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December records of seabirds off North Carolina.—Little published information is available concerning offshore winter seabird fauna of the southeastern United States. The only overview of the local seasonal variation in seabirds is that by Lee and Booth (1979). Their summaries were based mostly on North Carolina field studies done from late spring through early fall, and provide little new information on the winter distribution of marine birds. Clapp et al. (1982, 1983) compiled records of all marine birds for the southeastern States, but offshore information was generally unavailable for the winter. During the last few winters I conducted 11 offshore survey trips into shelf and shelf-edge waters off North Carolina during December. All trips departed from Oregon Inlet, North Carolina (29 December 1977; 5 and 30 December 1978; 3 and 28 December 1982; 12, 20, 28, and 29 December 1984; 5 and 22 December 1985). Survey routes typically extended 35 to 55 miles offshore, transecting inshore, shelf, shelf-edge, and Gulf Stream waters.

More than 7000 individuals and 25 species, mostly gulls, were encountered on these excursions. Here I document the presence of the unusual species in December, although totals of all birds encountered offshore are in Table 1. Numbers following dates indicate total individuals observed, and locations are given for most sightings. Except for *Catharacta skua* all records discussed are from offshore surveys.

Albatross sp. (*Diomedea*): 22 December 1985 (1, 35°38'N, 74°56'W).—A single immature albatross was seen at a distance as close as 100 m and was studied rather carefully. Nevertheless, its identification remains in doubt. The bird was found over water 200-fathoms in depth. It appeared to be a Yellow-nosed Albatross (*D. chlororhynchos*) but the possibility of an immature Black-browed Albatross (*D. melanophris*) cannot be ruled out. Both species have been reported as rare vagrants in the North Atlantic (McDaniel 1973), and neither exhibits a clear season of occurrence. On the basis of confirmed observations already available (e.g., 3 December 1979 55 mi from Virginia coast) (Am. Birds 34:260, 1980) the chances strongly favor it being a Yellow-nosed Albatross.

Northern Fulmar (*Fulmarus glacialis*): 22 December 1985 (1, 35°32'N, 74°40'W).—Recent population and range expansion of Northern Fulmars in the North Atlantic (Fisher 1952) suggested that this species would become a regular winter resident off the North Carolina coast. Our surveys have shown them present mostly in the fall (October) and early spring (late March) (Lee and Booth 1979 and subsequent pers. obs.). While it could be argued that the growing number of fulmars in the southeast is a result of increased study of the offshore fauna, this is probably not the case. Since the early 1970s there have been at least three birds found on North Carolina's beaches, with no records prior to this time.

Black-capped Petrel (*Pterodroma hasitata*).—Seen on 8 of 11 trips (total number 228), these petrels were found on all December trips to the 500- to 1000-fathom zone. A minimum count of 115 birds was made on 28 December 1982. The birds in December are quite vocal and are less likely to be solitary than in other seasons. "Pairs" are regularly seen in flight following one another. David Wingate (pers. comm.) suggests that the large numbers of December Black-capped Petrels seen off North Carolina may represent prenesting dispersal from breeding islands after burrow sites have been chosen.

Bermuda Petrel (*Pterodroma cahow*): 20 December 1984 (1, 35°32'N, 74°48'W).—The first report of occurrence of a Bermuda Petrel off the southeastern United States was for 18 April 1983 off the Outer Banks (Lee 1984). The problems in separating small *P. hasitata* from *P. cahow* were discussed at that time. The December sighting reported here was over 500-fathoms of water on a day when 36 Black-capped Petrels were seen. Water temperature was 23.9°C. The bird was smaller than any of the Black-capped Petrels, and its dorsal surface was darker than normal for *P. hasitata*. The white rump was greatly reduced and the "collar" was absent. The bird was seen briefly at close range.

Greater Shearwater (*Puffinus gravis*): 12 December 1984 (1, 35°13'N, 74°55'W), 22 December 1985 (2, 35°32'N, 74°46'W; 35°32'N, 74°47'W).—Clapp et al. (1982) provide several reports of Greater Shearwaters for December for the south Atlantic coast: North Carolina, 28 December 1946 (1, Wrightsville Beach), 30 December 1970 (1 Nags Head); South Carolina, 16 December 1964 (2, off Charleston); and Florida, December 1913 (1 found dead N of West Palm Beach); and one for the entire Gulf Coast, 6 December 1977 (1 offshore from Alabama). There are additional winter records for the southeast for other months, and Chris Haney (pers. comm.) saw one off Georgia on 13 December 1984. On 12 December 1984 I collected a single bird 30 miles SE of Oregon Inlet (NCSM 10374), and 2 more were seen in December of 1985. The collected individual had small gonads (5.0 × 17.2), and its weight (593 g) indicated it was in good health. Records of this transequatorial migrant in December in the North Atlantic are unusual, but lingering birds apparently occur with some regularity.

