The Changing Seasons

A review and analysis of the breeding range changes reported in the last five years in American Birds. . .

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FOR THE INCAUTIOUS folk who try it too often, the big trouble with writing The Changing Seasons (C.S.) is that the seasons don't change enough. Despite all the ingenuity of birds in finding new places to go and all the industry of observers in finding the birds, this year's season tends to look much like the same season last year. Burrowing into another mountain of Regional reports one becomes giddy with *deja vu.* Is this now or two years ago? Here are the same old species 10 miles farther down the road, can anything useful be said about that? The hazard in this is that it prompts search for new approaches and in that direction lies madness. Thus two bits of advice for prospective C.S. authors. **1.** If you think you may do the job more than once, don't use all the cute remarks that occur to you in your first effort. You'll need them later and they'll still be just as appropriate. **2.** If you're tempted toward some novel presentation of the data, strangle the thought. Just say something about the weather and follow the pedestrian road from twits to twites. Believe me, it's the only way to go.

As you've doubtless guessed by now, this is the record of a failed (or, at best, a badly flawed) mission. It is, after all, the C.S. report that covers the breeding season and apparent changes in bird breeding ranges are its standard stock in trade. What better time than now, some imp of the perverse whispered to me, to review and analyze the range changes reported in, say, the past five years in *American Birds* (*AB*) and other literature, rather than merely adding to the heap. The time may be ripe, but the bibliographic job proved overwhelming and the information as elusive as quicksilver. More of that later. These problems would have been obvious to a less-inflamed imagination, but it seemed such a neat idea and time stretched comfortably ahead. However, the tenor of a long-suffering editor's phone calls eventually begins to change from polite entreaty to veiled desperation, and, ready or not, one must stop reading and start writing. Most of what you get, then, is a stunted and approximate summary of perceived change in the breeding ranges of birds in North America north of Mexico, principally as reported in *AB* for the nesting seasons of 1976 through 1980. A thorough review and analysis of recent breeding range changes is much-needed, but this is not it.

All things considered, I probably should have elected to write about the weather, because there was some. Notably, a blistering heat wave of twice-a-century intensity in the midlands and much of the East. There was also Mt. St. Helens. However, these and other perturbations that affected birds are capably examined by the Regional Editors. See their accounts also for many interesting records and comments that didn't fit the thrust of this ill-starred venture.

FIRST STATE NESTING RECORDS

Reports for 1980

FOR THE REASONS I gave the last time I did this job (*AB* 32:1130) and subject to the qualifications mentioned there, first nesting records for Canadian provinces, states and AB Regions provide a useful index to the pace and direction of change in known breeding ranges. The approximate tally for 1980, not including several first "modern" records shown below in parentheses, was 34 records of 31 species as follows: (*Common Loon,* Rhode Island); *Little Blue Heron,* Middle Pacific Coast Region; *Cattle Egret,* Nevada; *Great Egret,* Northern Pacific Coast Region; *Yellow-crowned Night Heron,* Nebraska, newly-fledged young; (*White-faced Ibis,* Middle Pacific Coast Region); *Common Eider,* New Hampshire; *American Coot,* Alaska; (*American Oystercatcher,* Connecticut); (*Spotted Sandpiper,* Oklahoma); *American Avocet,* Ontario; *Wilson's Phalarope,* Ohio, Texas, New Mexico; *Mew Gull,* Manitoba; *Heermann's Gull,* California (*both* Regions) and United States; *Ross' Gull,* Manitoba; *Short-eared Owl,* Vermont; (*Belted Kingfisher,* Arizona); *Red-headed Woodpecker,* Saskatchewan*; *Say's Phoebe,* Iowa; *Alder Flycatcher,* Virginia, Tennessee; *Hammond's Flycatcher,* Arizona; *Cliff Swallow,* Louisiana; *Black-billed Magpie,* Ontario; *Red-breasted Nuthatch,* North Dakota; *Bell's Vireo,* Kentucky; *Solitary Vireo,* Indiana; *Blue-winged Warbler,* Maine, *Nashville Warbler,* Alberta; *Bay-breasted Warbler,* Vermont*; *Louisiana Waterthrush,* Maine; *Wilson's Warbler,* Minnesota*; *Canada Warbler,* Illinois; *Scott's Oriole,* Colorado; *Great-tailed Grackle,* Middle Pacific Coast Region,

Red Crossbill, Virginia*; and, *Savannah Sparrow,* New Mexico*. For the starred records, published information on breeding ranges already includes the areas mentioned. However, in at least several of these cases, the earlier reports seem to have been based on mere presence of birds during the breeding season rather than definitive evidence of nesting.

