

# THE SPETACLED CAIMAN (*CAIMAN CROCODILUS*, CROCODYLIA, ALLIGATORIDAE) AS A PREDATOR OF THE AMAZON SAILFIN-CATFISH (*PTERYGOPLICHTHYS PARDALIS*, SILURIFORMES, LORICARIDAE)

EL CAIMÁN DE ANTEOJOS (*CAIMAN CROCODILUS*, CROCODYLIA, ALLIGATORIDAE) COMO DEPREDADOR DEL PEZ SILURO DEL AMAZONAS (*PTERYGOPLICHTHYS PARDALIS*, SILURIFORMES, LORICARIDAE)

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**Resumo.**- Reportamos um evento em que *Caiman crocodilus* consome o acari-bodó *Pterygoplichthys pardalis*. Uma lista de itens predados por *C. crocodilus* foi compilada da literatura, incluindo vertebrados e invertebrados consumidos por esta espécie. O evento de predação foi observado na margem de uma lagoa na Reserva Florestal Adolpho Ducke, localizada na cidade de Manaus, estado do Amazonas, Brasil, durante estudos de campo em 2020. A busca bibliográfica revelou 250 presas conhecidas para esta espécie de jacaré, sendo 150 invertebrados (89 Insecta, 24 Crustacea, 14 Mollusca, 10 Arachnida, 10 Myriapoda, 2 Annelida e 1 Platyhelminthes) e 100 vertebrados (53 peixes, 16 répteis, 11 anfíbios, 10 aves e 10 mamíferos). Entre os peixes, apenas três espécies de Siluriformes foram identificados como presas de *C. crocodilus*: *Hoplosternum littorale*, *Clarias batrachus* e *Ameiurus nebulosus*. Portanto, *P. pardalis* representa uma nova espécie de presa para *C. crocodilus*. Nossa observação de campo e revisão da literatura reforçam *C. crocodilus* como predador generalista, com peixes sendo os itens de maior importância entre os vertebrados, na dieta da espécie.

**Palavras-chave.**- Amazônia, Brasil, jacaré, peixes, interação predador-presa.

**Abstract.**- We report an event of a *Caiman crocodilus* consuming the catfish *Pterygoplichthys pardalis*. A list of known prey items of *C. crocodilus* was also compiled from the literature, including known vertebrate and invertebrate items for this species. The predation event was observed at the margin of a lagoon in Reserva Florestal Adolpho Ducke, located in the municipality of Manaus, Amazonas state, Brazil, during a fieldwork study in 2020. The literature survey revealed 250 distinct prey items for this caiman, of which 150 are invertebrates (89 Insecta, 24 Crustacea, 14 Mollusca, 10 Arachnida, 10 Myriapoda, 2 Annelida, and 1 Platyhelminthes) and 100 are vertebrates (53 fishes, 16 reptiles, 11 amphibians, 10 birds, and 10 mammals). Among fishes, only three Siluriformes have been taxonomically identified as *C. crocodilus* preys: *Hoplosternum littorale*, *Clarias batrachus*, and *Ameiurus nebulosus*. Therefore, the catfish *P. pardalis* represents a new prey species for *C. crocodilus*. Our field observation and the presented literature review reinforce the view of *C. crocodilus* as a generalist predator, with fish as the most important vertebrate prey in the diet of this species.

**Keywords.**- Amazon, Brazil, caiman, fishes, predator-prey interaction.



Alligatorids are top predators capable of exerting top-down pressure on populations of their prey species (Nifong & Silliman, 2013). The nominal species *Caiman crocodilus* comprises four sub-species (*crocodilus*, *fuscus*, *chiapasiensis* and *apaporiensis*), all represented by medium-sized alligatorids (up to nearly 2.7 meters) that are widely distributed in the Neotropics (Farias et al., 2013; Roberto et al., 2020). As other alligatorids, *Caiman crocodilus* may be active day or night depending on season and environmental temperature (Smith, 1979), which support their expected wide diet. This species has a generalist diet composed of invertebrates (arachnids, crustacean, insects and gastropods) and vertebrates (fish, amphibians, reptiles, birds and mammals) (Thorbjarnarson, 1993; Laverty & Dobson, 2013; Bontemps et al., 2016).

Here, we report for the first time the predation of the catfish *Pterygoplichthys pardalis* by the spectacled caiman *Caiman crocodilus*. We also provide a list of known prey of *C. crocodilus* compiled from available literature. *Pterygoplichthys pardalis* Castelnau, 1855 is a medium-sized (up to nearly 50 cm), benthic and detritivorous armored catfish known regionally as “acaribodó” by the riverine native communities (Neves & Ruffino, 1998). It has economic importance because it is used by humans as a regular food item and explored as ornamental aquarium fish (Emiroğlu et al., 2016; Lima et al., 2019; Sousa et al., 2019). The species is widely distributed in the Amazon River basin, where it inhabits the bottom of rivers, lakes, and streams (Weber, 2003). Species of *Pterygoplichthys* are potential prey for a wide variety of predators, such as large fishes, chelonians, snakes, caimans, aquatic and wading birds, and otters (Willard, 1985; Nico, 2010). Although *P. pardalis* is a common species across the Amazon River basin, there is no detailed information on the predation of this catfish by *C. crocodilus*. A photographic record of an adult *C. crocodilus* holding a specimen of *P. pardalis* was first presented by Yves et al. (2021), but there is no information available to the predation event. The new record of predation events accompanied by information on food items consumed by *C. crocodilus* based on literature survey are important to improve our understanding about the feeding behavior of this caiman (Oda et al., 2022), and its role as a trophic agent in the food web (Miranda, 2017).

