The Changing Seasons: Signs?

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This American Woodcock chick was one of three young observed with an adult in Pittsylvania County, Virginia 25 March 2007, while the photographer was off the beaten birding track, looking for orchids. Young of this retiring species are seldom observed and even more rarely documented. Photograph by Larry Lynch.

have a marvelous coworker who is fond of saying, on unusually warm winter days or as hurricanes rake the coast, "Signs! The signs are all around us! The signs!" His reference is not to the 1970 Five Man Electrical Band hit song ("Long-haired freaky people need not apply...") but quite openly to the Book of Revelations, that enigmatic text that appears to forecast the End of Days. I love his candor; his enthusiasm for the Apocalypse is almost infectious.

The Changing Seasons has flirted with references to "strange times," with titles like "Rome Burning" and subtitles such as "Drought, Fire, Plague, and a Penguin," but the latest climate-change forecasts from scientists have begun to read more and more like Revelations: the sea ice will disappear in 2050, then 2030, and now... 2012? We read of massive declines in penguin populations, of Ivory Gulls and Polar Bears rapidly losing prey base and habitat, and of lost Arctic seals wandering

in tropical waters. The drumbeat seems inexorably toward widespread extinctions, disappearing coastal wetlands (eventually disappearing coastal cities), and the disinterest and intransigence of nations. These stories, alas, are buried in so many of the mass media's communications beneath tales of the latest exploits of O. J. Simpson or Anna Nicole Smith. My coworker's worldview has come to seem pedestrian, almost sanguine in our age, in which hard scientific data have become like the prophetess Cassandra, accurate but widely ignored, or denied, or drowned out.

However well scientists working in the polar regions may have identified clear causal links between carbon dioxide levels and ecosystem collapse, we birders in the temperate zones usually lack interpretive frameworks, much less evidentiary connections, for the many disparate phenomena we observe. True, we document a great many species of southerly breeding distribution expanding

their ranges northward, a good many boreal or upland or montane species withdrawing northward or repairing to higher elevations, and very few species expanding their breeding ranges southward in the Northern Hemisphere. And true, we detect latitudinal vagrants with what appears to be increasing frequency. At least some of these shifts appear to be consistent with predictions about climate change. But are there other signs around us, away from the Arctic, that there are problems? After all, we read about "good numbers" of American Bitterns in many of this season's regional reports, about rebounding counts of Rusty Blackbird in some areas, about burgeoning goose numbers all around, and high and record-high counts of scores of species in dozens of regions-from Stilt Sandpiper to Blue Jay to Black Skimmer. Spring for birders is often a time of wonder and optimism, of reveling in the return of both short- and longdistance migrants. Amid our scramble to see as much as we can see, are we missing the signs? Is my coworker's ear simply better at detecting the hoofbeats than my own?

The Weather

Taking a cue from Marshall Iliff and Derek Lovitch (2007), I would like to offer a rather brief synopsis of the continent's weather patterns here, saving two juicy exceptions for separate sections, below. Weather, and climate, are so heavily in the news of late, and the data on weather trends so readily available via the Internet, that our summaries here seem more and more a cumbersome afterthought. And we find ourselves repeating the mantra: hot and dry. To be sure, there were a few exceptional cold fronts, a mid-April coastal gale in the Atlantic, and deluges without end in the southern Great Plains. Continentally, spring 2007 was the fifth warmest spring on record, according to the National Climatic Data Center in Asheville, North Carolina. A strong frontal boundary brought devastating tornadoes to the middle of the United States in early May, while in the Southeast, drought conditions worsened steadily (becoming critical in the summer and fall months over many areas). Continued extreme dryness in May east of the Mississippi River and in the Far West expanded the drought area. The global land-surface temperature was the highest for the month of May, as well as for boreal spring. The combined global landand ocean-surface temperature was fourth warmest on record for May, and 2007 tied with 1998 for the warmest January-through-May period in history.

Ocean arrhythmias

I had never seen the term "arrhythmia" applied to fluctuations in ocean conditions (sea surface temperatures, food availability, etc.)until I read the Oregon & Washington regional report, which is recommended reading. Apparently, another anomaly in the patterns of seawater upwelling, on which so much of the marine food chain is dependent, caused localized starvation among Rhinoceros Auklets, Horned Puffins, and Tufted Puffins. Beach surveys in Oregon began finding corpses of these species in some numbers late in February, with a peak in late March, when hundreds of alcids, plus several Mottled Petrels, were found. Dead Horned Puffins were found as late as 22 May at the Tijuana River mouth in southern California.

