

REPTILIA: TESTUDINES: CHELIDAE

PLATEMYS, PLATEMYS PLATYCEPHALA

Catalogue of American Amphibians and Reptiles.

ERNST, CARL H. 1987. *Platemys, Platemys platycephala*.

Platemys Wagler, 1830:135. Type-species, *Testudo planiceps* Schoepff, 1801:115 (= *Testudo platycephala* Schneider, 1792:261) by monotypy.

Emys: Gray, 1831:40. In part.

Hydraspis: Gray, 1831:40. In part.

- CONTENT. One species, *Platemys platycephala*.

- DEFINITION. Adult males grow to 18 cm carapace length, adult females to 16.5 cm. The flat, elliptical carapace has a deep medial groove flanked by two longitudinal keels. The carapace is highest just anterior to the 2nd intervertebral seam and widest at level of the 7th or 8th marginals. The posterior marginals are flared, those lateral are upturned. Neural bones are usually absent; the 8 pairs of costal bones meet at the midline. The nuchal extends to the carapacial rim; there are 11 pairs of peripherals. The yellow carapace has varying amounts of dark pigment. The hingeless plastron is dark brown with a yellow border; the yellow bridge has a dark transverse bar. The forelobe is slightly upturned, and is longer and slightly wider than the hindlobe which is posteriorly notched. The intergular separates the gulars and is about half as long as the plastral forelobe. Both axillary and inguinal buttresses are strong; the inguinals are ankylized to the 5th costal bones. The broad, hexagonal-shaped entoplastron lies anterior to the humeropectoral seam. The flat, broad skull is extensively roofed and parallel-sided. The prefrontals do not meet at the midline. The moderate temporal arch is formed by the squamosal and parietals. The parietal does not touch the supraoccipital. The vomer contacts the parietals and palatines; the palatines are not reduced. The unnotched jaws are ridgeless. Dorsally the head is covered with smooth, undivided skin, laterally there are 1-3 rows of large scales. The chin has two barbels. The head is orange to yellowish dorsally, dark brown laterally and ventrally; the light dorsal pigment extends downward to midway between the orbit and tympanum. The 5th and 8th cervical centra are biconvex (Williams, 1950). The neck has numerous blunt

tubercles dorsolaterally; the thighs bear small blunt tubercles. The toes are webbed and the anterior surfaces of the limbs have large scales. Males have concave plastra and longer, thicker tails; females have the posterior tips of the plastron bent upward.

- FOSSIL RECORD. Several late Cretaceous to late Pleistocene southern South American turtle fossils have been assigned to *Platemys*: *P. antiqua*, *P. fossilis*, *P. laevius*, *P. robusta* (Ameghino, 1880); *P. paranensis* (Bravard, 1883); *P. torrentium* (Burmeister, 1885); *P. bergii*, *P. enteriana*, *P. holmbergii*, *P. robusta*, *P. mesopotamica* (Ambrosetti, 1893); *P. quarantinica*, *P. patagonica*, and *P. schuensis* (Ameghino, 1899). However, Wood (in prep.) has found all of these to be either *nomina nuda* or *nomina dubia*; so, at present, no fossils can be accurately attributed to this genus.

- PERTINENT LITERATURE. See species account.

- ETYMOLOGY. The generic name *Platemys* is from the Greek *platos*, flat, and *emydos*, a freshwater turtle, and refers to the depressed carapace.

Platemys platycephala (Schneider) Twistnecked turtle

Testudo platycephala Schneider, 1792:261. Type-locality, "ost-Indien," restricted to "Cayenne, French Guiana" by Ernst, 1984:350. Holotype, undesignated.

Testudo planiceps Schneider, 1792:pl. 7. Type-locality, not stated, restricted to "Cayenne," French Guiana by Martin (in Schweigger, 1812). Holotype, undesignated.

Testudo planiceps s. *platycephala*: Schoepff, 1801:115.

Testudo martinella Daudin, 1803:344. Type-locality, "Cayenne," French Guiana from label. Holotype, Mus. Nat. Hist. Natur., Paris 8760, mounted adult female, collector and date unknown (examined by author).

