

HIGHLIGHTS OF THE SPRING SEASON

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In many respects the spring of 1987 bears enough resemblance to that of 1986 that I could simply refer you to last year's Highlights. Once again it generally was a warm and dry spring across the state, with Region 1 the warmest of all relative to historical records. Overall, there were many days pleasant for birding and good numbers of species to be found but also many reports of late arrivals and of very low numbers of individuals for many species. However, differences from last year in the local distribution of rainfall, temperatures, and passage of fronts produced different patterns of migration which are worth examining. Looking through the reports in more detail, we find that early migrants were felt to have arrived on time or early, that late April migrants were late, and that May migrants were average to late. In several Regions the foliage appeared about two weeks ahead of normal, further complicating observations of May arrivals. This spring we have arrival date tables which potentially offer a more quantitative approach to some of these observations. There are problems, typical of the onset of any "New Order," so this summary will follow its familiar tack before using this new tool.

Let us start with the many families of birds which we monitor in spring passage. Common Loon counts were good along Lake Ontario, even into mid-May, a bit of data for which one could build either a positive or negative case. There was little good news among the grebes, except for another good count of Red-necked Grebes in Region 2. Double-crested Cormorant numbers were good everywhere they were noted, especially inland. Over 160 nests were tallied on the Four Brothers Islands surveys in Region 7. Among the herons, the bitterns were still considered scarce, there were few reports of "southern" herons upstate, Cattle Egret was reported from four Regions, a Black-crowned Night-Heron was found in the southwestern Adirondacks in Region 5, but following last year's suggestion that it might bear more careful watching Green-backed Heron was mentioned in only one report. Waterfowl reports generally were negative. Tundra Swan was flagged as scarce in Regions 2 and 5 but a good count appears in Region 1. Another high peak count for Snow Goose was obtained in Region 3, but they were scarce in the neighboring Regions. Brant were reported only from Regions 2, 5, 8 and 9. Eurasian Wigeon were in Regions 2, 3, 5 and 10. Of the diving ducks, there were very low numbers for Redhead and both eiders tarried late off Long Island. High counts of 3,000 Black Scoters and over 10,000 White-winged Scoters from Region 10 may be

put in perspective by contrasting them with 18,000 Black Scoters on the same date in 1936 and a spring count of 180,000 White-winged Scoters in 1930.

Raptor reports are led by the record single day count of 41,184 on 27 Apr and the season's total exceeding 100,000 at Braddock Bay. Strangely these numbers were not strongly echoed at Derby Hill, though the peak counts of three species occurred there the following day. These numbers are not as unbelievable as some may think on first reading when you recall that in 1984 both of these hawk watches recorded over 40,000 hawks in the span from 26 to 30 Apr, with each station having a single day exceeding 20,000 hawks. It would be useful to see summary tables similar to that in Region 5 for more of the spring hawk watches. Counts which extend into mid-June also could be included, ignoring the seasonal overlap in this case. Other raptor reports of interest include a new hawk watch in the town of Ripley in Region 1; very high Turkey Vulture counts in Regions 1, 2 and 5; **BLACK VULTURE** in Regions 2 and 9; both **AMERICAN SWALLOW-TAILED** and **MISSISSIPPI KITE** in Region 2; a peak of 624 Red-shouldered Hawk in Region 2, higher than most recent year's totals; nearly 35,000 Broad-winged Hawk on the super day in Region 2; a light phase adult **SWAINSON'S HAWK** in both Regions 2 and 5 on 12 Apr - comparing arrivals, including times of passage, of individual rarities or of uniquely marked individuals might prove very informative for these spring watches; the failure of Bald Eagle nestings in Regions 1 and 2 but a new nest in Region 3, with more details to follow in next season's report, and nesting success again in Region 6; reduced numbers of reports of Peregrine Falcon; and a possible Eurasian Kestrel in Region 7.

Sandhill Cranes appeared in Regions 1, 2, 3, 5 and 6, with ten birds and as many as three on a day in Region 2. These all were traveling east, in contrast to most years, when most are headed west. The number of Sandhill Cranes in New York was a surprise of interest to Richard Urbanek, a member of a group studying them in the East, particularly as they travel between Florida and Seney National Wildlife Refuge in the Upper Peninsula of Michigan. This study group currently plans to investigate newly located or established breeding populations in lower Michigan and eastern Ontario, which are the most likely sources of our birds.

