U.S. Fish & Wildlife Service

Common Caiman (*Caiman crocodilus*)

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, September 2015
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1 Native Range and Status in the United States

Native Range

From Somma and Fuller (2016):

"The common caiman is indigenous to southern Mexico, Central America, and northern South America, including Trinidad and Tobago, as far south as northern Argentina with occasional vagrants showing up at Grenadines and the Lesser Antilles (Smith and Smith, 1973, 1976, 1977, 1993; Hoogmoed 1979; Alvarez del Toro, 1982; Savage and Villa, 1986; Groombridge, 1987; King, 1989; Ross and Magnusson, 1989; Grenard, 1991; Schwartz and Henderson, 1991; Flores-Villela, 1993; Powell et al., 1996; Murphy, 1997; Censky and Kaiser, 1999)."

Status in the United States

From Somma and Fuller (2016):

"In Florida, *C. crocodilus* is established (Smith and Kohler, 1978; Ellis, 1980; Moler, 1988; Wilson and Porras, 1983; Ashton and Ashton, 1991; Carmichael and Williams, 1991; Bartlett, 1994; Dalrymple, 1994; Frank and McCoy, 1995; McCoid and Kleberg, 1995; McCann et al., 1996; Butterfield et al., 1997; Bartlett and Bartlett, 1999; Aguirre and Poss, 2000; King, 2000; Meshaka et al., 2003). In Dade County, attempts to eradicate them have failed (Ellis, 1980; McCann et al., 1996). Common caiman are established and invasive in Dade and Broward Counties (Ellis, 1980; Wilson and Porras, 1983; Grenard, 1991; McCann et al., 1996; Conant and Collins, 1998). An isolated population in Palm Beach County is established but apparently not reproducing (Conant and Collins, 1998), and the *C. crocodilus* in Seminole County, east-central Florida, probably failed to establish this far north; they are not mapped by Conant and Collins (1998). Meshaka et al. (2003) will provide an updated assessment of the status of common caiman in Florida."

"There are no established populations of common caiman in any other state ; however, Howland (1996) confusingly lists this species as "not well established" in Arizona."

"Arizona: Sometime between 1995 and 1996, a *C. crocodilus* was collected from the Papago Park Ponds, Phoenix, Maricopa County, Arizona (M. Demlong, personal communication 1997).
California: In 1989, a common caiman was collected from west of Arvin, Kern County, California (D. Holland, personal communication 1997). At unspecified dates, two *C. crocodilus* were observed (one collected) from Heather Pond near Walnut Creek, in the San Francisco area, Contra Costa County (Bury and Luckenbach, 197[6]), and another was collected from an ornamental pool in Long Beach, Los Angeles County (St. Amant in Bury and Luckenbach, 197[6]).
Connecticut: In 1985, in Hartford County, a *C. crocodilus* was collected from the Farmington River in Windsor, and another was observed in the Connecticut River in East Hartford (H. Gruner, personal communication 1996). A common caiman was collected from a pond called "Blue Lake" in North Stonington, New London County, Connecticut in 1996 (Altimari, 1996; Crombie, 1996; H. Gruner, personal communication 1996).
Florida: L. Porras (in Wilson and Porras, 1983) first observed common caiman of various sizes in Florida in a canal extending from Maule Lake, Miami, Dade County, in the late 1950s. In 1960, *C. crocodilus* were observed in various canals in Miami, Dade County (Shirley in Ellis, 1980). King and Krakauer (1966) reported *C. crocodilus* living in "various canal systems" in South Florida and included Palm Beach County. King and Krakauer (1966) did not think these animals were reproducing. In 1974, a breeding population of common caiman was found at Homestead Air Force Base, Dade County (Carter and Douglas in Ellis, 1980). Ellis (1980) collected natural history data from individuals collected in a federal and State of Florida sanctioned extirpation program begun in 1977. Common caiman also were found in Florida City, Dade County (Ellis, 1980), and Lake Jessup, Seminole County (Hines in Ellis, 1980). In 1976 an adult *C. crocodilus* with young on its back was observed near Coopertown on the Tamiami Trail, Dade County (Wasilewski in Wilson and Porras, 1983) and in 1980 hatchlings were collected from the same locality (McDermott in Wilson and Porras, 1983). Populations of *C. crocodilus* also are known from adjacent Broward County (Grenard, 1991; Florida Museum

