

N O T E S

**Sea Snakes *Thalassophina viperina* (Schmidt) and *Laticauda laticaudata* (Linne') : New Records from Phuket Island, Andaman Sea, with Remarks on Subspecies of *L. laticaudata*.**

A single specimen of *Thalassophina viperina* (ZMUC 66711) (Figure 1) was caught on 4 November 1987, by trawling from a boat off Phuket port. This constitutes the first published record of this species from the west coast of peninsular Thailand. The description follows (measurement and counting after SMITH, 1926).

Female. Total length 840 mm, tail 90 mm, 5 maxillary teeth behind the poison fangs (right side). Head moderate, rather broad, depressed, distinct from the neck, body cylindrical. One pre- and one postocular. Eight supralabials, 4th and 5th touching eye. 2 + 3 temporals. Three infralabials in contact with the sublinguals, both pairs of which are well developed and in contact with one another. Two small cuneate scales separating the 3rd and 4th infralabials. 29 scale rows at the level of ventral scale no. 15, and 42 scale rows on the thickest part of the body. 249 ventrals, very broad anteriorly, about 4 times as broad as the adjacent scale, narrowing gradually until the posteriors are less than twice as broad as the adjacent scales. 40 subcaudals. Colour pattern grey dorsally, white ventrally, the two colours meeting on the flank in a fairly clear line of demarcation. Thus the characters found in the present specimen are within the known range for the species (WALL, 1921; SMITH, 1926, 1943; TAYLOR, 1965).

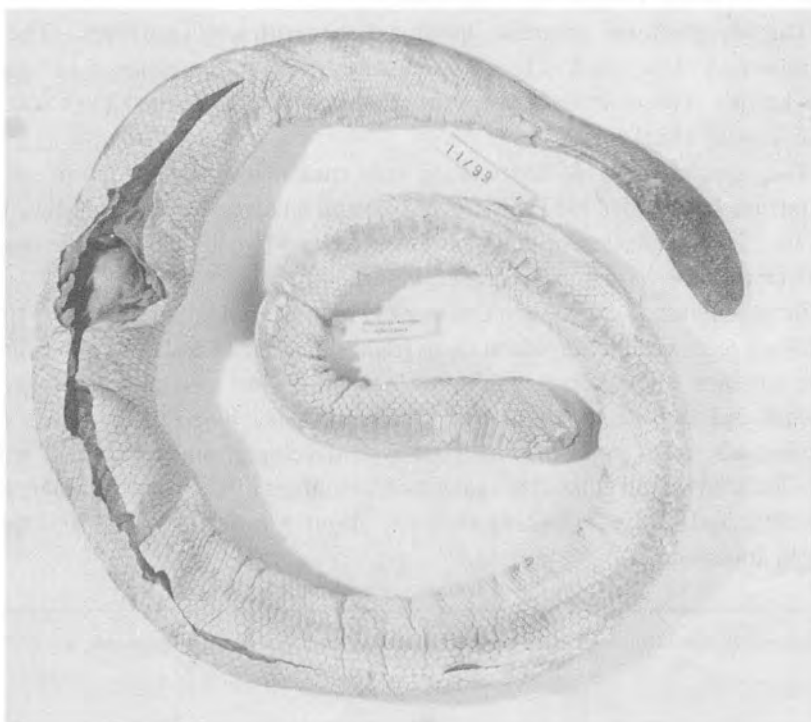
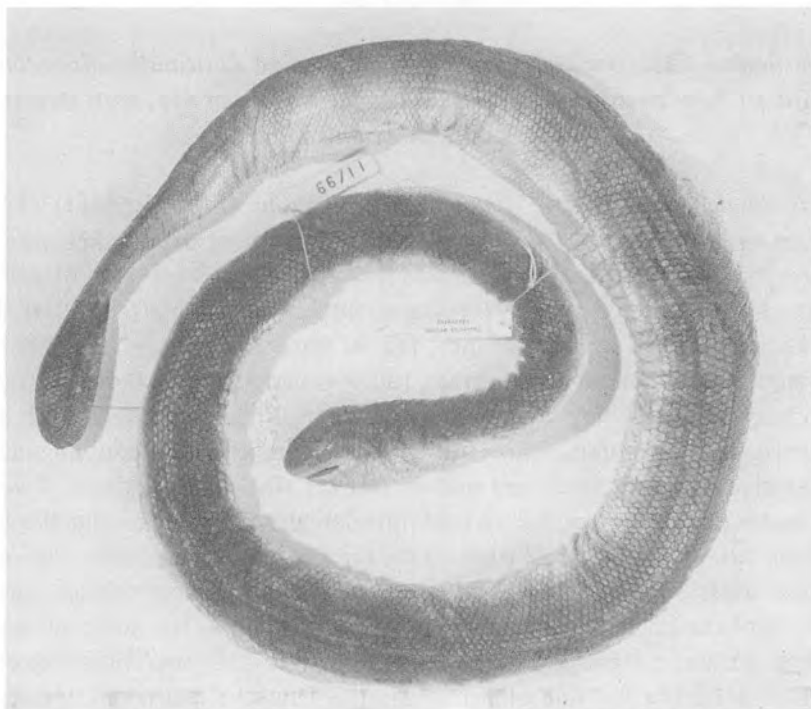
The specimen was pregnant, holding 5 eggs with small embryos. The size of the embryos was 11 cm each. The number of eggs in the specimen is in agreement with the known reproductive strategy of *T. viperina* (K-strategy) (VOLSOE, 1939; LEMEN & VORIS, 1981).

