tip of Newfoundland deserves a salute.

Farthest afield from "normal" range, however, were those flycatchers that apparently originated in southern South America. This is the case with most Fork-tailed Flycatchers in eastern North America: They are southern breeders that have wintered [during our northern summer] in northern South America; when the time comes for them to migrate back south to the breeding grounds, a few go awry and migrate north instead. The scattering of Fork-taileds this season brought singles to New Brunswick, upstate New York, and Ontario. Ontario observers were much more excited by the Variegated Flycatcher—a stray reflecting the same pattern of vagrancy—that stayed for a month, establishing the fourth record for North America, and the first to be seen by a large number of observers.

Coastal birds inland

Every fall, the interior of the continent sees a few birds that we would tend to think of as strictly coastal or offshore migrants. Such records continue to accumulate every year, so we no longer think of this as truly abnormal. Some seasons produce far more of these inland records than others. Autumn 1993 was a big season for coastal birds inland.

Pacific Loons had notable numbers in the Prairie Provinces and near the Rockies, and notable rare records on the northern plains and the western Great Lakes area. Yellow-billed Loons put in at least as many inland appearances as are now expected, with birds in Texas, New Mexico, and eastern Washington.

Long-tailed Jaeger and Sabine's Gull, highly aerial offshore migrants, may cross the center of the continent more than we realize. Since they are discovered on the ground only by chance, it is hard to say what would be a "normal" number of records. But both seemed to be found far more than usual this fall. Long-tailed Jaegers were scattered around the interior of the west, with one at Abilene providing about the eighth record for Texas. Sabine's Gulls made a good showing all across the interior; the Middlewestern Prairie Region had a full dozen records, most of them away from the Great Lakes.

Also representing displaced coastal birds, but undoubtedly reflecting different causes, were some far-inland records of Reddish Egrets. The species is almost never seen away from warm salt water, so it's hard to explain the series of records from Michigan, Illinois, Indiana (possibly some duplication there), and Iowa, all in early fall. There were also possibly one or two in New Mexico, and several well inland in Texas. These reports might lend some further support to a report last June from Idaho

Perhaps the single most interesting coastal bird inland was a Marbled Murrelet that stayed on the New York/Ontario border for almost three weeks in October. The location, on the St. Lawrence River, is more than 2000 miles from the normal range of Marbled Murrelet-but this bird was much farther out of range than that, because it was of the Asian subspecies, B. m. perdix. (This bird, eastbound, must have crossed the path of the northbound Variegated Flycatcher, present in Ontario at about the same time.) Its identification as the form perdix seems certain, thanks to an analysis of its field marks by David Sibley in the excellent new Canadian publication, Birders Journal (December 1993 issue). The Asian "subspecies" seems to differ from North American Marbled Murrelets nearly as much as Kittlitz's Murrelet does, and I expect it will be considered a full species in the future-at which time all the listers will kick themselves for not going to see this cooperative individual in October 1993.

Taking stock of migrants

If people paid a proper amount of attention to the natural world, we might get updates on bird populations on the evening news. Such information would have at least as much significance as the news we get on, say, the stock market. Perhaps we just need to develop some index of leading ornithological indicators. Then the news anchors could give us a terse summary: "At the close of censusing today, migrant populations were down by two points...according to the Dowitcher Jones Avian Index."

Lacking such daily updates, the

regional reports give us some seasonal indications.

The numbers of neotropical migrants tend to draw the most attention. Numbers found at a given location, of course, are strongly influenced by local weather. This autumn, few strong weather fronts reached the northeastern coast during the early part of the season, so migrant warblers and other neotropicals were in very short supply there, especially on the immediate coast. Farther west, however, the warbler flight was considered unusually strong in the upper Midwest, and reasonably good in the Central Southern region.

Another study in contrasts involved reports of migrant thrushes. Their situation was "bleak" in the Appalachian region, with lowest numbers ever of Gray-cheeked and Swainson's thrushes at the Powdermill Nature Reserve in Pennsylvania. Totals were disturbingly low in several parts of New England (although one night of classic conditions produced a big nocturnal flight of Swainson's Thrushes). On the other hand, encouraging numbers of thrushes were reported from the western Great Lakes, middle and southern Atlantic Coast regions, and from two banding operations in Florida. These conflicting reports help to underline the difficulty of monitoring populations with migration counts.

"Palm Sundae:" What were the ingredients?

In terms of numbers and sheer oddity, one of the biggest events of the season involved the flood of Palm Warblers that reached western North America.

Palm Warbler is an expected vagrant on the Pacific Coast in fall, one of the most frequent of such eastern strays. But it has never been found in the west in numbers like this year's. The phenomenon was amazingly widespread. Near the western edge of the normal range, unusual numbers of Palm Warblers were enough to draw the attention of bird-

ers in Kansas, Oklahoma, and Texas. Farther west, there were four in Arizona, five in Nevada, six in Colorado. Three in Idaho doubled the total number of state records, Alaska recorded three, and six were found together at one spot on Vancouver Island. But then things got wild. More than 125 Palm Warblers were found in the Oregon/Washington region, where half a dozen would be normal. Northern California, with its traditional heavy coverage, found nearly 900 Palm Warblers, about three times the previous all-time high. Southern California had over 150, far more than usual. It all raises an obvious question: Why?

Back to the mines

At the moment, we can't say why this flood of Palm Warblers reached the west. But I think we'll know someday.

My reasoning has to do with a recent trend in-of all things-min-

ing. According to a friend who understands the mining business, a recent profitable pursuit has involved going back and re-working old claims. The older mines, in many cases, were not completely cleaned out of their valuable ore; the miners just took what they could get, cost-effectively, with the tools available at the time. Now that new technologies are available, the modern miners can go back and find rich lodes of ore by digging a little deeper.

In a similar vein, future students of bird distribution may well be able to explain the odd avian events we see today.

Detailed weather records are kept on permanent file, and—thanks to the Regional Reports-broad-based bird records are kept as well. Sometime in the near future, someone will be able to analyze the records of big years and poor years for, say, Palm Warblers on the west coast, and find correlations to some conditions of breeding-season climate or migration-season weather. The tools for this kind of multivariate analysis are available already, and the buildup of bird records will make such an analysis more and more likely to yield worthwhile results. The individual records that we send in to our Regional Editors should ultimately contribute to a much better understanding of the phenomena that we witness every season. Ť



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