

of a male Northern Harrier continuing to bring prey to a nestling following the death of his mate.—STEVEN P. THOMPSON AND JOHN E. CORNELLY, *U.S. Fish and Wildlife Service, Malheur National Wildlife Refuge, P.O. Box 113, Burns, Oregon 97720. Accepted 1 Mar. 1982.*

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Notes on the hunting behavior and diet of the Crested Caracara in northeastern Chiapas and Tabasco, Mexico.—Crested Caracaras (*Polyborus plancus*) are opportunistic scavengers that forage on the ground, feed on carrion, and pirate prey (Bent, U.S. Natl. Mus. Bull. 170, 1938; Sprunt, *North American Birds of Prey*, Maaper and Bros., New York, New York, 1955; Glazener, *Condor* 66:162–163, 1964). Caracaras seldom have been observed chasing birds and we know of only two recorded incidents of caracaras catching adult birds. Bent (1938) reported that a caracara chased and killed a White Ibis (*Eudocimus albus*), and Brown and Amadon (*Eagles, Hawks and Falcons of the World*, McGraw-Hill, New York, New York, 1968) note that three or four caracaras pursued and captured an egret.

During March and April, 1977 and 1978, we observed caracaras in the area between Villahermosa, Tabasco, and Palenque, Chiapas. The region is level coastal plain 50–200 m elev., and is characterized by extensive cattle pasture dotted with trees, snags, and groves of remnant tropical moist forest.

Here, we describe four caracara hunts, three directed at Cattle Egrets (*Bubulcus ibis*) and one at a Brown Jay (*Cyanocorax morio*). Three hunts were made by duos of caracaras and one was made by a lone caracara.

On 13 April 1977 at 09:13 we watched a caracara fly into a flock of 10–15 Cattle Egrets which were flying at approx. 30 m. Very soon an egret separated from the flock and the caracara pursued it. At this point another caracara headed toward the first and joined the pursuit. Quickly a pattern became evident. The egret turned evasively to one side every time a caracara approached to within 1 m. As the caracaras' turning ability was poorer than that of the egret, the pursuing raptor continued off at a tangent each time the egret turned. At each turn, the other caracara continued the pursuit. After about 2 min, the egret dropped down, passed through a grove and among some tall shrubs, and then began climbing. The caracaras continued the pursuit until the egret had flown to 60–90 m altitude when the raptors soared away together. This encounter lasted about 2–3 min.

The second egret hunt occurred at 08:15 on 21 March 1978. A lone caracara flushed a flock of 50–100 Cattle Egrets from a pasture a few hundred meters in front of it. The caracara flew toward the flock, following as it turned in a wide arc. The egrets climbed and turned back and forth in close ranks. At this point a second caracara began following the first. Based on its smaller size, the first caracara could have been a male. When the egrets were about 60 m above the ground, the male broke off the chase, while the female was about 120 m distant, chasing a lone egret also at 60 m, the male joining her pursuit. After a few seconds, the egret dove straight down, and the female stooped, gaining rapidly on the egret. All three birds disappeared behind vegetation until both caracaras flew up from the area 3 min later. Evidently the egret had escaped. The time elapsed until the stoop was about 3 or 4 min.

The third incident involving a single caracara and Cattle Egret occurred on 17 April 1978. At 17:35 an adult caracara flew into view, pursuing a Cattle Egret. As in the hunts already described, the encounter was characterized by tight, twisting, evasive flight by the egret with the raptor gaining on the egret in straight flight and falling behind in the turns. The caracara seemed to seek a height advantage over the egret during the 2 min of observation, but did not succeed before the pursuit continued out of sight.

The fourth hunt was observed at 11:00 on 18 March 1978. A Brown Jay, pursued by two caracaras which were alternately making passes at it, flew over a road in level flight at less than 20 m. The jay dove into a 5 m tree and was followed by one of the caracaras, which hopped from limb to limb while the other flew around the tree. The jay then flew from the tree, pursued by both caracaras, and perched in another small tree 100 m away. At least one of the raptors perched in this tree, looking down into it for 20 sec before flying off, followed by the other caracara. The duration of this encounter was about 2 or 3 min.

Although we did not see caracaras catch Cattle Egrets or other large birds during these four hunts, we believe they sometimes succeed. We found evidence that caracaras at one nest had been feeding heavily on Cattle Egrets. On 21 March 1978 we found remains of four Cattle Egrets lying below and hanging in a palm occupied by one of two fledgling caracaras which were raised at this nest-site about 1 km from the site of one of our hunting observations. A Cattle Egret had been plucked by a raptor on the ground nearby. That only one of 12 Cattle Egret long bones, and none of the slender leg bones, was broken, may be taken as evidence that the egrets were not collected as highway carrion. Other remains present included those of a lizard (*Ctenosaur* sp.) and a second lizard of the same or similar species. Of eight pellets found, seven contained white feathers and one those of an Indigo Bunting (*Passerina cyanea*), three contained fur, and five contained lizard scales. One contained a vertebral spine of an iguanid, one contained a small rodent jaw, and one a piece of a grasshopper (Orthoptera) leg. Indigo Buntings and the large lizards are frequently road-killed in the region. On two of five occasions we noted caracaras feeding on road-kills, comprising a *Ctenosaur* sp. and an *Iguana* sp.

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Florida Red-shouldered Hawk robs American Crows.—The following interactions were noted while my wife and I were following the breeding behavior of Florida Red-shouldered Hawks (*Buteo lineatus alleni*) and a pair of American Crows (*Corvus brachyrhynchos*) in January and February 1981, at the Hendrie Ranch, 24 km S of Lake Placid, Highlands Co., Florida. Both species foraged near a water hole where walking catfish (*Clarias batrachus*) were concentrated due to a drought. River otter (*Lutra canadensis*) fed on the fish over a 3-week period and crows scavenged fish heads left by the otter. On 19 January six to eight crows had retrieved seven fish heads from the water edge and were removing an eighth, when a Red-shouldered Hawk landed among them. The crows moved 15–30 cm away. The hawk seized the catfish and flew off to a tree. Four days later an otter, attended by two crows, had finished eating and was walking up the bank when a red-shoulder landed almost on top of it. There was no fish head and the hawk flew off. On a following morning I watched a crow retrieve two heads from the water and struggle to hold both in its bill. A red-shoulder swooped on the crow which dropped both heads, one of which was seized by the hawk.

The crows sometimes cached fish heads in clumps of grass in the nearby pasture. A crow, attended by two others, had pulled a catfish head from the grass when a red-shoulder alighted within 15 cm. This time its back was to me, wings slightly out, and tail spread over the