

## Catalogue of American Amphibians and Reptiles.

Magnusson, W.E. 1992. *Paleosuchus trigonatus*.

***Paleosuchus trigonatus* (Schneider)  
Schneider's Dwarf Caiman**

*Crocodylus niloticus* Laurenti, 1768:53. See Remarks.

*Crocodylus trigonatus* Schneider, 1801:161. Type-locality unknown. According to M.S. Hoogmoed (1987, pers. comm.), the type-specimen is in the Zoologisches Museum Berlin, Bloch Collection 243, a juvenile, sex, date of collection, and collector unknown, not examined by author. See Remarks.

*Crocodylus palpebrosus* var. 2 Cuvier, 1807:38. See Remarks.

*Crocodylus (Alligator) trigonatus*: Merrem, 1820:35.

*Champsia trigonata*: Wagler, 1830:140.

*Alligator palpebrosus* var. B. Duméril and Bibron, 1836:67. See Remarks.

*Caiman trigonatus*: Gray, 1844:66.

*Caiman (Paleosuchus) trigonatus*: Gray, 1862:330.

*Jacaretinga trigonatus*: Vaillant, 1898:174.

*Paleosuchus niloticus*: Müller, 1924b:441. See Remarks.

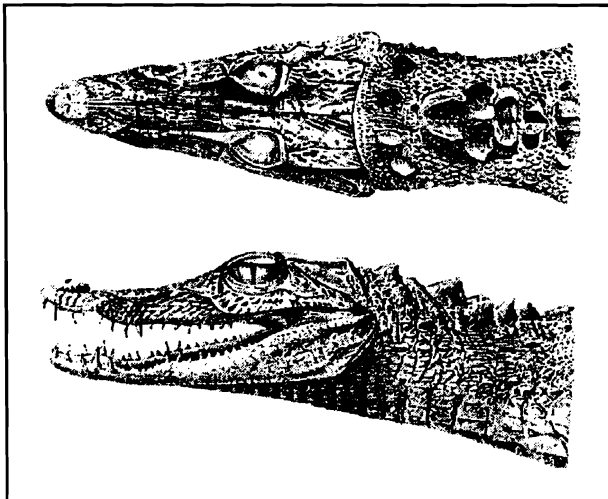
*Paleosuchus trigonatus*: Schmidt, 1928:209.

*Crocodylus niloticus*: Werner, 1933:102.

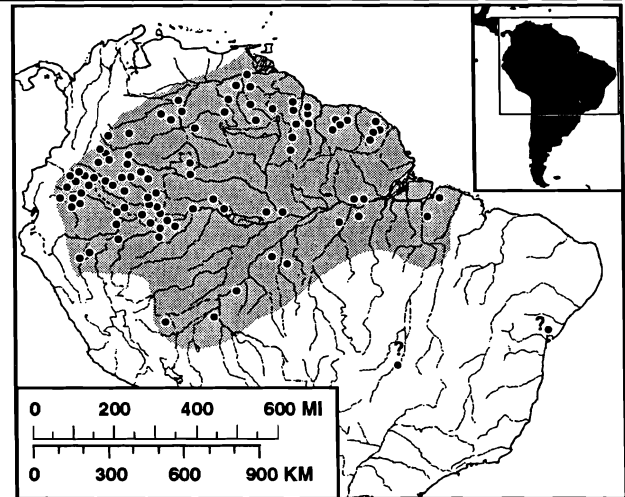
- **Content.** No subspecies are recognized.

