

Arctic Tern. Photo/Allan D. Cruickshank from N.A.S

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Each spring millions of migrants are "pumped" from the American tropics and move out over the waters of the Gulf. Each day there is a pulse. As long as the migrants are moving through the relatively stable tropical environment, their timing is regular and predictable, but once they reach the Tropic of Cancer the situation changes. For the millions of trans-Gulf migrants, this is reached when they have flown but a third of the way across the Gulf. They then venture into the temperate latitudes where weather is highly variable and often violent. Strong easterly winds may drift them to the Mexican coast; westerly and northwesterly winds associated with the passage of a cold front may force the birds toward the peninsula of Florida. Strong southerly winds

may shorten the flight considerably, and some of the migrants may be swept far inland even to the northeastern states on their subsequent nocturnal migration. In contrast, northerly winds may delay the migrants to such an extent that many perish over the waters of the Gulf because of exhausted energy stores, and those that do manage to land on the northern coast must spend a few days replenishing their badly depleted energy reserves. It is no wonder then that migration events in the region of the Gulf of Mexico often greatly influence the timing and geographical distribution of spring migrants for the remainder of the United States and Canada. This was certainly the case this spring.

From March 12 to June 3 approximately 20 cold fronts moved into the continental United States from the Pacific Ocean or Canada (the same number as last spring). Of that number about 16 were strong enough to penetrate the air over the waters of the Gulf, and except for four, the fronts continued southeast and swept over Florida. Herbert Kale reports from the Florida Region that this spring was a vintage one for watchers of migratory birds, especially along the Gulf coast. Three major cold fronts passed through Florida in April and grounded

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unprecedented numbers of migrants. The front near the end of April was perhaps the strongest, and members of the newly organized Florida Ornithological Society meeting at St. Petersburg were treated to a spectacle that birders normally experience only occasionally on the coasts of Texas, Louisiana, Mississippi, and Alabama. Mulberry trees were "decorated" with colorful migrants of up to a dozen species with two or three individuals of each. Also typical of the more northern Gulf coast, the Florida coastal fallouts did not extend inland to the interior of Florida; the migrants were concentrated in a narrow band of vegetation along the coastline.

The migrants that landed on a boat in the Atlantic 20 miles east of Cocoa Beach on April 6 present a very interesting problem. After consulting the Daily Weather Maps (Weekly Series) published by the National Oceanic and Atmospheric Administration, it would appear that these migrants reached this area after departing from the Atlantic coast of upper Florida, Georgia, or possibly South Carolina and flying toward the *southeast*! The northwesterly and northerly wind patterns over the area on the night of April 5 strongly support this possibility.

On the Gulf coast of the Central Southern Region a warm March caused migration to be a little early, but it was slowed by a cool April and May with good cold fronts and heavy rains that precipitated many grounded migrants. The best days were March 30, April 4, 7-8, 20-21, and 27. On April 8 with northerly winds a Pine Warbler appeared on a boat 20-25 miles off the Louisiana coast, and a male Cardinal was found floating belly up and dead near the boat. Although the appearance of these species is quite puzzling, the birds were more than likely drifted south and offshore during a partial or limited migration.

More and more data are being accumulated on the breadth of trans-Gulf flights, and it now seems that when northwesterly and westerly winds (cold fronts) displace the flights eastward so that the Florida Gulf coast receives good numbers of migrants, the only portion of the Texas coast that receives trans-Gulf migrants is the *upper* coast. This spring Fred Webster commented that for the South Texas Region this was the poorest migration in many years, and noted that the principal exceptions were on N. Padre Island and along the upper coastal strip where weather on several dates caused transients coming in from over the Gulf to land in the first available cover. On May 2 and 3 trans-Gulf migration met a rainy cold front head-on and produced spectacular results on the extreme northeastern strip of Texas coast between High Island

and Sabine Pass. The counts of grounded migrants stagger the imagination, e.g., 1,000 Eastern Wood Pewees, 3,000 Magnolia Warblers, 1,300 Chestnut-sided Warblers, and 1,500 American Redstarts. On May 5 at N. Padre Island and on May 12 at Port Aransas and High Island, additional interesting migration events occurred, and the reader is urged to examine these in detail. Broad-winged Hawks staged spectacular migrations through the South Texas Region, and this species showed up at several unusual western locations this spring.