Shorebirds again suffered from lack of habitat away from the coast, but where habitat was available there were birds, *e.g.*, at Montezuma National Wildlife Refuge in Region 3 and at scattered sites in Regions 5, 8 and 9. Arthur Morris continues the spring shorebird survey at Jamaica Bay NWR in Region 10. Exceptional reports included only a record early Semipalmated Plover and a very high count of Short-billed

Dowitchers in Region 5. A pelagic trip off Long Island in late May recorded four species of *Stercorariinae* (try to guess what they were before paging ahead to check). With the exception of Laughing Gull in Region 1, a scarcity of Bonaparte's Gull, and late white-winged gulls in several Regions, gulls produced little comment. Terns were scarce inland everywhere. A record early Forster's Tern in Region 10 is noted as possibly having overwintered there or nearby.

Both cuckoos were very poorly reported this season. The owls provided some excitement with Snowy Owl appearing in six Regions as late as mid-April; Short-eared Owl in seven Regions, lingering late enough to suggest breeding; **BOREAL OWL** found in Region 2 and banded on a fairly late date in Region 5; and only a single Common Barn-Owl report for the state. There were no reports of good numbers of either of our commoner goatsuckers, but in Region 10 a Chuck-will's-widow and a Whip-poor-will were found roosting in the same tree only a few feet apart. Among the woodpeckers, Red-headed was flagged as scarce in several Regions, particularly toward the fringes of its current range, and Red-bellied was noted as locally increasing a bit, again at the edges of its expanding range.

Finally, in the large order *Passeriformes*, you will find notes of concern in several Regions for some of the swallows, most of the thrushes, particularly Gray-cheeked, Swainson's and Hermit, for Brown Thrasher and for Loggerhead Shrike. There was only one report of Sedge Wren this season. White-eyed Vireo were in Regions 2 and 3, but none were reported downstate. Warblers as a group were felt to be scarce. The particular species flagged varied regionally, but included Golden-winged, Nashville (Eastern New York), Black-throated Blue, Blackburnian (E), Pine (E), Blackpoll, and Wilson's (E). A **YELLOW-THROATED WARBLER** was back at the former nesting site in Region 1; **SWAINSON'S WARBLER** stayed for two days in both Regions 1 and 10; and Worm-eating Warbler appeared in Regions 2, 9 and 10; Kentucky Warbler in Regions 1, 2, 5, 9 and 10; and Connecticut Warbler in Regions 2 and 10. The grassland sparrows as a group were scarce and White-crowned Sparrow apparently was found only over a very brief time span and in relatively low numbers this year. A Yellow-headed Blackbird was found in Region 2 and Brewer's Blackbird in Regions 2 and 9. A great return flight of Common Redpoll, Pine Siskin, and Evening Grosbeak across the state was capped by record high counts of Common Redpoll in Region 2 in late May.

There are other interesting notes which didn't fit in the previous discussion. In the Region 10 report are a record early Sooty Shearwater; two Snowy Egrets on 2 Mar again highlight the problem of trying to separate record early arrivals from possibly overwintering birds; and a

dazed King Rail was found walking about in Manhattan and rescued. The Region 7 report summarizes a visit to Four Brothers Islands on the 100th anniversary of an early ornithological expedition to the islands. This visit is more completely summarized in a recent issue of the High Peaks Audubon newsletter. There were many reports of albino birds: N. Mockingbird in Region 3, two Com. Grackle in Region 6, a Yellow-rumped Warbler in Region 7, and an Evening Grosbeak in Region 8. A record early Lincoln's Sparrow and a record late Fox Sparrow both appeared in Region 5, with another very late Fox Sparrow also in Region 6.

I wonder if observers in other Regions see the apparent "split" migration of both Water Pipit and E. Bluebird which long-time birders in Region 2 have pointed out to me? Here, pipits arrive in late March, then surge again in May, while E. Bluebirds arrive in March, then pass through again in numbers at the very end of May. Where would these late bluebirds come from and be headed for so long after most local birds are nesting? [*Cedar Waxwing is another good candidate for similar investigations - The Editor.*]

Finally, high counts difficult to assess include 48 Yellow-throated Vireo in Region 9 and 43 Blue-winged Warbler, 49 Hooded Warbler, 22 Scarlet Tanager, and 56 Indigo Bunting, all in Region 2 on 23 May. All of these reports apparently represent breeding birds as well as migrants. All are large totals, though the vireo count is also a group census total, hard to compare with Bull's data where few full day counts or organized census totals are listed for breeding birds. We need more counts from individual efforts in addition to Breeding Bird Surveys which already are summarized in the summer records in some Regions. This season there were also a few summaries of banding efforts, which would provide better insight as to numbers if they are repeated at the same location over the years and normalized in terms of net hours.

