

changing seasons: understanding appearances

The Nesting Season: June–July 1999

Parented by the adult featured on the cover, these juvenile Black-necked Stilts were photographed in July at Horicon N.W.R. They were among the five young that established a new state breeding record for Wisconsin. Photograph/Jack Bartholmai

TOM WILL *

For some birders, the summer season represents the doldrums—a time devoid of the visual thrill of skeins of arching waterfowl wings or streams and kettles of raptors, a time without the exhilaration of sudden multispecies fallouts, a time when the probability of finding an unexpected vagrant is low, and—at least in some regions—a time when it is just too hot to bird. But as Dan Purrington has pointed out repeatedly in his Central Southern reports, the season marks the end of spring and the beginning of fall migration for many species and a period of wandering for others. The summer is hardly a season without movement (Kaufman 1997b). And where there is bird movement, there are bound to be surprises.

The 1999 nesting season was no exception. Its two months embraced no fewer than ten Regional first occurrences, 17 additional first state or sub-Regional records, seven confirmed first Regional breeding records, and nine additional first state breeding events. Some of these reports have yet to survive the scrutiny of their respective state committees, but excluded from this summary are those that merely suggested breeding, however strongly—like the White-crowned Sparrow seen carrying nesting material on 21 June in Québec. Nor does the tally include the many second returns of first-time breeders; or the many first records for individual ecoregions, counties, hotspots, or parks; or the numerous first records, both Regional and state, for the summer period itself.

PREMIER APPEARANCES

This season's premier records—first-time Regional appearances—included a Cassin's Kingbird in Nova Scotia and a Sage Thrasher in New Brunswick that appeared to be riding the same mid-July "summer train from the southwest." A Mongolian Plover, also in July, was a first for New England; only one other, in New Jersey, has ever been documented on the North American Atlantic coast. In early June, a Tropical/Couch's Kingbird found its way to Illinois for a first Middle-

western Prairie appearance. In Arizona, a photo of Short-tailed Hawk documented the species' occurrence in that state, and a Carolina Wren was a first from west of the Continental Divide. After a handful of undocumented sightings dating back to 1983, Swainson's Warbler was finally added to the New Mexico list as number 499. If the records are accepted by the appropriate review committees, early June appearances of Blue-throated Hummingbird in North Dakota and a pair of Eastern Bluebirds in California would be firsts for the Northern Great Plains and the Middle Pacific, respectively. Finally, an Ash-throated Flycatcher appearing for a day in mid-July in Juneau established a first Alaska record. In addition to these Regional ultimates, first state, provincial, or extensive sub-Regional area records were established with Great White Heron in Michigan; Zone-tailed Hawk in Colorado, Eurasian Collared-Dove in Massachusetts, Indiana, and North Dakota; White-winged Dove in Rhode Island and Labrador, Common Cuckoo in Southcoastal Alaska; Green Violet-ear in Louisiana; Black-backed Woodpecker in Colorado; Gray Flycatcher in Montana and Alberta; Cassin's Vireo in Southcoastal Alaska, Northern Parula in Idaho; Nashville and Palm warblers in the Yukon, and Gray-crowned Rosy-Finch in southern Ontario.

What do these extralimital first records signify? Are these birds merely genetically malprogrammed misfits? Are they waifs buffeted about by the vagaries of continental weather? Or are they the opportunistic vanguard of species range expansion? One could go through the list and find likely candidates for all of these possibilities. Migrants (like Mongolian Plover) are likely to be genetic misfits or objects of the chance intersection of migration and weather; yet if one compares past and present occurrences of species like Curlew Sandpiper, one wonders if records such as Mongolian Plover on the East Coast will have us searching the eastern Nearctic for enclaves of breeders 20 years from now. Others on the list fit a previously detected pattern and are more clearly candidate representatives of a vanguard: Eurasian Collared-Dove, White-winged Dove, and Carolina Wren. Some are tantalizingly intriguing: what's going on with the kingbirds and Gray Flycatcher, for example? The key is detecting a pattern. One of

* 2186 Doswell Avenue, Saint Paul, MN 55108 (twill@fw.umn.edu)

the reasons the nesting season is so rewarding is that it provides an opportunity to track the transitions between vagrant appearances, fringe nesting attempts, and consistent range expansion.