Live alcids, of course, were also detected. Over 50 Horned Puffins in northern California (plus birds well into the summer season), 13 in Oregon (seven of these on a pelagic trip) through 1 April, three in British Columbia through 27 May, and one in Washington 3 April were all newsworthy. Researchers also

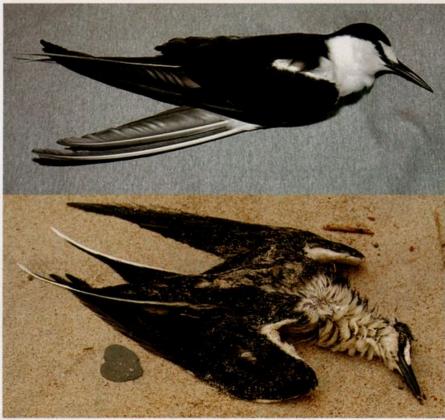


Figure 1. These two Sooty Terns, both found 17 April 2007, were casualties of a hurricane-force storm; three others were also recorded in New England as a result of this storm. One (bottom photograph) was found dead on a beach in Little Compton, Rhode Island; the other died shortly after it was discovered in moribund condition roughly 32 kilometers from the coast in Southington, Connecticut. Photographs by Geoff Dennis (lower image) and Bruce Finnan (top image).

made large counts of Parakeet Auklets off Oregon/Washington, and seven were found 21 April off southern California, a red-letter bird and a high count for so far south. Thickbilled Murres played a minor role in this event, noted mostly in the Puget Trough (mostly in winter), with one seen from shore in British Columbia 20 May.

Although the signs of trouble spanned thousands of kilometers, the number of birds actually tallied in this "event" was not terribly large and certainly not without precedent in the eastern North Pacific Ocean. Most of the birds were reported between Oregon and northern California. The human mind delights in making connections, in reading disparate bits of information as parts of a greater whole, with an underlying single cause. However much we might want to connect these events to global climate change-and throw in the whole panoply of vagrant tubenoses, while we're at it, e.g., another Ringed Storm-Petrel (Oregon), a few more Yellow-nosed Albatrosses (New England, Figure 3)-we lack a way to integrate the scattered bits of data to

make this assertion confidently. We perceive far less than one per cent of the phenomena involving pelagic birds, surely, and so we see as through a glass darkly.

Rough winds

While many in the United States were struggling to locate receipts to finalize federal income taxes (and residents of Maine and Massachusetts prepared to mark Patriot's Day), a wicked storm began brewing in the Gulf of Mexico and swept up toward the Middle Atlantic and Northeast, where it pounded shorelines for several days with hurricane-force winds, moving inland through Connecticut and toward Québec. Birders, being birders, knew that birds would be affected, but we have little record of storms like this one, at least of this intensity at this time of the year and with this trajectory. So scads of us mobilized, wondering what we would find.

The results were surprising. Few would have guessed that Sooty Terns would be the stars of such a storm, but in fact seven were found in the Northeast (Figure 1). Most of



Figure 2. This American Oystercatcher at Nockamixon State Park, Bucks County, Pennsylvania 19 April 2007 was apparently a result of the coastal storm of days earlier and represented the fifth record for Pennsylvania, two of the previous reports coming from this location. Photograph by Cameron Rutt.

these birds were moribund or appeared exhausted; two were found dead. Point Judith, Rhode Island had three; Southington, Connecticut had one; two were noted on Long Island (one dead); and another dead one was found at Goosewing Beach, Rhode Island. We know that the storm moved through part of the Gulf Stream, but data off North Carolina suggest that the Sooties weren't entrained at this latitude. However, the recently published paper of Bob Wallace and Russ Wigh (2007) confirms that Sooties are present off central Florida's Atlantic coast at this time of year. It seems likely that the birds were swept northward in southerly winds on the "right" side of this storm, then moved into the coast around the top of the system. Not part of a larger pattern in this particular storm-but part of a weak/subtle pattern, typically connected to tropical storms-an American Oystercatcher in Bucks County, Pennsylvania (Figure 2) was another victim of the foul weather. No others were reported inland this season, other than a lost bird in Sheffield, Alabama 24 May, a perplexing record, as there are rather few such interior records anywhere in the United States.

