THE CHANGING SEASONS: Unabashed Bonanza

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Fall 2002 had its disappointments. Nervous about world political developments, we worried, too, about the threat of West Nile virus in the avian world. How would the migration be, particularly of raptors, owls, and corvids, which seem to be so vulnerable to the spreading epidemic? Would the hawkwatches, banding stations, seawatches, and point-counts fall flat? Would coming Christmas Bird Counts make a poor showing?

As in the human political arena, clear answers to our anxieties were elusive. Many traditionally productive venues for migration, especially coastal ones, had few big days for passerines or non-passerines in the East, while from the West, after severe drought and fires, came almost no exclamations of high (or low) counts of local nesters, just the occasional remark that Western Scrub-Jays, Pinyon Jays, and Steller's Jays, along with Bushtits and hummingbirds, seemed to be wandering out of range, both altitudinally and otherwise. Aspects of some regional reports were downright somber, and in some regions, West Nile virus does appear to have hit some species hard (see the Ontario and Tennessee & Kentucky regional reports).

But a closer look at these lamented lacks suggests we temper the temptation to be maudlin. In the East, for example, a mild fall produced few good cold fronts to bring birds toward the coast (where birding is most concentrated), at least until fairly late in the season, when Neotropical migrants have already done their thing. Watchers at interior ridges and lakewatches were in fact pretty pleased with their hauls, both in hawks and seabirds, though jaegers and certain gulls (such as Sabine's) were scarce over most of the interior. Scoters, however, put in appearances across an enormous swath of the interior West and Midwest alike. Shorebirds, always a mixed bag of impressions, almost everywhere made up for in diversity what they lacked here and there in abundance—there was a notable movement of Sharp-tailed Sandpipers that stretched from Washington to Québec to the Hudson-Delaware region (and probably to Florida), a Broad-billed Sandpiper and two Red-necked Stints in Massachusetts, and Little Stint and Common Greenshank in California, while Mexico's pearls included country-first Terek Sandpiper and Little Stint. Indeed, the tenor of the regional reports is quite upbeat when it comes to slight strays and outright vagrants.

This essay will focus on these displaced birds: on widespread flights of birds both slightly and tremendously out of range, as well as on more singular short-distance and long-distance vagrants. We narrow the essay in particular to these birds because they stand out in the milieu of very mixed impressions about commoner migrants in this season. In some instances, there are clear reasons for birds to be found out of range. In the case of the marvelous near-shore concentrations of seabirds in New England, prey (small fish) moved inshore in September through November, and the birds followed. With the massive flight of Cave Swallows to the southern/eastern Great Lakes and the Atlantic coast in November, it was apparent that the action of several cold fronts (and their precurring southwesterlies) moved them from place to place. Scores of pelagic seabirds from the Florida Panhandle to Kentucky and Illinois were blown there courtesy of Hurricanes *Hanna*, *Isidore*, and *Lili*. The Gray Heron that arrived alive in Newfoundland had used a ship to make its way there from the middle of the Atlantic Ocean.

Other appearances resist neat explanation. Alaska's usual haul of Siberian birds we have grown accustomed to, and in time, we might even get used to Siberian birds on the continent's other ends: Long-billed Murrelet in Kentucky/Indiana, Slaty-backed Gull in Florida (at Key West!), Little Bunting in California, in addition to those Sharp-tailed Sandpipers scattered about. But Alaska this season saw new visitors whose breeding ranges just make it to Lake Baikal in central Asia—Spotted Flycatcher and Lesser Whitethroat—and one that just reaches eastern Siberia as a nester, Willow Warbler. These birds were not simply moved a few hundred miles by ship, storm, or shifts in prey resources. And what of the trend toward southerly species displacing well north of typical range in this season: what combination of factors led the *wave* of Roseate Spoonbills to Arkansas, Mississippi, Ohio, and Tennessee, Purple Gallinules to Colorado, Ontario, and upstate New York, Crested Caracaras from California to the Great Plains to New Brunswick, Magnificent Frigatebirds to distant points in Canada, Brown Pelicans to the Great Lakes, and Swallow-tailed Kites to take birders' breath away from Michigan to Minnesota to Québec? And why the unusually high counts of scoters from around the continent's interior this year? As we move through the murky subjects of vagrancy, fallouts, and dispersal in these pages, it will be important to bear in mind that our theses are tentative and quite possibly entirely wrong.

CAVE SWALLOW SPECTACLE: THE WEATHER DID IT

It was not difficult to guess the genesis of the hundreds of Cave Swallows that appeared from Ontario to Florida in the middle of November: a powerful storm system that swept up from Texas toward the Northeast (Figure 1) clearly intercepted these birds and blew them off course around 10-11 November. The cold front in question was long in its extent, stretching from Canada into northern Texas; it created more than 70 tornadoes, killing 35 people from Pennsylvania to Mississippi. In all, as many as 400 to 500 Cave Swallows appear to have been detected in this displacement (Figure 2).

Exactly how these birds might have been moved from normal migration pathways is not known, but it seems reasonable to speculate that the very strong southwesterly winds (sustained 30-40 knots over large areas) ahead of the front's passage moved Cave Swallows away from Mexico and Texas and toward the Great Lakes and Northeast—that is, that the birds moved downwind ahead of the front's passage. Aside from an early bird 7

November at Cape May, New Jersey (where one or two are expected annually), the first Cave Swallows to appear were in southern Ontario in the five days following the storm's passage, 11-16 November (another bird seen at Niagara Falls 21 November had been present on the New York side 16-20 November). Upstate New York had the other early bird, 11 November at Hamlin Beach.

But it was largely in the *following* week, 17 November and later, that Cave Swallows began appearing—in unprecedented numbers—on the Atlantic coast. These were almost certainly birds already present at these latitudes but scattered around the interior in small numbers until concentrated by cold fronts' passages on 15 and 23 November. The first birds associated with this flight were noted as a result of the first front at Sandy Hook, New Jersey (4 birds on 15 November), followed quickly by small numbers around Cape May the next day and one on Staten Island, New York on the 17th. Records followed in quick succession from points south: Virginia on the 18th and Pennsylvania and Maryland on the 19th. The next strong cold front, on 23 November, blew the covers off the records books: there were so many Cave Swallows on the coast of Connecticut that veteran observers despaired of getting a clean count on 23-24 November, and estimates ranged from a conservative 130 at one site, to a "probable 200," even a "possibly 300." Numbers of Cave Swallows were seen at scattered locations in the Middle Atlantic and Hudson-Delaware regions through 24 November (with a few later at Cape May), but the arrival of a very cold air mass 25 November appears to have pushed many of these swallows south of the mouth of Chesapeake Bay.....