TABLE 1
COUNTS OF SEABIRDS MADE ON 11 OFFSHORE TRIPS OUT OF OREGON INLET, DARE COUNTY, NORTH CAROLINA

	3 Dec. 1982	5 Dec. 1978	5 Dec. 1985	12 Dec. 1984	20 Dec. 1984	22 Dec. 1984	28 Dec. 1985	28 Dec. 1984	29 Dec. 1977	29 Dec. 1984	30 Dec. 1978	Total
Common Loon (<i>Gavia immer</i>)			1		2		1	1	1	1	1	6
Northern Fulmar (<i>Fulmarus glacialis</i>)							1					1
Black-capped Petrel (<i>Pterodroma hastata</i>)	1									24		228
Bermuda Petrel (<i>P. cahow</i>)			6	9	36	1	115	36				1
Greater Shearwater (<i>Puffinus gravis</i>)					1		2					3
Manx Shearwater (<i>P. puffinus</i>)	3	1			2	6	1			5		18
Little Shearwater (<i>P. assimilis</i>)		1						1				2
Audubon's Shearwater (<i>P. herminieri</i>)	3											3
Wilson's Storm-Petrel (<i>Oceanites oceanicus</i>)				153								153
Leach's Storm-Petrel (<i>Oceanodroma leucorhoa</i>)		1?	>11									>11
Northern Gannet (<i>Sula bassanus</i>)	1	5	(73) ^a	4				(439)	20	5	(375)	976
Red Phalarope (<i>Phalaropus fulicaria</i>)	>31	155	8	15	40	1	4		1000's	248		>1502
Pomarine Jaeger (<i>Stercorarius pomarinus</i>)	10	1			3							14
Long-tailed Jaeger (<i>S. longicaudus</i>)					1							1
Laughing Gull (<i>Larus atricilla</i>)	110	1	3	42	41	3		28				228
Bonaparte's Gull (<i>L. philadelphia</i>)			2	16	27		1		1000's		62	>1108
Ring-billed Gull (<i>L. delawarensis</i>)		1							>10		+ ^b	>11
Herring Gull (<i>L. argentatus</i>)	80	1	26	451	85	10	33	639	>100	17	+	>1442
Great Black-backed Gull (<i>L. marinus</i>)	(>1000)		1	57	2	1	17		5	31		>1116
Black-legged Kittiwake (<i>Rissa tridactyla</i>)	16	8	38	9	43	46	33	10	10	28		241
Royal Tern (<i>Sterna maxima</i>)								1				1
Forster's Tern (<i>S. forsteri</i>)				3				3				6
Bridled Tern (<i>S. anaethetus</i>)				2-4								2

^a Numbers in parentheses are mostly birds seen within 13 km of shore, all others are past the 40-fathom contour.

^b Indicates species present, but individuals not counted.

Manx Shearwater (*Puffinus puffinus*): 30 December 1978 (5), 3 December 1982 (3), 28 December 1982 (1), 20 December 1984 (2), 22 December 1985 (6).—These sightings suggest that this shearwater is a regular but uncommon species in early winter. The birds are transequatorial migrants, but some may overwinter off the southeastern U.S. coast. Clapp et al. (1982) report single birds (6 December 1978, 8 December 1969, 11 February 1979) from Florida and Texas. Additionally C. Haney (pers. comm.) has records of *P. puffinus* on his trips off Georgia in December and February. A few other beached winter specimens are documented from the Southeast, but since related weather factors and currents that may have transported them are unknown, season of death is not clear. North Carolina specimens collected are all adults of the nominal race *P. p. puffinus* ($N = 14$).

Little Shearwater (*Puffinus assimilis*): 5 December 1978 (1, 35°28'N, 74°52'W), 28 December 1984 (1, 35°16'N, 74°48'W).—Few records of the Little Shearwater are available for the western North Atlantic. The two December records reported here were of individual birds identified primarily by their rapid wing beat and short tails, although the facial markings of one bird were seen well. The birds were not collected but were studied carefully. Water temperature at the 1984 sighting was 23.3°C.

Wilson's Storm-Petrel (*Oceanites oceanicus*): 5 December 1985 (153, 35°37'N, 74°46'W).—Palmer (1962) stated that by November there are no reliable records of this storm-petrel north of the equator and by December; aside from three exceptional records for the vicinity of the Cape Verdes and one from near St. Paul's Rocks, none has been seen north of 30°S. Off the southeastern United States these birds become scarce after mid-September, and the latest record for North Carolina was for 23 October 1979 (pers. obs.). The earliest arrivals were recorded on 2 April 1981. Therefore the occurrence of individuals and flocks of 5 to 40 Wilson's Storm-Petrels was unexpected, and at this time, unexplainable. There were no unusual local weather factors to account for their presence. On the other hand previous winter coverage of the area indicates that occurrence in this season is most irregular. Three birds were collected to confirm identification (NCSM), all were adults and had completed their summer-fall molt.