FIVE-YEAR SUMMARY

THIS SECTION SURVEYS the first state nesting records reported in *AB* in 1976-80. Perusal of the Recent Literature supplements of *The Auk* suggests that at least 75 percent of such records which ultimately appear elsewhere in the ornithological literature are mentioned originally in *AB*. Finding them in *AB* isn't always easy and I'm sure I've overlooked a few. Delayed reports of new nesting records may appear in any of the seasonal issues and some may not have leapt out from the 1200-odd packed and sparsely indexed pages one had to scan. Also, where species are present and suspected of breeding for a number of years before nesting is confirmed, the first actual record of nesting may not be identified as such. For example, I believe that the first nesting of the White-tailed Kite in Oregon occurred during the five-year period, but I failed to find a definite reference to the event. In any case, the records that were found surely include most of those reported for the five seasons.

In his C.S. report for the 1976 nesting season (*AB* 30:920 ff.), Bob Newman expressed surprise that there were so many new state nesting records. The five-year perspective shows that 1976 was just an average year in this respect. The annual rate of addition of new nesting records has held remarkably constant (*1976,* 33; *1977,* 35; *1978,* 34; *1979,* 26, and *1980,* 34) averaging about 32 per year In all, at least 162 first nesting records were reported from all except eight states and provinces. Vermont, with its active Breeding Bird Atlas Project, led all areas by adding 12 breeding species. North Dakota with nine additions was something of a surprise runner-up. Other areas which recorded first nesting records for five or more species were Arizona, California, Indiana, Maine, New Mexico, Ontario, Texas, Virgina, and Washington.

THE ARRAY OF BIRDS represented is an impressive as the geographical spread of the records. Only the gallinaceous species are conspicuously absent from a list that inclues 10 Ciconiiforms, 13 waterfowl, 8 shorebirds, 13 Larids, 6 owls, 3 hummingbirds, 8 flycatchers, 4 swallows, 3 vireos, 16 Parulids, 5 Icterids, and 12 finches. Predictably, the Cattle Egret led the pack with first nesting records for seven areas, the period having coincided with its colonization of the Great Basin and northern Great Plains. Wilson's Phalarope and Great-tailed Grackle tied for second, each with first nesting records from five areas. Species with first records for two or more areas are Double-crested Cormorant, Little Blue Heron, Louisiana Heron, White-faced Ibis, Gadwall, Black-necked Stilt, Anna's Hummingbird, Alder Flycatcher, Tree Swallow, Blue Jay, Red-breasted Nuthatch, Solitary Vireo, Blue-winged Warbler, Wilson's Warbler, Canada Warbler, House Finch, Pine Siskin, and Red Crossbill. In all, the list includes at least 120 species, approximately one-fifth of the breeding avifauna of North America north of Mexico.

Some of the "first" records, 32 for 31 species by my reckoning, seem merely to confirm nesting in areas where it was suspected or had been reported on inconclusive evidence. Examples are Spotted Sandpiper in Alabama, Least Tern in Colorado, Flammulated Owl in Washington, Philadelphia Vireo in Vermont, Dark-eyed Junco in South Carolina, and Brewer's Sparrow in Kansas. Besides being more or less anticipated, these records as a group involve only modest extensions of previously known breeding range, and, with a few exceptions, there is little other evidence that the species are expanding their ranges. It is possible, of course, that nesting records from the extreme range periphery may signal a population build-up precursory to range expansion.

