

WINTERING OF LESSER GOLDEN-PLOVERS IN EASTERN NORTH AMERICA

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Abstract.—Although said to winter entirely in southern South America, Lesser Golden-Plovers (*Pluvialis dominica dominica*) have been recorded in eastern North America in small numbers throughout the winter. A literature search indicates that records are regular through December, most of them probably of late fall migrants, and again increase in late February, probably of early spring migrants. There are at least 21 midwinter (January–mid February) records, north to North Carolina and exceptionally New York. A few were crippled or injured, but others showed no infirmities. “Winter” specimens from the region were requested from North American museums; they include two adults and six immatures (one adult and two immatures from the mid-winter period).

INDIVIDUOS DE *PLUVIALIS DOMINICA DOMINICA* QUE PASAN EL INVIERNO EN LA PARTE ORIENTAL DE LOS ESTADOS UNIDOS

Sinopsis.—Aunque se dice que *Pluvialis dominica dominica* pasa completamente el invierno en Sud América, se han informado algunos individuos pasar el invierno en la parte oriental de los Estados Unidos. Una búsqueda en la literatura, indica, que los informes de este playero son regulares a través de diciembre (probablemente de migratorios otoñales tardíos) y luego a finales de febrero, probablemente de migrantes primaverales tempranos. Por lo menos hay 21 informes de mitad del invierno (enero-mediados de febrero), al norte de Carolina del Norte y excepcionalmente en New York. Aunque algunas aves estaban heridas o seriamente lesionadas, otras no mostraron irregularidad alguna. Se le solicitaron a museos norteamericanos especímenes coleccionados durante el invierno, en los que se incluyeron: dos adultos y seis inmaduros (un adulto y dos inmaduros del período de mitad del invierno).

Lesser Golden-Plovers (*Pluvialis dominica*) do not usually winter in North America (American Ornithologists' Union 1983), except a small population (<100) that regularly winters on the California coast (Cogswell 1977) and perhaps in Baja California (Wilbur 1987). These birds are probably all *P. d. fulva*, which breeds in Siberia and western Alaska and migrates along both sides of the Pacific Ocean, wintering primarily in Australasia and on tropical Pacific islands. It is almost surely a species distinct from *dominica* (Connors 1983). In contrast, *P. d. dominica* breeds across northern North America from western Alaska to the Atlantic coast of Canada, and winters in southern South America. Even as far north as northern South America, it is normally only a transient (Haverschmidt

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1969). Cooke (1910), in a comprehensive survey of the occurrence of the species, listed 18 November as the latest North American date.

That Lesser Golden-Plovers are for the most part absent from North America in late December and early January is indicated clearly by the 1986 and 1987 Christmas Bird Counts, which we scrutinized for records of this species. Of over 1500 counts, the only ones on which this species was seen were in California, where nine were reported on five counts in 1986 and 21 on 10 counts in 1987, an indication of rare but regular winter occurrence in that state.

Nevertheless, there are numerous records of golden-plovers, probably virtually all *P. d. dominica*, from eastern North America between December and February (Table 1, Fig. 1). As this species is known to be a late migrant, regularly occurring into early November on the Delaware-Maryland-Virginia coast (Wilds 1983), mid November in the Carolinas (North Carolina State Museum [NCSM] records), and late November in Texas (Oberholser 1974), we arbitrarily consider the records from December as late fall migrants, although some may represent wintering individuals. There are December records from throughout the East as far north as Missouri, southern Ontario and Massachusetts, but they are concentrated on the Atlantic coast and, to a lesser degree, on the Gulf coast. Numbers decline in late December, clearly indicating continued departure. If these birds were wintering, there should be as many or more records late in December as early in that month, as Christmas Bird Counts bring observers into the field in large numbers at the end of the month.

Again, because spring migration is surprisingly early, with the vanguard in early March in Louisiana (Lowery 1974) and Texas (Oberholser 1974), early to mid March in the Carolinas (NCSM records), and mid March on the Delaware-Maryland-Virginia coast (Wilds 1983), we consider records from the last half of February as early spring migrants. The increase in records during the second half of the month and their concentration on the Gulf coast are both indicative of migration.

We consider birds present from January through mid February (Tables 1 and 2) as likely wintering; although some were seen only once, others stayed for part or all of the winter. Almost all of them were in coastal areas. The records were about equally divided among the 2-wk periods of early January, late January and early February, further suggesting wintering birds.

We examined five December and three mid-winter specimens of *P. d. dominica* from eastern United States (Table 2); again, some of them may have been late fall migrants. Five were from the coast and three from within a few hundred kilometers of the coast.