Emys discolor Thunberg, in Schweigger, 1812:302. Type-locality, unknown, restricted to "Cayenne, French Guiana" by Ernst, 1984:350. Holotype, undesignated.

Emys planiceps: Schweigger, 1812:303.

Testudo dicolor: Ekstrand, 1823:6. Ex errore.

Emys canaliculata Spix, 1824:10. Type-locality, "subcognomine Japutipirema in campus paludosis juxta ripan fluminis Solimoens," Brazil. Holotype, Zool. Staatssammlung München 3007/0, shell and skeleton, probably collected by Spix or Martius in 1819 (examined by author).

Hydraspis planiceps: Bell, 1828:512.

Hydraspis canaliculata: Bell, 1828:512.

Clemmys planiceps: Ritgen, 1828:272.

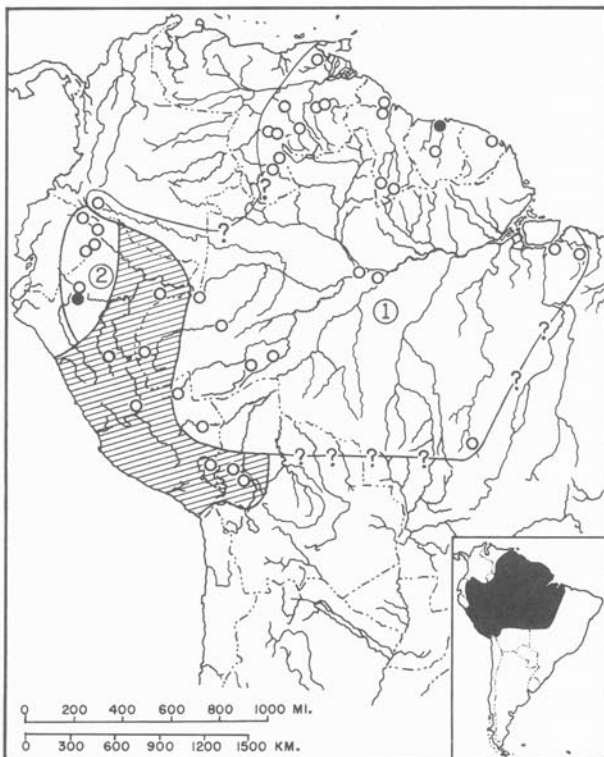
Emys platicephala: Cuvier, 1829:11. Ex errore.

Emys carunculata: Cuvier, 1829:11. Ex errore.

Platemys planiceps: Wagler, 1830:135.

Emys caniculata: Gray, 1831:40. Ex errore.

Hydraspis constricta Gray, 1831:43. Type-locality, unstated, re-



MAP. Solid circles mark the type-localities; open circles other selected localities.

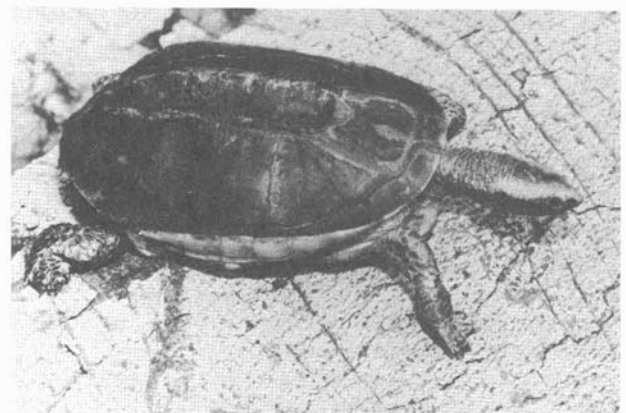


FIGURE 1. *Platemys platycephala*, dorsolateral view. Photograph by Roger W. Barbour.