of Natural History records). Additional *C. crocodilus* were liberated in Dade County in August 1992, when Hurricane Andrew destroyed their cages at an exotic animal dealership (Belleville, 1994). More recently, specimens were reported from both Everglades National Park and Big Cypress Preserve in 2007 (Florida Fish and Wildlife Conservation Commission, 2009).
Iowa: Reported from Saylorville Reservoir in 1980 (Christiansen, 2001)
Indiana: A single individual was collected from a private pond in Marion County in June 2002 (Seng and White, 2003).
Kansas: A single caiman was collected in August 2004 from Cheney Reservoir (Pearce, 2012).
Maryland: At least three specimens have been collected from Maryland. One in Seneca Creek in 2004 (ng, 2004), Glen Burnie in 2008 (Anonymous 2008), and one in Patapsco Valley State Park in 2010 (Roylance 2010).
Massachusetts: In Massachusetts, a *C. crocodilus* was collected from a swamp in Taunton, Bristol County, in 1989, and another from a wetland in Plainfield, Hampshire County, in 1991 (Cardoza et al., 1993).
Minnesota: In 2004, a single individual was captured in the Mississippi River in Hennepin County at Brooklyn Park (Minnesota Department of Natural Resources, 2005).
Missouri: In 2003, a *C. crocodilus* was collected from a pond off Sinks Road, near the town of Ferguson, St. Louis County. (Bergman, 2003)
New York: In 2001 a *C. crocodilus* was collected from a pond in Central Park, New York City, New York, amid much publicity (Anonymous, 2001a, b, c; DeSantis, 2001; Heaton-Jones, 2001; Stewart, 2001).
Oklahoma: Common caiman are occasionally captured from various localities (not specified) in Oklahoma (Webb 1970).
Pennsylvania: In 1997 a *C. crocodilus* was collected from Peters Creek, south of Pittsburgh, Washington County, Pennsylvania (Anonymous, 1997; R. Bamrick, personal communication 1997) and from Chartiers Creek, Allegheny County, in 2011 (Santoni, 2011).
Puerto Rico: Common caiman were introduced to Puerto Rico during the early 1970s (Watlington, 1998) and are established in many areas (F. Grana, pers. comm.).
Virginia: In Virginia, individual *C. crocodilus* were collected from Lake Whitehurst, Norfolk in 1964, a pond in eastern Henrico County in 1978, and Four Mile Creek, Arlington, Arlington County in 1982 (Mitchell 1994). Another *C. crocodilus* was collected from a lake in Lake Fairfax Park, Fairfax County, in 1972 (D'Alessandro and Ernst, 1995; Ernst et al., 1997; D. Ernst, personal communication 1997).
Washington: Several *C. crocodilus* have been collected in the past decade in Seattle area lakes. (Roesler, 2003)"

"The nonindigenous records of *C. crocodilus* provided in this account must surely underrepresent the number of animals that show up across the United States."

Means of Introduction into the United States

From Somma and Fuller (2016):

"When trade in baby *Alligator mississippiensis*, American alligators, became illegal, the pet industry imported thousands of young *C. crocodilus* as a substitute, from the 1950s through the early 1980s, with numerous pet escapes and intentional releases as a consequence (King and Krakauer, 1966; Webb, 1970; Bury and Luckenbach, 197[6]; Ellis, 1980; Wilson and Porras,

1983; Grenard, 1991; Bartlett, 1994; McCann et al., 1996; Rivero, 1998). Most nonindigenous occurrences of *C. crocodilus* are from these releases. Additional, common caiman were added to Dade County, Florida, following the destruction of their holding facilities by Hurricane Andrew in 1992 (Belleville, 1994). Rivero (1998) provides two other hypotheses for the means of introduction of common caiman in Puerto Rico: 1) The animals were intentionally stocked by illegal narcotics traffickers to protect their site of operation, and 2) they were intentionally stocked by an individual attempting to "enrich" the island's fauna. These hypotheses are not as likely as the introduction of exotic pets (Rivero, 1998)."