Mid-April is the time for Indigo Buntings, Summer and Scarlet Tanagers, and Blue Grosbeaks to move northward from wintering areas, at least in the southern United States, but arrivals of these species en masse in the North at this time of year is usually the product of a fast-moving low-pressure system coming up the coast. However, early spring "overshoots" (or pioneers, depending on one's interpretation) may arrive well north of typical breeding range during periods of southerly winds. And so, unlike in the Canadian Maritimes, in areas like the Hudson-Delaware region, it can be difficult to distinguish storm-displaced birds from the normal seasonal haul of northerly migrant cardinalids (we may as well lump Piranga tanagers in here): some appeared during or just after the storm, but by no means all. However, if we look to the Bahamas and to Bermuda, the association between the Patriot's Day storm and fallouts of such species is clear: a record-high six Summer Tanagers and 20+ Scarlet Tanagers on Bermuda, mostly 14-21 April, plus 12 Scarlet Tanagers in the northern Bahamas 16-21 April. In Nova Scotia, the first of 10 Summer Tanagers was found 19 April, as the storm moved inland. In addition, good numbers of Blue Grosbeaks, Indigo Buntings, and over 100 Rose-breasted Grosbeaks were recorded in Nova Scotia, many arriving on the heels of the storm. New England surprisingly had smaller numbers of these storm-birds, but their lot included a remarkable Painted Bunting, filling out a grand slam of the colorful granivores for the Bay State (with an early Baltimore Oriole thrown in). Simon Perkins notes that the storm's veering inland meant that seawatch sites along the Massachusetts coast failed to astonish, as winds never came around to the northeast, as they would have if the storm had moved up the coast, and so Rhode Island and Connecticut saw more of the action.

So, although there are interpretive gray areas, and although each storm is distinctive in the birds its transports or grounds, we feel confident in assigning records such as the Sooty Terns to discrete weather events such as the Patriot's Day Storm. But was that wicked weather itself a sign, as my coworker calls the frequent hurricanes of late? "No," he says; "that was just a bad nor'easter." (Or a sou'easter, depending on your point of view, I suppose.) I still have much to learn about the End Time, clearly.

A week or so before the coastal storm, 4-8 April, a severe cold snap dropped temperatures by dozens of degrees across the southern Plains through the Ozarks and Mississippi Valley to Appalachia and down the upper Gulf Coast. The effect on trees, already budded or blooming, was chilling (see the S.A. reports in the Tennessee & Kentucky regional report and the accounts in the Arkansas & Louisiana and Alabama & Mississippi reports): observers say the woods looked brown and lifeless, "as though a defoliant spray had been applied," according to Steve McConnell. The effect on birds was likewise stark; hundreds of Rosebreasted Grosbeaks and dozens of Indigo Buntings and Rose-breasted Grosbeaks were driven to feeding stations. Insectivorous birds, with fewer options during the hard freeze, were probably more severely affected. A few days later, the same front interacted with a second front, bringing a fallout of Neotropical migrants on the upper Gulf Coast 10-11 April. Such late-season cold fronts are not unusual. by any means, but don't seem to fit neatly with our anticipation of increasingly warm springs. Nevertheless, the overall picture was of a very warm March-through-May period.

A Day in May

I won't pretend that any North American Birds reader actually has the inclination, or spare time, to read this journal cover to cover. Having read each issue at least four, and usually six, times for the past seven years, I may have an unusual, if almost pathological, perspective: though retaining individual records is impossible, I find there is a collection of impressions about early and late dates and about range contractions and expansions that rattles around in my head. (All of this accreted material taking up mental shelf space means that I have little trouble taking home the Cliff Clavin award at the local Irish pub on any given night; friends shake their heads when the TV newscaster starts in on some story about invasive weeds on the prairie or a birder shooting a cat to save Piping Plovers-they know what's coming. So you may wish to order a drink before reading on here. "It's a little known fact...")