Another group of first nesting records in the five-year sample, at least 16 for 13 species, involved isolated occurrences, typically far outside the established breeding range. Many of these followed large population displacements, such as major irruptions of boreal species and emigration of water birds from drought areas. Examples are the widespread nesting of Pine Siskins in the Midwest in 1978 and nesting of Black-necked Stilts in Alberta associated with 1977 drought in the Great Basin. A few of the records may represent out-of-range nesting by injured migrants (Snow Goose in North Dakota, Least Sandpiper in Massachusetts), and several involved nesting by individual vagrants which hybridized with other species (Cinnamon Teal in North Dakota, Blue-throated Hummingbird in California). The records have in common the fact that, so far as is revealed to a five-year view, they were ephemeral events with no reported sequel. Necessarily arbitrary decisions regarding records in 1980 were based on the associated evidence. Thus, the first nesting of the American Coot in Alaska is taken to be a result of the general northward drought displacement of water birds noted this summer. But, nesting of Ross' Gull at Churchill, Manitoba, is considered a range expansion in view of other new nesting colonies recently reported in Canada and Greenland.

INSTANCES OF NESTING remote from the usual range shouldn't be regarded as mere noise in the record because range expansion by long jumps certainly occurs on occasion, perhaps by all the mechanisms suggested above and others Witness the colonization of southern Florida and Cuba by Fulvous Whistling Ducks in the 1960s. Several of the most widely disjunct records of recent report (Arctic Tern in Washington, Cliff Swallow in south-central Florida) have resulted in at least temporary establishment of outpost breeding populations However, the chance that a given distant nesting will result in range expansion must be very small and it seems reasonable in a short-term survey of range expansion to ignore such events unless there is contrary evidence.

The remainder of the first nesting records for 1976-1980, 114 for 77 species, seems to be clear instances of expansion of breeding range into new, generally contiguous, areas. Eight species, each represented by a single record, have their principal breeding range outside the area regularly covered in *AB* reports: two pelagic birds (Laysan Albatross, Manx Shearwater), the Black-headed Gull (assuming that it has held its nesting foothold in Newfoundland), and five Neotropical land birds with first nesting records for states bordering Mexico (Hook-billed Kite, Zone-tailed Hawk, Berylline Hummingbird, Sulphur-bellied Fly-

catcher, and Rufous-capped Warbler). Other species in the list of first nesting records are more extensively distributed in Canada and the continental United States and will be considered in the next section.

BREEDING RANGE EXPANSION

BECAUSE IT PROVED SO difficult to get at the information on recent expansion of bird breeding ranges (other than that published in *AB*), this section is an impressionistic summary rather than a thorough review. It emphasizes records of the past five years, but with allusion to earlier material where recent events seem to continue trends. And, it includes brief, superficial comment on the environmental changes that may account for various changes of breeding range. Range expansion obviously requires birds as well as exploitable ecological opportunities and it's assumed that population increases, at least locally, preceded most of the changes noted below. Coverage by taxonomic groups is a convenience not intended to suggest that all included species are responding to similar influences.

WATER BIRDS

WITH EXCEPTIONS as noted, range expansion by the birds of coastal and interior aquatic habitats has been largely directed by human activities. Either purposefully, as in protecting and restoring natural wetlands; or incidentally by such constructions as water impoundments, sewage ponds, garbage dumps, and landfills. Some recent expansions merely reclaim range lost to past habitat destruction and some expanding populations are doubtless recovering from the effects of direct persecutions in the past.

Wading Birds—The Cattle Egret in North America is a law unto itself in range expansion and it seems too bad that the phenomenon hasn't been studied more closely. In the Great Plains, Cattle Egrets may at last be meeting environmental resistance that suggests a range limit, as Hugh Kingery notes that Colorado colonies are still very small three years after they were established. However, reports of nesting in at least five places in California and a group of 600 in Arizona, where no nesting is yet known, lead one to anticipate further expansion in the West. The expansion by many of the traditionally southern herons and the Glossy Ibis up the Atlantic coast and in the Mississippi Valley has been in progress since the 1930s and the recent five years recorded only laggards. These included first nesting by Little Blue and Louisiana herons in North Dakota and first records for the latter in three states of the Northeast. Perhaps more notable were the extension of the Little Blue Heron's nesting range to California and early signs of movement by other species. Thus, the Wood Stork nested outside Florida for the first time of confirmed record; the White Ibis nested in Virginia; white *Ardea,* Reddish Egrets and Roseate Spoonbills advanced within Florida, reclaiming former range; and Reddish Egrets and White-faced Ibis from the west side of the Gulf of Mexico nested on the Alabama coast. The latter species, apparently recovering from its involvement with hard pesticides, also colonized both Dakotas and reclaimed range elsewhere, and an enigmatic pair (two, anyway) was seen on Long Island for the second year in a row.