With the inclusion of the arrival dates and seasonality tables this season, I can both illustrate some of the potential uses of quantitative data and problems with such data. The Editor and I solicit your comments and suggestions. The primary shortcoming for using this season's data to compare with the 25-year averages published in *The Kingbird* 37:18-22 is the absence of a measure of variability for the historical data. Hopefully this can be corrected by further analyzing the data already stored in the Editor's computer before next year's look at similar data. For this season, I have used a statistic available in the recently published "The Birds of Monroe County, New York: Annotated List" (*Proceedings of the Rochester Academy of Science, Inc.* 16:1-64) in which arrival and departure date distributions are summarized for over 50 years of data. This checklist gives the interquartile dates for the frequency distribution of spring arrival dates. If we assume that arrival dates over the years

Spring Arrivals 1987

Species	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Average
Black-billed Cuckoo	10 May	11 May	16 May	16 May	10 May	17 May	3 Jun	4 May	12 May	16 May	14 May
Common Nighthawk	15 May	12 May	17 May	24 May	17 May	25 May	26 May	17 May	9 May	26 Apr	15 May
Chimney Swift	20 Apr	20 Apr	1 Apr	27 Apr	23 Apr	5 May	2 May	27 Apr	25 Apr	30 Apr	24 Apr
Ruby-thr Hummingbird	10 May	10 May	13 May	16 May	2 May	12 May	8 May	11 May	8 May	9 May	9 May
Yellow-bellied Sapsucker	7 Apr	25 Mar	20 Mar	11 Apr	28 Mar	10 Apr	11 Apr				2 Apr
Olive-sided Flycatcher	11 May	21 May			23 May		18 May	23 May	16 May	7 May	17 May
Eastern Wood-Pewee	13 May	10 May	21 Apr	11 May	11 May	13 May	13 May	10 May	11 May	15 May	9 May
Alder Flycatcher	16 May	16 May	17 May	16 May	18 May	21 May	13 May	22 May			17 May
Willow Flycatcher	16 May	16 May	15 May		13 May			23 May	16 May	16 May	16 May
Least Flycatcher	6 May	2 May	26 Apr	18 Apr	2 May	9 May	8 May	1 May	6 May	2 May	2 May
Eastern Phoebe	24 Mar	24 Mar	7 Mar	24 Mar	25 Mar	29 Mar	26 Mar	28 Mar	17 Mar	25 Mar	22 Mar
Gr. Crested Flycatcher	25 Apr	2 May	7 May	10 May	5 May	9 May	8 May	1 May	2 May	30 Apr	3 May
Eastern Kingbird	23 Apr	2 May	10 Apr	9 May	23 Apr	7 May	7 May	3 May	2 May	30 Apr	29 Apr
Purple Martin	9 Apr	30 Mar	25 Apr	26 Apr	12 Apr	8 May	7 May		21 Apr	18 Apr	20 Apr
Tree Swallow	21 Mar	23 Mar	24 Mar	24 Mar	25 Mar	28 Mar	10 Mar	3 Apr	5 Apr	14 Mar	23 Mar
N. Rough-winged Swallow	19 Apr	10 Apr	23 Apr	21 Apr	23 Apr	4 May	10 May	6 May	22 Apr	25 Apr	25 Apr
Bank Swallow	21 Apr	12 Apr	23 Apr	26 Apr	23 Apr	2 May	27 Apr	18 Apr	11 May	29 Apr	25 Apr
Cliff Swallow	26 Apr	20 Apr	24 Apr	6 May	16 Apr	29 Apr	29 Apr	6 May	16 May		29 Apr
Barn Swallow	4 Apr	30 Mar	5 Apr	24 Apr	16 Apr	4 Apr	19 Apr	18 Apr	20 Apr	12 Apr	12 Apr
House Wren	23 Apr	25 Apr	9 Apr	2 May	29 Apr	3 May	4 May	1 May	29 Apr	30 Apr	27 Apr
Ruby-crowned Kinglet	15 Apr	10 Apr	3 May	23 Apr	31 Mar	18 Apr	24 Mar	16 Apr	11 Apr	27 Mar	11 Apr
Blue-gray Gnatcatcher	21 Apr	15 Apr	23 Apr	9 May	29 Apr		11 May	1 May	20 Apr	19 Apr	26 Apr
Eastern Bluebird	13 Mar	21 Feb	12 Apr	8 Mar	18 Mar	27 Mar	24 Mar			1 Mar	15 Mar
Veery	2 May	9 May	4 May	8 May	8 May	11 May	10 May	25 Apr	4 Apr	2 May	2 May
Swainson's Thrush	7 May	10 May	17 May	16 May	12 May	20 May	1 May	12 May	11 May	2 May	10 May
Hermit Thrush	4 Apr	10 Apr	16 Apr	29 Mar	30 Mar	7 Apr	11 Apr	13 Apr	21 Apr		8 Apr
Wood Thrush	25 Apr	6 May	7 May	2 May	3 May	11 May	4 May	1 May	3 May	2 May	3 May
Gray Catbird	20 Apr	1 May	2 May	8 May	27 Apr	12 May	6 May	3 May	3 May	1 May	2 May
Brown Thrasher	19 Apr	18 Apr	18 Apr	21 Apr	17 Apr	19 Apr	20 Apr	19 Apr	24 Apr	25 Apr	20 Apr
Solitary Vireo	14 Apr	21 Apr	19 Apr	27 Apr	25 Apr	26 Apr	15 Apr	25 Apr	22 Apr	2 May	22 Apr
Yellow-throated Vireo	15 May	9 May	10 May	4 May	9 May			9 May	4 May	18 Apr	6 May
Warbling Vireo	3 May	2 May	2 May	4 May	3 May	7 May	4 May	1 May	5 May	2 May	3 May
Red-eyed Vireo	9 May	9 May	9 May	8 May	1 May	3 May	1 May	13 May	2 May	2 May	5 May