Six of the eight specimens were in first-basic plumage, the latter with some worn tertials and coverts retained from juvenal plumage. The northernmost were from North Carolina, between 35° and 36°N. NCSM 3074 was an adult male in basic plumage, with a few new feathers of the alternate plumage growing in on the mantle. Both primaries and rectrices were in molt, this plumage typical of midwinter adult specimens from

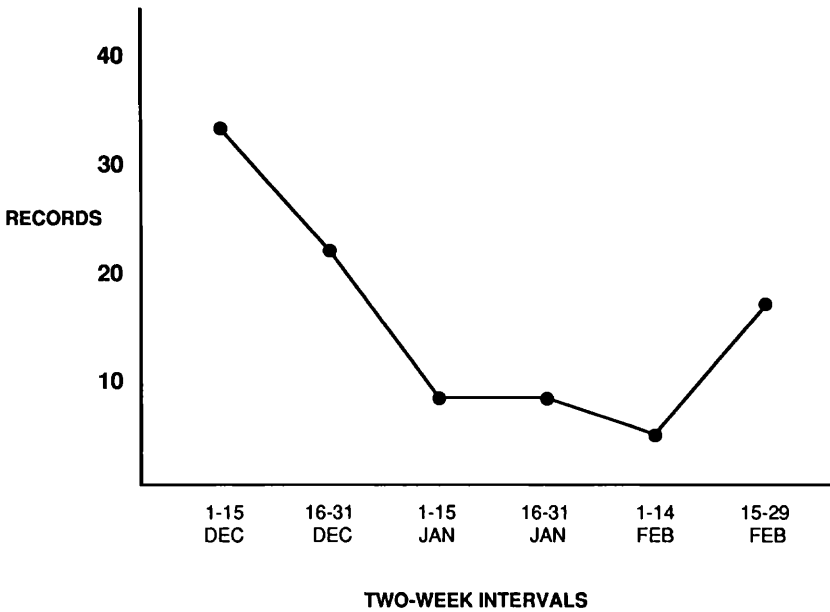


FIGURE 1. Late fall, winter, and early spring records of Lesser Golden-Plovers from eastern North America.

South America. Florida State Museum (FSM) 1765 was an adult male in worn alternate plumage (Howell 1932). It showed no trace of prebasic molt, an unlikely condition in a December bird, and there was no way to verify its collection date. There have been reports of Lesser Golden-Plovers in full alternate plumage in late December in Oregon (Crowell and Nehls 1977) and partial alternate plumage in late January in South Carolina (W. Post, pers. comm.), however. No mention of age class or plumage accompanied any of the other published eastern winter records.

Based on the small series of specimens, a few adult and immature males may winter to the north of the primary winter range of this species; the only female among the seven sexed specimens was collected on 10 December and could have been a late migrant.

Several explanations are available to explain birds found peripheral to their usual wintering distribution. First, those that are injured or crippled may be less likely to undertake long-distance migration. Problems of this sort were noted in the literature for four plovers observed in December (Table 1). Furthermore, of the specimens examined, at least two and perhaps three were injured. NCSM 5680 was missing the toes from one foot, although the wound had healed over; based on weight (155.9 g), heavy fat deposits and a full stomach, the bird was in good health. Neither weight nor fat condition was recorded for the other specimens. National Museum of Natural History (NMNH) 241041 was

TABLE 1. Late fall, winter, and early spring sight records of Lesser Golden-Plovers from eastern North America.