Although they nest to some extent on spoil islands and other created wastelands, the heron-ibis range expansions don't appear to be primarily response to man-made changes. The rather stately pace of advance also suggests this. It may be that many wetlands of the North and West had unused opportunities for wading birds that are only now being exploited. The Atlantic coast expansions at least may have resulted in a distinct northward shift of species population centers. Peter Vickery's mention of some 900 Snowy Egrets counted at a roost on Plum Island, Massachusetts, made me wonder how many Florida localities could produce a comparable number these days.

Ducks—Waterfowl range expansions have been outward from breeding population centers in the Prairie Provinces and Northern Great Plains and have involved principally half a dozen species of puddle ducks, the Redhead and the Ruddy. The dominant thrust of the expansions resulting in new established range has been eastward into Ontario, Quebec, the Maritimes, and the northeastern states and has mainly utilized man-made habitats such as sewage treatment ponds. Several species have also expanded south in coastal marshes (Gadwall, Pintail, American Wigeon, Northern Shoveler), possibly after reaching the coast *via* the Northeast. Lesser expansions in the Midwest, also in incidentally provided habitat, mostly represent reoccupation of breeding range lost long ago.

The Fulvous Whistling Duck seems to have been relatively quiescent since its dramatic range expansion 15 or 20 years ago, but present reports suggest increasing stir in the population of Black-bellied Whistling Ducks. The species is said to have considerably increased its range on the upper Texas coast and it also nested in southern Arizona and was reported from Kansas. The persistent Florida records, three seen at two localities this summer, have been attributed to escapes, but one begins to wonder.

Larids—One suitable epitaph for 20th-Century man might read, "He made the world a better place for gulls." Recent range expansions show how well these hardy generalists were pre-adapted to prosper in a garbage-rich environment. The present period was too late to catch the Atlantic coast expansion by Herring and Great Black-backed gulls, but the former founded a first Illinois colony in 1978 and the latter is reportedly consolidating its Middle Atlantic range. Great Lakes populations of Ring-billed Gulls are supposed to vary cyclically in relation to water levels, but new food sources and elevated landfills may have relieved them from this constraint. Present reports mention colonies of well over 50,000 in Ontario and around Montreal and 5000 nesting at Lake Calumet, Illinois. During the period the species also founded its first Pacific coast colony in Washington. The Long Island colony of Laughing Gulls (former range regained) increased more than tenfold in its second year to about 225 pairs. It isn't clear to what extent the first nesting records (Mew, Black-headed, Heermann's, Ross') and range expansion (Black-legged Kittiwake in the St. Lawrence estuary) of other gulls were influenced by man, but, given the ubiquity of garbage, I suppose they may have been.

Terns, more specialized than most gulls and with tighter behavioral programming, showed fewer and more modest range expansions, the only ex-

ception being the long jump of the Arctic Tern to Washington. Otherwise, Forster's Tern nested for the first time in Ontario; Royal Terns advanced on the mid-Atlantic coast and bred for the first time in Chesapeake Bay; Sandwich Terns persisted on the eastern shore of Virginia and regained some of their former range on the Florida Gulf coast; and, Caspian Terns nested in small numbers at several new places on the Atlantic and Gulf coasts.