Species	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Average
Tennessee Warbler	7 May	9 May	9 May	9 May	7 May	3 May	9 May	10 May	10 May	2 May	7 May
Nashville Warbler	23 Apr	4 May	2 May	27 Apr	4 May	3 May	2 May	2 May	2 May	2 May	1 May
Northern Parula		3 May	7 May	8 May	3 May	11 May	10 May		4 May	3 May	6 May
Yellow Warbler	26 Apr	1 May	26 Apr	6 May	29 Apr	8 May	8 May	1 May	2 May	30 Apr	1 May
Chestnut-sided Warbler	7 May	3 May	9 May	10 May	7 May	9 May	9 May	10 May	3 May	30 Apr	6 May
Magnolia Warbler	6 May	3 May	2 May	10 May	10 May	16 May	4 May	10 May	7 May	7 May	7 May
Cape May Warbler	10 May	9 May	9 May	16 May	10 May	12 May	11 May	7 May	9 May	7 May	10 May
Black-thr. Blue Warbler	10 May	30 Apr	30 Apr	14 May	3 May	9 May	8 May	8 May	4 May	26 Apr	5 May
Black-thr Green Warbler	26 Apr	19 Apr	23 Apr	4 May	2 May	7 May	3 May	8 May	3 May	30 Apr	30 Apr
Blackburnian Warbler	3 May	8 May	9 May	4 May	7 May	3 May	3 May	16 May	16 May	2 May	7 May
Pine Warbler	7 Apr	11 Apr	24 Apr	16 May	18 Apr	4 May	21 Apr	12 Apr	20 Apr	28 Mar	19 Apr
Palm Warbler	12 Apr	18 Apr	21 Apr		26 Apr	11 May	9 May	7 May	15 Apr	3 Apr	23 Apr
Bay-breasted Warbler	16 May	11 May	16 May	16 May	11 May	20 May	12 May		16 May	7 May	13 May
Blackpoll Warbler	12 May	15 May	16 May	22 May	14 May	20 May	24 May	13 May	9 May	2 May	14 May
Black-and-White Warbler	3 May	25 Apr	2 May	8 May	27 Apr	3 May	3 May	2 May	2 May	22 Apr	30 Apr
American Redstart	8 May	5 May	5 May	28 Apr	7 May	9 May	8 May	11 May	2 May	2 May	5 May
Ovenbird	6 May	4 May	5 May	8 May	7 May	11 May	6 May	5 May	6 May	2 May	6 May
Northern Waterthrush	23 Apr	23 Apr	22 Apr		27 Apr	16 May	3 May	1 May	7 May	30 Apr	30 Apr
Mourning Warbler	16 May	11 May	17 May	16 May	13 May	16 May	24 May	23 May		9 May	16 May
Common Yellowthroat	6 May	6 May	3 May	9 May	8 May	8 May	9 May	4 May	1 May	19 Apr	4 May
Wilson's Warbler	10 May	12 May	11 May	16 May	11 May		23 May	24 May	16 May	7 May	14 May
Canada Warbler	11 May	17 May	10 May	14 May	12 May	14 May	12 May	13 May	7 May	2 May	11 May
Scarlet Tanager	2 May	3 May	8 May	26 Apr	10 May	11 May	10 May		2 May	1 May	4 May
Rose-breasted Grosbeak	2 May	5 May	25 Apr	10 Apr	7 May	10 May	1 May	1 May	30 Apr	30 Apr	30 Apr
Indigo Bunting	13 May	9 May	30 Apr	12 May	10 May		25 Apr	10 May	24 Apr	19 Apr	3 May
Rufous-sided Towhee	10 Apr	15 Apr	9 Apr	8 Mar	16 Apr	9 Apr	19 Apr	23 Mar	20 Apr		7 Apr
Chipping Sparrow	6 Apr	11 Apr	10 Apr	10 Apr	18 Apr	16 Apr	7 Apr	16 Apr	2 Apr	9 Mar	7 Apr
Vesper Sparrow	29 Mar	27 Mar	12 Apr	11 Apr	5 Apr	21 Apr	31 Mar		14 Apr		7 Apr
Savannah Sparrow	31 Mar	28 Mar	13 Apr	12 Apr	28 Mar	14 Apr	11 Apr		14 Apr		7 Apr
Lincoln's Sparrow	7 May	2 May	9 May	9 May	1 Apr		1 May	16 May		2 May	2 May
White-crowned Sparrow	19 Apr	3 May	4 May	3 May	3 May	1 May	16 Apr		28 Apr	4 May	29 Apr
Bobolink	26 Apr	10 Apr	1 May	2 May	2 May	9 May	7 May	3 May	3 May	9 May	1 May
Northern Oriole	2 May	1 May	2 May	7 May	7 May	9 May	5 May		6 May	2 May	4 May