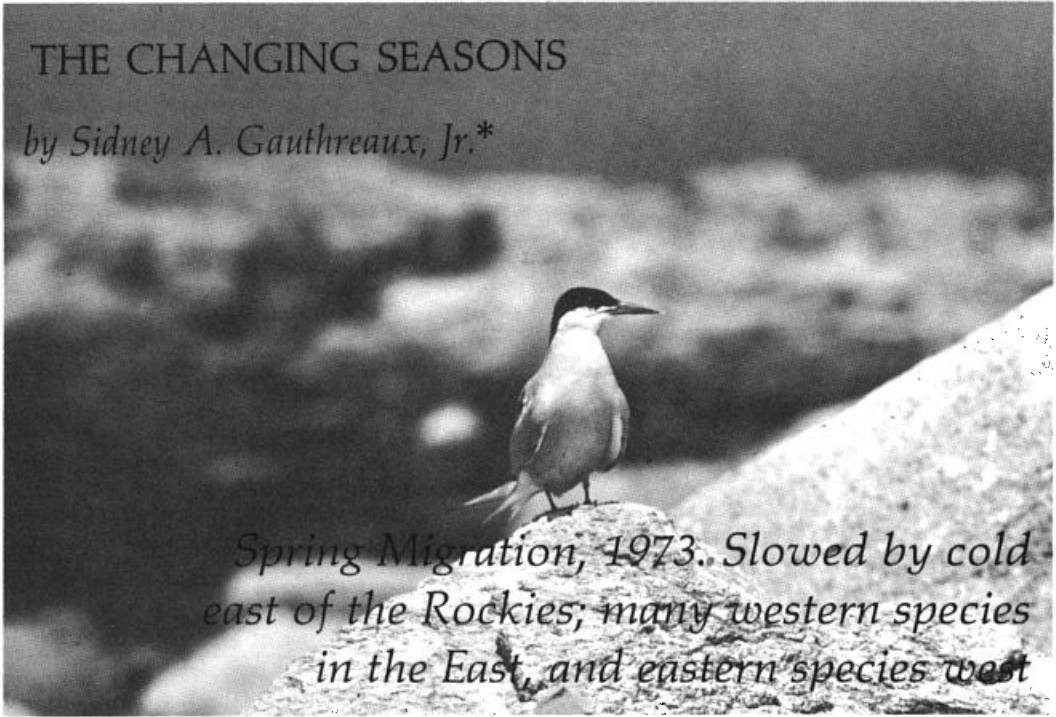
The pace of migration in central and eastern United States was essentially the same as that for the central northern Gulf coast. March and much of April were warm with periods of brisk southerly winds, and several migrants were the earliest ever in many regions. In the Northwestern Maritime Region these weather conditions caused a well-defined wave of overshooting southern species to reach New England and in some cases the Maritimes during the first week in April. The dates are in keeping with the normal arrival dates for the species in the Gulf states. These early migrants (Black-billed Cuckoo, Prothonotary Warbler, Summer Tanager, and Indigo Bunting) probably took advantage of the winds associated with a deepening low pressure system over Illinois on the night of April 1 that moved to the northeast and was over New England by April 3.

In the Northern Great Plains Region spring migration began up to three weeks early, but winter returned in April, and migration was retarded and extended well into June when rain grounded the last flycatchers, warblers, and thrushes in Saskatchewan. This pattern was the same for most of the regions east of the Rockies. With few exceptions the unseasonable cold continued until the last of May and caused a tardy migration over much of the country with a build-up to heavy migration during the last part of May. A possible reason for delayed migration after an early surge appears in the report from Ontario. Around April 21 a week-long warm spell broke, and the next two or three days saw *heavy reverse migration* particularly in the area of Point Pelee National Park. On radar in the Piedmont of South Carolina I witnessed a similar event on the night of May 3 when large numbers of migrants moved to the south-southeast with north-northwesterly winds after the passage of a powerful cold front.