The record of predation on the catfish *Pterygoplichthys pardalis* was obtained from a fortuitous observation in nature. A bibliographic search was conducted using the literature search engine Google Scholar to obtain records of prey items consumed by *C. crocodilus*. The search terms used in this survey were: “*Caiman crocodilus*” “diet”, “feeding”, “predation”, “prey”. We also checked the complete natural history notes section of

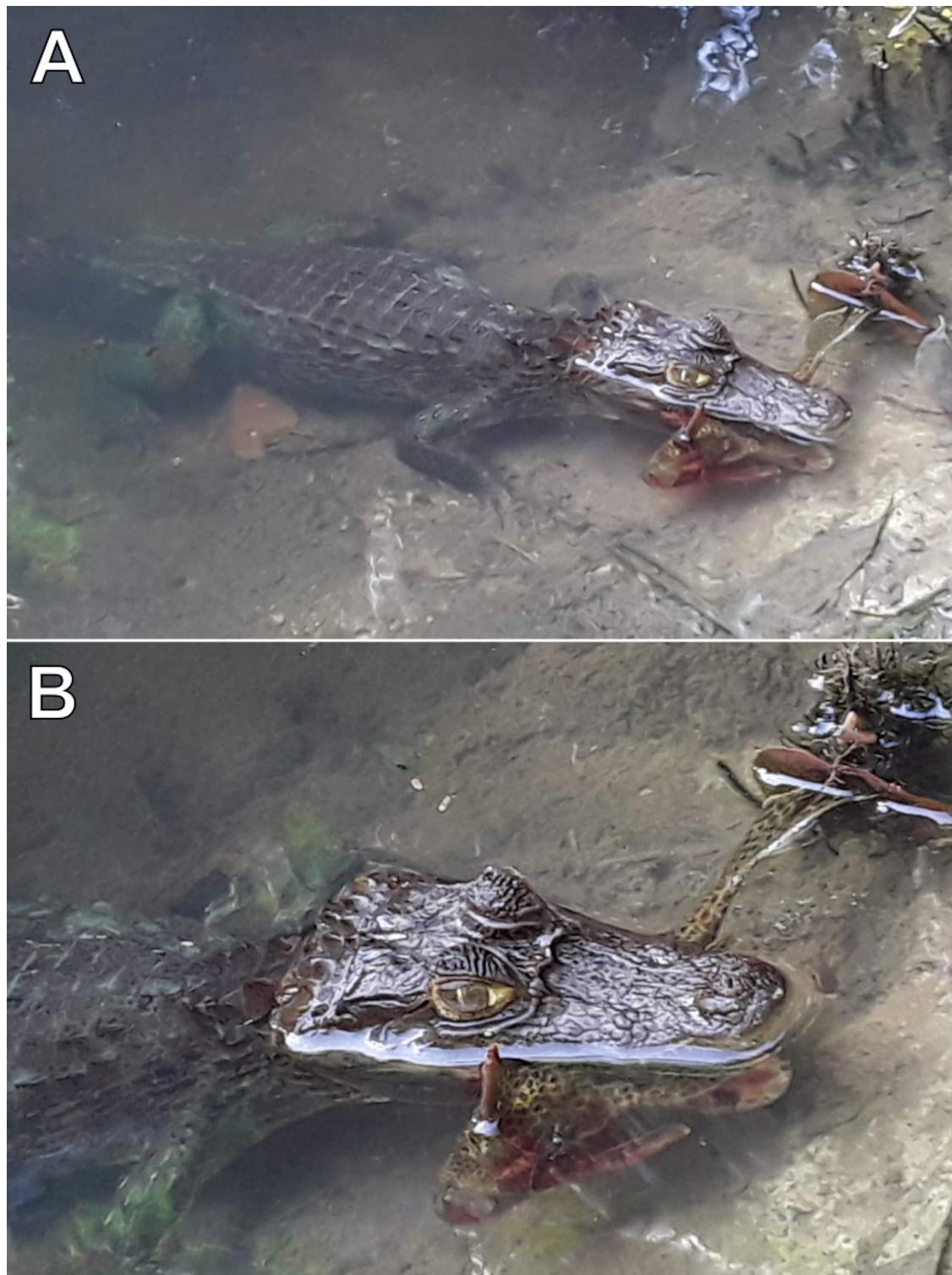
the scientific journals (respective range of dates displayed under parenthesis): Herpetological Review (1967–2021), Herpetological Bulletin (2008–2021), Herpetology Notes (2008–2022), Herpetozoa (1988–2022), and Mesoamerican Herpetology (2014–2018). Other references cited by the publications recovered by the primary bibliographic survey were obtained from three on-line databases: the repository of Museu Paraense Emílio Goeldi (<https://repositorio.museu-goeldi.br/>), Semantic Scholar (<https://www.semanticscholar.org/>) and Biodiversity Heritage Library (<https://www.biodiversitylibrary.org/>). Reports of predation attempts also were included in the review list. Prey items were just considered in our list when identified at least to the taxonomic level of order.

On 25 July 2022, around 09:20 hrs, we observed an adult *Caiman crocodilus* (~160 cm total body length) consuming an adult *Pterygoplichthys pardalis* (~20 cm total body length) (Fig. 1). This predation event was observed in a lagoon (3°00'27" S, 59°56'25" W) located in the Reserva Florestal Adolpho Ducke, municipality of Manaus, State of Amazonas, Brazil. Our observation began when the alligator had already captured and dominated the fish. Specifically, the alligator stood immobile at the edge of the lagoon, with only its body submerged and, after holding the fish firmly with its bite, swallowed it. The predation event lasted approximately 10 minutes until the prey was completely swallowed. After ingesting the fish, the caiman remained at the margin of the lagoon for about 2 minutes and then submerged. The identification of the fish was confirmed by the ichthyologist Jansen Alfredo Sampaio Zuanon, from Instituto Nacional de Pesquisas da Amazônia (INPA).