Bold Regional Record Early *Italics* Also isolated earlier report(s).

Waterbird Arrivals											1987
Species	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Average
American Bittern	19 Apr	10 Apr	29 Apr	9 May	19 Apr	19 Apr	28 Mar	9 May			21 Apr
Green-backed Heron	20 Apr	2 May	27 Apr	16 May	2 May	8 May	8 May	30 Apr	24 Apr		1 May
Wood Duck	8 Mar	7 Mar	13 Apr	6 Mar	18 Mar	22 Apr	29 Mar	21 Mar	1 Mar	7 Mar	19 Mar
Green-winged Teal	24 Feb	7 Mar	23 Mar	29 Mar	18 Mar	2 Apr	28 Mar	12 Apr	2 Apr		23 Mar
Northern Pintail	28 Feb	4 Mar	29 Mar		5 Mar	19 Mar	16 Feb	22 Mar			9 Mar
Blue-winged Teal	9 Mar	19 Mar	8 Apr		7 Mar	12 Apr	11 Apr	11 Apr	1 Apr	5 Apr	29 Mar
Osprey	5 Apr	26 Mar	1 Apr	30 Apr	29 Mar	23 Apr	4 Apr	1 Apr	5 Apr	7 Mar	3 Apr
Virginia Rail	10 Apr	28 Mar	21 Apr		28 Mar	10 Apr	10 May	20 Apr	26 Apr		15 Apr
Sora	25 Apr	11 Apr	2 May		2 May	7 May		1 May	26 Apr	9 May	29 Apr
Common Moorhen	2 May	1 Apr	9 Apr		26 Apr	7 May	16 May	3 May	9 May	2 May	28 Apr
Black-bellied Plover		25 Apr	16 May		12 May		1 Jun	14 May			13 May
Semipalmated Plover	17 May	29 Apr	3 May		7 Mar		16 May	14 May	17 May	23 Apr	30 Apr
Killdeer	28 Feb	6 Mar	2 Mar	6 Mar	7 Mar	19 Mar	7 Mar	13 Mar	2 Mar		6 Mar
Greater Yellowlegs	29 Mar	25 Mar	1 Apr	30 Apr	25 Mar	3 May	21 Apr	14 May	6 May	21 Mar	14 Apr
Lesser Yellowlegs	29 Mar	29 Mar	14 Apr	17 May	20 Apr	7 May	4 May	16 May	6 May		25 Apr
Solitary Sandpiper	23 Apr	16 Apr	21 Apr	2 May	23 Apr	3 May	10 May	3 May	6 May	23 Apr	28 Apr
Spotted Sandpiper	23 Apr	21 Apr	24 Apr	22 Apr	22 Apr	4 May	28 Apr	6 May	2 May	1 May	27 Apr
Sanderling											#DIV/0!
Semipalmated Sandpiper	17 May	3 May	28 Apr	31 May	20 May		10 May	14 May		19 Apr	10 May
Least Sandpiper	12 May	1 May	25 Apr	16 May	3 May		10 May	14 May	6 May	26 Apr	5 May
Pectoral Sandpiper	29 Mar	27 Mar	14 Apr		3 May						10 Apr
Common Snipe	12 Mar	25 Mar	4 Apr	27 Feb	24 Mar	28 Mar	27 Mar	25 Apr	24 Mar	7 Mar	23 Mar
American Woodcock	8 Mar	7 Mar	11 Mar	23 Mar	8 Mar	23 Mar	25 Feb	14 Mar	19 Mar	16 Feb	9 Mar
Caspian Tern	11 Apr	3 Apr	17 May		16 Apr					22 Apr	19 Apr
Common Tern	18 May	20 Apr	24 Apr		3 May	2 May	16 May			2 May	3 May
Black Tern	10 May	2 May	7 May		9 May	7 May	10 May				7 May
Marsh Wren	2 May	19 Apr	7 May		7 May		12 May			3 May	3 May

