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These observations indicate that Black-throated Blue Warblers as they pass through Florida seem to use some of the fruits available in the state during the fall and have found an easy source of insect food in spider webs.

LITERATURE CITED

- BENT, J. C. 1953. Life histories of North American wood warblers. U. S. Nat. Mus. Bull. 203
- FORBUSH, E. H. 1929. Birds of Massachusetts and other New England states. Norwood, Mass.: Norwood Press.
- GRISCOM, L. AND A. SPRUNT, JR. 1957. The warblers of North America. New York: The Devin Adair Co.
- IMHOF, T. A. 1962. Alabama birds. University, Alabama: University of Alabama Press.
- MILNE, L. J. AND M. MILNE. 1980. The Audubon Society field guide to North American insects and spiders. New York: Alfred A. Knopf.
- Terres, J. K. 1980. The Audubon Society encyclopedia of North American birds. New York: Alfred A. Knopf.
- WUNDERLIN, R. P. 1982. The vascular plants of central Florida. Tampa: The University Presses of Florida.

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Case of botulism in Laughing Gulls at a landfill in the Virgin Islands, Greater Antilles.—On 24 May 1984, I was called to the scene of 176 dead Laughing Gulls (Larus atricilla) at a landfill located at the western border of the Mangrove Lagoon, St. Thomas, U.S. Virgin Islands. Four of the dead gulls (2%) had been banded as chicks at colonies within 3 km of the site. The mean age of these gulls was 4.8 years (4, 4, 4, 7 yrs). It was not known whether these birds were breeding, but within two days three additional birds, apparently suffering from the same condition, were found at three colonies. None of the birds at the landfill or colony sites had been touched prior to my arrival, and virtually all were laying in the same position, as if they had fallen asleep resting on their breast. Feathers of the vent were matted and stained green, and the abdomen was filled with gas, as described by Austin and Austin (1931, Auk 48: 195-197).

Blood samples from five gulls from the landfill sent to the National Wildlife Health Laboratory, Madison, Wisconsin, were found positive to botulism type C (Dr. R. K. Stroud pers. comm.).

In the Virgin Islands, Laughing Gulls nest in early May, and hatching begins by late May and early June (pers. observ.). It appears that loss of a parent might affect survival of offspring in that chicks might suffer interrupted incubation, abandonment, or starvation because a single parent would have difficulty brooding and feeding two or three hatchlings. In that all the dead gulls were in definitive breeding plumage, it is possible that as many as 440 eggs or chicks (based on mean clutch size 2.5 in 179 nests in the colony, pers. observ.) may have been affected.

The St. Thomas landfill in May contained much organic refuse which was continuously turned over by bulldozing. Birds had been found dead at this site previously (E. Gibson, Public Works Dept., pers. comm.).

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of Conservation and Cultural Affairs, St. Thomas, USVI and in particular Pittman-Robertson Wildlife Restoration Federal Aid, FW-3 Grant-in-aid support from U.S. Fish and Wildlife Service, Atlanta, Georgia.—Robert L. Norton, P.O. Box 243, Cruz Bay, St. John, USVI 00830 (former address—Div. of Fish and Wildlife, 101 Estate Nazareth, St. Thomas, USVI 00830).

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Occurrence of a double brood in Red-headed Woodpeckers in south central Florida.—Double broods in North American woodpeckers are known only in the genus Melanerpes. The species for which second, and occasionally third, broods have been recorded or suspected include the Red-headed Woodpecker (M. erythrocephalus), Red-bellied Woodpecker (M. carolinus), Gila Woodpecker (M. uropygialis), Golden-fronted Woodpecker (M. aurifrons), and Acorn Woodpecker (M. formicivorus) (Bent 1939, Breitwisch 1977, MacRoberts and MacRoberts 1976, Reller 1972, Skutch 1969). Well-documented cases of double broods are rare. We here present evidence of a double brood in the Red-headed Woodpecker in south central Florida. Although Breitwisch (1977) reported double broods in Red-bellied Woodpeckers in extreme south Florida, there appear to be no previous recorded cases of double brooding in Florida Red-headed Woodpeckers.

A pair of Red-headed Woodpeckers nesting on the Archbold Biological Station, 12 km S of Lake Placid, Highlands Co., Florida, fledged two broods of young in 1985. The nesting territory was a 4-ha old field with widely scattered live slash pines (Pinus elliottii) and dead pine stubs surrounded by slash pine-turkey oak (Quercus laevis) woodland. The male of the pair was color-banded and is known to have nested in the same area for the previous three years. In 1985, the pair was first observed on the territory on 20 April, at which time the male was excavating a cavity in a dead pine stub. During the week of 27 May only one adult was seen, suggesting that incubation was in progress. On 11 June the adults were feeding young in the nest cavity, and on 25 June one recent fledgling was observed with the adults near the nest tree. The young was still present in the territory on 25 July. On 6 September the adults were feeding two young of a second brood in a dead pine approximately 150 m from the first nest stub. An older immature bird, presumably the young of the first brood, was also in the territory. One of the second brood fledged between 19 and 20 September, and both were observed with the adults in the vicinity of the nest stub four days later. Assuming average incubation and nestling periods of 14 days each (Bent 1939), the second clutch was probably laid sometime during the third week of August. Both adults, the recent fledglings, and the older juvenile remained in the territory through 7 October. On that date, the adults were still feeding the young of the second brood. The older immature was pursued by both adults but persisted in remaining in the territory. One adult and the two second-brood young, still giving food-begging calls, were observed on 14 October. On 16 October only an adult and the old immature were present. No adults were seen after this date, but the old immature remained until 29 October. By this date, it was beginning to show red feathers on the back of the head, indicating that the prebasic molt had begun.

The male of the pair was color-banded as an adult by Lilian Saul in May 1982 in the same territory and is known to have had a minimum of two mates since that time. The female in 1982 was also banded, whereas those in 1983, 1984, and 1985 were unbanded. No observations on nesting were made in 1982, but the pair was present in the territory from 11 May to 20 September. In 1983, the adults arrived about 9 May (copulation was also observed on this date), fledged two young, and departed between 20 September and 4 October. In 1984, a pair was first seen on the territory on 11 April and fledged two young