

How do you census the total population of a species of wild bird? To someone who has not tried it, the task might seem deceptively simple: go out, find the birds, count them. But in practice, most of the time, it doesn't work that way.

If you wanted to census a particular plant in a given region you could, with enough legwork, count each individual one by one. Not so with birds. As Roger Tory Peterson has said: "Birds have wings, and they do things." And that's exactly right. Birds move around. Not just individuals, but whole populations of birds often make major shifts in range or in seasonal occurrence. The spring season of 1992 offered many examples.

Across much of North America, spring migration began early and lasted late, but it seemed to be stretched thin in the middle, with few concentrations—at least, few at the predicted times and places. Some observers saw a lot of birds, but not where and when they were expected. Reflecting the point: birds move around.

Shifting toward oblivion

Of course, landbirds on islands have less room to make mysterious shifts in range. They are more easily cornered for counting—or for disaster. Researchers in Hawaii this season were able to make a one-by-one count of the Hawaiian Crow, or 'Alala. The crow's wild population is down to 11 (maybe 12, if that nestling fledged). But obviously, none of us wants to see any more species pushed so close to the edge of extinction.

Shifts in wintering range

But even the Hawaiian chain, in the

THE CHANGING SEASONS

Spring 1992

By Kenn Kaufman

center of the Pacific, has avian interchange with the continents. Bob Pyle reports on a "Cackling" Canada Goose that had been individually marked in Alaska three summers ago: it has since spent one winter in California, one winter in Oregon, and this past winter in Hawaii. Talk about a shift in wintering range. Obviously, year-to-year changes in wintering numbers at one location may not reflect anything about how a total population is doing. Birds do move around.

Moving the migration: shifted in time

Does weather affect the timing of migration? It certainly seems to—we expect the birds to be early in a warm spring, late if the season is cold. And observations often bear this out. Spring 1992 offered examples of both extremes.

Winter 1991–1992 was a very mild season, and many birds had remained farther north than usual. Not surprisingly, late in the winter, many birds were moving north ahead of schedule.

But a spring that starts off warm and early will not necessarily stay that way. Indeed, some areas had their first "winter" weather after spring was supposed to have arrived. Mount Pisgah,

North Carolina, had 60 inches—five feet!—of new snow in early May; in the Middle Atlantic region, there was frost near the coast as late as May 21st. Many regions had a bimodal weather pattern for the season: warm early, cold later. And the migration tracked the weather conditions in predictable ways.

No weather pattern can hold for the entire continent, of course. In Quebec and the Maritime Provinces, the season was cold and migration was generally late. In the Rockies and some other western areas, the season was warm and migration was generally early. But these were exceptions. For a great many regions, it was a schizoid migration: the early migrants came in exceptionally early, then the weather turned cooler, and the rest of the migration was late. This pattern was repeated in areas from Maryland to Alaska, from West Virginia to British Columbia. From Oklahoma, Joe Grzybowski described it in colorful terms: "It seemed as if the spring migration were like a chunk of taffy shot out of a gun. Some of the birds got out there fast, but the season was still drawn out and sluggish..."

Moving the migration: shifted in space

Snowy Plover does not figure often in this column, aside from concerns about its threatened breeding populations. But this spring, scattered Snowies showed up in unusual spots. They produced such records as the first for Michigan, third for Tennessee, fifth for Wisconsin, and notable records for Iowa and Idaho.

Some other birds of the interior also turned up off course. In the Northwest, some plains-migrant shorebirds appeared west of usual areas. Central British Columbia saw an invasion of Lesser Golden-Plovers. Pectoral Sandpipers were numerous there and in other areas toward the coast, while Hudsonian Godwits were also pushed west. Franklin's Gulls were moved around by something. They were unusually scarce as far east

as southwestern Louisiana; but farther east, one established a first record for West Virginia, and others were in Pennsylvania, New Jersey, and Massachusetts.