Shorebirds—Breeding ranges of the bulk of the shorebirds are beyond the close scrutiny of *AB* reports and many ranges aren't known in detail. Thus, nesting of the Dunlin in southern Alaska may represent a range expansion, but the new records of several species nesting in the northern Yukon probably do not. Although some records may have been once-only occurrences related to drought dispersal, Black-necked Stilts have extended their range in the Great Basin, and, on the Gulf coast, are one of the species benefitting from landfills. American Oystercatchers are moving north on the Atlantic coast with first (or first modern) nesting records in southern New England, and, this year, a number of sightings in Maine and one in Quebec. The Killdeer advanced its eastern range marginally in Quebec and southern Florida and the Spotted Sandpiper seems to have increased along its entire southern range edge, but as yet without any substantial southward expansion.

Thus, range expansion by shorebirds would be fairly small beer except for one over-achiever, Wilson's Phalarope. During the five-year period, first nesting was confirmed for five areas beyond the known range and suspected in at least a dozen others. Sewage lagoons assisted the spread in some areas, but presumably not the advances to James Bay and the southern Yukon. The species promises to become one of the better current examples of explosive expansion of breeding range.

Other Water Birds—Lastly, to mention several species that were missed, the Western Grebe (or Western-type grebes) extended its range in Colorado and the Southwest, and the Double-crested Cormorant advanced toward closing the gap in its Atlantic coast breeding range.

LAND BIRDS

BECAUSE I'M PRESSED for time and space and because the subject is much-bruised by earlier discussion in these pages, brief comment on range expansion by land birds seems appropriate as well as necessary. Man has influenced the range changes of land birds primarily by breaking up the biomes, cutting trees and planting trees; secondarily by providing new food sources, as at bird feeders and garbage dumps. Overall, however, these effects seem less pervasive than with water birds and more of the range expansions aren't the obvious result of specific environmental changes. Here I've tried to separate range expansions that seem directly dependent on man from those not obviously so, acknowledging that a few cases were decided by coin flip. For the most part, only species that registered appreciable breeding range expansion during the past five years are considered.

Man-directed Range Expansion—Land birds whose range expansion seems largely the result of man's interventions are listed below with an indication of where the main recent advance occurred: Turkey Vulture (Northeast); White-tailed Kite (California, Northwest); Mississippi Kite (Great Plains, Southwest); Anna's Hummingbird (Northwest, Texas); Tree Swallow (Rockies, Appalachians, Midwest); Barn Swallow (South); Cliff Swallow (South); Blue Jay (northern Rockies); Fish Crow (Mid-Atlantic, Northeast); Golden-crowned Kinglet (Northeast); Western Meadowlark (eastern Great Lakes area); Great-tailed Grackle (explosive, mainly Great Plains and West); Common Grackle (Rockies, Great Basin); Brown-headed Cowbird (Southeast, montane West, *etc.*); Bronzed Cowbird (Louisiana, New Mexico); Glossy Cowbird (eastern Greater Antilles, see Post and Wiley. *AB* 30:13 ff.); House Finch (explosive in East); and Clay-colored Sparrow (Northeast). Listing of Anna's Hummingbird follows Zimmerman's view (*AB* 27:827 ff.) that its range expansion has depended upon feeders and exotic plantings. Clearly, range expansions of this type have involved a diverse selection of birds, most parts of the continent and spread in every direction.

Range expansion of the White-tailed Kite has been quite amply reported, but it appears that the bloom may be off the rose. On the heels of recently reported decline in northern California, none could be found in the new Oregon-Washington range this year. The anticipated spread of the species east out of Texas has so far produced only the 1976 nesting in Louisiana.

Most of the swallows (apparently not Violet-green nor Rough-winged) extended their breeding range at least slightly during the period and most of the extensions involved nesting on or in man-made structures. See Jerry Jackson's report for comment on differences in the manner of spread of Barn and Cliff swallows in the mid-South. Because conspicuous difference in nesting habits is a key support for the generic fragmentation of the swallows, it is interesting to read (see Middle Atlantic Coast Region) of Tree Swallows using Cliff Swallow nests and Cliff Swallows nesting in Bank Swallow burrows.