THE BREEDING VANGUARD

This season, first confirmed Regional breeding records were established for Black-bellied Whistling-Duck and Dickcissel in Florida, Buff-breasted Flycatcher in Texas, Arctic Tern in the Middle Pacific Coast, Semipalmated Plover in the Southern Pacific Coast, Chuck-will's-widow in the West Indies, and Least Tern in the Hawaiian Islands. All but the Least Tern and Black-bellied Whistling-Duck were successful in hatching or fledging young. First-time state or provincial breeding was reported for Pied-billed Grebe in Newfoundland, American White Pelican in Michigan, Black-bellied Whistling-Duck in Oklahoma, Common Eider in Rhode Island, Black-necked Stilt in Wisconsin, Franklin's Gull in Colorado, Ring-billed Gull in Pennsylvania, Bronzed Cowbird in Mississippi, and European Goldfinch in Québec.

Using Breeding Bird Survey (BBS) data and Massachusetts vagrancy records of five species, Veit (2000) provides convincing evidence for a strong link in time between vagrancy in a species and breeding success and population abundance in some portion of its range. Vagrants were defined as individuals that dispersed farther than 90% of the population, in some cases moving more than ten times the average dispersal distance (Veit and Lewis 1996). Interestingly, as in the case of Clay-colored Sparrow, the correlation was not always highest with that portion of the species range closest to the areas of vagrancy (Veit 2000). Thus fringe vagrants may be the consequence of species breeding success and the harbingers of population growth and range expansion elsewhere.

Black-necked Stilt is the season's featured example of vagrancy and range expansion. These waders graced numerous new localities with their presence—and the pages of nine Regional reports. With a core breeding range in Florida, the Gulf Coast, and major portions of the western states, single stilts wandered to coastal New York and New Jersey in early June. Increases in their locally preferred salt panne habitat probably account in part for the spate of new locality nestings in the Middle Atlantic Coast. Stilts were noteworthy nesters in three Florida localities. Substantial production in Louisiana was suggested by an impressive count of 700 in a rice field near Eunice in July. Breeding records were on the rise in northern Mississippi, and stilts expanded their range in the Southern Great Plains with noteworthy presence in Oklahoma and northern Nebraska. Their big push seems to have been into the upper mid-West: there were noteworthy concentrations in Missouri, successful nests in Kentucky and Illinois, a first breeding record in Wisconsin, presence in South Dakota (where they have become "somewhat regular"), and penultimate breeding records in North Dakota and Alberta. Regional reporters have commented before on stilt success, and it joins the ranks of a number of others whose ranges are expanding northward—but Black-necked Stilt's progress seemed especially impressive this summer.

Kingbirds were also on the move, but space limitations preclude a detailed review here. Western Kingbirds appeared throughout the east as vagrants and breeders, and Easterns pushed north to Labrador and Churchill and west to the Pacific coast with hints of possible breeding. Tropical/Couch's Kingbirds established new records in the mid-West and Gulf Coast and a first July appearance in California, while Scissor-tailed Flycatcher elicited noteworthy mention in 15 states. The continuing march of Eurasian Collared-Dove is thoroughly documented in the preceding review in this issue by C. Romagosa and T. McEneaney. White-winged Dove showed up in a puffin colony off

Labrador and continued its growth and expansion northeastward, while Great-tailed Grackle extended its tail deeper into the western states. Purple Gallinule, following its strong incursion in the spring, made only a small splash in Illinois and Missouri, while Blue Grosbeak's northward range creep seemed somewhat cooler this season.

Given space limitations in *North American Birds*, track records of species considered common in particular areas are rarely mentioned. Gray Flycatcher, for example, elicited no comments in its core range in the central western states, but New Mexico has been reporting banner years for this species for the past several summer seasons, including this one. The BBS 1966–1996 Trend Map for Gray Flycatcher indicates more than a 1.5% increase per year over most of its range. If this information—coupled with optimistic reports from New Mexico—suggests widespread population increase, then its first appearances this summer in Montana and Alberta are intriguing in light of the vagrancy/core-range-production hypothesis (Veit 2000). I urge everyone to consult the prodigious amount of information and analysis tools available on the USGS/BBS website (www.mbr-pwrc.usgs.gov/bbs)—especially the trend and distribution maps—for a look at the kingbirds and other species. One must be aware, however, that these data have their limitations, and their interpretation can be both complex and controversial.

WHAT PART, THE CLIMATE—OR THE WEATHER?

