THE BIG PICTURE of bird distribution on this continent is picture that seasons, of course; change not only in its details, but also in the medium in which it could be expressed. During seasons of mi-



gration, weather fronts marching across the continent are followed by surges of migrants across many regions, a picture that could be painted in sweeping strokes. Winter could be a coarse-grained collage, big blocks of color, as major sections of the continent are blessed with winter invasions and high bird populations, while others may be locked in extremes of weather and a paucity of birds. But the picture of summer looks more like a mosaic. There is a lot going on-but much of the action is quite local. The patterns are limited in their geographic scope. The big bird story in your back yard might be completely different from what is happening two counties over.

After 22 years of covering the action-packed fall period on the Gulf Coast, seasonal editor R.D. Purrington "moved" to the summer this year. Some of his friends chided him for giving up the most exciting season, the mind-boggling vagrant months, to cover the more humdrum summer. But as Purrington points out in his own defense, the breeding season is the most biologically significant time of year. It is the best chance to determine how our bird populations are actually doing. It is the time when those birds can be tracked down on their breeding grounds and counted, free of the confusingly wide variations in migrant and winter numbers. I fully endorse this view. Birders could well think of it as their duty to get out in summer and check the local bird populations.

As an ironic footnote, Dan Purrington's move to the "dull" summer meant that he was the one to break the wild news of possible Kelp Gulls in Louisiana! No, I'm not making this up; see the Central Southern Region column. But first, let's look at the big picture-the composite made of myriad little pictures-of summer birdlife in 1990.

# The Mosaic of Summer 1990

The availability of water is always a concern in the breeding season, as some dots on the mosaic that should be green or blue turn brown instead. Conditions of drought or excess rain have been unusually widespread in some recent summers, but this year they were more typically localized. The exceptions were broad bands of drought in California and the Mountain West, which were shown to have adversely affected nesting of a number of waterbirds.

Elsewhere, this was a season with

few widespread patterns. Most birdrelated events were local in nature. There were two very notable exceptions, however. In the southwest, apparent refugee birds from the Gulf of California were spread over a wide area. In the northeast, a bizarre array of strays found in New England had evidently originated from points spread over a wide area. These events were not related, but they both caused excitement for field observers.

# The southwestern invasion: **Crisis in the Gulf**

Something happened down there, below the border, south of California and Arizona. We know that, because of the birds that came north. Out of the Gulf of California came a great assortment of coastal birds, the greatest in many years, to scatter over the interior of the Southwest.

Pelagic birds wandering in the southwestern deserts tend to wind up on the Salton Sea in southern California, a vast sheet of water that must be visible to a flying bird from many miles away. Brown Pelicans have been regular summer visitors there in recent years, but this summer they built up to an unprecedented 2000+ by early August. Equally unprecedented, and equally impressive in its own way, was the tally of at least fifty Brown Pelicans scattered across Arizona. Dave Stejskal and Gary Rosenberg make the point that practically every body of water in southern Arizona hosted a Brown Pelican at some time during the summer.

While pelicans were making headlines in Arizona, boobies were making the hotlines farther west. For the first time in years, both Brown Booby and Blue-footed Booby turned up on the Salton Sea, drawing platoons of eager birders. These observers had plenty of other birds to enjoy. Yellow-footed Gull numbers built up to over a thousand, and Gull-billed Terns, Laugh-



For the first time in sixteen years, Brown Boobies showed up on the Salton Sea in southern California this summer, highlighting a major movement of coastal birds northward into the Southwest from the Gulf of California. This immature Brown Booby was photographed at the Salton Sea on July 21, 1990. Photograph/Robert McKernan.

ing Gulls, and Black Skimmers were all present in high numbers. These are all birds that presumably reach the Salton Sea from the south. Rare strays that probably came from the same direction included two Least Terns on the Salton Sea, at least five Heermann's Gulls inland in California and one each in Nevada and Arizona, up to three Elegant Terns on the Salton Sea and one in Arizona, and the first proven Royal Tern for the interior of the Southwest. Magnificent Frigatebirds joined the act on the Salton Sea and the Colorado River. Both booby species also appeared in Arizona (although the Blue-footed was late, after the end of this reporting period). Most tantalizing for Arizona birders was the Red-billed Tropicbird picked up, in need of urgent care, on the edge of Tucson. Like all the other birds mentioned above, it had probably come from the Gulf of California.