....Where Southern birders, having heard of the flight to the north via the Internet, awaited them on the coasts, binoculars raised; they were not disappointed. The last few days of November and the early parts of December saw the coastal areas of southern North Carolina positively awash in Cave Swallows, with single-site counts of up to 40 birds, the last report coming, appropriately, from Sunny Point in Brunswick County on 5 *January*! Cave Swallows trickled down farther south to South Carolina in a later window of dates, 29 November to 19 January, and a few were recorded in Georgia 14-15 December. Alabama's Cave Swallows 3–4 January at Gulf Shores, 19 January in Baldwin County, and 20 January in Mobile County probably also persisted after the November displacement.

This year's influx, comparable only to the smaller flight of November 1999 (Curry and McLaughlin 2000), is remarkable both for its magnitude and for the almost too-clear stepwise patterns of displacement—from (assumedly) Texas/Mexico, to the Great Lakes, to the Northeast, and finally to the Southeast—that emerge from birders' records. The influx also raises questions that are uncomfortable in some contexts but that should be aired, namely: how many of these Cave Swallows were carefully documented and conservatively counted? According to all states' and provinces' records committees in the East and Midwest, Cave Swallow remains on their review lists, but rather few of the birds reported via the Internet carried descriptions, and fewer still have been tendered with committees. Could some Cliff Swallows have been misidentified as Caves? Certainly; although Cave seems to be more likely in most of these areas than Cliff at this time of year; and a few Cliffs were present in the masses of swallows—which also included thousands of Tree, dozens of Northern Rough-winged, and a few Bank and Barn Swallows—along coastlines in late November.

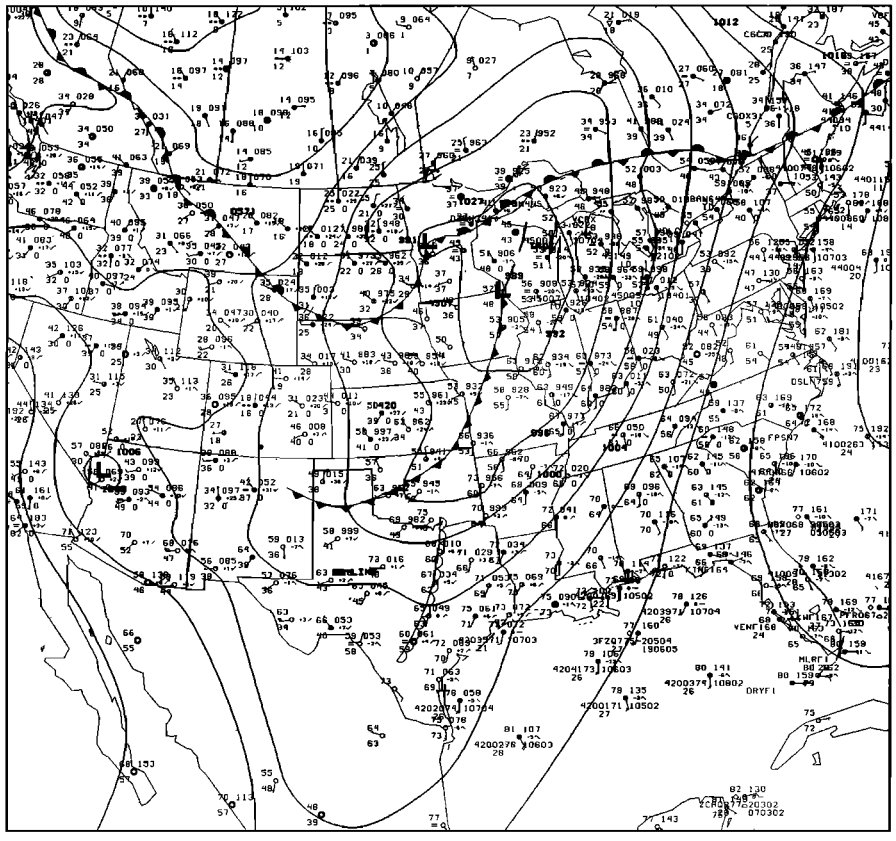

Figure 1. This cold front's passage from mid-continent toward the East was probably responsible for the large numbers of Cave Swallows observed from November into January between Ontario and southeastern United States. The birds were first noted in Ontario, after the strong southwesterly winds preceding the cold front, 11 November 2002, and records followed on the Atlantic seaboard after the next several cold fronts. ***Map courtesy of the National Climatic Data Center, Asheville, North Carolina.***

But misidentification is probably less worrisome here than inter-regional differences in counting (or estimating) the swallows' numbers. In some cases, observers might have seen flocks of swallows that included many Caves and counted *all* as Caves; in other cases, observers assumed that southbound Caves continued to "stream" or migrate past a point, whereas in fact the birds might have been making a broad circuit over an area—and thus being counted many times over. At Lighthouse Point, New Haven, Connecticut, for instance, observers reported no more than 130 present simultaneously but estimate up to 300 birds involved in the flight. The continuous coastline here supports this assumption. Areas to the south, such as Cape May Point, where swallows are known to linger for long periods, report *only* the highest count of birds seen at one time (or going to roost), thus the count of 40 is conservative, and the number of birds involved was almost certainly higher.

A fascinating sidebar to this story is the appearance of up to 13 Cave Swallows, apparently all of the southwestern subspecies *pelodoma*, in Florida at Viera wetlands in Brevard County. The situation with Cave Swallows in Florida is complex, but the late appearance of these birds (18 November+) coincided with the passage of southwestern Cave Swallows to the north and appears to have entrained an even greater rarity from farther south in Mexico: North America's first **Mangrove Swallow** (see the Florida regional report for more details).

HURRICANES & THEIR CARGO

While the Eastern Seaboard of the United

States saw very little in the way of tropical storm activity (*Gustav* and *Kyle* merely brushed by), the Atlantic Provinces of Canada and the Gulf of Mexico, as well as southwestern Mexico, were hit by several storms that produced onshore pelagic birds by the hundreds. Regional reports tell the full story, but in this essay's venerable tradition of kleptoparasitism, we'll mention a few of the more interesting observations and trends here. Overall, the year 2002 was moderately active for Atlantic tropical storms: 12 storms were named, four of which became hurricanes, and there were two additional tropical depressions counted. In the Pacific, *Kenna*, a rare Category 5 storm, struck a direct blow to the San Blas area of Nayarit state, severely damaging forests and wiping out human dwellings over large areas. Few birds were reported in association with that storm.