In the Great Basin-Central Rocky Mountain Region a cold wet spring had little effect on waterfowl migration but delayed landbird movements greatly. The eastern portion of the region experienced a retarded migration, and many

THE CHANGING SEASONS

by Sidney A. Gauthreaux, Jr.*



Spring Migration, 1973. Slowed by cold east of the Rockies; many western species in the East, and eastern species west

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York, area were new high counts for single days. An adult Black Vulture recorded on April 17 at Needham, Massachusetts, was only the third reported in the Northeastern Maritime Region in the past five years. White-tailed Kites nested in Leon Co., Texas, in April, and a bird was seen in May at Dallas for the first county record. This species also appeared in Chaves Co., and around Roswell, New Mexico, in April; there are only two previous hypothetical records for the state. A White-tailed Kite was also reported from western Oregon near Finley N. W. R. in April. Swallow-tailed Kites once again invaded the Northeast. A single bird appeared at S. Westport, Massachusetts, in May, and another was at Plymouth Center on May 30. This species also showed up in north Chambers Co., Texas, on April 24. The fourth California record of the Mississippi Kite was a sighting of two birds at Furnace Creek Ranch in Death Valley on May 21.

A delayed report of a Goshawk shot while trying to catch a chicken at Amite, Louisiana, last November constitutes the first record for the state. The bird had been banded about a month earlier near Duluth, Minnesota! The discovery of 12 Swainson's Hawks including five nesting pairs in north Kane Co., Illinois, was one of the outstanding events in that state this spring. A very unusual Black Hawk was observed near Falcon Dam on March 25 in the South Texas Region. Broad-winged Hawks made news this spring. This species strayed west to Boulder, Colorado, on April 23 and to Pocatello, Idaho, on April 30. The latter, Idaho's second, stayed after banding in the same open woodlot for a week. An adult was identified at Corn Creek on the Desert National Wildlife Range, Nevada, on May 7 for the first state record. An immature carefully identified near Gila, New Mexico, on May 12 was possibly the second record for the state. A Broad-winged Hawk at Arroyo Mocho, Alameda Co., California, on April 22 was likely the first spring record for the middle Pacific Coast Region, and only one day earlier at Furnace Creek Ranch in Death Valley was the species recorded for the first spring record for California.

CRANES AND SHOREBIRDS—An extremely rare Sandhill Crane was carefully observed as it flew southeastward over Webster, Monroe Co., New York, on April 21. Two Ringed Plovers were collected on May 15 at Amchitka, and a third was also seen. These constituted the first Aleutian record and the second for Alaska. An inland record of the Piping Plover at Austin, Texas, in April was quite unusual. A Woodcock chick about two weeks old in Oklahoma on April 7 provided probably the second breeding record for the state. A Whimbrel at Reno, Nevada, this spring was probably the first ever north of Las Vegas. Red Knots are very rare in the Great Basin-Central Rocky Mountain Region so the report of four at Stillwater, Idaho, on May 14 is noteworthy. The third spring record of Pectoral Sandpiper for the Middle Pacific Coast Region was a bird seen at Bolinas Lagoon on April 23. Apparently the second U. S. record of the Long-toed Stint was taken on Amchitka on May 15.

Curlew Sandpipers are to be expected on the north-eastern coast of the United States, but two birds in Rhode Island in May were the first state records. A Semipalmated Sandpiper observed at the north end of the Salton Sea on May 5 was very rare, but McCaskie believes this species is probably a regular spring migrant through the area. The Buff-breasted Sandpiper is very rare east of the Mississippi River in migration so the appearance of 75 individuals on Mullet Key on April 28 was unprecedented. Three more were seen on April 30 at St. Marks light near Tallahassee, Florida. Another New Jersey record of the Bar-tailed Godwit was established when a bird was observed on May 6-27 at Longpoint. Reports of the Ruff were widespread this season. An individual in breeding plumage at Pea Island Refuge, North Carolina, was unusual. A bird in a flooded rice field in E. Chambers Co., Texas, in March, and another at Galveston in May were quite rare for the South Texas Region. A "black" individual was found in with Pectoral Sandpipers at Bloomington, Illinois, on May 9.