So indulge me. I have always wanted to pick a calendar day in North and Central America and review the day's birding on just that single date. Has the reader never wondered, when out in the field on some glorious day: "What are other birders seeing today around the continent?" Let's pick, at random, the Fourth of May, a day that has always seemed to hold a nice cross-section, at the middle latitudes (not so much in northern-tier states or Canada), of both short- and long-distance migrants, as well as a few vagrants. In 2007, the Fourth fell on a Friday, so there was a little more birding going on than during midweek but not so much as on subsequent weekend days. Weather was relatively mild across much of the Lower 48 states-with the exception of the continent's center. A terrible outbreak of tornadoes occurred, beginning in the evening of 4 May, with about as about 95% of the city of Greensburg, Kansas destroyed by an EF-5 tornado; 12 people were killed and over 60 injured. The outbreak extended across a wide swath of Oklahoma, Colorado, South Dakota, and Kansas and spawned perhaps 150 tornadoes in total. In reviewing all of the day's records mentioned in the regional reports, I think it will be interesting to see how many of these fall into larger patterns (or suggest broader issues)-and whether there are any of those elusive "signs" in this snapshot.

On the Fourth of May at Florida's Viera Wetlands, in Brevard County, 94 Black-bellied Whistling-Ducks were counted. Although there are more intrepid species expanding ranges northward in North America (Blacknecked Stilt, Carolina Wren), few are more audaciously tropical in appearance than Black-bellieds. What better "poster bird" for global warming in these pages? New records came from areas of Alabama, Arkansas, and Louisiana this season, with more to follow in the summer report. For waterfowl otherwise, 4 May marked a late date for four species: the last of the Aleutian Canada Geese were at Shoreline Park in Santa Clara County, California; the last of the Eurasian Teal were noted in Oregon/Washington; a late Cinnamon Teal was at Anahuac National Wildlife Refuge in Texas; and Guadeloupe's latest Ring-necked Duck ever tarried at Gaschet Reservoir. These dates seem mostly normal, and late waterfowl are also sometimes birds wounded in the winter hunt, so it is difficult to read much into such records. Five Black Francolins near Makakilo, Oahu Island constituted the only galliform record mentioned from 4 May. On the continent, several regional reports mentioned that introduced gamebirds of this sort were holding their own but that populations of native species continue to decline, without exception. No mystery of Biblical proportions here-just habitat loss and degradation,

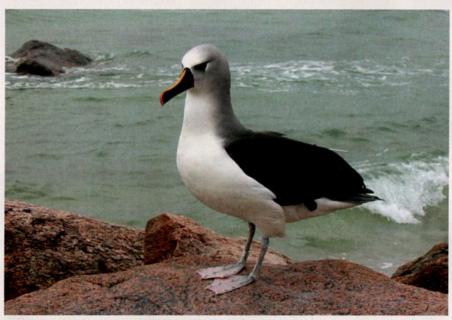


Figure 3. This Atlantic Yellow-nosed Albatross endured many hardships during its prolonged visit to New England. Here, it contemplates its freedom before taking flight from a beach in Falmouth, Massachusetts 20 May 2007—its first release from rehabilitation. There has been a notable surge in reports of Yellow-nosed Albatrosses in the North Atlantic in recent years, notably from western Europe in Sweden, Norway, and the United Kingdom. Photograph by Jay Sisson.

much of which is preventable.

By the Fourth, most of season's push of Red-necked Grebes had moved through the East, but imagine Cameron Rutt's pleasure on pulling up to the Susquehanna River near Harrisburg, Pennsylvania and finding the state's first Yellow-billed Loon, an adult in flawless breeding plumage—not a species one expects to see here, or anywhere in the East, but one of a growing number of extralimital records across the Lower 48 in the past decade or so. Whether this stark increase in records relates to a shift in wintering patterns or to greater observer scrutiny of inland waters is not known, but I rather suspect the latter.

Seabirds received rather little comment on the Fourth. A Fork-tailed Storm-Petrel was found dead near La Jolla, California that day, and Woody Bracey found a very nice assortment of tubenoses-a Black-capped Petrel, plus a Sooty, 3 Cory's, and 4 Greater Shearwaters east of Abaco Island. While the storm-petrel was possibly tied to the influx of northern alcids well south of range off the West Coast, and also possibly to the die-off of the alcids and of Mottled Petrels, the Bahamian procellariids are typical birds for the date and location but notable because of the dearth of data on seabirds from this area. The only other seabird mentioned on the Fourth was a Brown Pelican at Patagonia Lake, Arizona-a species reported with increasing frequency in the Southwest in recent years but

typically later, in summer or early autumn. Brown Pelican movements in the continent's interior in spring show little rhyme or reason that I can discern.