Literature survey on prey items of *C. crocodilus* identified 27 studies, published between 1975 and 2022 (Table 1). Among these, only one study reported a predation attempt of a juvenile caiman on a frog. These studies were conducted in Brazil, Cuba, Mexico, Peru, Puerto Rico, United States of America, and Venezuela. The diet of *C. crocodilus* is composed by 250 prey items, of which 150 are invertebrates (89 Insecta, 24 Crustacea, 14 Mollusca, 10 Arachnida, 10 Myriapoda, 2 Annelida, and 1 Platyhelminthes) and 100 are vertebrates (53 fishes, 16 reptiles, 11 amphibians, 10 birds, and 10 mammals) (Table 1).

Records of fish as prey items of *C. crocodilus* include species within 10 taxonomic orders (Table 1): Lepisosteiformes, Elopiformes, Osteoglossiformes, Characiformes, Siluriformes, Gymnotiformes, Cyprinodontiformes, Beloniformes, Synbranchiformes, and Perciformes (Staton & Dixon, 1975; Ellis, 1980; Seijas & Ramos, 1980; Thorbjarnarson, 1993; Escobar, 1995; Krysko et al., 2010; Barão-Nóbrega et al., 2016; Bontemps et al.,





**Figura 1.** Predação de *Pterygoplichthys pardalis* por *Caiman crocodilus* na margem de uma lagoa na Reserva Florestal Adolpho Ducke, município de Manaus, Estado do Amazonas, norte do Brasil. A - Visão geral; B - Visão aproximada. Fotos: Souza, F.C.

**Figure 1.** Predation of *Pterygoplichthys pardalis* by *Caiman crocodilus* at the margin of a lagoon in Reserva Florestal Adolpho Ducke, municipality of Manaus, Amazonas State, northern Brazil. A - General view; B - Close-up view. Photos: Souza, F.C.

**Tabela 1.** Presas relatadas do complexo *Caiman crocodilus*. Países: BRA: Brasil, CUB: Cuba, MEX: México, PER: Peru, PRI: Porto Rico, EUA: Estados Unidos da América, VEN: Venezuela. (\*) Tentativas de predação.

**Table 1.** Reported preys of *Caiman crocodilus* complex. Countries: BRA: Brazil, CUB: Cuba, MEX: Mexico, PER: Peru, PRI: Puerto Rico, USA: United States of America, VEN: Venezuela. (\*) Predation attempts.

Prey		Locality (Country)	Reference
Higher taxa	Species		
<b>INVERTEBRATES</b>			
<b>INSECTA</b>			
<b>Blattaria</b>			
Blaberidae	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
<b>Coleoptera</b>			
	Undetermined	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
	Undetermined	Poconé, Mato Grosso State (BRA)	Schaller & Crawshaw (1982)
	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	Undetermined	Reserva Extrativista do Lago Cuniã, Rondonia State (BRA)	Costa & Nunes (2019)
	Undetermined	Parque Nacional de Anavilhas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	Undetermined	Mapurite lagoon system, El Manteco (VEN)	Gorzula (1977, 1978)
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
	Undetermined	Archipiélago de San Andrés, Providencia y Santa Catalina (COL)	Forero-Medina et al. (2006)
Bostrichidae	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
Carabidae	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
Curculionidae	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
Dysticidae	<i>Megadytes</i> sp.	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
	Undetermined	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
	Undetermined	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
Gyrindae	Undetermined	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
Haliplidae	Undetermined	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
Hydrophilidae	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	Undetermined	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
	Undetermined	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)



**Tabela 1 (cont.).** Presas relatadas do complexo *Caiman crocodilus*. Países: BRA: Brasil, CUB: Cuba, MEX: México, PER: Peru, PRI: Porto Rico, EUA: Estados Unidos da América, VEN: Venezuela. (\*) Tentativas de predação.

**Table 1 (cont.).** Reported preys of *Caiman crocodilus* complex. Countries: BRA: Brazil, CUB: Cuba, MEX: Mexico, PER: Peru, PRI: Puerto Rico, USA: United States of America, VEN: Venezuela. (\*) Predation attempts.

<b>Prey</b>		<b>Locality (Country)</b>	<b>Reference</b>
<b>Higher taxa</b>	<b>Species</b>		
	<i>Hydrophilus</i> sp.	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
Melolonthidae	<i>Phyllophaga</i> sp.	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
Noteridae	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
Scarabaeidae	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
	Undetermined	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
<b>Diptera</b>			
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
	Undetermined	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
Nematocera	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
<b>Ephemeroptera</b>			
	Undetermined	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
<b>Hemiptera</b>			
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	Undetermined	Mapurite lagoon system, El Manteco (VEN)	Gorzula (1977, 1978)
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
Belostomatidae	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	Undetermined	Reserva Extrativista do Lago Cuniã, Rondonia State (BRA)	Costa & Nunes (2019)
	Undetermined	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
	Undetermined	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	<i>Lethocerus</i> sp.	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
Veliidae	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
<b>Homoptera</b>			
	Undetermined	Parque Nacional de Anavilhas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
<b>Hymenoptera</b>			
	Undetermined	Parque Nacional de Anavilhas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	Undetermined	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)



**Tabela 1 (cont.).** Presas relatadas do complexo *Caiman crocodilus*. Países: BRA: Brasil, CUB: Cuba, MEX: México, PER: Peru, PRI: Porto Rico, EUA: Estados Unidos da América, VEN: Venezuela. (\*) Tentativas de predação.

**Table 1 (cont.).** Reported preys of *Caiman crocodilus* complex. Countries: BRA: Brazil, CUB: Cuba, MEX: Mexico, PER: Peru, PRI: Puerto Rico, USA: United States of America, VEN: Venezuela. (\*) Predation attempts.