JAEGERS, GULLS, TERNS, AND ALCIDS—A Pomarine Jaeger in intermediate phase plumage observed on N. Padre Island Beach, Texas, between April 26 and May 2 was unusual, but the occurrence of this species at Westcliffe, Colorado, from May 12 to 13 was a great deal more bizarre. A second or third year Glaucous Gull at the Bolivar Peninsula flats on May 12 in the South Texas Region is indicative of the increase in sightings of white-winged gulls along the Gulf coast. An Iceland Gull was identified at Waukegan, Illinois, on May 10. The second sight record of the Great Black-backed Gull for Texas was a bird carefully observed during a period of a week at Laguna Atascosa N. W. R. Franklin's Gulls occurred this spring at Newburyport, Massachusetts, Maces Bay, New Brunswick; and Sable Island, Nova Scotia. The latter two observations were first spring records for the provinces. The first spring record of this species for western Oregon was seen on a beach north of Reedsport on April 11. A Little Gull at Regina from April 20 to 26 was the first record for southern Saskatchewan and the second for the province. Any Sabine's Gull along the Atlantic coast is noteworthy, but the appearance of a bird in breeding plumage off Assateague Island and Ocean City, Maryland, on May 28 was incredible.

Arctic Terns were far south of their normal range this spring. Three birds believed to be this species were identified 45 miles off Virginia Beach on May 20 for the first Virginia sightings. One was seen on a pelagic trip out of Hatteras, North Carolina, on May 19. At least three Arctic Terns were observed at Duluth, Minnesota, from May 27 to June 4, and California's first spring record was picked up dead at Bridgeport on May 22. Roseate Terns on the northern Gulf coast are incredibly rare, so the report of a bird from Aransas Bay on March 30 deserves special mention. On three pelagic trips off the North Carolina coast this spring an amazing 18 Bridled Terns were found. A Caspian Tern carefully identified at Lake McMillan, New Mexico, on April 28 was another hypothetical record of this species for the state. Horned Puffins

near Santa Cruz Island and around Santa Barbara Island this spring were the third and fourth California records for healthy birds seen off the coast.

DOVES, SWIFTS, AND HUMMINGBIRDS—A White-winged Dove seen, heard, and photographed at Buffalo Lake N. W. R. from May 19 to 21 was very far north of its normal range. Chimney Swifts are now reported each spring from the South Pacific Coast Region. This spring two appeared over Encino on May 31. A Green Violet-ear (*Colibri thalassinus*) was reported from N. Padre Island, Texas, on May 24. The observer was familiar with the species in the highland oak forests of southern Mexico. This would be the second record for Texas; the first was photographed in the fall of 1969. The first nesting of the Lucifer Hummingbird in Arizona was in a small cholla cactus in Guadalupe Canyon on May 20. An incredible Albuquerque record of an Anna's Hummingbird was established when the bird was photographed in April.

WOODPECKERS, FLYCATCHERS, AND LARKS—The first record of the Downy Woodpecker for the Rio Grande Delta was a bird seen at Bentsen-Rio Grande Valley State Park on March 15. A male Rose-throated Becard in the Anzalduas area of Hidalgo Co., on March 5 was also unexpected. There was a convincing report of an Ash-throated Flycatcher at Raleigh, North Carolina, on May 15. The record is a first for the state and possibly the first spring record for the eastern United States. A pair of Black Phoebes returned to Pueblo on April 21 for Colorado's second record for the second year in the same place. By May 11 the birds began gathering nesting material. Very unusual Vermilion Flycatchers were observed at Avery, Ohio, and in Glencoe, Illinois, in May. At least two Skylarks were seen and heard singing at Attu in May for the first Aleutian and third Alaska record.