- **Definition.** *Paleosuchus trigonatus* is a small alligatorid; the largest specimen recorded was 2.2 m, but males rarely exceed 1.7 m and most females are < 1.4 m TL. The external mandibular foramen is at least as wide vertically as its distance to the inferior margin of the angular. Usually one row of enlarged occipital scutes, and one transverse row of two (rarely more) enlarged dorsal scutes are present between the rear legs; 5-8 (rarely fewer) columns of lateral tail scutes are broken by irregularly distributed small scales; two or fewer of the posterior double caudal crests meet at the midline of the tail; and enlarged scutes of the double caudal crests project laterally. On the ventral surface, areas of dark pigmentation usually are much less extensive than areas of cream pigmentation. Hatchlings have light yellow or brown cranial tables and light dorsal bands. The lower jaw has cream bars, the snout has a medium black stripe, and the tail may have alternating light and dark bands or blotches. Juveniles lose the light coloring on the cranial table, and all other colors and patterns become duller with age.

- **Descriptions.** Descriptions have been given by Tiedemann et al. (1817), Natterer (1841), Schmidt (1928), Carvalho (1951), Wermuth (1953), Brazaitis (1974), Wermuth and Fuchs (1983a), Magnusson (1989), and Ross and Magnusson (1989). Descriptions of commercial skins were given by King and Brazaitis (1971), Fuchs (1974), and Wermuth and Fuchs (1983b).



**Figure 1.** Head and neck of *Paleosuchus trigonatus* (from Natterer, 1841).



**Map.** Distribution of *Paleosuchus trigonatus*. The type-locality is not known with certainty. Solid symbols mark other known localities. Question marks indicate two doubtful records (see text).

- **Illustrations.** Line drawings of scale patterns have been given by Carvalho (1951), of the head and neck by Natterer (1841), of skulls by Tiedemann et al. (1817) and Medem (1958, 1981), and of a nest and embryos by Vasquez Ruesta (1983). Frey (1966) illustrated the osteology and muscle insertions around the hindlimbs from midbody to tail. Ross and Mayer (1983) gave line drawings of the anterior dorsal armor. Medem (1952) presented black-and-white photographs of skulls, heads, and bodies; and Brock (1966) and Aoki (1982a) presented black and white photographs of heads. Aoki (1982b) presented black and white photographs of skulls. Medem (1981) included color photographs of juveniles and adults. Palmedo and Desmier (1989) and Alcalá and Dy-Liaco (1989) presented underwater photographs. Magnusson et al. (1989) showed color photographs of hatchlings and a nest, Wermuth and Fuchs (1983b) presented photographs of a commercial skin.

- **Distribution.** *Paleosuchus trigonatus* occurs throughout the Amazon and Orinoco basins and the coastal rivers between them (Carvalho, 1951; Medem, 1981, 1983). Records for Bahia and Aruana given by Medem (1983) probably are erroneous (Hoogmoed and Gruber, 1983; Magnusson and Yamakoshi, 1986). The species is generally restricted to rivers and streams in heavily forested areas, but juveniles and adult males are often found in adjacent habitats.

- **Fossil Record.** Romer (1956) referred to fossil *Paleosuchus* from the Pliocene and Recent of South America, but did not give the species. Steel (1973) listed no fossil material.

- **Pertinent Literature.** Mook and Mook (1940) gave the most detailed account of the problems involved with the taxonomy of the species. Most of what was known of the biology of *P. trigonatus* up to 1979 resulted from the work of Federico Medem. His many papers were summarized in Medem (1981, 1983) and in Magnusson (1989). For readers interested in general aspects of the biology of *P. trigonatus*, Medem (1981) is more comprehensive. Both of Medem's books contain observations on meristics, food habits, captive maintenance, and habitat. Other authors have studied nesting biology (Magnusson et al., 1985; Magnusson et al., 1990), habitat associations (Campbell, 1973; Vanzolini and Gomes, 1979; Magnusson, 1985), food habits (Jackson et al., 1974; Vanzolini and Gomes, 1979; Magnusson et al., 1987), population dynamics (Magnusson and Lima, 1991), and morphology (Vanzolini and Gomes, 1979; Mertens, 1964; Aoki, 1982a, b). Panzer (1971) suggested that *P. trigonatus* does not show the diving bradycardia typical of other reptiles under experimental conditions. The species has been bred in captivity (Jardine, 1981). Marinckelle (1981) described the filarial worm, *Oswaldofilaria medemi*, from *P. trigonatus*. Emmons (1991) noted that *P. trigonatus* was common throughout the quebradas in the forest, and even in the roadside ditches of the Alto Madidi region and adjacent areas of northwest Bolivia.