Remarks

From Somma and Fuller (2016):

"Synonyms and Other Names: spectacled caiman, caimán, pululo"

From GISD (2016):

"Four or five subspecies of *C. crocodilus* are recognized: *C. c. crocodilus* which is prevalent throughout Venezuela and the Amazon from Colombia to Brazil; *C. c. chiapasius* which inhabits most of Central America from south Mexico to the pacific coast of Colombia; *C. c. fuscus* which inhabits Atlantic coastal drainages of Colombia to western Venezuela; and *C. c. apoporiensis*, a narrower snouted form which is thought to only inhabit the upper Apaporis River in Colombia and is believed in need of conservation effort (CSG, 2008; Ross 1998). Some authorities believe that *C. yacare* is not a full species, but a subspecies (*C. c. yacare*) that occurs in southern Brazil, Bolivia, Paraguay and northern Argentina. All subspecies of *C. crocodilus* are in CITES Appendix II, except *C. c. apaporiensis* that is in Appendix I."

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2016):

"Kingdom Animalia
  Subkingdom Bilateria
    Infrakingdom Deuterostomia
      Phylum Chordata
        Subphylum Vertebrata
          Infraphylum Gnathostomata
            Superclass Tetrapoda
              Class Reptilia
                Order Crocodilia
                  Family Alligatoridae
                    Genus *Caiman* Spix, 1825
                      Species *Caiman crocodilus* (Linnaeus, 1758)"

"Direct Children:

Subspecies *Caiman crocodilus apaporiensis* Medem, 1955 – Apaporis River Caiman
Subspecies *Caiman crocodilus chiapasius* (Bocourt, 1876)
Subspecies *Caiman crocodilus crocodilus* (Linnaeus, 1758) – Common Caiman
Subspecies *Caiman crocodilus fuscus* (Cope, 1868) – Brown Caiman"

"Current Standing: valid"

Size, Weight, and Age Range

From Terry (2010):

"Range mass: 7 to 58 kg
Average mass: 40 kg
Range length: 1.5 to 3 m
Average length: 2 m"

"The longest known lifespan in the wild was estimated at about 60 years old. However, 30 to 40 years might be more normal. The average captive lifespan is 20 years, with a minimum [*sic*] record of 24 years. (Britton, [2009]; Mertz, 2009)"

From GISD (2016):

"Sexual maturity may be reached from as young as four years to as old as seven years, since less dominant specimens grow slower and sometimes don't reproduce at all."

Environment

From GISD (2016):

"*Caiman crocodilus* basically occurs in all low wetland habitats in Central and South America except along small streams in the pristine terra firme (never flooded) Amazonian forests. It commonly inhabits flooded forests, swamps, large and small rivers, lakes and canals and can occur in disturbed and polluted water bodies. It is known to occur in any of [sic] freshwater body, natural or man-made, as long as it is warm, above 28.5ºF, and deep enough to submerge itself completely. They can, on occasion, inhabit brackish waters and leave the water to warm in the sun on shores. In Puerto Rico, caimans have established in rural, suburban, and urban settings."

From Somma and Fuller (2016):

"This species does not seem to tolerate temperatures below 1.7° C (35° F) (Grenard, 1991)."

Climate/Range

From Ojasti (1996):

"C. crocodilus is restricted to the tropical lowlands; the limits of its range coinciding with the annual isotherm of 24°C [Chirivi Gallego 1973]. The highest reported sighting was at 800 m in Colombia [Medem 1981]."

Distribution Outside the United States

Native

From Somma and Fuller (2016):

"The common caiman is indigenous to southern Mexico, Central America, and northern South America, including Trinidad and Tobago, as far south as northern Argentina with occasional vagrants showing up at Grenadines and the Lesser Antilles (Smith and Smith, 1973, 1976, 1977, 1993; Hoogmoed 1979; Alvarez del Toro, 1982; Savage and Villa, 1986; Groombridge, 1987; King, 1989; Ross and Magnusson, 1989; Grenard, 1991; Schwartz and Henderson, 1991; Flores-Villela, 1993; Powell et al., 1996; Murphy, 1997; Censky and Kaiser, 1999)."

Introduced

From Somma and Fuller (2016):

"Cuba: *Caiman crocodilus* were introduced to Isla de la Juventud (=Isle of Youth or Isle of Pines), Cuba, in 1959 (Schwartz and Henderson, 1985, 1991; Estrada and Ruibal, 1999)."