SWALLOWS, MAGPIES, AND CHICKADEES—Although Cave Swallows have been reported from the Florida Keys in the past, this spring the first for the northern peninsula was an individual studied well at Cedar Key on April 9. Following last fall's invasion, Black-billed Magpies occurred at a number of eastern localities this spring. Birds were recorded in New Brunswick, Nova Scotia, Ontario, and western New York, and two pairs attempted nesting at Sandusky, Ohio. Perhaps the first known nesting of the Mexican Chickadee (aside from those in nest boxes) in the United States was a pair observed carrying food into a nest-hole in a Silverleaf Oak in Cave Creek Canyon, Chiricahua Mountains, Arizona.

MIMIDS, THRUSHES, AND WARBLERS—Perhaps the most exciting find of the season was a Bahama Mockingbird (*Mimus grundlachii*) observed and described in detail on East Key, Dry Tortugas, on May 3, a first for North America. The second South Dakota record of the Curve-billed Thrasher was an individual seen on May 26 at LaCreek Refuge. Equally interesting was the report of a Sage Thrasher found dead at the Omega Tower, LaMoure, North Dakota, on May 21. Varied Thrushes were recorded in New

Mexico near Española (second state record), in Arizona in the Santa Catalina Mountains, and in California in San Bernardino Co. and Riverside Co. Saskatchewan's first Wood Thrush was seen by eight observers at Saskatoon on May 24. Others were seen at Highmore, South Dakota, and Fargo, North Dakota. A Veery carefully observed at Reifel Refuge south of Vancouver on May 22 was west of its normal range.

Unusual warblers always offer spice to bird watching, and this spring many regions had heartburn. More warblers were boldfaced in the regional reports than any other group of birds. A Swainson's Warbler was collected in Kansas on May 4. The fifth Golden-winged Warbler for California was a ♂ at Deep Springs in May. A male Bachman's Warbler was well seen on April 15 on the southwestern coast of Louisiana. The rare Tropical Parula Warbler (Olive-backed Warbler) was observed at San Benito, Cameron Co., Texas, on March 19. A Magnolia Warbler was banded and photographed at Sycamore Well, New Mexico, in May. This spring Cape May Warblers were far west of their usual range. Several birds were seen in the Southern Great Plains and South Texas Regions, and a male, the third reported in California during the spring, was well studied in the White Mountains on May 28. A Townsend's Warbler was identified in Ohio on April 7 at Crane Creek State Park, Lucas Co. A male Hermit Warbler was collected in Cameron Parish, Louisiana, on April 20 for the first state record. Blackburnian Warblers made a good showing in Kansas, Nebraska, Oklahoma, Colorado, and northern Texas. Yellow-throated Warblers were even more widespread. They were reported from western New York and New Mexico (first state record). Blackpoll Warblers appeared at 15 localities in the Southern Great Plains Region where they seldom occur. Likewise Palm Warblers were much farther west than usual, several reports came from the Southern Great Plains Region. The fourth Oregon record of the Ovenbird came from Malheur N. W. R. on May 19, and the fourth California record of a Kentucky Warbler was a bird on Santa Barbara Island on June 1. MacGillivray's Warblers were seen at San Antonio and Beville, Texas, in May, where the species is probably a very rare transient. The fifth record of the Red-faced Warbler for Texas was an individual studied for four and a half hours in San Saba Co., on May 15. The four previous sightings were all much farther west. Hooded Warblers were all over the west this spring. They were reported from South Dakota, Nebraska, Colorado, northern Texas, and at three localities in the Southern Pacific Coast Region.

BLACKBIRDS, TANAGERS, AND FINCHES—Bobolinks strayed into several Colorado locations for first or rare records this spring: four at Durango May 19, one at Colorado Springs May 30, and one at Gunnison June 7-8. An immature male Yellow-headed Blackbird was studied for several hours at Webster, New York, on May 16, and the first Mississippi specimen of this species was obtained at Stark-

ville, March 26 This April unusual records of Scott's Orioles came from Kerrville, Texas, and Portales, New Mexico. The first Nevada record of the Baltimore subspecies of the Northern Oriole was a male found at Corn Creek, Desert Wildlife Range, on May 18. A Scarlet Tanager at Brandon, Manitoba, on May 20 was most unusual, and a female, only the fourth spring record for California, was watched on San Nicolas Island, June 1. A first-year male Summer Tanager occurred on April 22 at Braddock Bay, New York, and a total of 23 were reported from the Northeastern Maritime Region this spring.

