FIRST RECORD OF THE COYOTE (Canis latrans) IN BELIZE

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The coyote (Canis latrans) has been undergoing a natural range expansion throughout North and Central America since European settlement began in the 16th century (Gipson 1978). Presently it has one of the most extensive distributions of any North American mammal (Hall 1981). This distribution extends from northern Canada and Alaska, southwards throughout most of the continental United States and Mexico (Hall 1981, Leopold 1959, Parker 1995). In Central America, coyotes occur primarily along the Pacific slope south to Costa Rica and Panama (Gipson 1978, Janzen 1983, Vaughan 1983). However, coyotes were not previously reported from Belize (Frost 1974, Hartshorn et al. 1984, Kirkpatrick and Cartwright 1975, McCarthy 1993), and we herein present the first verified record.

On 15 June 1996 a coyote was captured by cowboys on Gold Button Ranch (GBR) in northern Belize, (17° 55'N; 88° 45'W) located along the Rio Hondo in the Orange Walk District, approximately 30 km southwest of Orange Walk Town (Fig. 1). This 9700 ha cattle ranch has 810 ha of improved pasture; the remainder consists of scrub, second-growth forest, and natural pine savanna. The captured coyote was an adult female weighing 14 kg. It was photographed and released in concordance with GBR policy. Voucher photographs were deposited in the Campbell Museum (CUSC 2667), Clemson University, Clemson, South Carolina, USA; the Belize Biodiversity Information System; and the Conservation Division, Forestry Department, Belmopan, Belize. Additionally, two coyotes were observed by SGP hunting in an abandoned cattle pasture on 31 July 1996. Coyotes were also heard by SGP vocalizing at night and just prior to sunrise in October and November 1996, and February 1997. However, no livestock predation attributable to coyotes has been reported on GBR.

Coyote emigration onto GBR probably occurred in late 1995 or early 1996 as surveys from 1992 to 1995 (Platt, unpubl. data) failed to document their occurrence. Furthermore, area residents regard them as novel. The coyotes found on GBR may have originated from populations in southern Mexico. According to available range maps (Hall 1981, Leopold 1959) the nearest coyote populations are in the Mexican state of Chiapas (Fig. 1). However, given the time elapsed since publication of these maps, an unreported range expansion has probably occurred in southern Mexico.

Although coyotes are unreported in the state of Quintana Roo (Jorge Correa, El Colegio de la Frontera Sur Unidad Quintana Roo, Chetumal, Mexico, in litt.), we have recent anecdotal reports of occurrences near Escarcega, Campeche (Manuel Weber, El Colegio de la Frontera Sur Unidad Campeche, Campeche, Mexico, in litt.). Coyotes have also been reported from the village of Uaxactun, Peten, Guatemala to the west of Belize (Roan McNab, Biology Department, University of Florida, Gainesville, Florida, USA, pers. comm.). Thus, coyote populations are probably now closer to Belize than previous records indicate. Given dispersal distances of 100 to 500 km from natal areas by juveniles (Parker 1995), colonization of northern Belize is well within the dispersal capabilities of coyotes emigrating from southern Mexico.

Factors affecting coyote establishment in northern Belize remain speculative. Range expansions elsewhere in Central America have largely been attributed to changing land-use practices (Gipson 1978, Vaughan 1983). Widespread conversion of forests to pastures and agricultural fields creates suitable habitat, and elsewhere coyotes are often abundant in agricultural regions (Maehr et al. 1996). Much natural vegetation in northern Belize has been converted to croplands, principally sugarcane. According to McField et al.
(1996), 64,000 ha in Corozal and Orange Walk Districts are in sugarcane production with an additional 21,250 ha classified as pasture or second-growth forest.

Throughout most of Central America, coyotes are restricted to the drier Pacific slope, leading Vaughan (1983) to suggest that high rainfall regions may act as a barrier to range expansion. Significantly, northern Belize experiences the lowest mean annual rainfall of any area in the country (ca. 150 cm/yr; Harthorn et al. 1984). Given availability of suitable habitat and proximity to source populations in Mexico, it is likely that coyote populations in northern Belize will continue to expand and further reports are to be expected.

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