It is tempting to ascribe northward range expansions to current global warming patterns. Insects overwintering as larvae or pupae may be especially sensitive to a diminution of the temperature extremes that set their physiological limits, and we might therefore expect the insectivore guild to be one of the first to reflect regional warming trends. Scientific data supporting such links are slowly beginning to accumulate (e.g., Mason 1995, Crick et al. 1997). But in advocating for this pattern, what do we do with the contradictory examples—such as the Winter Wrens now suspected of breeding in several southeastern Minnesota counties?

The weather this season was remarkably consistent continent-wide, with two very broad patterns in evidence. In the Northeast, a relatively warm, dry spring progressed into a very hot, very dry summer, with pronounced—in some cases extreme—drought conditions from Québec through Georgia. The eastern interior shared the hot, dry pattern, which also pushed northwestward across the northern Prairie Provinces into the Yukon. In contrast, a very wet, cold pattern in Alaska and across the northwestern provinces and states penetrated southeastward into the continental interior across the southern Prairie Provinces to the Great Lakes states and south to Oklahoma. Temperatures over this second wetter region tended to be cold in the north, cool in the west and south, and hot in the east; drier and warmer weather came to this area in the latter portion of the summer—dramatically so by mid-June in Alaska, but not until mid-July in the Pacific Northwest and southern Prairie Provinces. In addition to these two patterns, California weather was fairly normal, Arizona and New Mexico experienced first drought and then heavy rains, and in Texas and Florida, a dry spring gave way to above average rains in June and below average rains in July.

Bird movements generally reflected the regional weather patterns. In the East where spring and early summer were warm and dry, spring migration ended early, breeding in some localities was as much as two weeks ahead of schedule, and many migrants departed early. Conversely, spring migration in the West tended to be delayed by up to two weeks by the cold and wet weather, especially in Alaska, and a number of record late migration dates were established in Oregon-Washington and California. Birders in Idaho witnessed a migratory

fallout as late as 5–8 June that included five species of rare “eastern” warblers. The Prairie Provinces report details an extraordinary influx of “southern” species into Churchill, and Koes and Taylor hypothesize that northbound migrants overshot their breeding ranges when they encountered the cold, wet pattern in southern Manitoba and wound up in northern Manitoba where warm temperatures were advanced by a full month.

The sweltering eastern field conditions clearly affected nesting records: many potential observers apparently chose to remain indoors. How the summer weather influenced breeding is less certain. If nothing else, an effort to generalize a pattern underscores the complex ecological links that make it difficult to pin down simple cause and effect relationships. For example, many observers thought the warm, dry eastern summer probably benefited nesting songbirds, in part by facilitating insect foraging. But as R. Leberman points out in his Appalachian report, small mammals also benefited, and their success in southwestern Pennsylvania had a negative impact on Louisiana Waterthrush, which suffered a doubling in nest predation. The wet conditions in the southern Prairie Provinces resulted in a disastrous season for Swainson’s Hawk (the worst in 30 years in a study on the Saskatchewan prairies) and appeared to flood out many waterfowl, but later-breeding species (e.g., Eared Grebes) exploited the ephemeral wetlands and nested in huge numbers. Elsewhere, high water created nesting habitat for waterfowl and removed littoral habitat for migrant shorebirds. In Vermont, Common Loons experienced exceptional fledging success, but in Massachusetts, low water conditions were believed to have been responsible for low loon productivity. Nowhere was this contrasting effect of water conditions better illustrated than in Florida, where the same weather patterns led to a 300% increase in wading bird nesting effort in the Everglades and a 50% decline in the Tampa Bay area over the previous year—when the situation was reversed! (See the Florida report where R. T. Paul and A. F. Schnapf present a detailed analysis.) The cold, wet spring in the central northwest continental regions had a clear negative impact on some passerine breeding: Koes and Taylor cite a Saskatchewan study in which 223 Tree Swallows died in 240 nest boxes in late June. Conversely, M. Shepard notes that one result of British Columbia-Yukon’s wet summer was a large flight of crossbills invading to feast on the abundant conifer cone crops triggered by the rains. Finally, as R. Paxton notes, the effects of the eastern drought on nesting may only become evident later, as a result of low seed and fruit crop production.