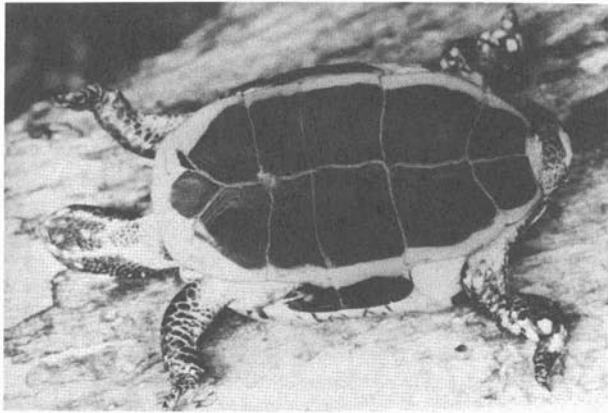


FIGURE 2. *Platemys platycephala*, ventrolateral view. Photograph by Roger W. Barbour.

stricted to "Belem, Brazil" by Ernst, 1984:350. Holotype, undesiguated.

Emys martinella: Schinz, 1833:45. Ex errore.

Platemys Martinella: Duméril and Bibron, 1835:407.

Hydraspis discolor: Fitzinger, 1835:126.

Platemys platycephala: Boulenger, 1889:227. First use of combination.

Platemys platicephala: Kasper, 1903:161. Ex errore.

Platemys platemys: Dunn, 1945:327. Ex errore.

Platemys platycephala: Orcés, 1949:21. Ex errore.

● CONTENT. Two subspecies: *Platemys platycephala platycephala* and *P. p. melanonota*.

● DEFINITION. See generic account.

● DESCRIPTIONS. General descriptions: Spix (1824), Gray (1855), Boulenger (1889), Siebenrock (1909), Luederwaldt (1926), Frey (1977), Duellman (1978), Pritchard (1967, 1979), Ernst (1984), and Pritchard and Trebbau (1984). Other descriptions: vertebrae (Kasper, 1903; Williams, 1950); coracoid (Walker, 1973); pubis (Grassé, 1970); skull (Gaffney, 1977, 1979); digestive tract (Jacobshagen, 1920; Parsons and Cameron, 1976); rostral pores (Winkler and Legler, 1974); ear (Wever, 1978); karyotype (Gorman, 1973; Barros et al., 1976; Bull and Legler, 1980; McBee et al., 1985).

● ILLUSTRATIONS. Color illustrations of adults occur in Pritchard (1967, 1979) and Pritchard and Trebbau (1984); other illustrations of adults are in Mertens (1954), Wermuth and Mertens (1961), Frey (1977), Freiberg (1981) and Ernst (1984). The skull was illustrated by Wermuth and Mertens (1961), and Gaffney (1977, 1979); the vertebrae by Kasper (1903); the karyotype by Barros et al. (1976), Bull and Legler (1980), and McBee et al. (1985), and the egg and juvenile by Medem (1983).

● DISTRIBUTION. *P. platycephala* occurs in the Caribbean drainages of eastern Venezuela and the Guianas, and in the Amazon Basin from northeastern Bolivia, eastern Ecuador and Perú, south-eastern Colombia and southern Venezuela eastward to Belem, Brazil.

● FOSSIL RECORD. See generic account.

● PERTINENT LITERATURE. General accounts are in Goeldi (1905), Mertens (1954), Frey (1977), Pritchard (1964, 1967, 1979), Freiberg (1972, 1981), and Pritchard and Trebbau (1984). Additional references are listed by topic. Reproduction and embryology: Medem (1960, 1983), Carillo de Espinoza (1970), Dixon and Soini (1977), Ewert (1979, 1985), Harding (1983), Pickering (1984). Anatomy: Stannius (1856), Parsons (1968). Hearing: Wever (1978). Blood: Sullivan and Riggs (1967). Longevity: Bowler (1977). Zoogeography: Ernst (1984). Vernacular names: Mittermeier et al. (1980). Morphometry: Ernst and Lovich (1986). Distribution: Luederwaldt (1926), Medem (1957), Hoogmoed (1979). Taxonomic relationships: Ernst (1984), Pritchard (1984), McBee et al. (1985). Disease: Jacobson et al. (1982).