What happened down there? Even without any information, we might guess that it was something bad. Confirming that suspicion was the news that 600 to 1000 Brown Pelicans were picked up dead or dying on the beaches around Puerto Penasco, on the coast of Sonora. Most were emaciated, and some of the weakened birds promptly recovered when they were fed. This suggests that starvation was a factor in the mortality and mass exodus. A slight rise in water temperature, resulting in shifts in the distribution of fish in the Gulf of California, could have been responsible for the northward dispersal of thousands of birds.

How widespread was this phenomenon? It's worth noting that, along the Pacific Coast, high numbers of Heermann's Gulls and Brown Pelicans wandered north to Washington, while Elegant Terns reached Oregon. An intriguing Sooty/Bridled Tern in southern California was well north of usual haunts, whichever species it was. All of these things probably reflected events farther south, possibly even a general level of stress for seabirds off western Mexico.

In that light, we might wonder how things were on the other side, off *eastern* Mexico. The spring season brought rare records of Brown Pelicans in Arkansas and Ohio, and on Lake Michigan, and this summer saw very high numbers on the Texas coast. The latter, as Greg Lasley and Chuck Sexton point out, mostly reflect a very healthy comeback. But were some of them displaced birds from farther south? We don't know.

# The northeastern invasion: Massachusetts miracles

If the Founding Fathers had been birders, no doubt there would have been complaints that Massachusetts Colony was getting an unfair share of the good birding sites. The mouth of the Merrimack, Cape Ann, Marblehead, Nahant, the long sweep of Cape Cod and Monomov, the islands of Nantucket and Martha's Vinevard-Massachusetts is blessed with an abundance of natural vagrant traps and concentration points. Add to this the long tradition of birding skill in that state, and it is no wonder that Massachusetts bird records continue to amaze us year after year.

Even against this background, the summer of 1990 was an exceptional season there. I won't describe the long list of rarities that turned up in Massachusetts, but Wayne Petersen will, in the New England Region column. Sorry, Wayne, the continent-wide picture doesn't do much to explain why the Bay State was so blessed this season. A couple of the species fit into patterns-the two White-faced Ibises were among several that wandered east of range during the spring and summer, and the Spotted Redshank was matched by another in Ontario-but for the most part, you're on your own. Documentation was good on almost all of these rarities, so clearly they were not just Mass. hallucinations.

# Filling in blanks in the mosaic, many new breeding records are likely to represent expanded fieldwork of birders, rather than expanded ranges of birds

When a bird is first found breeding in a new locale, it can be hard to prove whether this actually represents a new area for the species itself, or simply a new discovery of a population that was already there. Sometimes, however, circumstances suggest the latter. Such was the case with several first provincial nesting records for Prince Edward Island, including Great Crested Flycatcher and Philadelphia Vireo, products of the Maritimes Breeding Bird Atlas. Prince Edward Island has been for some time an "under-birded" province, its great birding potential largely untapped.

Some other new discoveries in summer 1990 likely represented birds that had been merely undetected earlier. For example, Gray Flycatchers nesting in Texas were new, but they were on upper slopes of the Davis Mountains, where access has been limited in the past. The first actual nests of Black Swift were found for New Mexico, but as John Farrand pointed out recently (AB 44: 15-16), those nests are tough to find. A first nesting record of Marbled Godwit in Nebraska might fall in this category as well: the Rosches have been birding western Nebraska intensely for some time, but they have a lot of ground to cover. Not shown to be nesting, but exciting for summer anyway, were Rock Ptarmigan in Ontario found in remote northern reaches of the province.

# Some leftover effects from the spring were felt through the summer

In spring 1990, strong east and southeast winds over the Gulf of Mexico shunted many migrants to the west of their usual migration corridors. The resulting (?) vagrant season in parts of the West continued well into early summer. The list of strays found during early June in one county alone, Harney County in southeastern Oregon, reads like a Who's Who of eastern warblers.

