

**A RECENT CAPTURE OF A
LARGE AMERICAN CROCODILE (*Crocodylus acutus*) IN FLORIDA**

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The American crocodile (*Crocodylus acutus*) occurs in northern South America, Central America, Mexico, the Caribbean, and southern Florida, USA (Thorbjarnson 1989). In 1975 the American Crocodile was declared Endangered by the United States Fish and Wildlife Service (USFWS 1975). Since the crocodile's classification, intensive monitoring programs focusing on nesting ecology, growth, and survival of crocodiles were established in South Florida (Mazzotti et al. 2007). Here we report on a recent capture of a large *C. acutus* in Everglades National Park (ENP).

On 15 December 2008, during a crocodile spotlight survey of East Cape Canal, ENP (25°7.97' N, 81°3.98' W), we captured a large male crocodile (Fig. 1) measuring 416.7 cm TL (total length) and marked with a distinct scute clip #225 as described in Mazzotti (1983). Head length measured 58.8 cm; snout-vent length was 220.0 cm; and tail girth was 107.5 cm. We did not have a scale large enough to accommodate the crocodile, so we were unable to measure its mass. However, we can estimate that crocodile #225 weighed more than three other large crocodiles measuring 364.5, 373.0, and 384.9 cm TL, the masses of which were 204, 194, and 238 kg, respectively. Crocodile #225 was originally captured



Figure 1. Measuring the head length of an American crocodile in Everglades National Park.

and marked as a hatchling (27.3 cm TL) by one of the authors (FJM) on 9 August 1986, in the Flamingo Boat Basin, ENP (25°8.35' N, 80°55.21' W), and represents the largest recent live capture of *C. acutus* in Florida, as well as the longest time interval between captures, 22 years. The second longest time interval is for a male (384.9 cm TL) from the same nest as crocodile #225. Both these recaptures allow us to calculate a 13.3% survival for greater than 21 years from this nest and growth of 0.05 cm/day for both individuals.

Historically, there have been reports of larger *C. acutus* in South Florida, although there is some confusion about the details of those accounts. Moler (1992) mentions an animal in the late 1800s reported at 472 cm TL and Hornaday (1875) writes of a crocodile 427 cm TL (14 ft) he shot in Arch Creek, near Biscayne Bay. Barbour (1923) also writes of the crocodile shot by Hornaday in Arch Creek, but noted that it was 462 cm TL (15 ft 2 in) "with half a foot of the tail gone" and suggested that the remains were on display in the United States National Museum in Washington D.C. However, museum records list the specimen's location as unknown (Reynolds et al. 2007). Another large crocodile also shot near Arch Creek in 1883 measured 442 cm TL (14 ft 8 in, Munroe and Gilpin 1974) and is currently on display at the American Museum of Natural History in New York.

In 2007, the American crocodile was reclassified from Endangered to Threatened (USFWS 2007) by the United States Fish and Wildlife Service due to the "improvement in the species' status." Mazzotti et al. (2007) reported that there are more crocodiles currently in South Florida than in 1975. The number of known nests has increased from a maximum of 20 in 1975 (Ogden 1978) to over 170 in 2008. Since monitoring began in South Florida there have been more than 9,600 crocodile capture events (ongoing studies). Thorbjarnarson (1989) reported that in the late 1980's *C. acutus* rarely attained lengths over 400 cm. Our observations of crocodiles close to or at the maximum size provide further evidence of steps towards a successful recovery in Florida. In addition, these recent recaptures of two long-lived *C. acutus* in ENP, and their associated growth and survival data underscore the importance of long-term monitoring programs for Endangered and Threatened species recovery.

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