Mountain species may be particularly vulnerable to drought conditions. The spring and early summer drought in Arizona kept large numbers of Western Tanagers and Pine Siskins at lowland feeders well into July, and the impression was that few birds bred successfully in the mountains. Mass exodus of western montane birds into the lowlands is a pattern that has been observed before, most recently during fall and winter of 1996–1997, when the irruptions were widely believed to be the result of severe drought conditions during summer 1996 and the consequent failure of wild food crops (Kaufman 1997a). From the Middle Atlantic Coast, M. Iliff documented a pattern of June and July appearances of species like White-throated Sparrow and Dark-eyed Junco that typically breed in mountain areas outside the Region. He hypothesized that drought conditions in their montane breeding grounds led to failed nesting and precipitated early dispersal to lower ground in Maryland. In the Appalachian Region, R. Leberman noted the same pattern of dispersal from mountain uplands to lower elevations farther south, but here he identified it as an ongoing trend, not necessarily linked to drought but possibly having to do with the increasing availability of maturing lowland

spruce/pine plantations or regenerating mixed forests. The montane-to-lowland dispersal phenomenon may have multiple causes, but it is a fine example of an apparent pattern in need of continued study—an excellent project for an ambitious student of bird distribution

GOOD NEWS . . . AND CALLS FOR CONTINUED ACTION

In general, the news was good this summer for beleaguered species. Cooler ocean temperatures and nutrient upwelling turned seabird productivity around in the eastern Pacific; after a full decade of abysmal breeding, Oregon Common Murres finally had a good season, and there were large numbers of juvenile seabirds noted off Middle Pacific coasts. Brown Pelican nesting success in Florida was below that of recent years, but they were doing well in the Middle Atlantic Coast and wandered widely. Ospreys did particularly well in the Northeast. With pesticide-driven declines turned around, threatened raptors continue their comeback as human commensals. Bald Eagle (with its penchant for carrion), Peregrine Falcon (with a taste for pigeons and a willingness to nest on human structures), and to a certain extent, Cooper’s Hawk and Merlin (benefiting by crow increases and consequent urban nest-site availability—see R. Martin’s SA in Northern Great Plains). Loggerhead Shrikes experienced nesting failures in the Southern Atlantic Coast and Prairie Provinces but showed truly promising signs in southern Ontario and Wisconsin. Dickcissels and Henslow’s Sparrow had a fine year and showed signs of expansion in Iowa and Illinois, but the ultimate fate of grassland birds must be considered precarious, especially given the dramatic decline of Upland Sandpiper noted this season in the Northeast. The Upland Sandpiper/grassland survey SAs in New England and Hudson–Delaware offer a fascinating analysis and sobering call to action.

Nesting Piping Plovers provide an optimistic but poignant example of the need for continued attention. These birds did especially well and showed substantial increases over 1998 in many areas, with estimates of productivity averaging 1.4 chicks per pair in four widely-spaced locations. Massachusetts populations were “ever-burgeoning,” with a new high total of 515 nesting pairs (a 4% increase from 1998). One can stand up and applaud, but only cautiously. This is largely a management victory, won, in the words of W. Peterson, through “more than a decade of intense political effort, public education, and improved barrier beach management.” If the effort were ever to be relaxed, Piping Plovers would almost certainly succumb to off-road vehicles, unleashed dogs, and predation by crows and foxes. Enthusiastic statements also need to be tempered by attention to the numbers involved. At a site in Iowa, for example, Piping Plover activity “was the greatest in several years... with five pairs plus a nest with four eggs.” Great Lakes victories are still measured in handfuls of pairs. Very clearly in the case of this bird, human activity is the agent of demise or success; we can be optimistic and congratulate ourselves on a job well done, but we all need to be aware that more than likely this will be an enduring effort that cannot be relaxed. There will also be other knotty kinks in management strategies to be on top of immediately: consider, for example, the perils faced by cormorants (SA in Hudson–Delaware) and Caspian Terns (SA in Oregon–Washington).

Only intense data acquisition—of which we are a part—and the application of clever and sophisticated analytic tools can tell us whether birds are really on the move more as global warming tweaks ecosystems, or whether there are just more folks in the field, or whether birders are just a lot more skilled at finding birds (Wood 1999). From a birder’s perspective, however, it may not matter. The bottom line is that there is a lot out there to find in June and July. In just a quick scan for “yet to be confirmed” and “suspicious presence”

in this issue's reports, I found over 40 major state- or Regional-level breeding records awaiting documentation. My vote for the place to be next summer for avid nest-seekers would be the Davis Mountains of Texas, where there were no fewer than nine tantalizing reports requiring confirmation! See you there.

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Where's Waldo? Imbedded within the text of the Regional Reports are three bird "funnies." Can you find them?

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