State	Locality	Date	Reference
Late fall (1-31 December)			
Ontario	Port Credit	12 Dec. 1963	AFN ^a 18:352
Ontario	Long Point	15 Dec. 1973	AB ^a 28:633
Ontario	Pelee	2 Dec. 1985	AB 40:275
Massachusetts	Lincoln	14 Dec. 1975	AB 30:692
Rhode Island	Napatree	4 Dec. 1977	AB 32:322
New York	Irondequoit Bay	3 Dec. 1960	AFN 15:326
New York	Beaver Island SP	4 Dec. 1960	Beardslee and Mitchell 1965
New York	New York	7 Dec. 1976	AB 31:313
New Jersey	Longport	26 Dec. 1968	AFN 23:464
Ohio	Cleveland	10 Dec. 1961	AFN 16:333
Indiana	Gibson Co.	2 Dec. 1989	AB 44:275
Missouri	Squaw Creek NWR	1 Dec. 1968 (2)	AFN 23:487
Maryland	Ocean City	27 Dec. 1973	AB 28:623
Virginia	Chincoteague NWR	29 Dec. 1965	AFN 20:407
Tennessee	Tellico Lake	4 Dec. 1988	AB 43:313
North Carolina	Long Beach	8-9 Dec. 1971	AB 26:590
North Carolina	Pea Island	30 Dec. 1972	AB 27:279
North Carolina	Raleigh	11 Dec. 1988	AB 43:465
South Carolina	near Charleston	Dec. 1880	Sprunt and Chamberlain 1970
Oklahoma	Moffett	20-26 Dec. 1959	AFN 14:321
Texas	Laguna Atascosa NWR	6 Dec. 1955	AFN 10:266
Texas	Welder Wildlife Refuge	9 Dec. 1955 ^b	Oberholser 1974
Texas	Buffalo Lake NWR	5 Dec. 1987	AB 42:284
Louisiana	New Orleans	17 Dec. 1950	AFN 5:209
Louisiana	Holly Beach	6 Dec. 1970	AB 25:590
Mississippi	Hancock Co.	15 Nov.-29 Dec. 1987 ^b	AB 42:276
Alabama	Wheeler NWR	18 Dec. 1976	AB 31:341
Alabama	Baldwin Co.	2 Dec. 1986	AB 41:292
Georgia	Sapelo Island	30 Dec. 1967	AFN 22:429
Florida	Lake Jackson	23 Dec. 1952	AFN 7:211
Florida	Panacea	29 Dec. 1953	AFN 8:247
Florida	Port Orange	11-13 Dec. 1955 ^b	AFN 10:246
Florida	Mayport	1 Dec. 1956	AFN 11:260
Florida	Lantana	28 Dec. 1956	AFN 11:260
Florida	Lantana	26-27 Dec. 1959	AFN 14:302
Florida	Franjo	25 Dec. 1962	AFN 17:321
Florida	Lower Keys	20 Dec. 1963	AFN 18:348
Florida	Homestead	11 Dec. 1960	AFN 15:323
Florida	Mt. Dora	21 Dec. 1960	AFN 15:323
Florida	St. Marks Light	9 Dec. 1961	AFN 16:323
Florida	Dade Co.	6 Dec. 1970	AB 25:569
Florida	Tallahassee	to 8 Dec. 1971 ^b	AB 26:594
Florida	Mullet Key	3 Dec. 1976	AB 31:324
Florida	Sneads	4 Dec. 1977	AB 32:363
Florida	Key West	6 Nov.-17 Dec. 1979	AB 34:266
Florida	Wards Bank	4 Dec. 1982	AB 37:295
Florida	Hog Key	21 Dec. 1987	AB 42:254
Florida	Loxahatchee NWR	7 Dec. 1988	AB 43:305

TABLE 1. Continued.

State	Locality	Date	Reference
Winter (1 January–15 February)			
New York	Jones Beach	3 Feb. 1974	AB 28:617
New York	New York	16 Jan. 1978	AB 32:328
North Carolina	Wilmington	1–2 Jan. 1959 (2)	AFN 13:284
North Carolina	Pea Island NWR	12 Jan. 1974 (5)	AB 28:626
South Carolina	Sullivans Island	27–28 Jan. 1984	AB 38:306
Texas	San Antonio	January (year?)	Oberholser 1974
Texas	Texas City	14 Dec. 1970– 26 Jan. 1971	AB 25:601
Florida	Lantana	27 Dec. 1963– 1 Jan. 1964 (4)	AFN 18:348
Florida	St. Marks light	entire winter	AFN 19:372
Florida	Destin	16 Jan. 1966	AFN 20:432
Florida	St. James	16 Jan. 1969	AFN 23:470
Florida	Wakulla Co.	to 14 Feb. 1977	AB 31:324
Florida	Biscayne Bay	6 Jan. 1983	AB 37:295
Florida	Port Canaveral	1 Jan. 1990	AB 44:258
Early spring (15–29 February)			
Florida	St. George Island	24 Feb. 1978	AB 32:341
Florida	St. Marks Light	25 Feb. 1978	AB 32:341
Alabama	Marion	28 Feb. 1963	Imhof 1976
Alabama	Gulf Shores	19 Feb. 1974 (7)	AB 28:651
Alabama	Mobile	late Feb. 1976	AB 30:730
Alabama	Swan Creek	18 Feb. 1978	AB 32:363
Mississippi	Biloxi	22 Feb. 1984 (3)	AB 38:326
Louisiana	Shreveport	27 Feb. 1955 (5)	AFN 9:263
Louisiana	New Orleans	27 Feb. 1966	AFN 20:432
Louisiana	Welsh	21 Feb. 1977	AB 31:341
Louisiana	Rockefeller Refuge	23 Feb. 1982	AB 36:303
Louisiana	Vermillion Par.	21 Feb. 1988	AB 42:276
Arkansas	Lonoke Co.	26 Feb. 1981 (6)	AB 35:308
Illinois	Mark Twain NWR	29 Feb. 1976	AB 30:725
Texas	Galveston	17 Feb. 1990	AB 44:291
Texas	near High Island	25 Feb. 1990 (51)	AB 44:291

^a AB = American Birds; AFN = Audubon Field Notes.