A Cardinal at Colorado Springs on May 13 was the first record for that part of the state. Black-headed Grosbeaks made a good showing in the East this spring. A male visited a feeder in Atlanta in April, and another was on Mullet Key, Florida, in the company of Rose-breasted Grosbeaks, Northern Orioles, and Scarlet Tanagers on April 29. A male was at Corpus Christe, Texas, in May, and an immature male appeared in Norfolk, Virginia, on April 3 and remained about 10 days. Idaho's first records of the Indigo Bunting were birds at Alma on May 4 and 6, and another at Pocatello on May 28. A bright male Painted Bunting at a feeder in Port Huron, Michigan, was only the second record

for the state, and a male at Contoocook, New Hampshire, on May 8 was unique in the Northeastern Maritime Region.

A Dickcissel at Furnace Creek Ranch on June 1 was only the fourth spring record for the Southern Pacific Coast Region. A male Brambling was observed near Lake Andrew, Adak, in the Aleutian Islands May 20-21. Saskatchewan's first sight record of the House Finch was three males heard and seen at Regina on April 26. Another male photographed at a feeder in Calgary was only the third record for Alberta. A Green-tailed Towhee showed up at South Bend, Indiana, on May 2 for a most unusual record. A Lark Sparrow, quite rare on Vancouver Island, was recorded at Saanich in early April and again on May 13. The first positive record of the Clay-colored Sparrow for Atlantic Canada was a bird singing at Newcastle, New Brunswick, on May 26.

Reports from the Hudson-St. Lawrence Region and the Northern Rocky Mountain-Intermountain Region were not received; these Regions do not appear in the seasonal analysis. Gene Hayes and Anne Harshman kindly assisted in the preparation of the seasonal review.

The Spring Migration April 1—May 31, 1973

NORTHEASTERN MARITIME REGION / Davis W. Finch

Following a pattern more or less apparent in previous springs, the first week of the period saw a fairly well defined wave of overshooting southern species reach New England and in some cases the Maritimes, bringing early cuckoos, a few warblers, Summer Tanagers, Blue Grosbeaks and Indigo Buntings. A second such

wave seems to have occurred about April 12. A heavy flight of Yellow-rumped and Palm Warblers took place in much of New England at the beginning of May, and a moderate kill occurred on the night of May 2-3 at Boston's Prudential Building (80 birds, almost all White-throated Sparrows). Thereafter the big waves came on May 10, 23, and 30.

GREBES, TUBENOSES—Single Eared Grebes at Seapowet, R.I., Apr. 14 (RB *et al.*) and at Manomet, Mass., Apr. 25 (TLL-E) brought to 14 the total of these birds in the Region in the last five years, only one other having occurred in spring. During a snow-storm on Apr. 2, Ed Thompson was startled to see a N. Fulmar fly by his office window on the University of Maine campus at Orono; inland records in the Northeast are extremely few. The only Manx Shearwaters reported were seen during storms along the Rhode Island coast: two at Weekapaug Apr. 10 (EAS), another there May 9 (KBK) and one at Pt. Judith May 28 (DLK). On Apr. 9, a Black-capped Petrel (*Pterodroma hasitata*) was seen in the Gulf Stream north of Bermuda at 37°57'N 62°30'W, its extensively white head, neck and rump suggesting the nominate race (RBBB; see *Am. Birds* 26:832 for a recent and more properly Regional record of this species).

HERONS, IBISES—In Nova Scotia, an early Green Heron at Port Hebert Apr. 9 (R.S. Widrig, *vide* PRD) and two at Seal I., May 6-21 were the only

