THE CATTLE EGRET IN CENTRAL BAJA CALIFORNIA, MÉXICO

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The Cattle Egret (Bubulcus ibis) now seems to be established in northern and western México. Zimmerman (Condor 75:480, 1973) reported numerous sightings in Coahuila in 1971 and 1972, and in Chihuahua, Nuevo León, and San Luis Potosí in 1972. On the western mainland the Cattle Egret was reported in Sinaloa (Alden, Finding the birds in western México, Univ. Arizona Press, 1969) and Guerrero (Dickerman, Wilson Bull. 76:290, 1964) in 1964, and in Chiapas (Hubbard, Wilson Bull. 78: 121, 1966) in 1965. Other records also exist (Hubbs Condor 70:92, 1968).

In Baja California the only records we are aware of are those of Hubbs. One, near the southeastern extremity of the peninsula, is a sight record by A. J. Sloan who, in 1964, found the species in a mangrove lagoon near the south end of Isla San José, in the Golfo de California. The other was based on a newspaper photograph which showed a lone Cattle Egret onboard a sport fishing boat off northwestern Baja California near Punta San Isidro in 1967. The nature of these records and the importance of documenting the occurrence of the Cattle Egret for studies on the dynamics of range expansions prompt us to report our observations of this species in Baja California.

NOTES ON NESTING IN THE DOUBLE-STRIPED THICK-KNEE (BURHINUS BISTRIATUS) IN COSTA RICA

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Little is known about the nesting habits of the Double-striped Thick-knee (Burhinus bistriatus) as well as several other members of the family Burhinidae. This paper reports on two separate observations of nesting by the Double-striped Thick-knee in Guanacaste Province, Costa Rica. This cursorial bird inhabits savannahs in the savannah-and-forest mosaic of north-western Costa Rica. The savannahs are dominated by almost pure stands of an introduced African grass called "jaragua" (Hyparrhenia rufa) and are dotted with occasional trees and scrubby growth. The savannahs, created by extensive deforestation, are used for cattle grazing, and often are burned during the dry season which lasts from December to May. Because of the continuing conversion of forest to pasture, suitable habitat for the Double-striped Thick-knee is increasing in Guanacaste.

Typical of the Burhinidae, this species is monog-

On 8 May 1973, while working in the vicinity of Guerrero Negro, Baja California Sur, midway down the Pacific coast of the peninsula, we observed three Cattle Egrets feeding in a dry, scrubby field adjacent to a canal. On 9 May, a flock of at least five was seen in a similar habitat and one female was obtained. This specimen is now in the Santa Barbara Museum of Natural History and bears the following information: SBMNH 2366; wt. 380 g; bill orange-yellow, irides yellow, tibiotarsus mostly yellow, tarsometatarsus and feet black; largest ovum 2 mm; stomach contained several grasshoppers, two lizards (Uta stansburiana, 135 mm long; Sceloporus sp., 155 mm), and one lizard tail.

Most of Baja California is arid and sparsely populated. The area around Guerrero Negro, however, is lowland adjacent to Scammon's Lagoon and has isolated mangrove swamps, Salicomia salt marshes, and canals leading to man-made embayments. No domestic animals were seen. The reproductive condition of the specimen we obtained suggests that these egrets may have been stragglers in that region.

Even though the first observation of the Cattle Egret off western Baja California was made five years earlier than ours, there is no indication that the species is now established on the peninsula. We did not see other *Bubulcus ibis* during May 1973, while working in coastal marshes and lowland habitat near La Paz (5 May), Mulegé (6, 7, 11, and 12 May), San Ignacio (10 May), Magdalena Bay (13 and 14 May), Bahia San Quintín (21 and 22 May), and south of Mexicali (23 May).

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amous and the young are nidifugous (Lack, Ecological adaptations for breeding in birds, Methuen and Co. Ltd., London, 1968). The only previous notes I have found on nidification in this species are provided by Dickey and Van Rossem (The birds of El Salvador, Zool. Ser., Field Mus. Nat. Hist., 23, 1938) from El Salvador: "The natives say that two eggs are laid and that the shallow depression in the ground which forms the only nest is usually situated in the open field so that the sitting bird may command a view to all sides. However, we have no first-hand knowledge on this point." They further noted that a mated pair which they shot had finished breeding by 7 April and that the male appeared to have done most, if not all, of the incubating. Egg development in the ovaries of females collected in January indicated "that the breeding season was still some weeks distant."

On 30 March 1972, I found a Double-striped Thickknee nest containing two eggs in Santa Rosa National Park (10.8° N, 85.8° W) near the middle of a small, flat, recently burned "jaragua" savannah surrounded by forest. Before finding the nest, I saw the two parents walking quickly and silently away from its vicinity. The nest consisted of a slight depression 20 to 22 cm in diameter and 1.5 to 2.0 cm deep in the bare, light-brown soil. The pointed-ovate eggs were olive buff with large and small brown blotches and a few greenish gray blotches. The cryptically