• **Etymology.** The specific name is masculine in gender and derived from the Greek words *tres* (three) and *gonia* (angle). Schneider (1801) did not give his reasons for the name, but as the first and only italicized sentence in his description is "*Scutorum dorsalium tuberculis seu carinus triangularis*," a reasonable assumption is that the name refers to the prominent triangular dorsal scutes shown in Seba's (1734) pl. 105, fig. 3.

• **Remarks.** Based on Seba's (1734) pl. 105, figs 3 and 4, and possibly Zoologisches Museum Berlin specimen 243 (see below), the species was first described as *Crocodylus niloticus* by Laurenti (1768:53). The type-locality and fate of the holotype are not known with certainty. This is the oldest available name for the species, but it is generally applied to the Nile Crocodile, and has been used for Dwarf Caimans only a few times since Müller (1924a) resurrected the synonymy. Its use for Dwarf Caimans should be suppressed by the International Commission on Zoological Nomenclature.

Both *Crocodylus niloticus* Laurenti and *Crocodylus trigonatus* Schneider are referred to Seba's (1734) plate 105, fig. 3. Schneider cited that figure in his description, which indicates that the specimen on which that figure was based is the holotype. Cuvier (1807) suggested that the model for that figure may have been Museum National d'Histoire Naturelle, Paris specimen 2145, a *P. trigonatus* (Vallant, 1898). However, according to M.S. Hoogmoed (1987, pers. comm.), the holotype of *P. trigonatus* is in the Bloch collection, number 243, of the Zoologisches Museum Berlin. He saw the specimen in 1969 and noted that it is a juvenile with SVL = 135 mm and tail length = 121 mm; 17 transverse rows of dorsals; 11 tail rows with double crests; 16 rows with single crests; and 19 transverse ventral scales; four rows of large neck scales; and the transverse dorsal rows contain maximally 6 scales. Hoogmoed's opinion has been followed here, although the author has not examined the specimen. Medem (1983) considered Seba's pl. 105, figs. 3 and 4 to represent *P. palpebrosus*. However, even if that proved to be true, the application of Schneider's name *trigonatus* to Cuvier's species now known as *palpebrosus* would create untold and unnecessary nomenclatural confusion.

Gray (1869) considered Cuvier's (1807) *Crocodylus palpebrosus* var. 2 to be a composite, including *Osteoleamus tetraspis*, but subsequent authors have not followed his opinion. If Vallant (1898) is correct and the specimen on which Cuvier based his description is specimen 7525 of the Museum National d'Histoire Naturelle, Paris, then *Crocodylus palpebrosus* var. 2 of Cuvier is a synonym for *Paleosuchus trigonatus*. Vallant (1898) also suggested that Duméril and Bibron's (1836) description was based on the same specimen 7527 in the Museum National d'Histoire Naturelle, Paris; origin unknown. This specimen is still in the museum collection (Alain Dubois, 1986, pers. comm.).

Medem (1967, 1983) synonymized *Jacaretinga moschifer* Spix with *P. trigonatus* based on Spix's (1825) figure. The type-specimen was apparently destroyed during the second world war. However, on biogeographic considerations this synonymy is unlikely (Magnusson and Yamakoshi, 1986). Also, Müller identified the specimen as *C. palpebrosus* and Müller is unlikely to have confused the two species (Hoogmoed and Gruber, 1983). Therefore, I have not included *J. moschifer* as a synonym of *P. trigonatus*.

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**William E. Magnusson**, Depto de Ecologia, INPA, CP 478, 69011 Manaus, AM, Brasil.

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