Means of Introduction Outside the United States

From Borroto-Páez et al. (2015):

"This species was introduced in 1959 at Lanier Swamp, Isla de la Juventud. Previously, the animals were in captivity in the Fluvial Repopulation Center El Dique in Havana (Varona 1976). […] Nine animals (Varona 1980) were introduced from Colombia (Escobar 1995). […] Luis Moreno (pers. comm.) noted that the introduction to the wild occurred after an intensive rainy episode that took place in the Isla de la Juventud in 1959. According to Dunn et al. (1959) and Gelhard (1959), tropical storm Judith affected the western Caribbean from 17–21 October 1959, and the track of the storm was near the Isla de la Juventud. The intensity of this storm likely caused flooding, facilitating the release of some individuals from captivity and dispersing them to areas suitable for reproduction and survival. Rodríguez Soberón et al. (1996) suggested that the decline of the *C. rhombifer* population in Isla de la Juventud was due to human exploitation and led to the *Caiman crocodilus* introduction."

Short Description

From Somma and Fuller (2016):

"*Caiman crocodilus* is a medium-sized crocodilian that reaches a total length of 1.1-1.8 m (3.5-6 ft), with a record of 2.64 m (8 ft 8 in) (Conant and Collins, 1998). The snout is not as broad and

round as in *Alligator mississippiensis*, the American alligator (Conant and Collins, 1998). Unlike *A. mississippiensis* and *Crocodylus acutus*, the American crocodile, the common caiman has a unique bony ridge in front of and between the eyes (Behler and King, 1979; Conant and Collins, 1998; Powell et al., 1998). […] Adults and young have a dorsal coloration that ranges from greenish-, brownish-, or yellowish-gray with darker crossbands (Conant and Collins, 1998)."

Biology

From Somma and Fuller (2016):

"*Caiman crocodilus* is an adaptable, generalist, with an omnicarnivorous diet that includes a broad variety of aquatic invertebrates and vertebrates, including terrestrial insects (Ellis, 1980; Alvarez del Toro, 1982; Grenard, 1991; Schwartz and Henderson, 1991; Murphy, 1997; Aguirre and Poss, 2000). […] In portions of South America, populations of *C. crocodilus* can be large and dense (Gorzula, 1987; Lang, 1989). The female lays hard-shelled eggs in terrestrial mound nests constructed of surrounding vegetation; the nests may be guarded by the mother, opened by either parent to assist neonates during hatching, and additional parental care extended toward the young for several months afterwards while they remain together in a crèche (Alvarez del Toro, 1982; Wilson and Porras, 1983; Shine, 1988; Magnusson et al., 1989; Allsteadt, 1994; Rivero, 1998)."

From GISD (2016):

"Wild *C. crocodilus* populations reproduce sexually. Courtship and copulation take place in the late rainy season/early dry season. Female build [*sic*] a mound-nest with leaves, branches or grass. The female lays from seven to 41 eggs. The incubation period lasts from 70 to 90 days, and the female can guard and open the nest for the hatchlings to emerge. Hatchlings measure, at birth, from 17 to 25 cm long. Young associate in sibling groups or pods (multiple hatchlings from different nests) and remain close to a female that can take on maternal duties for about a year and a half."

From Ojasti (1996):

"The spectacled caiman, like other crocodilians, is mainly static, preferring to remain immobile and partially submerged, or to bask on the shores, particularly in mid-morning and early afternoon (except on overcast days) [Ayarzaquena 1980; Seijas 1986]. Despite the animal's apparent immobility, situations calling for a fight/flight response or the presence of potential prey can elicit very rapid and agile movement. Spectacled caiman feed in the water at any time, but mainly at night [Alvarez del Toro 1974; Medem 1981]. Adult males turn aggressive and, apparently, territorial at the onset of the rainy season and of heat. They are fairly unsuspicious in quiet habitats but timid where they have been hunted [México 1952; Medem 1981]."

Despite maternal care, there is nest depredation by coatis [Crawshaw and Schaller 1980], Tegu lizards [Staton and Dixon 1975; D'Andrea 1980] and other animals, and some nests are destroyed by flooding, trampling or human interference (egg collecting). A bare 20-25 percent of the eggs hatch successfully [Staton and Dixon 1975, 1977; Ayarzaquena 1980; D'Andrea 1980;

Crawshaw and Schaller 1980]. Hatchling predators include wader birds, raptors and other carnivores, and almost all die before the age of one year. Adult mortality, on the other hand, is thought to be extremely low [Ayarzaquena 1980; D'Andrea 1980].