Bold Regional Record Early *Italics* Also isolated earlier report(s).

are Normally Distributed, then we can estimate a measure of the variability of these dates, the standard deviation s , which can be calculated as:

$$s = (0.5 \times \text{interquartile range})/0.675$$

From the Monroe County data, it appears that this value is higher for waterbirds than for most landbirds, and that the insectivores which arrive in May have the tightest range of all, many with s = about 3 days. However, for the sake of simplicity, I have assumed that there is a comparable value, s_w , for all waterbirds (after removing Marsh Wren) and that there is a different but again comparable value, s_l , for all landbirds. Given these assumptions, I obtain s_w 11.1 days and s_l 5.9 days. Next I assume that all Regions have the same s . Then the average arrival dates for each species over the 10 Regions should have a variance

$$s_r = s / \sqrt{10}.$$

For a difference between the 10 Region average for 1987 and the 25-year weighted average for any given species to be statistically significant, that difference should be at least $2s$, or at least 7 days for waterbirds and ± 4 days for landbirds. On this basis only about 19 of the 92 species tabulated apparently have significant deviations from the average. However, there are additional problems with the data which call into question some of these apparent differences. In some cases, a single extreme outlying date, some of which are in question as arrivals versus overwintering birds (e.g., Osprey, Semipalmated Plover, Yellow-bellied Sapsucker, Tree Swallow, Rufous-sided Towhee, Chipping Sparrow, Lincoln's Sparrow and Bobolink - a situation which will always require judgment calls by the Regional Editors), biases this year's average. [*More stringent editing requirements hopefully will reduce this problem in the future - The Editor.*] For a few species only a few Regions reported dates this year and, combined with with a wide spread in the 25-year averages across the state, this year's average is biased relative to the historical average. In a few other cases the historical data are biased by the absence of equivalent values from all of the Regions, so that values for the current season with data from all ten Regions is not comparable to the weighted average in the table. All of this leaves us with ten species which deviate significantly from the long-term average: three early and seven late. Of these, Solitary Vireo is the most consistently early species and Green-backed Heron, Purple Martin, N. Rough-winged Swallow, Cliff Swallow, Blue-gray Gnatcatcher, and Wood Thrush are the most consistently late.