Prey		Locality (Country)	Reference
Higher taxa	Species		
Formicidae	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
<b>Isoptera</b>	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
<b>Lepidoptera</b>	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
<b>Mantodea</b>			
Mantidae	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
<b>Odonata</b>	Undetermined	Parque Nacional de Anavilhanas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	Undetermined	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
Caenogriionidae	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
<b>Orthoptera</b>			
	Undetermined	Parque Nacional de Anavilhanas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	Undetermined	Mapurite lagoon system, El Manteco (VEN)	Gorzula (1977, 1978)
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
	Undetermined	Archipiélago de San Andrés, Providencia y Santa Catalina (COL)	Forero-Medina et al (2006)
	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
Gryllidae	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
<b>CRUSTACEA</b>			
	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
	Undetermined	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	Undetermined	Pacaya-Samiria National Reserve, Loreto region (PER)	Moldowan et al. (2016)
	Undetermined	Reserve Pacaya Samiria National (PER)	Lavery & Dobson, 2013
	Undetermined	Parque Nacional de Anavilhanas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
	Undetermined	Poconé, Mato grosso (BRA)	Schaller & Crawshaw (1982)
Brachyura	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)



**Tabela 1 (cont.).** Presas relatadas do complexo *Caiman crocodilus*. Países: BRA: Brasil, CUB: Cuba, MEX: México, PER: Peru, PRI: Porto Rico, EUA: Estados Unidos da América, VEN: Venezuela. (\*) Tentativas de predação.

**Table 1 (cont.).** Reported preys of *Caiman crocodilus* complex. Countries: BRA: Brazil, CUB: Cuba, MEX: Mexico, PER: Peru, PRI: Puerto Rico, USA: United States of America, VEN: Venezuela. (\*) Predation attempts.

Prey		Locality (Country)	Reference
Higher taxa	Species		
Decapoda	Undetermined	Reserva Extrativista do Lago Cuniã, Rondonia State (BRA)	Costa & Nunes (2019)
	Undetermined	Parque Nacional de Anavilhanas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
	Undetermined	Mapurite lagoon system, El Manteco (VEN)	Gorzula (1977, 1978)
	Undetermined	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
	Undetermined	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
	Undetermined	Archipiélago de San Andrés, Providencia y Santa Catalina (COL)	Forero-Medina et al. (2006)
	Undetermined	Parque Nacional do Araguaia, Ilha do Bananal (TO)	Gomes & Malvasio (2013)
Grapsidae	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
Malacostraca	Undetermined	Manaus, Amazonas State (BRA)	Martins (2012)
Palaemonidae	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	<i>Macrobrachium</i> spp.	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
	<i>Macrobrachium</i> sp.	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
Pseudothelphusidae	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
Trichodactylidae	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	<i>Dilocarcinus</i> sp.	Poconé, Mato Grosso (BRA)	Schaller & Crawshaw (1982)
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
	<i>Valdivia serrata</i>	Parque Nacional de Anavilhanas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
<b>MOLLUSCA</b>			
Gastropoda	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
	Undetermined	Reserve Pacaya Samiria National (PER)	Laverty & Dobson, 2013
	<i>Pomacea doliodes</i>	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	<i>Pomacea</i>	Parque Nacional de Anavilhanas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	<i>Marisa cornuarietis</i>	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
Ampullariidae	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	<i>Bulimus guadalupensis</i>	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)



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**Table 1 (cont.).** Reported preys of *Caiman crocodilus* complex. Countries: BRA: Brazil, CUB: Cuba, MEX: Mexico, PER: Peru, PRI: Puerto Rico, USA: United States of America, VEN: Venezuela. (\*) Predation attempts.

Prey		Locality (Country)	Reference
Higher taxa	Species		
Neritidae	<i>Neritina</i> sp.	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
Pilidae	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
Thiaridae	<i>Melanoides tuberculata</i>	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	<i>Tarebia granifera</i>	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
<b>ARACHNIDA</b>			
	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
	Undetermined	Pacaya-Samiria National Reserve, Loreto region (PER)	Moldowan et al. (2016)
	Undetermined	Reserve Pacaya Samiria National (PER)	Laverty & Dobson (2013)
	Undetermined	Parque Nacional de Anavilhanas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
Acari	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
Hydrachnidiae		Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
<b>Araneae</b>	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
Lycosidae	Undetermined	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
Pisauridae	Undetermined	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
<b>Scorpiones</b>	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
<b>MYRIAPODA</b>			
	Undetermined	Archipiélago de San Andrés, Providencia y Santa Catalina (COL)	Forero-Medina et al. (2006)
	Undetermined	Reserve Pacaya Samiria National (PER)	Laverty & Dobson (2013)
Chilopoda	Undetermined	Parque Nacional de Anavilhanas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
Diplopoda	Undetermined	Parque Nacional de Anavilhanas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	Undetermined	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
Scolopendromorpha	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
<b>ANNELIDA</b>			
Hirudinea	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
Oligochaeta	Undetermined	Parque Nacional de Anavilhanas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)



**Tabela 1 (cont.).** Presas relatadas do complexo *Caiman crocodilus*. Países: BRA: Brasil, CUB: Cuba, MEX: México, PER: Peru, PRI: Porto Rico, EUA: Estados Unidos da América, VEN: Venezuela. (\*) Tentativas de predação.

**Table 1 (cont.).** Reported preys of *Caiman crocodilus* complex. Countries: BRA: Brazil, CUB: Cuba, MEX: Mexico, PER: Peru, PRI: Puerto Rico, USA: United States of America, VEN: Venezuela. (\*) Predation attempts.