Human Uses

From GISD (2016):

"*Caiman crocodilus* is a valuable species in the hide and pet trade industry. Their skins are the most popularly harvested product among crocodiles with over half a million traded legally each year. Since they were considered commercially inferior compared to non-ossified alligator and crocodile skins in the early 1900s, common caimans weren't hunted until the 1950s when other crocodilian populations diminished. For this reason, caimans have since remained resilient to overhunting because of harvest regulations and due to the fact that they reproduce at a relatively small size. Most countries within its native range set harvest regulations with licensing and inspection programs. Countries such as Colombia have developed captive breeding ranches to farm their hides (Ross, 1998; CSG, 2005; F. Grana, pers. comm., November 2007). Poaching for meat, and eventually for skins, is widespread throughout the Brazilian Amazonia since 1980s (Da Silveira *et al.*, 1998; Da Silveira & Thorbjarnarson, 1999), but in only one locality is known where a *C. crocodilus* population is in danger due to subsistence hunting undertaken by indigenous people in the north of Amapa state (R. Da Silveira, pers. comm., January 2011)."

From Borroto-Páez et al. (2015):

"This species is used for food and there is commercial exploitation for hide and meat in order to reduce the exploitation and hunting of Cuban Crocodiles, *Crocodylus rhombifer* (Berovides et al. 2000)."

Diseases

From Somma and Fuller (2016):

"In Puerto Rico, nonindigenous *Micropterus salmoides* (largemouth bass) and *Cichla ocellaris* (peacock cichlid) that occur in waters with nonindigenous *C. crocodilus* are infested with larval caiman tongueworms (Pentastomida, Sebekidae) (Williams, 1995). In Florida, this same parasitic infection potentially can be transmitted by caiman to indigenous fish and crocodilians."

From Jacobson (1984):

"The first report of a virus associated disease of crocodilians is caiman pox. [Jacobson et al. 1979] In affected caimans, grey-white circular skin lesions are often seen scattered over the body surface. Lesions may coalesce and form diffuse necrotizing patches."

"*Candida albicans* was identified as the agent responsible for pneumonia in unidentified species of crocodiles and caiman. [Zwart 1968]"

"Fungi of the genus *Paecilomyces* have been isolated from lungs of crocodilians on several occasions. *P. lilacinus* was isolated from the lungs of a Nile crocodile, [Jones 1978] American

alligator, [Keymer 1974] broad fronted crocodile (*Csteolaemus tetraspis*) [Keymer 1974] and caiman. [Keymer 1976] In the alligator and caiman, the animals had miliary nodular pneumonia with plaques and cavitating lesion throughout the lungs."

"Trevino reported on a fatal diffuse granulomatous pneumonia and hepatitis due to *Cephalosporium* in 3 caiman. [Trevino 1972]"

"Coccidia of the genus *Eimeria* have been reported in alligators, crocodiles, caimans, and the gharial. [Keymer 1981]"

"Steatitis—This disease has been described in caimans [Wallach and Hoessle 1968; Frye and Schelling 1973] […]"

Threat to Humans

From Terry (2010):

"Spectacled caimans are potentially dangerous to humans and pets, and they occasionally attack livestock. Their smaller size compared to other crocodilians makes them less of a threat. They become shy and avoid humans in areas where they are frequently hunted. Spectacled caimans have been introduced outside their natural range, such as in southern Florida, and possible negative effects on local naïve [*sic*] wildlife are in need of study. (Bartlett and Bartlett, 2003; Grana Raffucci, 2007)"

From GISD (2016):

"Caiman crocodilus is a generalist and opportunistic predator, but due their relative small size and lack of aggressive behavior they do not in general represent a danger for humans, pets and farm animals."

3 Impacts of Introductions

From Somma and Fuller (2016):

"In those states where *C. crocodilus* did not establish colonies there was no impact. These opportunistic, carnivorous generalists have a great potential to negatively impact indigenous fauna in Florida where they are invasive (Aguirre and Poss, 2000). Research should be conducted to determine if *C. crocodilus* could compete with indigenous *A. mississippiensis*."