Most noteworthy in the tables on page 17 is the virtual *absence* of tubenoses in the context of the storms of 2002. The few that are mentioned (two unidentified gadfly petrels in Nova Scotia waters) were probably linked to an Atlantic storm, *Gustav*. The Gulf of Mexico, which produced the bulk of the boobies, tropical terns, and tropicbirds, is in fact fairly depauperate when it comes to tubenoses: Band-rumped Storm-Petrels are seasonally fairly common over the deep water, and smaller numbers of Wilson's and Leach's can be found with luck, along with Cory's Shearwaters (and a few other shearwaters), Masked Boobies, and Red-billed Tropicbirds. Bridled and Sooty Terns, on the other hand, are rather common, as are Pomarine Jaegers in some seasons. This is quite in contrast to the Labrador Current and Gulf Stream, in which tubenoses far outnumber tropical terns, at least in zones regularly surveyed up to 100 km offshore. Thus it stands to reason that Gulf of Mexico birders, and those interior areas experiencing landfall of its tropical storms (this year, Kentucky, Arkansas, Tennessee, northern Alabama, interior Mississippi, and Illinois), would see far fewer tubenoses than terns entrained—zero tubenoses this year, in fact.

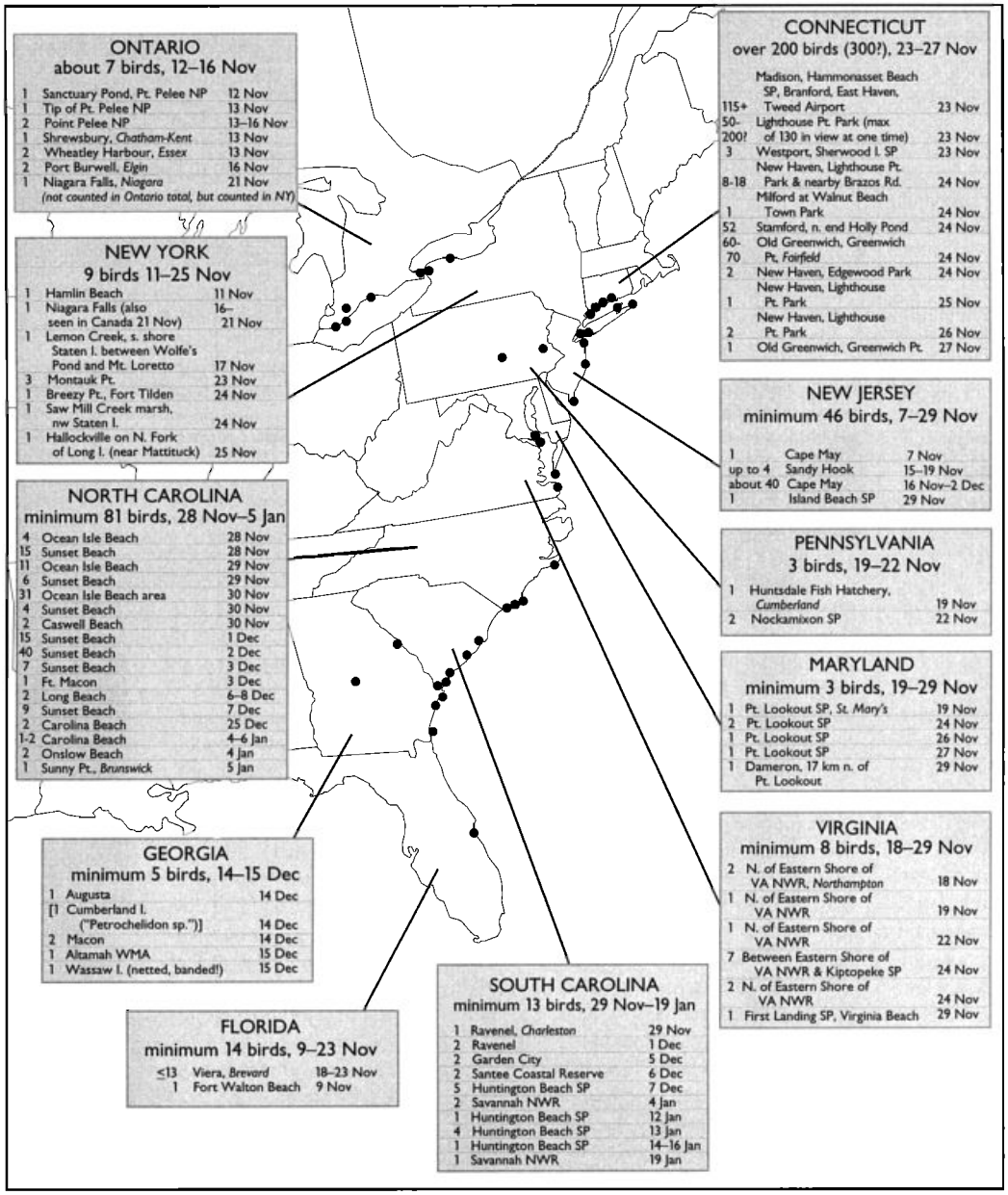

Figure 2. Records and reports of extralimital Cave Swallows in eastern North America from November 2002 through January 2003. When these records are made synoptic in this graphic, the stepwise displacement from the Great Lakes to the Northeast to the Southeast becomes apparent in the dates on which Cave Swallows were noted. These groups of dates coincide with the passage of cold fronts, which appear to have moved the swallows from region to region. ***Graphic by Virginia Maynard.***

The absence of onshore Gulf tubenose reports may result in part from the inaccessibility of large parts of the coastline (as in Louisiana), especially during and after storms, when emergency personnel close access roads to reduce injuries in storm-damaged areas and to reduce looting.

As has been mentioned before in this column (Brinkley 1999), records of Bridled Tern during or after tropical storms are confined largely to coastal and near-coastal areas, whereas Sooty Terns commonly turn up far inland in the same storms. This historical pattern was confirmed and strengthened by the records from the 2002 storms. In addition to "uncountable" numbers of Sooty Terns along the coast and inland to New Orleans, with strong counts of Bridled coastally (at least after *Isidore*), 14 Sooty Terns were found as far north as Illinois and Kentucky, both firsts for the state (Table 1). Measurable differences in wingloading and aspect ratio are almost certainly the cause of the differential in the storm displacement between these terns (Brinkley 1999). That only four Brown Noddies were mentioned as a result of these storms—in Alabama, Mississippi, Celestún, Mexico, and Louisiana, all 26 September during *Isidore*—would seem to accord with its scarcity in the northern Gulf in the late summer and autumn. We know of only 22 out-of-range records of this species in North America, most attributable to hurricanes.