We can also try to evaluate some of the observers' feelings about the season. As an example, the idea that late April migrants were late is noted specifically in Regions 1, 2, 6, 9 and 10. Comparing this season's dates with the 25-year averages in each Region for all land birds which had historical average arrival dates between April 21 and April 30, we

find that in three of these five Regions 75 to more than 90% of the arrival dates were late (as observers felt), while in the other Regions the split was even or that there actually were more early arrivals. The Regional Editors now can quantitatively test opinions such as this. However, as a cautionary note, in a case where a single bird is seen early by one reporter and the bulk of the individuals of that species arrive quite late, how should a Regional editor report the "feel" of the season versus the "data"? I'll let the readers search out additional patterns in the arrivals in individual Regions, remembering that 2s is 15 days for waterbirds and about 8 days for landbirds.

Region	Species Reported	Seasonality (days)	Advance (days)
Region 1	90	0.9	-3.3
Region 2	92	0.8	-5.3
Region 3	91	0.9	-0.5
Region 4	76	2.7	3.1
Region 5	92	-0.6	-2.0
Region 6	78	-0.2	6.3
Region 7	87	-5.5	3.1
Region 8	77	3.6	4.3
Region 9	78	5.6	1.2
Region 10	75	3.4	-5.3

Next, how do we make sense out of the measure of seasonality? Again using the measure of variance from Monroe County as representative, ignoring the lack of symmetry in the data, and using 84 as the average number of species per Region, we have:

$$s_{season} = \sqrt{(25 s_w^2 + 67 s_l^2)/92} \div \sqrt{84},$$

or 0.84. Hence, a seasonality of at least 1.7 days is required for statistical significance. Thus, Regions 4, 7, 8, 9 and 10 show a significant seasonal shift, with the entire southeastern part of the state suggesting a late migration and only the north country early. Of course, one might observe that all four of the Regions which appear late have new Regional Editors after an interruption in reports, and we might ask these Editors, "Do you feel that your contributors were well enough organized that this season's dates are representative?" One also might note that for Regions 9 and 10, as well as 1, 2 and 3, previous editors followed an earlier Editorial guideline to include only "noteworthy" records in their reports, so that the nominal 25-year averages are often represented by

only 1-5 data points, many of which are anomalous (and usually early) thus biasing the historical table to appear early and making the current year look later than it should be. How important might these considerations have been? Only continued, consistent reporting will tell.

Finally, we can examine the overall seasonality for the whole state and obtain values of 0.84 days early for waterbirds and of 0.19 days early for landbirds. Using another variance calculation similar to those above (and taking quite a few liberties with the math), the overall migration was indistinguishable from the long-term average at the 95% confidence level. Would you or would you not like to see more attempts to analyze these data as appropriate, especially after obtaining better measures of the variance in these dates and omitting most of the technical descriptions of my procedures and the potential problems?

Now, let us shift back to the more familiar format and end with the season's rarities, a very good group indeed this spring. The best from each Region, omitting most of those mentioned earlier, were: Region 1 - N. Gannet, Varied Thrush, and Kentucky Warbler; Region 2 - "Arctic" Loon, Little Blue Heron, Glossy Ibis, Fish Crow, and Brewer's Blackbird; Region 3 - Eurasian Wigeon and King Rail; Region 5 - Greater White-fronted Goose, Eurasian Wigeon, and Hoary Redpoll; Region 6 - Greater White-fronted Goose; Region 7 Orange-crowned Warbler and Clay-colored Sparrow; Region 8 - Gyrfalcon, Western Sandpiper, Wilson's Phalarope, Common Raven, and Brewer's Blackbird; and Region 10 - King Rail, Long-tailed Jaeger, South Polar Skua, Atlantic Puffin, and Connecticut Warbler. From this season's list, the bird(s) selected for the BOTS Award are the Swainson's Warblers in Regions 1 and 10, both tarrying for a second day to the delight of at least a few more observers than their discoverers. This was a difficult choice over the Eurasian Kestrel from Region 7 but that record's possibility as an escape from captivity, as suggested by the observers, swayed my choice.

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Standard abbreviations: county names are shortened to their first four letters; months are shortened to their first three letters; ad - adult; Alt - Alternate plumage; arr - arrival or first of season; I - Island; im - immature; *intro* - see introduction to report; j - juvenile; L - Lake; max - maximum; mob - multiple observers; NWR - National Wildlife Refuge; NYSARC - report to New York State Avian Records Committee; P - Park; Pd - Pond; ph - photographed; Pt - Point; Res - Reservoir; SP - State Park; spm - specimen; subad - subadult; T - Town of; Twn - township; WMA - Wildlife Management Area; y - young.