Two specimens of *L. laticaudata* were caught by trawling from a boat off Phuket port on 10 October 1987 (ZMUC 66709) and 4 November 1987 (ZMUC 66710), respectively. The description of the 2 specimens follows (when different, the characters of the latter specimen are given in parentheses).

Both females. Total length 690 mm (1220 mm), tail length 60 mm (110 mm). Two maxillary teeth behind the poison fangs (right side). Head and body sub-cylindrical, of nearly uniform diameter throughout. One pre- and two postoculars. Seven supralabials, 3rd and 4th touching eye; 1 + 2 temporals. Five infralabials in contact with sublinguals, both pairs of which are well developed and in contact with one another. Three (4) small elongated scales at oral margin after 3rd infralabial; 19 scale rows on neck and body; 235 (238) ventrals, about 4 times as broad as long, anal divided; 34 subcaudals.

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Figure 1 (opposite). *Thalassophina viperina* (ZMUC 66711) from ventral and dorsal side. Photo: Brovad.



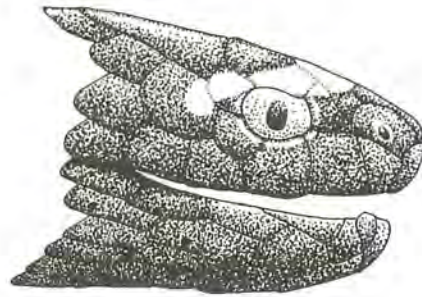
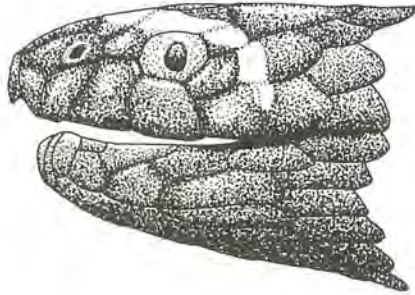


Figure 2. *Laticauda laticaudata* (ZMUC 66709) from left and right, showing the asymmetry of the head mark. Drawing: Mogens Andersen.

Head black above with a light horseshoe-shaped mark bending down behind eye and touching 5th and 6th supralabials on left side but extending only to temporal area on right side (Figure 2). Body blue-grey above with 62 black cross-bands, completely encircling body. Light rings on belly 1–2.5 ventrals wide, first 2 incomplete (ZMUC 66709). ZMUC 66710 similar but the light horseshoe-shaped mark only extending to temporal area on both sides of head. Light rings on belly 1–2 ventrals wide.

According to TAYLOR (1965) the occurrence of *L. laticaudata* in Thai waters is dubious. However, with the present records from Phuket and GUNTHER's (1864) record (under the name of *Platurus fischeri*) from the Gulf of Siam, the existence of this species in Thai waters is confirmed.

In 1907 STEJNEGER distinguished between 2 subspecies of *Laticauda laticaudata*: *L.l.laticaudata* (LINNE' 1758) with a light horseshoe-shaped mark on head bending down behind eye to reach lip, light coloured rings on belly 4–5 ventrals wide and either one incomplete light ring on the neck or none. The above mentioned characters were based on specimens from Java and the Nicobars. *L.l.affinis* (ANDERSON, 1871) with a light horseshoe-shaped mark on head not curving down behind eye, light rings on belly 1–3 ventrals wide, and usually 2 incomplete rings. The above mentioned characters were based on specimens from W. Sumatra, the Riu Kius, the China Sea, and Formosa. Despite this, STEJNEGER (1907) doubted the existence of the 2 forms: "at least I have not been able to fully make up my mind from our material which is entirely too insufficient, however. As far as it goes it seems to indicate two color forms."

MCCARTHY (1986) examined 34 specimens of *L. laticaudata* and concluded that the head pattern can be used to separate the species broadly into an eastern (*L.l.laticaudata*) and a western population (*L.l.affinis*). However, some specimens in the intermediate area (Ternata (Moluccas) and Deli (Java)) show asymmetry, the head mark being down-turned on one side of the head but not on the other. MCCARTHY (1986) further concluded that "additional features do not correlate absolutely with the condition of the head mark but there is a degree of correspondence..." MCCARTHY (1986) also indicated that the characters separating the 2 subspecies are of a more clinal nature.

STEJNEGER (1907) based his description of the colour pattern of *L.l.laticaudata* on 2 specimens from Java and the Nicobars, respectively; however he also mentioned *L.l.affinis* from West Sumatra, which is within the distribution area of *L.l.laticaudata*. MCCARTHY (1986) mentioned 21 specimens with the colour pattern of *L.l.affinis*. Two of these specimens are from the Nicobars, i.e., the same area from which STEJNEGER (1907) mentioned *L.l.laticaudata*.

One of the specimens from Phuket (ZMUC 66709) shows the same asymmetry of the head mark as the specimens in the intermediate area. The other specimen from Phuket (ZMUC 66710) is in agreement with *L.l.affinis* as to the colour pattern. With the records of the intermediate form from Deli (Java) and Ternate (Moluccas)

(MCCARTHY, 1986), and one new record from Phuket, the area of this form is extended.

Thus as it appears that the two colour forms are sympatric and occur with intermediate forms in a greater part of *L.laticaudata*'s range, I prefer to ignore ANDERSON's (1871) subspecies until more evidence for their distinction is available.

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