^b Crippled or injured.

missing one foot below the middle of the tibiotarsus, which was damaged but healed. NCSM 3074 had what must have been a crippled foot, the tarsometatarsus compressed and damaged just above the toes (assuming this did not happen during collection or preparation). Nevertheless, Burleigh (1944) stated that there were no signs of injury or abnormalities in specimens he collected in midwinter on the Mississippi coast. These are presumably the NMNH specimens from Gulfport.

Second, immatures may winter at the periphery of the range of their population to avoid competition with the more competent adults (Rohwer 1971). The specimens listed here indicate that immature Lesser Golden-Plovers are more likely than adults to occur in late fall and winter at

TABLE 2. Late fall and winter specimens of Lesser Golden-Plovers from eastern North America.

Specimen ^a	Locality	Date	Sex	Plumage	Injuries
NCSM 3074	NC, Cape Hatteras	1 Feb. 1958	male	basic	damaged tarsus
NCSM 5680	NC, Raleigh	10 Dec. 1976	female	first basic	missing toes
NMNH 342148	MS, Gulfport	18 Dec. 1939	male	first basic	
NMNH 363745	MS, Gulfport	14 Feb. 1940	male	first basic	
FSM 1765	FL, Myakka	Dec. 1900	male	alternate	
NMNH 241041	FL, Bonnet Lake	21 Dec. 1912	male	first basic	missing foot
NMNH 340610	FL, Gulf Beach	17 Jan. 1937	?	first basic	
NMNH 342147	FL, Cape Sable	8 Dec. 1938	male	first basic	

^a NCSM—North Carolina State Museum, Raleigh; NMNH—National Museum of Natural History, Washington; FSM—Florida State Museum, Gainesville.

northern latitudes. Juveniles are much more abundant on the continent than adults during fall migration, however, so they would be disproportionately common among wintering birds, no matter what the reason for wintering. Furthermore, being later migrants (Morrison 1984, Pienkowski and Evans 1984), they are also more likely to occur at the end of the migration.

Third, males should winter farther north than females, at least in species in which the males arrive first on the breeding grounds (Myers 1981), as indicated for Lesser Golden-Plovers (Bent 1929). Although the sample is not sufficiently large for the skewed sex ratio to be significant, it is of interest that six of the seven sexed specimens were males. If individuals of *P. d. dominica* mature in a single year (Johnson 1985), both adults and immatures should migrate north in the spring and thus would benefit from wintering farther north. There is no evidence from elsewhere in their winter range, however, that male Lesser Golden-Plovers winter farther north than females.

Johnson (1985) stated that individuals of *P. d. dominica* replaced their primaries during their first winter, but none of the immature specimens, including those from January and February that were presumably wintering, shows any wing molt. The outer primaries of these specimens show sufficient wear to indicate they had not been replaced already. Perhaps only these northerly wintering birds, with much less feather wear than the long-distance migrants of their species, fail to molt; this difference occurs within other species of shorebirds (Ginn and Melville 1983). Alternatively, if these individuals were, because of some infirmity or endocrine malfunction, unable to migrate, they may have been unable to molt. This seems unlikely because essentially complete body molt had occurred in all of them. As a third alternative, there may be more variation in the age of maturation in *dominica* than suspected.

It is of interest that *P. d. dominica* typically travels so far to its wintering grounds (to 15°S and beyond), while *P. d. fulva* commonly winters north to 28°N in the Hawaiian Islands and *P. apricaria* north to 55°N in Europe (Hayman et al. 1986). The availability of appropriate winter habitat may explain this difference. *P. d. fulva* occurs on beaches as well as in upland localities, and it apparently can winter as far north as there are archipelagos in the tropical Pacific Ocean. *P. apricaria* occurs in a wide variety of upland habitats, and it may have expanded an originally more restricted winter range along with the spread of agriculture in Europe; it has had a long time to do so. *P. d. dominica* typically winters in upland habitats as well, but, until relatively recently, there were few appropriate habitats at low latitudes in the Americas, and it is thus still largely confined to southern South American pampas and savanna. The individuals discussed herein may indicate a potential for wintering much farther north.

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