Leach's Storm-Petrel (*Oceanodroma leucorhoa*): 5 December 1978 (1?, 35°42'N, 75°05'W), 5 December 1985 (> 11, 35°37'N, 74°46'W).—Lowery (1974) and Lee (1984) reported the only winter records of Leach's Storm-Petrels for southeastern United States waters. Additionally, one was seen from the Chesapeake Bay Bridge-Tunnel, Virginia, on 10 January 1971 (Am. Birds 25:558–559, 1971). There is a single early-November record for North Carolina (USNM 564835), but, otherwise, middle to late October appears to be the latest the species normally occurs in the western North Atlantic (cf. Clapp et al. 1982). A storm-petrel I believe was this species was seen offshore 5 December 1978. On 5 December 1985 Wayne Irvin and I counted a minimum of 11 Leach's Storm-Petrels along the 500-fathom contour. For the most part they were associated with Wilson's Storm-Petrels. This is the first evidence that the species occurs in U.S. waters, except as an occasional vagrant, after mid-October. To date the earliest known spring migrant for the Southeast is 2 April 1981 (Lee 1984).

Red Phalarope (*Phalaropus fulicaria*): Seen on 9 of the 11 trips (total minimum number 1502).—Although sporadic in occurrence and number, the Red Phalarope is a regular winter resident off the North Carolina coast with numerous records from December through March (pers. obs.). Deep-water feeding concentrations of Red Phalaropes occur along current edges, particularly where large mats of Sargassum have accumulated. When Sargassum is not present these birds are never abundant and often absent entirely. Apparently a large and highly mobile population winters locally off the Southeast coast. The Atlantic winter range was believed to be primarily off the coast of southern South America and western Africa (Clapp et al. 1983), although they are now known to occur with regularity off the southeast United States (Haney 1985, pers. obs.).

Great Skua (*Catharacta skua*): 2 December 1981.—A single female was salvaged from the surf at Cape Hatteras, Dare County, by M. Lyons (NCSM 8171). The bird was a partial albino weighing 593 g. This is the only specimen record for the state, and the second documented occurrence for this species in North Carolina. Lee and Rowlett (1979) reported a band recovery from Cape Lookout, Carteret County, N.C., on 29 December 1975. This bird had been banded five months previously in Iceland. These two records constitute the only documentation of *C. skua* on the southern United States coast.

Long-tailed Jaeger (*Stercorarius longicaudus*): 20 December 1984 (1, 35°15'N, 74°40'W).—Although precise limits of wintering areas are unknown, Harrison (1983) indicates the species winters in the southern hemisphere off South America and the west African coast from November to March. The sixth addition of the AOU Checklist (1983) states that these birds winter from latitude 40°N southward, but Cramp et al. (1983) states that wintering areas are "evidently all in southern hemisphere since only exceptionally found north of equator December–March . . ." The winter status of Long-tailed Jaegers in the northern hemisphere is in need of review.

The North Carolina record appears to be quite unusual in that North American winter records are very scarce, and problems of identifying jaegers in nonbreeding plumage make existing records difficult to assess. Winter sight records include two for South Carolina, 21 December (1896) and 3 February (1908), and several for Florida, the most recent being 30 January 1983 off Cape Canaveral (Am. Birds 37:295, 1983). The only verified evidence of winter occurrence in the Southeast, however, is a single 1889 specimen record for the Gulf Coast of Florida. It was originally identified and reported as *S. parasiticus* by Scott (1889). The December bird seen off North Carolina was subadult with elongated, but not fully grown, central tail feathers.

Bridled Tern (*Sterna fuscata*): 20 December 1984 (2–4, 35°13'N, 74°49'W).—This is the only record for North Carolina between 12 October and 17 April (date limits from Lee and Booth 1979 and subsequent pers. obs.). Although there are no winter records of these terns to the north, additional records for this period to the south are available for the Atlantic coast of Georgia (Oriole 49:19, 1984; 50:19, 1985) and Florida (Clapp et al. 1982). Water temperature at the site of the 20 December sighting was 17.8°C.

Discussion.—The birds reported above come from a wide array of geographic origins. Three species, Bermuda Petrel, Black-capped Petrel, and Bridled Tern are tropical and subtropical species occurring in the western Atlantic. Records now indicate that Black-capped Petrels are regular inhabitants of deep waters off the southeastern United States at all seasons. The same may be true for Bermuda Petrels, but their small population and identification problems at sea limit opportunity for verified encounters. Bridled Terns, though common in the warmer months, are not known or expected to occur regularly in the Southeast in the winter. The Little Shearwater is a transoceanic visitor.

The remaining nine birds are largely long-distance migrants, with most believed or assumed to be obligate transequatorial migrants. Two species, Greater Shearwater and Wilson's Storm-Petrel, are of southern hemisphere origin, spending the austral winter in the northern hemisphere. A third, the unidentified albatross, is also from the southern hemisphere. Northern Fulmars, Manx Shearwaters, Leach's Storm-Petrels, and Great Skuas are of boreal North Atlantic origin; Red Phalaropes and Long-tailed Jaegers nest in the Arctic tundra. Four of these birds winter chiefly in the southern hemisphere. Great Skuas are believed to be essentially confined to the North Atlantic, but confirmed records for the southeastern United States are limited to the two birds discussed above. Northern Fulmars are confined to the northern hemisphere. In that most of the more unusual species discussed here are represented in this study by only a few individuals and common species numbers fluctuate

erratically, it appears that the deep water zone off North Carolina's Outer Banks is not a major wintering area for marine birds.

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