

## RANGE EXPANSION OF THE KILLDEER IN FLORIDA

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Over the past four decades the Killdeer (*Charadrius vociferus*) has significantly extended its breeding range southward in Florida. Howell (1932) reported that the breeding range terminated north of Lake Istokpoga (Fig. 1A) approximately two-thirds of the way down the Florida peninsula. Since then the Killdeer has expanded its breeding range nearly 200 km.

By 1950, nesting had been recorded at Fort Myers on the west coast and near the north shore of Lake Okeechobee (Stevenson, 1939; Sprunt, 1949). These records form the boundary of the range map (Fig. 1B) of Sprunt in 1954. In 1950 Eifrig (1950) recorded breeding behavior east of Lake Okeechobee but no nest was reported. The number of birds breeding at Fort Myers had increased noticeably by 1954, and the known breeding range had extended southward to near Corkscrew (Bartleson, 1955). During the 1950's numerous reports (e.g., Stevenson, 1955, 1956, 1959) placed the species in Miami and even as far south as Plantation Key during the summer, but breeding near Miami was not proven until 1961 (Abramson and Stevenson, 1961). Through the 1960's birds were frequently found in the summer along the east coast as far south as Homestead.

By 1970, the Killdeer was established as a regular breeder near Miami (Stimson, 1970) and was found breeding on the west coast at Everglades City and nearby Ochopee (Truesdell, 1970); however there was no evidence of the extent of breeding in interior southern Florida. In 1972, the Killdeer was found breeding within the Everglades (by J. A. K.) where it is confined to levees that run through the Everglades marsh in the Flood Control Districts and along the northeastern boundary of Everglades National Park. The Killdeer was also found breeding (by E. J. F., two chicks banded) on Virginia Key, an offshore island east of Miami (Fig. 1C).

The gradual expansion of the Killdeer's range throughout southern Florida is an example of a species spreading in response to man's alteration of the natural environment. Originally most of southern Florida with the exception of narrow strips along the east and west coasts was covered with marsh and swampland. In 1932, the southernmost breeding record of the Killdeer was near the southern terminus of the central Florida highlands. Early drainage north of Lake Okeechobee, which converted much of the seasonally wet prairies of the area into improved pastureland, probably assisted in its initial spread after 1932. Subsequently, logging of the Big Cypress Swamp and western pinewoods coincided with its expansion and increase at Fort Myers (Bartleson, 1955). Similarly Everglades City on the west coast and, more so, the entire east coast around Miami have been altered significantly by human development. The recent record from Virginia Key was at the site of a former mangrove

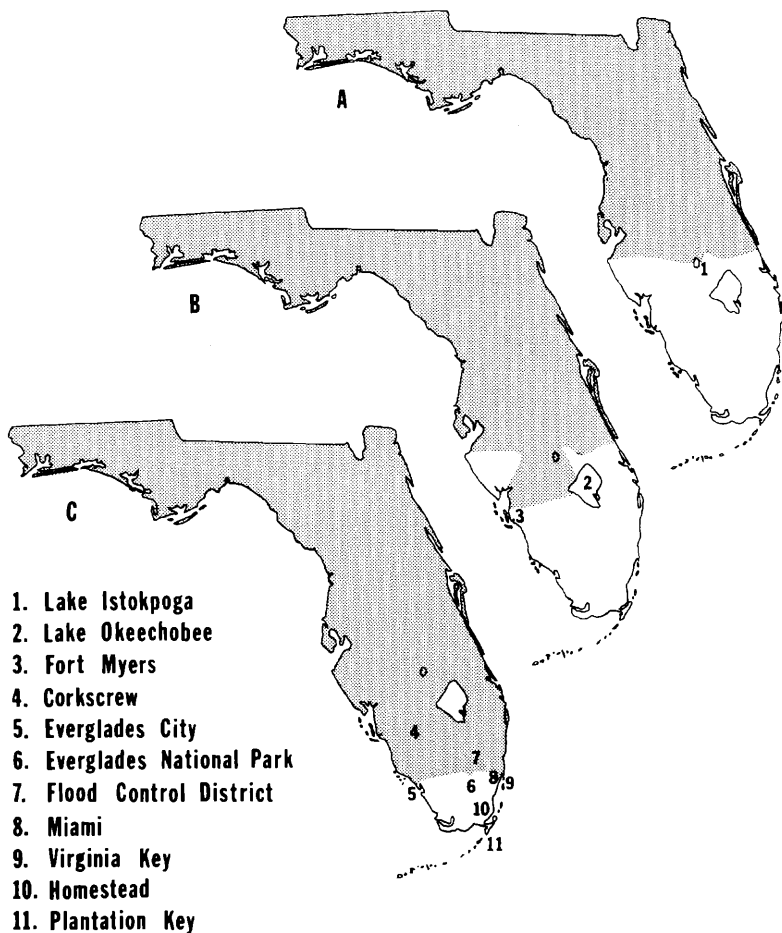


FIGURE 1. Range expansion of the Killdeer. A. from Howell (1932: 221); B. from Sprunt (1954: 162); C. current.

island now elevated by a sanitary fill operation. The Killdeer's spread into the Everglades was made possible only by the inter-connecting system of flood-control levees to which it is confined. There is no apparent reason why the Killdeer should not continue to expand its range throughout the remainder of developed southern Florida and onto the increasingly extensive cleared areas of the Florida Keys. Because summering birds have been found in this area, it is possible that sporadic or even regular breeding may be occurring, although as yet undetected.

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