Prey		Locality (Country)	Reference
Higher taxa	Species		
<b>Plathyhelminthes</b>			
Turbellaria	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
<b>VERTEBRATES</b>			
<b>FISH</b>			
<b>Lepisosteiformes</b>			
Lepisosteidae	<i>Atractosteus tristoechus</i>	Isla de la Juventud (CUB)	Escobar (1995)
<b>Elopiformes</b>			
Magalopidae	<i>Megalops atlanticus</i>	Homestead Air Reserve Base, Miami-Dade Co., Florida State (USA)	Ellis (1980)
<b>Osteoglossiformes</b>			
	Undetermined	Parque Nacional de Anavilhas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
<b>Characiformes</b>			
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	Undetermined	Reserva Extrativista do Lago Cuniã, Rondonia State (BRA)	)Costa & Nunes (2019)
Anostomatidae	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	<i>Aphyocharax</i> sp.	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
	Undetermined	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
Erythrinidae	<i>Hoplias malabaricus</i>	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
		Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	<i>Hoplias</i> sp.	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
Lebiasinidae	<i>Pyrrhulina</i> sp.	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
Serrasalmidae	<i>Pygocentrus cariba</i>	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	<i>Serrasalmus</i> sp.	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)



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**Table 1 (cont.).** Reported preys of *Caiman crocodilus* complex. Countries: BRA: Brazil, CUB: Cuba, MEX: Mexico, PER: Peru, PRI: Puerto Rico, USA: United States of America, VEN: Venezuela. (\*) Predation attempts.

Prey		Locality (Country)	Reference
Higher taxa	Species		
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
<b>Siluriformes</b>			
	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	Undetermined	Reserva Extrativista do Lago Cuniã, Rondonia State (BRA)	Costa & Nunes (2019)
Auchenipteridae	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
Callichthyidae	<i>Hoplosternum littorale</i>	Modulo Experimental de Mantecal (VEN) Calabozo, Guárico State (VEN)	Seijas & Ramos (1980) Thorbjarnarson (1993)
	<i>Hoplosternum</i> sp.	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
Clariidae	<i>Clarias batrachus</i>	Everglades National Park, Miami-Dade Co., Florida State (USA)	Krysko et al. (2010)
Ictaluridae	<i>Ameiurus nebulosus</i>	Homestead Air Reserve Base, Miami-Dade Co., Florida State (USA)	Ellis (1980)
Ictaluridae	Undetermined	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
	<i>Pterygoplichthys pardalis</i>	Reserva Florestal Adolpho Ducke, Manaus, Amazonas State (BRA)	Present study
Pimelodidae	<i>Pseudoplatystoma</i> sp.	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	Undetermined	Parque Nacional de Anavilhas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
<b>Gymnotiformes</b>			
Sternopygidae	Undetermined	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
<b>Cyprinodontiformes</b>			
Poeciliidae	<i>Gambusia affinis</i>	Homestead Air Reserve Base, Miami-Dade Co., Florida State (USA)	Ellis (1980)
	<i>Poecilia latipinna</i>	Homestead Air Reserve Base, Miami-Dade Co., Florida State (USA)	Ellis (1980)
<b>Beloniformes</b>			
	Undetermined	Parque Nacional de Anavilhas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)



**Tabela 1 (cont.).** Presas relatadas do complexo *Caiman crocodilus*. Países: BRA: Brasil, CUB: Cuba, MEX: México, PER: Peru, PRI: Porto Rico, EUA: Estados Unidos da América, VEN: Venezuela. (\*) Tentativas de predação.

**Table 1 (cont.).** Reported preys of *Caiman crocodilus* complex. Countries: BRA: Brazil, CUB: Cuba, MEX: Mexico, PER: Peru, PRI: Puerto Rico, USA: United States of America, VEN: Venezuela. (\*) Predation attempts.

Prey		Locality (Country)	Reference
Higher taxa	Species		
Belonidae	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
<b>Synbranchiformes</b>			
Synbranchidae	<i>Synbranchus marmoratus</i>	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	<i>Synbranchus</i> sp.	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
	Undetermined	Parque Nacional de Anavilhanas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
<b>Perciformes</b>			
Centrarchidae	<i>Lepomis macrochirus</i>	Homestead Air Reserve Base, Miami-Dade Co., Florida State (USA)	Ellis (1980)
Centropomidae	<i>Centropomus undecimalis</i>	Homestead Air Reserve Base, Miami-Dade Co., Florida State (USA)	Ellis (1980)
Cichlidae	<i>Aequidens</i> sp.	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
	<i>Cichlasoma</i> sp.	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
	<i>Oreochromis</i> sp.	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	<i>Pelmatolapia mariae</i>	Homestead Air Reserve Base, Miami-Dade Co., Florida State (USA)	Ellis (1980)
	Undetermined	Modulo Experimental de Mantecal (VEN)	Seijas & Ramos (1980)
	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	Undetermined	Parque Nacional de Anavilhanas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
Eleotridae	<i>Eleotris</i> sp.	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
<b>AMPHIBIANS</b>			
<b>Anura</b>			
Bufonidae	<i>Rhinella marina</i>	Oriximiná, Pará State (BRA)	Batista et al. (2011)
		Reserva Florestal Adolpho Ducke, Manaus, Amazonas State (BRA)	Oda et al. (2022)
	<i>Rhinella granulos</i>	Mapurite lagoon system, El Manteco (VEN)	Gorzula (1977, 1978)
Hylidae	<i>Pseudis paradoxa</i>	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	Undetermined	Hato La Guanota, near San Fernando de Apure (VEN)	Staton & Dixon (1975)
Leptodactylidae	<i>Leptodactylus macrosternum</i>	Mapurite lagoon system, El Manteco (VEN)	Gorzula (1977, 1978)
	<i>Leptodactylus</i> sp.	Venezuelan Llanos (VEN)	Staton & Dixon (1975)



**Tabela 1 (cont.).** Presas relatadas do complexo *Caiman crocodilus*. Países: BRA: Brasil, CUB: Cuba, MEX: México, PER: Peru, PRI: Porto Rico, EUA: Estados Unidos da América, VEN: Venezuela. (\*) Tentativas de predação.