From GISD (2016):

"Trade of any crocodilian is illegal in Puerto Rico (CITES Appendix II; Act 241 of 1999 - Puerto Rico New Wildlife Act; Regulation 6765 to control conservation and management of wildlife, exotic species and hunting - 2004); caimans are captured, taken into a government retention center, and from there they are either exported or eliminated (Felix Grana., pers. comm., 2007)."

“The common caiman is reported to be responsible (not confirmed) for the introduction, in Puerto Rico, of the exotic parasite known as caiman tongueworm (Pentastomida, Sebekidae) which is infecting some local fish species. Non-indigenous largemouth bass (*Micropterus salmoides*) and peacock cichlid (*Cichla ocellaris*) that occur in waters with the common caiman are found to be infested with this larval (Williams, 1995).”

From Borroto-Páez et al. (2015):

“We classify their impact as Moderate (MO). The species may cause depredation on endemic freshwater fishes, such as the Cuban Gar or Manjuarí (*Atractosteus tristoechus*), crustaceans, mollusks, reptiles, aquatic birds, and other taxa (Escobar 1995). It is also in competition with two native crocodiles (the American Crocodile, *Crocodylus acutus*, and *C. rhombifer*), and may cause hatchling depredation (Varona 1980). Alonso Tabet et al. (2014) do not recognize negative impacts on the reintroduced *C. rhombifer* population in Isla de la Juventud.”

From Ramos Targarona et al. (2010):

“Other than Varona’s finding of young *C. rhombifer* in the stomach contents of adult in the stomach contents of adult *C. crocodilus* at the Isla de la Juventud, no other evidence of negative impacts on *C. rhombifer* by caimans has been reported (Rodriguez-Soberón 2000; Varona 1983).”

From Bontemps et al. (2016):

“To date, there is no substantial evidence that the spectacled caiman has a significant direct impact at multiple trophic levels or is the cause of major food web disruption on the island [of Puerto Rico]. The caiman’s diversified diet as opposed to a selective one may minimize its predation pressure on any specific prey population. Likewise, it could be responsible for mesopredator population control providing some predator release at lower trophic levels.”

4 Global Distribution

Figure 1. Known global distribution of *Caiman crocodilus*, reported in North and South America. Map from GBIF (2016). Locations in the United States outside of Florida and Puerto Rico do not represent established populations and were omitted from climate matching.

5 U.S. Distribution

Figure 2. Distribution of *C. crocodilus* in the United States. Map from Somma and Fuller (2016).

6 Climate Matching

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) estimated a Climate 6 score of 0.039 for *C. crocodilus* for the contiguous U.S., which is a medium climate match. The range of Climate 6 scores indicating a medium climate match is 0.005 - 0.103. High climate matches were located in Florida and a small area of coastal eastern Texas. Medium match was seen throughout much of the South, with remaining areas of the continental U.S. classified as medium-low or low.