In a number of cases, the entire movement of migrant landbirds was apparently shifted by weather patterns. Florida observers saw one of their best spring seasons *ever* for numbers of migrant warblers, and attributed this to persistent west winds in late April and early May. Conversely, in New England and the Maritime Provinces, east winds prevailed during this period. In the absence of the westerlies that often cause pile-ups on the coast, birders saw few concentrations of migrants.

In many parts of the west, and particularly throughout the heavily birded areas of California, there was a sense that the usual migrants were in low numbers. However, a certain set of unusual migrants made headlines, as detailed below.

Patterns of vagrancy: fact, not theory

Years ago we called them "accidentals," these stray birds far from their normal ranges. Accidentals: here by accident, in events that were random, meaningless. It would have seemed absurd to speak of "patterns of vagrancy," because how could random events make up a discernible pattern? But with increased coverage of the field, it has become obvious that patterns *do* exist. Most species that wander out of range will tend to do so at predictable times, in predictable directions...

A perfect example involves eastern warblers in western North America. I can recall a time when many active birders in the west seemed to regard vagrant warblers as so many bits of multi-colored confetti—some more rare than others, but all interchangeable. Magnolia or Chestnut-sided, what's the difference? I'll trade you two Blackburnians for a Golden-winged... Fortunately, most birders today (and the *AB* Regional Editors)

are able to make better distinctions. Every species of eastern warbler has its own unique pattern of seasonal and geographic occurrence as a vagrant in the west.

This spring, eastern warblers (and some other eastern birds) flooded into the western United States. But this was *not* an across-the-board surge, with all species represented. Far from it. Many of the usual spring vagrants, rare-but-regular sorts like Black-and-white Warbler and American Redstart, were present in surprisingly low numbers. The big push of spring 1992 was spearheaded by just three species: Northern Parula, Hooded Warbler, and Kentucky Warbler. This pattern was only hinted at in most of the west, but if you read the two California reports, you'll have to admit that something outlandish happened with these birds.

Parula, Hooded, and Kentucky are all "southeastern" warblers, with the bulk of their breeding ranges south of Canada and east of the Great Plains. Some other birds of the same geographical persuasion also made notable appearances in the west: White-eyed Vireo, Yellow-throated Vireo, Worm-eating Warbler, Yellow-throated Warbler, Louisiana Waterthrush. These tag-alongs add strength to the idea that some common factor was involved in shifting all these birds to the far west.

What common factor was responsible? Weather may have been involved—but I'm not the right person to attempt an explanation. The phenomenon spilled over past May, with more Northern Parulas and Hooded and Kentucky warblers being discovered during June and July, so that this became one of the biggest events of the summer as well. The next "Changing Seasons" will be written by people who know more about weather and migration than I do, and we hope that they will construct for us a theory as to why so many birds were off course in spring and summer 1992.

Chasing the phantom numbers

If more than 100 Northern Parulas were found in California this spring, how many more must have gone undetected in that vast state, or in less rabidly birded parts of the west? If maybe thousands of parulas were shifted away from normal breeding areas, was a corresponding drop in numbers noticed somewhere? Probably not—and if it were, it would be hard to interpret. Birds do move around.

Monitoring bird populations can be a daunting challenge. It's especially tough for small birds that migrate across international boundaries—like our Neotropical migrants. Sometimes it seems like trying to monitor the population of Mars by counting the UFO reports in the supermarket tabloids. Changes in migrant bird populations are easy to discuss, hard to prove.

But when several lines of evidence point to declining numbers of Neotropical migrants, it's time for action. This is why National Audubon is moving so heavily into migrant bird conservation, with the "Birds in the Balance" program. The alternative—waiting for absolute proof of declines—could put many more birds into the category of the Hawaiian Crow. Sure, the crows are easier to count now, but it may be too late to pull them back from the brink. We can't afford to lose any more species than we have already. ▶

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