**Table 1 (cont.).** Reported preys of *Caiman crocodilus* complex. Countries: BRA: Brazil, CUB: Cuba, MEX: Mexico, PER: Peru, PRI: Puerto Rico, USA: United States of America, VEN: Venezuela. (\*) Predation attempts.

Prey		Locality (Country)	Reference
Higher taxa	Species		
		Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	<i>Pleurodema brachyops</i>	Mapurite lagoon system, El Manteco (VEN)	Gorzula (1977, 1978)
		Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
Microhylidae	<i>Elachistocleis</i> sp.	Mapurite lagoon system, El Manteco (VEN)	Gorzula (1977, 1978)
	<i>Elachistocleis carvalhoi</i> *	Tauari River, Marabá, Pará State (BRA)	Figueiredo et al. (2021)
Ranidae	<i>Lithobates catesbeianus</i>	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	<i>Lithobates sphaenocephalus</i>	Homestead Air Reserve Base, Miami-Dade Co., Florida State (USA)	Ellis (1980)
<b>REPTILES</b>			
Sauria			
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
Iguanidae	<i>Iguana iguana</i>	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
		Hato Masagural, Guárico State (VEN)	Rivas et al. (1998)
Tiidae	<i>Crocodylus</i> or <i>Ameiva</i>	Parque Nacional de Anavilhas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
<b>Squamata</b>			
<b>Amphisbaenia</b>			
Amphisbaenidae	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)
<b>Ophidia</b>			
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
Boidae	<i>Eunectes murinus</i>	Venezuelan Llanos (VEN)	Rivas et al. (1999)
	<i>Eunectes notaeus</i>	Unknown	Medem (1983)
Colubridae	<i>Chironius carinatus</i>	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
Dipsadidae	<i>Helicops angulatus</i>	Pacaya-Samiria National Reserve, Loreto region (PER)	Moldowan et al. (2016)
	<i>Hydrops martii</i>	Parque Nacional de Anavilhas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
	<i>Hydrops triangularis</i>	Parque Nacional de Anavilhas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
<b>Crocodylia</b>			
Alligatoridae	<i>Caiman crocodilus</i>	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	Undetermined	Parque Nacional de Anavilhas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)



**Tabela 1 (cont.).** Presas relatadas do complexo *Caiman crocodilus*. Países: BRA: Brasil, CUB: Cuba, MEX: México, PER: Peru, PRI: Porto Rico, EUA: Estados Unidos da América, VEN: Venezuela. (\*) Tentativas de predação.

**Table 1 (cont.).** Reported preys of *Caiman crocodilus* complex. Countries: BRA: Brazil, CUB: Cuba, MEX: Mexico, PER: Peru, PRI: Puerto Rico, USA: United States of America, VEN: Venezuela. (\*) Predation attempts.

Prey		Locality (Country)	Reference
Higher taxa	Species		
Crocodylidae	<i>Crocodylus rhombifer</i>	Lanier Swamp, Isla de la Juventude (CUB)	Varona (1980)
<b>Testudines</b>			
Emydidae	<i>Trachemys scripta elegans</i>	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	<i>Trachemys stejnegeri stejnegeri</i>	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
<b>BIRDS</b>			
<b>Anseriformes</b>			
Anatidae	<i>Dendrocygna</i> sp.	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
<b>Charadriiformes</b>			
Jacanidae	<i>Jacana</i> sp.	La Encrucijada Biosphere Reserve, Acapetahua, Chiapas (MEX)	Soria-Ortiz et al. (2020)
<b>Ciconiiformes</b>			
	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
<b>Columbiformes</b>			
Columbidae	Undetermined	Parque Nacional de Anavilhas, Amazonas State (BRA)	Da Silveira & Magnusson (1999)
<b>Galliformes</b>			
Phasianidae	<i>Gallus gallus domesticus</i>	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
<b>Gruiformes</b>			
Rallidae	<i>Porphyrio martinicus</i>	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
<b>Passeriformes</b>			
Icteridae	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
Rhynchocyclidae	<i>Todirostrum</i> sp.	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
<b>Pelecaniformes</b>			
Phalacrocoracidae	<i>Phalacrocorax auritus</i>	Homestead Air Reserve Base, Miami-Dade Co., Florida State (USA)	Ellis (1980)
<b>MAMMALS</b>			
	Undetermined	Localities in the Brazilian Amazon (BRA)	Magnusson et al. (1987)
<b>Cingulata</b>			



**Tabela 1 (cont.).** Presas relatadas do complexo *Caiman crocodilus*. Países: BRA: Brasil, CUB: Cuba, MEX: México, PER: Peru, PRI: Porto Rico, EUA: Estados Unidos da América, VEN: Venezuela. (\*) Tentativas de predação.

**Table 1 (cont.).** Reported preys of *Caiman crocodilus* complex. Countries: BRA: Brazil, CUB: Cuba, MEX: Mexico, PER: Peru, PRI: Puerto Rico, USA: United States of America, VEN: Venezuela. (\*) Predation attempts.