Early May would seem a fine time to hunt for wading birds in many areas. The season's first Little Blue Heron for Pennsylvania turned up in Bucks County on 4 May, and a Reddish Egret was at Sumner Lake, New Mexico that day, while Least Bitterns called at California's Sutter National Wildlife Refuge. Of these, the Reddish Egret is most iconographic of wandering/expanding southern species: not only have records increased in the Southwest and Southeast, but the Midwest and Northeast have seen records increase notably in the past few years (Illinois had its third record in May this year, for instance). But Glossy Ibis takes the wading bird cake: found across the interior West and upper Midwest this spring, Glossies were seen at two locations on New Mexico's Vermejo Ranch 4 May and at Mid-Ocean Golf Course in Bermuda that day. For birders who take this species (or White-faced or White Ibis, for that matter) for granted as locally common species, the phenomenal appearances of extralimital ibises may be underappreciated. But to a birder who has canvassed the same patch for decades and is suddenly finding one or more ibis species (and their hybrids), these Signs of the Times are nearly as jarring a sight as the flocks of tootling whistling-ducks.

An early migrant even among plovers, three European Golden-Plovers put in an appearance at Kilbride, Newfoundland 4 May, still a good date to look for this vagrant, which typically shows up in Newfoundland in April, en route to Iceland. Will others turn up in New England some day? Another Palearctic early migrant, a fancy Ruff of the rufous sort made its presence known 4 May in Blaise, Québec; my impression is that Ruffs, after something of a lull in the mid-1980s through the 1990s,

have begun to increase (or be detected increasingly often) across much of our fair continent. Migration of shorebirds across the interior of the continent was well reported this season, and many high counts came in. It is tempting to see in these numbers some much-needed good news about shorebird populations, but shorebirds in the interior gather rather opportunistically in ephemeral areas of optimal habitat, and our random observations probably provide insufficient data for celebration. In well-studied species, such as Red Knot (see the Middle Atlantic regional report), the news in not especially good. Nonetheless, larger species in particularsuch as Whimbrel, Willet, and Marbled Godwit-posted fine tallies from across a this spring: 33 Willets and a Marbled Godwit around Waterloo, Alabama 4 May was

typical of the season. Ruddy Turnstones were also reported in excellent numbers, from New York to Nebraska, in early May, while Wilson's Phalaropes peaked at 1180 at Bitter Lake National Wildlife Refuge, New Mexico 4 May (and later at 6000 in Oklahoma).

In a season recovering from a surfeit of Iceland Gulls out West, the Fourth of May was not a date to go gulling in most places. Three Laughing Gulls at Otter Slough Conservation Area, Iowa and three Franklin's Gulls at Kodiak Island, Alaska would certainly have been more newsworthy even just a few years ago, but such sightings have become more routine in recent times, as with Glossy Ibis at the margins of range. Rails still moving (?) in early May included Soras in western North Carolina and Virginia Rails in Bermuda and Tennessee.

Raptors have mostly completed their migrations through the middle latitudes by early May, though Mississippi Kites (one on the Virginia coast 4 May) are still moving, along with Broad-winged Hawks in some numbers, particularly year-old birds. A Crested Caracara in Hereford, Arizona 4 May may pale next to one seen the next day at Sandy Hook, New Jersey and another (or the same bird?) nine days lat-

large swath of the continent this spring: 33 Willets and a Marbled Godwit around Wa-terloo. Alabama 4 May was terloo. Alabama 4 May was

er on Martha's Vineyard, Massachusetts—but all of these records tie in to a larger, and rather recent, pattern of extralimital dispersal that spans from California to Washington state to Iowa to New Brunswick. Where would a caracara seem implausible at this point? Or, for that matter, a Zone-tailed Hawk (one in Nebraska this spring) or a Snail Kite (one in South Carolina)?

Near-passerines, that awkward grab bag, had a few highlights on 4 May. Minnesota's eleventh White-winged Dove chowed down at a feeding station in Kittson County that day, while a Ruddy Ground-Dove was seen at Patagonia Lake, Arizona. (If you need to catch up on the expansions of these species, or of other doves', consult most any Changing

Seasons spring essay since 1997.) An Elegant Trogon along the upper San Pedro River in Arizona 4 May was surely a migrant, as were two Black Swifts at Redding, California, in the Central Valley that day. Birds reported as Black Swifts on the Alabama coast, at Fort Morgan and Dauphin Island, could well have been Caribbean birds—reported several times in Florida, but photographic or specimen evidence continues to be elusive. The Fourth also had records of a Costa's Hummingbird at

Veneta, Oregon and a Downy Woodpecker at Quarai, California, both of local if not global interest.