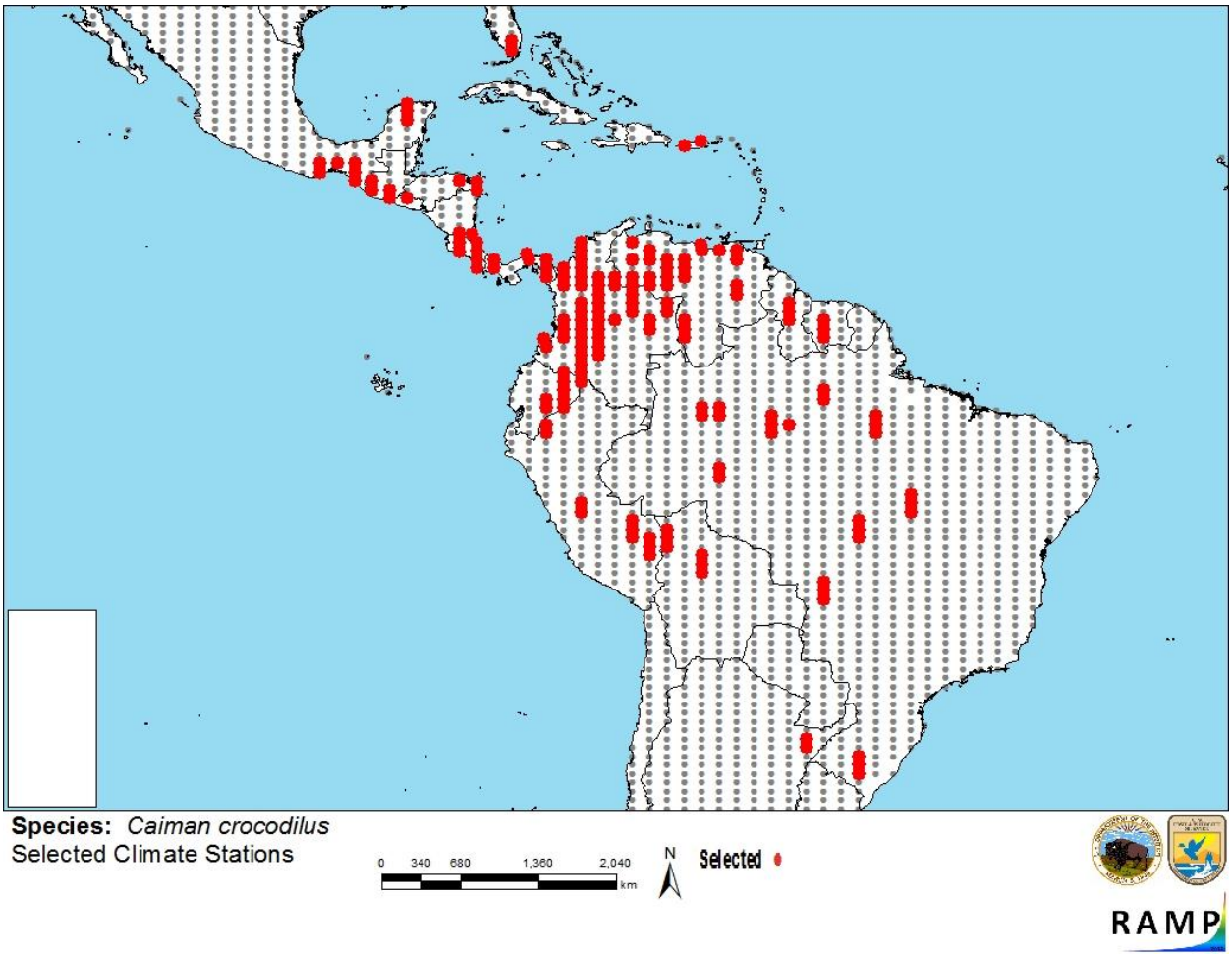

Figure 3. RAMP (Sanders et al. 2014) source map showing weather stations in Central and South America selected as source locations (red) and non-source locations (gray) for *C. crocodilus* climate matching. Source locations from GBIF (2016) and Somma and Fuller (2016).