IT ISN'T ALTOGETHER clear to me why cowbirds are prospering so greatly, but the vast increase of forest-edge habitat (Mayfield *AB* 31:107 ff.) doubtless is part of the explanation for the Brown-headed Cowbird, which this year probably bred at Anchorage, Alaska. The Boat-tailed Grackle hasn't been a prominent expanding species, having yet to make a definitive jump from the New Jersey shore to Long Island, but reports suggest that it may be following the Great-tailed Grackle's success route by invading inland and urban areas. Lately, in southern Florida, it seems to be taking over the discarded French fried food niche around many shopping centers

Other Range Expansion—Review of the breeding range extensions which appear not to depend directly upon man's more obvious modifications of environment reveals the overwhelmingly eastern and north-south character of the phenomenon. Two major trends of range expansion in the East and Midwest currently involve more than 30 species and a longer perspective or a tighter mesh would surely raise the number to around 50. By contrast, one is hard-pressed to find a dozen clear examples with a predominant east-west orientation, and unaided range expansion by land birds within the West seems negligible.

Northward expansion by many land birds in the East and the Mississippi Val-

ley has a long history. I've chosen to omit some noted examples (Carolina Wren, Mimids, Cardinal), either because they haven't advanced much recently or because their expansion may depend heavily on bird feeders. Anyone's current list of species would include most of the following: Chuck-will's-widow, Red-bellied Woodpecker, Willow Flycatcher, Acadian Flycatcher, Tufted Titmouse, Blue-gray Gnatcatcher, White-eyed Vireo, Worm-eating Warbler, Golden-winged Warbler, Blue-winged Warbler, Cerulean Warbler, Yellow-throated Warbler, Louisiana Waterthrush, Kentucky Warbler, Hooded Warbler, Orchard Oriole, Summer Tanager, and Blue Grosbeak. As a group, these species are associated with the more southern aspects of the eastern deciduous forest or its seral stages. Most are long-distance migrants, most are advancing on a broad front, and, around the eastern uplands, many are moving to higher elevations as well as northward.

THE CONTRASTING EASTERN range expansions, southward and to lower elevations, seem to represent a more recent trend, at least its publicity is more recent. Two facets seem discernible: advance by boreal forest birds south along the Appalachian crest (see George Hall's report) and a wider expansion by birds more characteristic of northern mixed forest and forest-edge. More species are involved at the skirts of uplands in the East, but some are also expanding in the Midwest and these are starred in the list below: Goshawk*, Yellow-bellied Flycatcher, Alder Flycatcher*, Common Raven, Black-capped Chickadee, Red-breasted Nuthatch*, Brown Creeper*, Hermit Thrush, Veery*, Solitary Vireo (Midwest only?), Yellow-rumped Warbler, Northern Waterthrush, Canada Warbler*, and White-throated Sparrow. The significance, if any, of the fact is obscure to me, but, with few exceptions, the above species are either more or less permanent residents or they migrate for relatively short distances, wintering largely within the United States.

An account of the rest of the recently prominent unaided range expansions by land birds is a tale soon told. Scores of eastern species are now reported fairly regularly in the West, but few have claimed breeding footholds there. The Indigo Bunting in the Southwest and the southern Great Basin is the most notable. Range expansion by the Barred Owl (northern Cascades), Chestnut-sided Warbler (Colorado), Northern Waterthrush (Oregon?), and American Redstart (Arizona, California?) are other examples, but there, it appears, the list ends. The species commonly mentioned here under headings such as "Western Birds East" have substantial breeding ranges in the Great Plains or at its northern fringes for the most part, and Bell's Vireo may be the only one of these which is extending its established range eastward. The nesting of Swainson's Hawk, Western Kingbird and Scissor-tailed Flycatcher east of their usual range seems to be sporadic and most of the other candidate occurrences (Say's Phoebe, Western Wood Pewee, Black-billed Magpie) are as yet uncertain or represent minor advances. The reported recent increases of breeding range by western land birds in the West seem insignificant with a few exceptions such as the Chestnut-backed Chickadee in the Sierra Nevada (Crase *AB* 30:673 ff.), where nesting may still be unconfirmed, and the first nestings of Hammond's Flycatcher and Lawrence's Goldfinch in Arizona.