● ETYMOLOGY. The specific name *platycephala* is from the Greek *platos*, flat, and *kephale*, head, referring to the flat crown. The subspecific name *melanonota* is from the Greek *melania*, blackness, and *notos*, back, referring to the dark carapace.

1. *Platemys platycephala platycephala* (Schneider)

Testudo platycephala Schneider, 1792:261. See species synonymy.

Testudo planiceps Schneider, 1792:pl. 7. See species synonymy.

Testudo planiceps s. *platycephala*: Schoepff, 1801:115.

Testudo martinella Daudin, 1803:344. See species synonymy.

Emys discolor Thunberg, in Schweigger, 1812:302. See species synonymy.

Emys planiceps: Schweigger, 1812:303.

Testudo discolor: Ekstrand, 1823:6.

Emys canaliculata Spix, 1824:10. See species synonymy.

Hydraspis planiceps: Bell, 1828:512.

Hydraspis canaliculata: Bell, 1828:512.

Clemmys planiceps: Ritgen, 1828:272.

Emys platicephala: Cuvier, 1829:11.

Emys carunculata: Cuvier, 1829:11.

Platemys planiceps: Wagler, 1830:135.

Emys caniculata: Gray, 1831:40.

Hydraspis constricta Gray, 1831:43. See species synonymy.

Emys martirella: Schinz, 1833:45.

Platemys Martinella: Duméril and Bibron, 1835:407.

Hydraspis discolor: Fitzinger, 1835:126.

Platemys platycephala: Boulenger, 1889:227.

Platemys platicephala: Kasper, 1903:161.

Platemys platemys: Dunn, 1945:327.

Platemys platycephala: Orcés, 1949:21.

Platemys platycephala platycephala: Ernst, 1984:347. First use of combination.

● DEFINITION. The dark carapacial pigment is restricted to the borders of the seams between the vertebrals and pleurals and to an incomplete band extending downward through the 2nd and 3rd pleurals to the carapacial rim; the dark bar crosses less than 80% of the bridge; the intergular is wide (\bar{x} = 27% of anterior plastral width); and the seam separating the intergular and humeral scutes is long (\bar{x} = 21.7% of anterior plastral width). Usually there are more than 4 postorbital scales and less than 4 scales between the orbit and the tympanum.

2. *Platemys platycephala melanonota* Ernst

Platemys platycephala melanonota Ernst, 1984:347. Type-locality, "vicinity of Galilea, on the Río Santiago, Amazonas, Perú (4°1'S, 77°47'W)." Holotype, U.S. Nat. Mus. 224136, adult male, collected 1 February 1980 by Roy W. McDiarmid.

● DEFINITION. A dark subspecies with the light carapacial pigment restricted to the vertebral groove, anterior of 1st pleurals, and posterior of 4th pleurals; with a dark bar crossing more than 90% of bridge; with a narrow intergular (\bar{x} = 24% of anterior plastral width); and with the seam separating the intergular and humeral scutes being relatively short (\bar{x} = 18.8% of anterior plastral width). Usually there are less than 4 post-orbital scales and more than 3 scales between the orbit and tympanum.

COMMENT

Schneider (1792) used two names, *Testudo platycephala* and *T. planiceps*, for this species in the original publication; and Schoepff (1801), as first reviewer, apparently gave preference to *planiceps*. *Planiceps* was in general use until Boulenger (1889) selected *platycephala* for the specific name. Thus, for almost 100 years, *platycephala* has been accepted, and due to this customary usage should be retained as the official name (see Pritchard and Trebbau, 1984, for a detailed discussion).

The description of *Hydraspis constricta* by Gray (1831:43) is vague, and since no type-specimen was designated, the allocation of this name as a synonym of *Platemys platycephala* is arbitrary.

The living species *macrocephala*, *pallidipectoris*, *radiolata*, and *spixii* are usually assigned to *Platemys*, but McBee et al. (1985) have discovered significant differences between their karyotypes and that of *platycephala*; Rhodin and Mittermeier (in prep.) have found several skeletal differences between these species and *platycephala* and are preparing a manuscript that will allocate them to a new genus.

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