Prey		Locality (Country)	Reference
Higher taxa	Species		
Dasypodidae	<i>Dasyprocta novemcinctus</i>	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
	<i>Dasyprocta</i> sp.	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
Didelphimorphia			
Didelphidae	<i>Didelphis marsupialis</i>	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
<b>Rodentia</b>			
	Undetermined	Calabozo, Guárico State (VEN)	Thorbjarnarson (1993)
Heteromyidae	Undetermined	Venezuelan Llanos (VEN)	Staton & Dixon (1975)
Muridae	<i>Mus musculus</i>	Tortuguero lagoon, between Vega Baja and Manatí (PRI)	Bontemps et al. (2016)
	<i>Rattus norvegicus</i>	Manaus, Amazonas State (BRA)	Martins (2012)
	<i>Rattus rattus</i>	Manaus, Amazonas State (BRA)	Martins (2012)
<b>Primates</b>			
Atelidae/Cebidae	Undetermined	Reserva de Desenvolvimento Sustentável Piagaçu-Purus, Amazonas State (BRA)	Barão-Nóbrega et al. (2016)

2016; Costa & Nunes 2019). Predation records for Siluriformes include *Hoplosternum littorale* (Seijas & Ramos, 1980), *Hoplosternum* sp. (Staton & Dixon, 1975), *Clarias batrachus* (Krysko et al., 2010), *Ameiurus nebulosus* (Ellis, 1980), and *Pseudoplatystoma* sp. (Staton & Dixon, 1975). Therefore, *Pterygoplichthys pardalis* represents a new prey species for *C. crocodilus*.

Previous studies on the diet of *Caiman crocodilus* (Thorbjarnarson, 1993; Laverty & Dobson, 2013; Bontemps et al., 2016), demonstrate that this species is a generalist predator, feeding on a wide variety of items. Our field observation and literature review reinforce this aspect of their diet. However, among the vertebrate prey items, the high number of fish reports suggests that this food item is likely of great importance in its diet (e.g., Magnusson et al., 1987; Thorbjarnarson, 1993; Da Silveira & Magnusson, 1999; Bontemps et al., 2016). This is probably related to the high abundance and availability of this prey in the studied habitats.

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## CITED LITERATURE

- Barão-Nóbrega, J.A.L., B. Marioni, D. Dutra-Araújo, R. Botero-Arias, A.J.A. Nogueira, W.E. Magnusson & R. Da Silveira. 2016. Nest attendance influences the diet of nesting female spectacled caiman (*Caiman crocodilus*) in Central Amazonia, Brazil. Herpetological Journal 26:65-71.



- Batista, V.B.G.V., S.A.A. Morato & A. Paz. 2011. *Caiman crocodilus* (Spectacled Caiman). Prey. Herpetological Review 42:269.
- Bontemps, D.R., E. Cuevas, E. Ortiz, J.M Wunderle Jr & R.L. Joglar. 2016. Diet of the non-native spectacled caiman (*Caiman crocodilus*) in Puerto Rico. Management of Biological Invasions 7:287-296.
- Costa, I.D. & N.N.S. Nunes 2019. Caracterização da dieta de *Melanosuchus niger* (Spix, 1825) e *Caiman crocodilus* (Linnaeus, 1758) na Resex Lago do Cuniã, Rondônia. Revista Colombiana de Ciencia Animal 11:1-12.
- Da Silveira, R. & W.E. Magnusson. 1999. Diets of spectacled and black caiman in the Anavilhanas Archipelago, Central Amazonia, Brazil. Journal of Herpetology 33:181-192.
- Ellis, T.M. 1980. *Caiman crocodilus*: an established exotic in South Florida. Copeia 1:152-154.
- Emiroğlu, Ö., F.G. Ekmekçi, S. Aksu, S. Başkurt, A. Atalay & A.S. Tarkan. 2016. Introduction and establishment of tropical ornamental fish, *Pterygoplichthys* spp. (Actinopterygii: Siluriformes: Loricariidae) in hot springs: aquarium trade as a potential risk for biodiversity in Turkey. Acta Ichthyologica Piscatoria 46:351-356.
- Escobar, T.R. 1995. Isla de la Juventud. Vertebrados Introducidos por Causas Deliberadas. Editorial Científico Técnica. Los Pinos Nuevos, Habana, CUBA.
- Farias, I.P., B. Marioni, L.M. Verdade, L. Bassetti, M.E. Coutinho, S.H.S.T. Mendonça, T.Q. Vieira, W.E. Magnusson & Z. Campos 2013. Avaliação do risco de extinção do jacaré-tinga *Caiman crocodilus* (Linnaeus, 1758) no Brasil. Biodiversidade Brasileira 3:4-12.
- Figueiredo, A., N. Alves-Martins & P. Nogueira-Costa. 2021. Predation attempt by the Spectacled Caiman, *Caiman crocodilus* (Linnaeus, 1758), on the microhylid *Elachistocleis carvalhoi* Caramaschi, 2010 in the southeastern Amazon of Brazil. Herpetology Notes 14:1227-1229.
- Forero-Medina, G., O.V. Castañ-Mora & M. Rodríguez-Melo. 2006. Ecology of *Caiman crocodilus fuscus* on San Andrés Island, Colombia: a preliminary study. Caldasia 28:115-124.
- Gorzula, S.J. 1977. The ecology of the spectacled caiman in the Venezuelan Guayana. Herpetological Review 8:9.
- Gorzula, S.J. 1978. An ecological study of *Caiman crocodilus* inhabiting savanna lagoons in the Venezuelan, Guayana. Oecologia 35:21-34.
- Krysko, K.L., M. Granatosky, Z.W. Fratto, J.L. Kline & M.R. Rochford. 2010. *Caiman crocodilus* (Spectacled Caiman). Prey. Herpetological Review 41:348-349.
- Laverty, T.M. & A.P. Dobson. 2013. Dietary overlap between black caimans and spectacled caimans in the Peruvian Amazon. Herpetologica 69:91-101.
- Lima, E.M.M., P.R.B. Santos, T.M.P Braga & D.G. McGrath. 2019. A pesca de acari (*Pterygoplichthys pardalis*) na várzea do baixo Amazonas, Pará, Brasil: Aspectos estruturais e socioeconômicos. Gaia Scientia 13:70-85
- Magnusson, W.E., E.V. da Silva & A.P. Lima. 1987. Diets of Amazonian crocodilians. Journal of Herpetology 21:85-95.
- Martins, J.F.L. 2012. Abundância, estrutura dos tamanhos, razão sexual e dieta de *Caiman crocodilus* e de *Paleosuchus trigonatus* nos igarapés urbanos de Manaus, Amazônia Central. Relatório de Iniciação Científica, Universidade Federal do Amazonas, Manaus, Amazonas. 28p.
- Medem, F. 1983. Los Crocodylia de Sur América: Venezuela - Trinidad Tobago - Guyana - Suriname - Guayana Francesa - Ecuador - Perú - Bolivia - Brasil - Paraguay - Argentina - Uruguay. Editorial Carrera, Bogotá, COL.
- Miranda, E.B.P. 2017. The plight of peptiles as ecological actors in the Tropics. Frontiers in Ecology and Evolution 5:159.
- Moldowan, P.D., T.M. Laverty, C.J. Emmans & R.C. Stanley. 2016. Diet, gastric parasitism, and injuries of caimans (*Caiman*, *Melanosuchus*, and *Paleosuchus*) in the Peruvian Amazon. South American Journal of Herpetology 11:176-182.
- Neves, A.M. & M.L. Ruffino. 1998. Aspectos reprodutivos do acaríbodo *Liposarcus pardalis* (Pisces, Siluriformes, Loricariidae) (Castelnau, 1855) do Médio Amazonas. Boletim do Museu Paraense Emílio Goeldi 14:77-94.
- Nico, L.G. 2010. Nocturnal and diurnal activity of armored suckermouth catfish (Loricariidae: *Pterygoplichthys*) associated with wintering Florida manatees (*Trichechus manatus latirostris*). Neotropical Ichthyology 8:893-898.