Going back even farther, the big southward flight of Red-breasted Nuthatches last winter may have had lingering effects. There were a few scattered singles well south of the breeding range, such as one in July in eastern Maryland and others in New Jersey and on Long Island. The species nested south of usual limits in Wisconsin and perhaps at State College, Pennsylvania.

"Fall" migration of warblers and some other songbirds is usually well under way by the end of July. Around the western Great Lakes, late July this year failed to produce the usual first southbound passerines. Daryl Tessen attributed this to the lateness of the spring migration and a resulting late nesting season.

#### The gradual northward expansion of many southern breeding species represents one of the most long-playing and widespread summer phenomena

If you looked at the mosaic of summer birdlife from each of the last thirty years you would notice a trend, too uneven to be predictable but too big to be ignored: many southern breeders are gradually extending their ranges toward the north. Summer 1990 saw a few notable milestones in this trend.

Singing males of Louisiana Waterthrush in New Brunswick and Yellow-throated and Prairie warblers in Manitoba may just have been overextended pioneers, but Yellowthroated is clearly on the move. It is still expanding north rapidly in the Appalachian Region. Nesting was confirmed this summer in Connecticut, a first for New England. Cerulean Warblers are increasing in Connecticut and nested for a second year in central Massachusetts, and good numbers were found locally in New York. The prize breeding record for New York state, however, was the first definite nesting of Summer Tanager.

Many other eastern birds are involved in this trend. White-eyed Vireo and Blue Grosbeak are two that are often mentioned. Blue-gray Gnatcatchers are extending north in Minnesota. Willow Flycatchers are advancing at northern limits in Quebec and elsewhere.

Farther west, Hepatic Tanager may be spreading north in Colorado, and Great-tailed Grackles are definitely continuing to spread and increase in California, Arizona, New Mexico, and Colorado. In the Northwest, first state breeding records were set by Black-chinned Sparrow in Oregon and by Acorn Woodpecker and Northern Mockingbird in Washington-all northward extensions. Scrub Jays are still spreading north and west in Oregon. Continuing north from there, Caspian Tern is increasing in coastal British Columbia and still expanding its breeding range in Alaska, where it is a recent arrival.

Bucking the trend, some northern species are apparently spreading southward, especially in the

# **Appalachian Region**

George Hall, who has an enviably long perspective on the birdlife of the Appalachian Region, points out that an opposite trend is occurring there. While southern species continue to expand their ranges northward, various northern or montane birds are pushing toward the south, or toward lower elevations, or both. As George says, these shifts are hard to explain. Examples this season included Northern Goshawk, Goldencrowned Kinglet, Hermit Thrush, and Yellow-rumped Warbler; see the Appalachian account for more details.

In the Appalachian region and elsewhere, Tree Swallow continues to extend its breeding range southward. This is just one of several swallow species that are doing well and spreading in various directions (see comments on Cliff Swallows in several eastern regions). Common Ravens, perhaps concluding that they will have to put up with us for a while, are increasing as breeders southward in New England, upstate New York, and Minnesota. House Wrens may be expanding their breeding range southward in Tennessee and neighboring states.

# Potential trouble spots: some indications of declining populations, on the local level, that should be monitored

Bird populations naturally fluctuate from year to year, unnoticed by casual observers, and a decline in numbers generally has to be major before it will come to the attention of most birders. Here are some local declines noted this season.

Most alarming was the news from Bob Pyle that the endemic 'Elepaio seems to be crashing on the island of O'ahu; this species does not have many other local populations to fall back on.

Elsewhere, long-time observer Stuart Houston noted low numbers of Prairie Falcons in Saskatchewan. Least Bitterns were found to be in unexpectedly low numbers on Chesapeake Bay. They have also declined steeply in central Oklahoma; in that area, veteran observer John G. Newell suggests that these little herons have suffered nest predation from the greatly increased population of Great-tailed Grackles.