TABLE 1. Sooty Terns displaced by tropical storms well beyond Gulf Coastal areas, 2002.

Location	Number	Date (day/month)	Storm
Lake Benbrook, Tarrant County, TX	1	9–14/09	*Fay*
Wheeler Dam, AL	1	27/09	*Isidore*
Nickajack Lake, TN	1	28/09	*Isidore*
Blount County, TN	1*	29/09	*Isidore*
Baton Rouge, LA	1	3-4/10	*Lili*
Kentucky Dam, Marshall County, KY	2	4/10	*Lili*
Big Sandy Unit, Tennessee N.W.R., TN	2	4/10	*Lili*
Joppa, Massac County, IL	1	4/10	*Lili*
Starkville, MS	1	4-5/10	*Lili*
Issaquena County, MS	1	4/10	*Lili*
Washington County, MS	1	4/10	*Lili*
Chicot County, AR	1	4/10	*Lili*

TABLE 2. Frigatebirds noted out of range in North America and Mexico in 2002.

Species	Location	Date (d/m)	Storm
Magnificent Frigatebird	St. Margaret's Bay, NS	10-11/08	*Cristobal?*
Magnificent Frigatebird	St. Lawrence R., PQ	15-19/08	?
Great Frigatebird	Isla Isabel, Nay.	1-4/09	*Kenna*
Magnificent Frigatebird	mid-Cape Cod, MA	1-4/09	?
Magnificent Frigatebird	Lamoline, NF	14/09	*Gustav*
Magnificent Frigatebird	Columbus L., MS	4/10	*Lili*
frigatebird sp.	off Cape Hatteras, NC	8/10	*Kyle*
frigatebird sp.	Cape Henlopen S. P., DE	12/10	*Kyle*

TABLE 3. Pelagic pelecaniforms displaced by tropical cyclones in 2002.

Species	Location	Date (d/m)	Storm
White-tailed Tropicbird*	Sable I., NS	10/02	*Gustav*
Red-billed Tropicbird	Okaloosa County, FL	14/09	*Hanna*
Red-billed Tropicbird	Okaloosa County, FL	3/10	*Lili*
Red-footed Booby	Walton County, FL	16/09	*Hanna*
Red-footed Booby	Santa Rosa County, FL	28/09	*Isidore*
Red-footed Booby	Gulf County, FL	29/09	*Isidore*
Brown Booby	Gulf County, FL	29/09	*Isidore*

More difficult, historically and in 2002, to match to hurricanes' passages are the zephyr-riding frigatebirds, structurally a bit like exaggerated Sooty Terns. Like the terns, the great majority of the frigatebirds detected in *Isidore* and *Lili* were observed on or near the immediate coast of the Gulf. Of all the distantly displaced frigatebirds in 2002 (Table 2), only some of these can be said to be probably or surely connected to the tropical storms. Though coastal storms *Gustav* and *Kyle* do account for frigatebirds in Delaware, North Carolina, and even Newfoundland, it is very difficult to make a convincing case for hurricane displacement of frigatebirds to Nova Scotia in mid-August (Tropical Storm *Cristobal* passed nearby in a weakened state at this time), to the St. Lawrence River in Québec in mid-August (perhaps the same bird?), or to Cape Cod over Labor Day weekend (no storm anywhere nearby). A **Great Frigatebird** (*Fregata minor*) found at Isla Isabel, Nayarit after the strike of *Kenna* was probably not displaced a very great distance from adjacent foraging areas, but the species is rarely reported from the mainland of Mexico, and this record may represent the first with compelling documentation.

Interestingly, the proportion of frigatebirds associable with tropical storms' passage in 2002—about 50%—matches the historical record fairly neatly: about 47% of Magnificent Frigatebird/*Fregata* sp. records 1876-1988 north of the Carolinas (n=100) can be tied to Atlantic hurricanes. The figure of 47% is biased by several important factors, especially by the passage of *Gilbert* in 1988, which displaced scads of Magnificents, including 25 well out of range, as far as eastern New Mexico, Colorado, Minnesota, Wisconsin, Michigan, and Washington, D. C. (Lehman 1989). Displaced frigatebirds, like Laughing Gulls and white terns, sometimes linger in the interior for many weeks following a hurricane's passage (Lasley and Sexton 1989), and consequently it can be difficult to connect particular records with the passage of a specific storm—and to tally the wanderers accurately as they move between sites. Moreover, the experience of Hurricane *Georges* of 1998 (Brinkley 1999) hinted that frigatebirds may move well in advance of a storm's center, many hundreds of miles, in fact, and that displaced frigatebirds may appear at sites never obviously affected by the storm itself. It is probably the case that frigatebirds wander northward on southerly and southwesterly winds independent of tropical storms; and inasmuch as frigatebirds have the lowest wingloading in the bird world, these birds are able to move over tremendous distances with relatively little expenditure of energy after displacement.

However these birds arrive on strange shores, we must not forget those astonishing records of Lesser Frigatebird (*F. ariel*) in Maine and Great Frigatebird in Oklahoma when studying out-of-range frigatebirds. In 2002, we also learned that a live Ascension Frigatebird (*F. aquila*) was taken at 10 July 1953 at Tiree in the Inner Hebrides islands of Scotland, only now re-identified as such (Walbridge et al. 2003). No tropical system can be associated with this remarkable record. Field separation of frigatebirds is feasible in many cases, but extensive documentation with photographs or videotape would seem more and more needed for reports of this genus. Commendably, some observers left their frigatebirds unidentified.