- Nifong, J. & B. Silliman. 2013. Impacts of a large-bodied, apex predator (*Alligator mississippiensis* Daudin 1801) on salt marsh food webs. Journal of Experimental Marine Biology and Ecology 440:185-191.
- Oda, F.H., L. Signorelli, F.C. Souza, W.O. Almeida, L.N. Pereira & A.R. Morais. 2022. *Drymarchon corais* (Colubridae) and *Caiman crocodilus* (Alligatoridae) use different feeding behaviors to consume poisonous toads. Biotropica 54:566-570.
- Rivas, J.A., C.R. Molina & T.M. Avila. 1998. *Iguana iguana* (Green Iguana). Juvenile predation. Herpetological Review 29:238-239.
- Rivas, J.A., J.B. Thorbjarnarson, M.C. Muñoz & R.Y. Owens. 1999. *Eunectes murinus* (Green Anaconda). Caiman predation. Herpetological Review 30:101.
- Roberto, I.J., P.S. Bittencourt, F.L. Muniz, S.M. Hernández-Rangel, Y.C. Nóbrega, R.W. Ávila, B.C. Souza, G. Alvarez, G. Miranda-Chumacero, Z. Campos, I.P. Farias & T. Hrbek. 2020. Unexpected but unsurprising lineage diversity within the most widespread Neotropical crocodilian genus *Caiman* (Crocodylia, Alligatoridae). Systematics and Biodiversity 18:377-395.
- Seijas, A.E. & S. Ramos. 1980. Características de la dieta de la baba (*Caiman crocodilus*) durante la estación seca en las sabanas moduladas del estado de Apure, Venezuela. Acta Biológica Venezolica 10:373-389.
- Schaller, G.B. & P.G. Crawshaw. 1982. Fishing behavior of Paraguayan Caiman (*Caiman crocodilus*). Copeia 1982:66-72.
- Smith, E.N. 1979. Behavioral and physiological thermoregulation of crocodilians. American Zoologist 19:239-247.
- Soria-Ortiz, G.J., P. Charruau & V.H. Reynoso. 2020. Variation in diet of hatchlings, juveniles and sub-adults of *Caiman crocodilus chiapasius* in La Encrucijada, Chiapas, Mexico. Revista Mexicana de Biodiversidad 91:1-10.
- Sousa, R.G.C., C.M. Oliveira, I.R.A. Sant'Anna, B.G. Marshall & C.E.C. Freitas. 2019. Growth parameters and yield per recruit analysis for the armored catfish *Pterygoplichthys pardalis* sampled in the low reach of the Amazonas River. Boletim do Instituto de Pesca 45:e396.
- Staton, M.A. & J.R. Dixon. 1975. Studies on the dry season biology of *Caiman crocodilus crocodilus* from the Venezuelan Llanos. Memoria de la Sociedad Ciencias Naturales La Salle 35:237-265.
- Thorbjarnarson, J.B. 1993. Diet of the Spectacled Caiman (*Caiman crocodilus*) in the Central Venezuelan Llanos. Herpetologica 49:108-117.
- Varona, L.S. 1980. Protection in Cuba. Oryx 15:282-284.
- Willard, D.E. 1985. Comparative feeding ecology of twenty-two Tropical piscivores. Ornithological Monographs 36:788-797.
- Yves, A., D. Dutra-Araújo, L.A.B. Bassetti, T.C.G. Portelinha & T.S. Marques 2021. Ecologia alimentar dos crocodilianos brasileiros: hábitos, métodos e perspectivas de estudos. Pp. 152-171 In Barret-Lima, A.F., M.R.D. Santos & Y.C. Nóbrega (Eds.). Tratado de Crocodilianos do Brasil. Instituto Marcos Daniel, Vitória, Espírito Santo, Brasil.