At Anegada in the northeastern Caribbean, Rob Norton has noted a steady decline in breeding numbers of Gull-billed Terns. Common Ground-Doves, evidently on a downhill slide in many areas, seem to have disappeared from the wellwatched Reserve area of Louisiana. Scarcity or declines of Common Nighthawks were noted in diverse areas such as upstate New York, eastern Texas, and all three of the Prairie Provinces.

Tree Swallow numbers were apparently down on Long Island, New York, and in parts of Ontario. Wood Thrush, already a source of concern, was sharply down in Virginia's Shenandoah National Park. Baird's Sparrows were thought to be declining in North Dakota, but this was balanced by more positive comments to the north in Canada. A decline of Eastern Meadowlarks in parts of southern Texas was documented by Sharon Bartels.

All of these situations are worth watching. Of course, local declines can occur even in a species that is increasing elsewhere. A drop in numbers of Canada Geese around Revelstoke, British Columbia, was puzzling, even if no one is worrying about this species yet!

# Blots on the mosaic, of the sort clearly caused by human activity

Busy humans alter the landscape in a variety of ways, and some of these ways are likely to affect bird populations. For example, riverbank "maintenance" activities by the Army Corps of Engineers have reduced the main California breeding population of Bank Swallow by about 75% over the last four years. Many local events like this may be temporary in their effects. More alarming are cases of large-scale chemical pollution, whose insidious effects may not be fully measurable for some time.

In the period since the mid-1970s, commendable progress had been made in cleaning up New York Harbor. During the same time, three good-sized heronries had developed on islands in that region. It looked like a modest environmental success story, but 1990 may have represented a step backward: a pipeline rupture, a tanker release, and smaller spills have resulted in over one million gallons of petrochemicals being emptied into these waters since the beginning of the year. Studies by Manomet Bird Observatory probably turned up valuable data on the effects of the spills on these heronries...but we don't know, because the data are locked up by a gag order, pending lawsuits against the oil companies involved.

In a similar vein, full effects of the March 1989 *Exxon Valdez* disaster in southern Alaska still cannot be published, because of ongoing legal action in the case. However, we do know now that the total bird kill from that oil spill was at least in the neighborhood of a third of a million. Meanwhile, in a knee-jerk frenzy, some Alaska politicians and oilmen are using the 1990 Persian Gulf crisis as an excuse to call for quick, disastrous drilling in the Arctic National Wildlife Refuge.

#### As coverage increases, more and more of the seemingly "unique" bird records fall into patterns of occurrence

It's strange to recall that, at one time, occurrences of birds out of range were always called "accidental" and considered to be random, meaningless events. Expanded birding coverage has laid that idea to rest. We now expect these rarities to fall into predictable patterns of vagrancy, and generally they do.

Seeking and finding these patterns was a big activity of the 1960s for Guy McCaskie, Rich Stallcup, Aaron M. Bagg, and others. But the search has been so successful that now it can be genuinely hard to find a bird record that does *not* fit into some kind of pattern.

Consider Árizona's third record ever of White-rumped Sandpiper. It occurred this summer, on the outlandish late dates of June 23–24. An odd, isolated record? No: at exactly the same time (June 23), another White-rumped was exceptionally late in Colorado.

What about a Mexican hummingbird in Arkansas? It's exciting, but it's not new; a Green Violet-ear in Arkansas this summer represented the *third* state record, and an extension of the pattern of vagrancy already established for Texas.

Or consider the Snowy Owl that was present in Wisconsin on unheard-of dates in early *July*, after a winter with almost no invasion. Unique, right? Wrong: this summer there was an equally unexpected Snowy in Massachusetts at the same time, and maybe another in New Hampshire.

But I may be on solid ground in nominating one record of Goldencrowned Sparrow this year as "unique." What time of year would this species be most unlikely to appear out of range? In late June, when all individuals should be on the breeding grounds in Alaska and far western Canada. And what part of North America is farthest away from that northwestern range? You guessed it: the first Golden-crowned Sparrow ever recorded in (or near) Florida was on the Florida Keys in late June this year. As far as I know, no other bird record links with that one to form any kind of pattern. Just put it down to artistic license in the grand scheme of things, an unmatchable but bright spot of color in the mosaic of summer birdlife.