Boobies and tropicbirds, by contrast, are pelecaniforms relatively rarely seen following tropical storms, probably owing to a combination of their low population densities at sea in the Gulf and Atlantic and their sturdy flight mechanics: having relatively little wing area for their relatively heavy bodies, these birds flap steadily, rather than using more dynamic forms of locomotion (as the shearwaters) or effortless soaring (as the frigatebirds and Sooty Tern). Records of Brown Booby, a common bird in the northern Caribbean Sea, show almost no correlation with tropical storm activity: north of Florida, only about 6% of East Coast records of Brown Booby through 1996 (n=53) show strong storm association, and thus it is not surprising that the three Gulf storms of 2002 yielded only one Brown Booby (Table 3). While the East Coast has never had a Red-footed Booby clearly associated with a tropical cyclone, western Florida had *three* this year, its first records, plus such tropical species as Red-billed Tropicbirds (Table 3). The discovery of three Red-footed Boobies in the Central Southern region was completely unexpected and could suggest that more are present in the eastern Gulf than suspected; Bob and Lucy Duncan's analysis of *Isidore*'s track, however, suggests that these birds could have been entrained much farther away, closer to typical Caribbean range. The only other tropicbird associated with a 2002 storm, a White-tailed, was found dead in Nova Scotia after the passage of *Gustav*; Sable Island is not far from the Gulf Stream, and so this bird might not have been displaced a great distance. In the western North Atlantic, White-tailed Tropicbird has been found 22 times onshore 1870-1995, on all but two occasions after major hurricanes. Overall,

numbers of pelecaniforms are relatively negligible in the history of storm displacement, though high mortality of Brown Pelicans and other species is frequently noted in the Gulf of Mexico in strong storms. Of great interest was the estimate of *12,000* American White Pelicans at Issaquena County, Mississippi concentrated by *Lili*.

The value of tracking displaced birds after tropical storms lies in our increased understanding of the life histories of these often little-known seabirds, their vulnerability and mortality, as well as in our understanding the causes of the great disparities in their propensities to be displaced during storms. Some of our seabirds have small local or even world populations, and our observations of their movements as a result of storms (and our salvage of specimens; see the Central Southern regional report) have great value in those cases. That these refugees also add diversity to summer and fall birding goes without saying.

MIGRATION IN REVERSE: LONG-DISTANCE VAGRANTS AND THEIR SHADOWS

The report from Alaska this fall offers much to take in, and an extended consideration of this season's most unusual species can be found in the lead article in this issue. When considering the enormous distance traveled by the Spotted Flycatcher and Lesser Whitethroat to the boneyards of Gambell, Alaska, we cannot rely on weather charts alone to explain their arrivals. Though both appeared at Gambell during periods of southwesterly winds (that is, winds blowing from the direction of their breeding ranges, roughly), Gambell lies too far—some 4000 kilometers away—from these areas, too distant for proximal weather phenomena to have entrained them. Indeed, all three must have been already moving in a direction that would take them toward Saint Lawrence Island and thus engaged in what is called "mirror(-image) migration" or "reversed migration" (not to be confused with the short-distance "reverse migration" or reorientation that takes place at various headlands and peninsulas or from over-water sites). In theory, such birds' orientation systems are skewed by 180°, and so they proceed in migration in precisely the opposite direction of their conspecifics. The causes of this misorientation are not known.

This theory has long been invoked to explain why most of North America's records of Fork-tailed Flycatcher pertain to the highly migratory South American subspecies *savana*, rather than to the much nearer Central American subspecies *monarchus*. Despite a growing body of evidence on Siberian waifs to Europe that suggests that this theory is correct (cf. Vinicombe and Cottridge 1997), most North American birders had not considered either Lesser Whitethroat or Spotted Flycatcher to be serious candidates for vagrancy to this continent. In Europe, ornithologists seeking to understand patterns of reversed migration have in fact been able to predict the arrival of new species to the European avifauna by using a globe to map possible pathways of long-distance migrants and their ultimate points of discovery in the area corresponding to the "inverse" of their wintering grounds. This area has been termed the "vagrancy shadow," the zone that lies on the *opposite side* of the breeding grounds from the normal wintering area. We have constructed a rough indication of what this vagrancy shadow might look like for Spotted Flycatcher, a species that flies south and southwest toward its wintering grounds in sub-Saharan Africa but which, in the case of the Gambell bird, appears to have misoriented to the east-northeast (Figure 3). Similar misorientation would seem to explain the appearance of Lesser Whitethroat and Willow Warbler (particularly if of the Asian subspecies) here.

If this scenario has validity, then we are brought to consider at least several more birds that nest in central Eurasia and migrate to Africa as possible fall reverse-migrants to North American territory. These could include Caspian Plover, Thrush Nightingale, Pied Flycatcher, Mistle Thrush, Garden Warbler, Common Whitethroat, Lesser Gray Shrike, Isabelline Shrike, Spotted Crake, perhaps even Amur Falcon, though raptors seem less likely than passerines overall. In addition to these species, the list would include a good many Eurasian species that have already occurred in North America, but only a few times or once, such as Greater Sandplover, Eurasian Hoopoe, Baillon's Crake, Brown Shrike, and Marsh Sandpiper. Like Yellow-browed, Lanceolated, and Dusky Warblers, as well as Middendorf's Grasshopper-Warbler, there are other shorter-distance migrants from boreal and temperate eastern Russia/China to southern Asia that could be candidates for appearances in North America, among them Tricolor and Blue-and-white Flycatchers, Greenish and Pallas's Warblers, Eastern Crowned-Warbler, and Pallas's Grasshopper-Warbler. The record of Wood Warbler from Shemya Island, Alaska 9 October 1978 (Gibson 1981), a species that has also turned up in Japan, suggests that even those long-distance migrants to Africa that breed exclusively much farther west in Eurasia could be plausibly considered candidates for vagrancy to western Alaska; such a list would be immodest to print but would include an additional dozen species at least.

In the context of long-distance vagrants, our Cave Swallows traveled only a short distance, and one would not consider them "mirror migrants" in any sense: with large numbers involved, and with so many clearly moved, almost passively, downwind ahead of and on the various fronts of the season, such a phenomenon does not resemble the patterns we see with misoriented long-distance vagrants. Their gradual reorientation toward the south also weighs against misorientation of this sort. Were the swallows transported in the same way the hurricane birds were—yanked violently from one location to another by a powerful low-pressure system? Perhaps they present a slightly different scenario, more akin to those late Yellow-billed Cuckoos, Yellow-breasted Chats, and myriad other Neotropical migrants appearing in the Maritimes in late autumn, "reverse migrants" that end up falling out in what some have called the "Scotia Shadow" (cf. McLaren et al. 2000). These Neotropical migrants have presumably been entrained (over water, in some cases at least) in air currents moving in the "wrong" direction for their migrational needs—moving to the north instead of to the south. They would be forced to fly downwind in order to conserve energy, one assumes, rather than using up all their energy reserves in trying to fight a headwind. (Though the hurricane birds contend with stronger winds and with a