At the moment, perhaps fortunately, I've neither space nor wit to address the apparent geographical disparity in the number of more-or-less natural range expansions by land birds. If, indeed, it is true that such events are less frequent by far in the West, I offer two unsatisfying gropings toward an explanation. Land bird habitats in the West are much more diverse and perhaps adaptation to the extreme differences has reduced potential for spread. And/or, the common occurrence of some habitats as altitudinal islands and the lack of broad regional vegetation belts tend to impede or delay range expansion.

DISTRIBUTIONAL DATA

IF NOTHING ELSE, I hope the point has been made that substantial change in the breeding ranges of birds is evident to even a short-term view. A large percentage of such changes seem to achieve brief mention in the *AB* Regional reports, but where does one go to find the necessary details? After having a college try at it, I'm tempted to say one goes up the wall.

It will not surprise constant readers to hear that incidental data on bird distribution have largely disappeared from our primary technical journals. For fun, I compared the 1956-60 and 1976-80 issues of four major journals and found a 65 percent reduction in the number of articles mainly devoted to bird breeding distribution. The actual change is far greater, because a whopping 80 percent of entries for the latter period appeared in 1976 and 1977; I'll not guess why. Also, the current articles tend to be historical summaries, the data bits used to contruct these pictures are no longer there. Some may be outraged that the first nesting record of this-and-that from here-and-there isn't prominently published and some may feel that ornithology is purified by cutting loose from its messy roots in natural history. Neither emotion seems appropriate. The main reason for the change no doubt is population pressure, the increase and range expansion of ornithologists. More ornithologists have more graduate students who write more theses which must be published somewhere. Questions of bird distribution can seldom be addressed with the "rigor" expected in thesis research nor within the time usually available for it.

If the raw data of distributional change have vanished for good from the primary bird journals, that is not, of itself, cause for great remorse. At least one national publication, *AB,* and 75 or so state, regional and specialty publications are amply receptive to manuscripts reporting new distributional data. It's reasonably certain, however, that no one person regularly reads all these journals and perhaps not ten libraries exist which receive as many as half of them. The key surely is thorough abstracting and that seems to be one part of a two-headed problem. Too little of the notable new information is being published appropriately and too much that is published dies at birth for lack of adequate notice In 1976 and 1977, *AB* mentioned 68 first state nesting records, all surely worth publishing in more detail and hard to judge conclusively unless they are. I checked the 1976-80 Recent Literature supplements of *The Auk* for references to more extended discussion of these events and managed to identify reports of only 14 of the records. Some of the material perhaps is still to appear, either in print or in abstract, but it's a fair bet that most was either not published or not abstracted.

Does it make any important differ-

ence if the basic data about bird range changes are mute or mislaid? Possibly not, but there are several reasons why it might. For one, the summed anecdotal evidence of range change often forms patterns which may lead at least to more refined speculation and may even stimulate the phrasing of "biologically important questions." For another, despite a good bit of pious nonsense about early warning systems and the miner's bedraggled canary, bird populations clearly combine two characteristics useful in environmental monitors. Namely, high visibility and the capacity for quick response to change. For topical example, see Douglas Kibbe's comment on the relation between acid rain and the Northern Parula. The bitter rain directly affects *Usnea,* not the warblers, but, for good or ill, bird watchers outnumber lichen watchers. It would seem too bad, if, in this day and with observers in place, the opportunity to follow bird range changes in timely detail was blunted because we were unable to develop and process the information efficiently.

Perhaps there's a case to be made for wholly new ways to prevent loss of important natural history data, but a few simple, inexpensive and immediate steps would help present systems to work more adequately. Observers need to realize the importance of reporting their notable records fully. *AB* Regional Editors need to encourage this, or, alternatively, to give more detail in their own reports. Editors and organizations responsible for less-circulated journals need to make certain that the material they publish reaches at least a few central libraries and the principal abstracting and title-listing services (*Auk* Recent Literature, *Wildlife Review, Biosis*).

I'm critically indebted to Fred Lohrer for comment and counsel on this section.