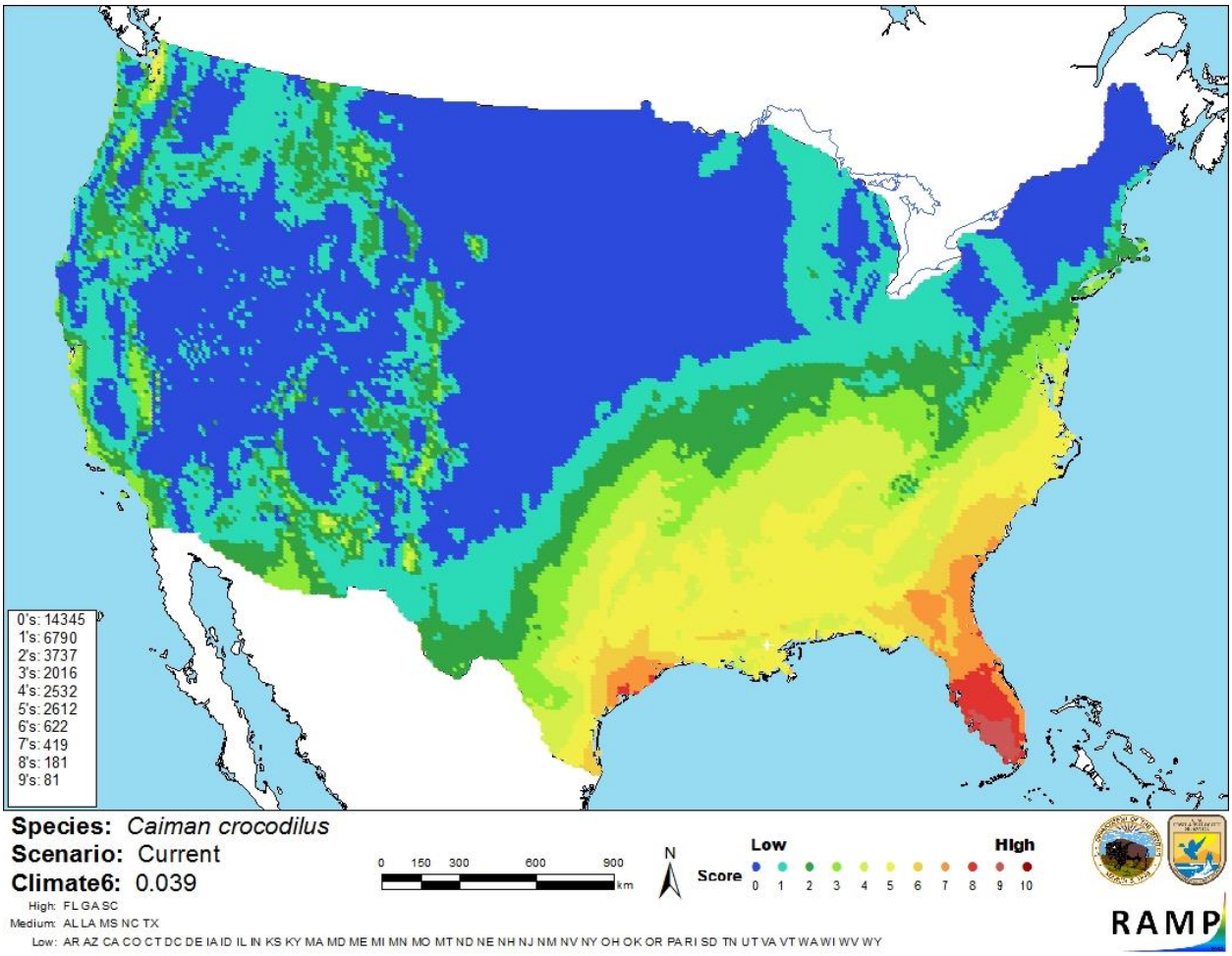

Figure 4. Map of RAMP (Sanders et al. 2014) climate matches for *Caiman crocodilus* in the contiguous United States based on source locations reported by GBIF (2016) and Somma and Fuller (2016). 0=Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

The "High", "Medium", and "Low" climate match categories are based on the following table:

Climate 6: Proportion of (Sum of Climate Scores 6-10) / (Sum of total Climate Scores)	Climate Match Category
0.000≤X≤0.005	Low
0.005<X<0.103	Medium
≥0.103	High

7 Certainty of Assessment

Information on the biology and distribution of *Caiman crocodilus* is readily available. However, minimal peer-reviewed literature is available addressing the invasion history and impact of *C. crocodilus* in novel environments. The literature available comes to varying conclusions about the potential for negative impacts.

8 Risk Assessment

Summary of Risk to the Continental United States

Caiman crocodilus is native to southern Mexico, Central America and northern South America. The species was introduced into the U.S. primarily through the pet industry, and it is now established in southern Florida and Puerto Rico. *C. crocodilus* may have been responsible for the introduction of caiman tongueworms to Puerto Rico. These parasites could also pose a risk to native fish and crocodilians in the continental U.S. *C. crocodilus* is generalist in its foraging habits, which may reduce impacts to specific native prey populations. Climate matching indicated the Continental U.S. has a medium climate match. Peer-reviewed studies are needed to better characterize the impacts of this species where it has been introduced, and to provide more clarity to the conflicting opinions of past authors on the possible impacts of the species. Overall risk posed by *C. crocodilus* is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): None Documented**
- **Climate Match (Sec. 6): Medium**
- **Certainty of Assessment (Sec. 7): Low**
- **Overall Risk Assessment Category: Uncertain**

9 References

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 10.

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10 References Quoted But Not Accessed

Note: The following references are cited within quoted text within this ERSS, but were not accessed for its preparation. They are included here to provide the reader with more information.

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