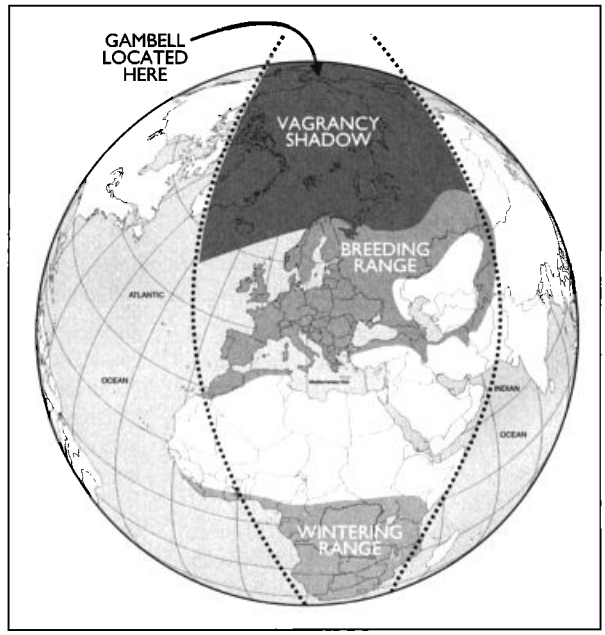

FIGURE 3. The distribution of Spotted Flycatcher, which nests from northwestern Africa through Europe to central Asia (medium gray) and winters in sub-Saharan Africa (pale gray). The theoretical "vagrancy shadow" of reverse-migrants is constructed by drawing a set of tangential lines from the edges of the wintering range to the edges of the breeding range and beyond (dark gray). ***Map by Virginia Maynard.***

different type of low-pressure phenomenon, their responses may well be consonant with the Neotropical migrants'.)

But the question remains: why didn't these hundreds of Cave Swallows wait until the southwesterlies had subsided and use instead the subsequent northwesterly winds more favorable to onward migration? A simple answer would seem that these swallows were entrained *over the Gulf of Mexico* rather than over land. To date, however, no one has observed migration of Cave Swallows out over the Gulf, at least not in such numbers. Could we be seeing a more novel sort of "exploratory" behavior in this expanding species, in which some portion of the population disperses toward the northeast in search of favorable foraging, wintering, or even future nesting areas, a strategy that might strengthen if successful? (Blackcaps in Europe appear to have established successful new wintering areas via reversed-migrations in the autumn, for example.) Or are these insectivores ingesting pesticides or other substances that affect migratory orientation adversely? All of these scenarios have been offered as possible explanations of this most unusual "flight."

SOUTHERN BIRDS NORTH

The mild early fall coaxed a number of species to remain north later than usual, though no pronounced patterns were apparent, more the odd lingering individual. Of greater interest for the promise of the patterns suggested are those appearances of out-of-range far-southern species: Roseate Spoonbill, Crested Caracara, Swallow-tailed Kite, Brown Pelican, Tropical Kingbird, Purple Gallinule. The most interesting and widespread of these this season was Brown Pelican, which turned up in "totally unexpected" places along the U.S.–Canadian frontier (Table 4). Omitted from this table is the media darling "Waldo," an immature Brown Pelican that begged handouts at 10 sites in two states and two provinces (see Margaret Bain's sleuthing in the S. A. in the Ontario regional report). Indeed, accounting for the movements of these conspicuous vagrants is made quite difficult, as Bain explains, by their ability to cross great distances quickly on the Great Lakes, where she reckons no fewer than seven were present this season, five of them frequenting Ontario at least once. Away from the Great Lakes, pelicans were noted in Missouri, Oklahoma, and Kansas, where rare. Sharp (2003) noted a dispersal of this species in summer 2002 both from areas north and east of the Sea of Cortez and north of the Gulf of Mexico; especially pronounced was mortality of juveniles in central Arizona, and records as far north as Colorado (and east to Nebraska, possibly from the Southwest?) were almost unprecedented. The exodus of this species into the continent over the summer seemed much greater from the Southwest than the Southeast, and one has to wonder whether some of the Great Lakes and Great Plains birds might have come from Pacific populations of *californicus* rather than the expected Atlantic/Gulf *carolinensis* (juveniles of these races are not known to be field-distinguishable). A genuine oddity this season was a juvenile Heermann's Gull in southeastern Virginia 29-30 August, a species that often attends foraging Brown Pelicans (the Virginia bird attended a dredge spoil pipe gushing mud and small fish). Given this bird's long trek from the far southwestern reaches of the continent, one does wonder whether some of the lost pelicans in the continent's center could have made a similar journey. Another open question is what role the El Niño conditions in the Pacific might have contributed to this exodus.

TABLE 4. Brown Pelicans recorded in the North American interior, June-October 2002.

Location	Number	Date (d/m)
Hamlin Beach, L. Ontario, NY	3	6/06-28/10
Vilas County, WI	1	25-27/07
Cobourg harbour, Northumberland County, ON	1	2/08
Iron County, WI	1	4/08
Raisin R., Monroe County, MI	1	11/08
Barcovan Beach, Hastings County, ON	1	14-19/08†
Schell-Osage Conservation Area, MO	1	19-24/08
Toledo, OH	1	22/08+
Cedar Beach, Essex County, ON	1	4/09 [also OH bird]
Pawnee/Osage Counties, OK	1	15/09
Sandusky Bay, L. Erie, OH	1	to 23/09
Pawnee/Osage Counties, OK	1	1/10
Hamilton, ON	1	3-4/10†
Alfalfa County, OK	1	4-6/10
Point Pelee N. P., ON	1	5/10
Athol Bay, Northumberland County, ON	1	5/10
Cobourg, ON	1	13-14/10
Marion County, KS	1	23-31/10
Cayuga L., Cayuga County, NY	1	30/10†

† = likely one of the three Hamlin Beach, NY birds
Italics indicate birds probably or certainly already noted earlier in another listed locality.

As with the Brown Pelicans, the Internet was abuzz with talk of Crested Caracaras this past fall season. Like other southern species once thought to be sedentary, caracaras might join the ranks of very scarce wanderers from down Mexico way, at least if a pattern of undoubted vagrancy can be established in years to come. Fall 2002 provided at least a semblance of such a pattern. Needless to say, they do not arrive in flocks of 30 like the Cave Swallows or even by trio, as with the Brown Pelicans on Lake Ontario. But the scattering of wandering birds was geographically even more widespread than either the pelicans or the swallows. The most far-flung (and far-fetched?) was the subadult bird that roamed around Maltempec, New Brunswick in late October, foraging in farm fields. Working backward toward core range, we read that a caracara was photographed 28 September in Buena Vista County, Iowa, a first state record, while one present 4-7 November in Noble County, Oklahoma was another first. Certainly, Crested Caracaras make limited movements into areas where not typically seen, and this season's short-distance wanderers were in Jefferson Davis Parish, Louisiana 25 October and near Canoa, Arizona 9 August and Santa Cruz Flats, Arizona 28 November, where they have been noted in the past several winters. These birds were perhaps 100 km out of typical areas.