CLOSING OUT

AS USUAL AT THE FINISH of a C.S. column, a couple of side topics seem to need brief comment.

THOSE SUMMER SHOREBIRDS

AGAIN THIS YEAR, the boreal shorebirds seen south of their breeding ranges between, say, mid-June and mid-July gave the Regional Editors problems, especially in coastal areas and around the Great Lakes. Again this year, efforts to account for most or all observations in terms of the model, Spring migration into the Arctic-Breeding-Return-Fall migration, claimed several precious pages of text. And, again this year, supposed early pulses of fall migration discerned in one area were exceedingly difficult to trace in neighboring Regions. It seems clear that so simple a model can't explain all summer activity of shorebirds and attempts to make it do so may obscure the actual patterns of shorebird migration. Everyone knows that individuals of any shorebird species (any migrant, for that matter) may occasionally summer away from the usual nesting grounds for a variety of reasons. If more evidence is needed, consider the present reports from the two tropical, insular Regions of *AB*. In the Virgin Islands, for example, five species of boreal shorebirds probably occurred through the summer and an additional five had appeared by the end of July. However, there is more to the problem than merely separating a few summer residents from the birds bound to or from the breeding areas. Horace Loftin's study of the summer shorebirds of a north Florida estuary (*Bird-Banding* 33:21 ff.) is instructive in this regard. Loftin found that summer individuals tended to be in their first year, deficient in fat deposits and sexually immature, and, most importantly, that they didn't stay in one place. Some birds marked in late May and June disappeared for a few weeks and then reappeared as "fall migrants" in early July. The subject needs much more study, but it seems reasonable to imagine that there may be substantial movement of shorebirds south of the breeding range in summer. Partial migration, delayed spring migration and premature fall migration all seem to be likely possibilities. And, with such highly social species, even a midsummer influx in fair numbers is not necessarily evidence that the birds are on fall migration having completed a breeding cycle. I sympathize with the Regional Editors who must cope with the records, because the information usually available is ill-suited to the complexity of the problem.

MISCELLANEOUS RECORDS

AND FINALLY, TO CLOSE this labored and terribly tardy account in a traditional manner, a few reports that were not obviously associated with extensions of breeding range require mention Among pelagics, records of the Black-browed Albatross off Rhode Island and Newfoundland tended to confirm its status as a probably regular visitor to the western North Atlantic. The summer flight of southern Ciconiiforms was notable mainly in the interior East and the Midwest and mainly for numbers of immature White Ibises which provided several areas with first records. Other reported first records (and I've probably missed some) were: Great Egret (Alaska), Black Hawk (Colorado), Greater Yellowlegs (arctic Alaska), California Gull (Indiana), Arctic Tern (Ohio), Dovekie (Aleutians), Purple Martin (Yukon), Sprague's Pipit (Ontario), and Ovenbird (Washington, first specimen) Ten species of western United States land birds in the East in June and July seemed to represent unusual variety in unseasonal stragglers. Eastern species, especially Parulids, were widespread in the West, but the mounting accumulation of ungeneralized records has robbed the phenomenon of much of its novelty. Perhaps the pick of the crop were single Mourning (banded) and Blackpoll warblers on the Farallons, both part of one of those mysterious late June-early July waves of presumed migrants. The Northeast dominated the market in Palearctic vagrants with records of the Little Stint in Massachusetts and New Brunswick, Rufous-necked Stints (or Sandpipers, *Calidris ruficollis*) twice in Massachusetts, and a Redwing in northern Newfoundland which was said to represent the first unblemished record this side of Greenland. Elsewhere, there were single White Wagtails in Oregon and California and other Little Stints in northern Alaska. The Mexican border was quiet except for another sighting of the Plain-capped Starthroat near Nogales. Southern Florida recorded two species from beyond the Antillean frontier, a West Indian Whistling Duck in flooded Everglades farmland and a Melodious (or Cuban, *Tiaris canora*) Grassquit in Key West during the boatlift of refugees from Mariel. Both records, alas, are irretrievably tainted by the possibility of being escapes. And, speaking of escapes, I think I've made mine.

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