Flycatchers of note 4 May were a Wisconsin Scissortailed in Bayfield County, a few Gray Flycatchers in Oregon and Washington, and a Yellow-bellied Flycatcher at Warrior Mountain, North Carolina (the season's fanciest flycatcher appeared in March; Figure 4), while thrush highlights included a late Hermit Thrush on the Dry Tortugas. Florida and a timely Veery at Lake Tawakoni State Park, Texas, Both Bahama and Northern Mockingbirds were also on the Dry Tortugas 4 May, while a Brown Thrasher graced Portal, Arizona, A Red-throated Pipit near Crowley Lake in Mono County was a great reward for Friday birding in California-the state's second in spring (followed by another 8-12 May at Fort

Dick) and most unexpected inland.

Hands down, however, the warbler clan held the largest number of 4 May reports-13-of all taxonomic groupings, even though the date is well early for the push of eastern warblers out West, which is typically a later May/early June phenomenon. In fact, the only California report on that date was of a Northern Parula, possibly a bird that had wintered (another parula was in Roosevelt County, New Mexico that day), and the only other West Coast report was of a Palm Warbler at Cape Blanco, Oregon, also a species that migrates rather early. A Mourning Warbler in Lincoln County, Colorado seemed remarkably early 4 May, as did a Hooded Warbler in Bozeman, Montana and a Connecticut War-

bler at Hendersonville, North Carolina, but less so the Kentucky Warbler in Cave Creek Canyon, Arizona or the Swainson's Warbler in Alabama's Tennessee River Valley or the Chestnut-sided Warbler at Lake Tawakoni, Texas or the Prairie Warbler at Mason City, Iowa. Yellow-rumped Warblers were still moving through Washington County, Arkansas in some numbers (22) on 4 May, when an Audubon's Warbler turned up at South Padre Island, Texas-a place where just about any bird seems possible. If there is a trend detectable among parulids, in my completely unreliable and unscientific opinion, it is a slowly creeping trend toward earlier and earlier first-arrival dates in nearly all regions. A Sign, to be sure, but not an especially dramatic one and possibly not one that would survive a statistician's audit.

Summer Tanagers started to hit famed Point Pelee 4 May, the first of ten for the season there, while a single Summer visited a vagrant "trap" in Roosevelt County, New Mexico that day, and an "early" Varied Bunting was not too far to the southwest in Eddy County. Unlike the cardinalids, sparrows are mostly "done" by early May, at least as migrants

(with exceptions among the Ammodramus), but lingering birds are often mentioned as late as 4 May, among them this season a Lincoln's Sparrow at Quintana, Texas, a Harris's Sparrow in Floyd County, Indiana, a first Goldencrowned Sparrow on St. Pierre (that productive French island off the coast of Newfoundland), and another Golden-crowned in Sioux County, Nebraska, just the fourth documented by photograph in the state. Extralimital Zonotrichia seem to me to be on the increase from coast to coast. Finally, in the introducedbut-who-cares category, Michigan had a Eurasian Tree Sparrow in Cass County 4 May (and three the next day in Keweenaw County); a European Goldfinch dropped in to a feeder at Ituna, Saskatchewan; and two Yellow-faced Grassquits were seen on Waianae Mountain, Oahu Island, Hawaii.

In the little exercise above, I failed to detect anything that we didn't already know: southern birds north, early arrivals, a few lingering and late birds—just another day in May, in a spring that was, again, warm but not the warmest on record. If I have seemed to make light of the search for Apocalyptic bird records, it is not because I find humor in

watching canaries expire in coal mines. Rather, I have reached a point of subdued incredulity in watching such rapid changes in bird distribution, a sense of astonishment only amplified by narratives of doomsday from the scientific community and from what was once, not long ago, considered the religious fringe, now often the decisive voting block in national (and many state and local) elections in the United States. Whether or not individual bird records reflect the warming of the climate is moot, in some sense; if sea ice is gone by 2012, or even 2050, and Greenland's ice pack with it, many of us will live to see a metamorphosis in avian distribution unimagined by our forebears. Whether our interpretive framework is scientific or religious, there is One Story of our time: carbon dioxide emissions.

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