Toward the Pacific side of core range, a juvenile Crested Caracara (molting into basic plumage) surprised Californians near Marina, Monterey County 11-13 August, and reports followed from Santa Cruz County at Santa Cruz 16 September and near Davenport 21-27 September, the latter two certainly the same bird but not clearly the same bird as was present at Marina. Two more reports came from San Mateo County at Pescadero 28 September and at Half Moon Bay 21 October to 6 November. To the south, one near Oxnard, Ventura County 8 August appeared about the same time as the Monterey County bird and could have been the bird from Vandenberg Air Force Base (Santa Barbara County) from mid-July.

At the very least, we know from photographs that these birds represent Crested Caracaras, rather than the recently-split Southern Caracara of South America, which would be considered a zoo escapee, given the lack of Central American records. Zoos do keep a few Crested Caracaras (I.S.I.S. indicates two known captives in North America, one at the Arizona-Sonora Desert Museum near Tucson, the other at the Living Desert in Palm Desert, California), and in the past, these have sometimes been the source of caracara reports. In the absence of any evidence that numbers of caracaras were lost in 2002 (do falconers keep caracaras?), however, it is reasonable to speculate that at least some of the year's birds were not from collections. None were banded; none were especially confiding; and most were juveniles or subadults,

TABLE 5. Scoters in the western/central North American interior, October—November 2002.

	Black	Surf	White-winged
Washington (eastside)	0	217	25
Oregon (eastside)	0	59	8
Idaho	1	45	10
Montana	1	52	2
North Dakota	5	40	12
South Dakota	9	15	4
Colorado	6	40	14
Wyoming	0	5	2
New Mexico	0	12	3
Arizona	0	9	5
Utah	0	12	6
Nevada	0	39	6
Illinois (inland)	7	45	18
Indiana (inland)	22	30	52
Wisconsin (inland)	3+	1+	2+
Michigan (inland)	1	3	4
Minnesota (inland)	5	33	12
Tennessee	4	12–18	5–7
Kentucky	11	50	3
Missouri	5	28	6
Iowa	7	25	21+
Kansas	1	24	2
Oklahoma	2	4	1
Nebraska	6	9	3
British Columbia (inland)	3	56	6
Alberta	0	155+	2
Saskatchewan	4+	93	15
Manitoba	2+	4	13+
Totals	**105+**	**1117+**	**263+**

perhaps the age classes most likely to make exploratory flights to the north.

The remainder of the southern-birds-north we might consider fall into familiar patterns: young Roseate Spoonbills making post-breeding forays northward; reverse-migrating Purple Gallinules wandering the north at times when they should be striking out across the Gulf of Mexico or along its shores; and Swallow-tailed Kites drifting north of range after breeding. In each example, however, the pattern was pronounced or extreme. Single spoonbills in Tennessee and Ohio are extraordinary, much less flocks of spoonbills, and high spoonbill counts from Gulf Coast states, in places where the species is also quite rare, suggest a good breeding season (hurricane displacement has been suggested as a possible mode of movement, but most of the spoonbills were detected well before the three major Gulf Coast storms). Purple Gallinules and Swallow-tailed Kites reached areas far north of their usual limits at this season (as far as southern Canada), and in notably higher numbers than average. Tropical Kingbirds, now known to reverse-migrate as far north as Alaska on the West Coast, were nevertheless firsts for their respective regions at Camas, Idaho 22 September and Rondeau Bay, Ontario 26 October through the season's end. Appearances of Broad-billed Hummingbird in both Utah and Colorado and yet another Reddish Egret in Colorado add to the impression of a recently intensifying pattern of southern birds moving north after the nesting season.

NORTHERN BIRDS SOUTH

The intertitle is just to see if you're paying attention. Other than the Atlantic alcids, and both kinglets, there were few northern birds south. Universal were the comments that no northern finches, other than a scattering of American Goldfinches (not really boreal birds in any case), launched flights to the south. Red-breasted Nuthatches hardly budged; one on Bermuda was the exception proving the rule. Northern Goshawks—in a year predicted to be the Big One—fizzled everywhere away from their strongholds. Snowy Owls were scarcely noted, while other northern owls received even less mention. Stations banding Northern Saw-whet Owls had a little action, but the numbers were middling to low.

Gyrfalcons, perhaps taking pity on the waiting faithful, sent ambassadors as far as the Tip of Long Point, Ontario 30 October (white morph), Weyburn, Alberta in early November (white morph), and to Rush and Osage Counties, Kansas in early November. Perhaps there was a *small* flight of the species, as there was a very early one in Sully County, South Dakota 14 September and one to Cacouna, Québec on the extraordinary date of 14 August. And Mactavish reports "more reports than usual" in the southern Maritime Provinces, plus two different white-morph birds on oil-drilling platforms 200+ km east–southeast of St. John's, Newfoundland in late November. (Such offshore stations are potentially sensitive barometers of even minor flights of some species, as is true of Bermuda.) After the end of November, New England and New York would receive a few, as would the Great Lakes, while three in the Pacific Northwest was considered "below average." The higher-than-usual proportion of white birds does make one wonder what the geographic source of some of these birds was; white birds are found throughout the range, but in North America, most breeders are in the eastern Canadian Arctic and in Greenland.

Seaducks were also an exception to the weak flight of "northern" birds, one could say. Beginning in early October in the northernmost areas and quickly noticed to the south in the middle of the month, large numbers of Surf Scoters, together with small numbers of White-winged Scoters, plus a very few Black Scoters and Long-tailed Ducks, were located on inland lakes and reservoirs where rarely seen, and in numbers sometimes unprecedented (Table 5). Most of the flight had concluded by month's end. East of this flight, an unusually heavy flight of Black Scoters was also noted on Lake Erie in Pennsylvania at the end of October and in Ontario in early November, and by the middle of November, all the Gulf Coast states (not tallied below) also shared in the scoter movement. If we remove data from the Great Lakes proper and from east of the Appalachians, we get a clear picture of the rarity of Black Scoter in the interior West and western Midwest: only 7% of the flight was comprised of Blacks, or 105 birds. Most Black Scoters in fact were recorded east of the Rockies. A single Black Scoter in Idaho, for instance, was only the state's seventh. Long-tailed Ducks were scarcer still.

The widespread and protracted nature of the flight in 2002 might suggest that Surf Scoter but also White-winged Scoters had a superior nesting season, rather than that foul weather on the migration route grounded more birds than usual. Storm-grounding conditions should not show such uniformity of effect across the continent for six weeks, but it cannot be ruled out without a closer analysis. There were consistencies in impressions of this flight across large areas. In Minnesota, numbers of Surf Scoters away from Lake Superior (33) were "extraordinary," while Iowa had more Surf Scoters than in the last five seasons combined, and more White-winged Scoters than in the last four, according to Paul Hertzel. Allen Chartier in Michigan notes that scoters are not uniformly distributed in migration on the Great Lakes, and so to restrict consideration of the flight to "inland" scoters (away from the Great Lakes in this case) is to miss other indices of the flight's magnitude. "A relatively large number of scoters was found this season at the extreme western shore of Lake Erie in Monroe County, Michigan," he writes. "This area typically does not see more than a single individual scoter record in any given fall, in contrast to areas farther east on Lake Erie. Thus, the record-breaking flocks of up to 17 Black Scoters (the rarest species here) and up to 8 Surf Scoters at Luna Pier, Monroe County, were notable." Also of interest, Brainard Palmer-Ball writes that two to three decades ago in Kentucky, "such pronounced flights of Surfs (and to a somewhat lesser extent,

Blacks) were unheard of here; White-winged Scoter was considered the 'normal' scoter to see. Now, it is *always* the rarest, except during mid-winter cold spells, when a few show up as they always have." The decline in numbers of White-winged Scoters is very noticeable in the Hudson-Delaware and Middle Atlantic regions as well, even in "good" winters for the species, as in 2002-2003.

If we put aside thoughts of nonexistent winter finches, owls, shrikes, and waxwings for a moment, the fall show of seabirds, which extended well into winter, offered a marvelous flight of "northern" birds to occupy Atlantic observers. Beginning in New England, and eventually extending south to the New Jersey coast, a sustained "flight" of seabirds—Northern Gannets, shearwaters, and alcids—riveted seawatchers to their posts. In mid-September, the Gulf of Maine held tens of thousands, perhaps over 35,000 Greater Shearwaters, and these were visible from the Massachusetts coasts at such redoubtable sites as Cape Ann, over a period of weeks. Massachusetts birders were treated to the spectacle well into October, as feeding tuna in the area drove Atlantic Menhaden and Atlantic Herring to the surface, keeping the birds near shore. Coincident with this frenzy were several well-timed "back-door" cold fronts with northeasterly winds that drove birds shoreward, resulting in record-high from-shore counts of Northern Fulmar, Atlantic Puffin, and (later in the season) Common Murres, a species considered rather rare in the Bay State. When one adds in November counts such as 20,000 or more Northern Gannets, several hundred Pomarine Jaegers, scores of Parasitic Jaegers, and a few unidentified skuas, it's hard to imagine better seawatching anywhere in the East. This bounty would culminate is a flight of Razorbills and Dovekies to the middle Atlantic states and North Carolina in winter, with Razorbills all the way to Georgia waters—but we're poaching on the next season's essay.

SHIPS & THEIR CARGO

If a bird lands on a ship almost 1500 kilometers from North American waters and rides into port here, is it a "legitimate" arrival if not fed and maintained by the ship's crew? Most European avifaunal lists now admit such stowaways onto official avifaunal lists, though some flag them as such or maintain them in a separate category (Category D2 on the British list, for instance). The trio of Gray Herons that arrived at Conception Bay, Newfoundland in early October 2002 (two dead, one alive) had landed on an oil tanker five days before, according to Bruce Mactavish in the Atlantic Provinces & St. Pierre et Miquelon regional report (Figure 4). Even a brief conversation with a merchant seaman or military officer will confirm that events such as this are hardly uncommon. (As birders take more and more cruises, we see ship-riders more frequently, such as the American Kestrel that boarded the *Norwegian Sea* at sea off Nova Scotia and rode it to Bar Harbor, Maine, in October.) The American Ornithologists' Union and the American Birding Association's Checklist Committee do not have fixed policy regarding such birds.

FIGURE 4. This Gray Heron, a stowaway on an oil tanker that arrived in nearshore Newfoundland waters 4 October 2002, was one of three that had hitched a ride on the ship from the middle of the Atlantic Ocean four days earlier. See the Atlantic Provinces report for details of a newly-discovered 1996 record of this species from Newfoundland. *Photograph by Bruce Mactavish.*

While Gray Heron is known to stray to Iceland annually, sometimes in numbers, Marsh Harrier has little history of movement toward the New World. What do we make of the Marsh Harrier located at Guadeloupe in November? It certainly could have been a ship-rider, though harriers are known to make water-crossings at high altitude in places where only falcons would otherwise dare cross. Should we put the harrier record in square brackets until some pattern of vagrancy emerges—a clear pattern such as we might adduce for Corn Crake in North America and Bermuda (found this past November in Newfoundland, the continent's twenty-first), which has appeared almost entirely in the late autumn? Such singular records will always carry an onus of uncertainty, but it is better to countenance these records in some fashion, so that observers are alert to future occurrences.

Another enigma in this category was posed by the juvenile Nazca Booby found moribund in Cristóbal Harbor near Colón, Panama—on the Atlantic side. Lee Jones notes that the bird's identity as a Nazca Booby was not in question and that it had been banded in the Galapágos the previous spring. Boobies are famous ship-riders (think of the Red-footed Booby that hitched a lift to Alaskan waters in August 1999), and a transit through the Panama Canal would be a piece of cake. While there is no evidence that this bird had come across the isthmus by ship, the likelihood would seem high, and this specimen may have to join Texas's records of Stejneger's and White-chinned Petrels in the square brackets for a while. But it is important to keep such records in the public eye. If we selectively banish certain of the birds we observe to unpublished apocrypha—as has happened with Crested Caracaras in the past, for instance—whether out of personal conviction or out of a fear that others will think us soft-minded, then we do the ornithological record a disservice. Whatever the origin of an individual bird, our basic duty to the fundamentals of bird distribution—that is, noting how many of what species were in what habitat when—should not be clouded by speculations about "origin," speculations that are, after all, strictly hypothetical. If we are agnostic about a given bird's history of human contact, whether it was once captive, or rode a ship, or followed a ship, we should have the humility to admit our lack of knowledge, to record the bird with due skepticism and neutrality, and pass our experiences down to those who follow us, however we might elect to flag them in our changing avifaunal databases.

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