# Contributions to the knowledge of Strombacea. 3. 1 Some notes on the range of Strombus (Dolomena) plicatus pulchellus Reeve, 1851 (Gastropoda, Prosobranchia Strombidae)

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An extension of the range of Strombus plicatus pulchellus is herein documented and the subspecific status of S. p. plicatus is confirmed.

Key words: Gastropoda, Prosobranchia, Strombidae, Strombus, range, Indo-Pacific.

The Indo-Pacific Strombus (Dolomena) plicatus sensu lato consists of four subspecies (figs.

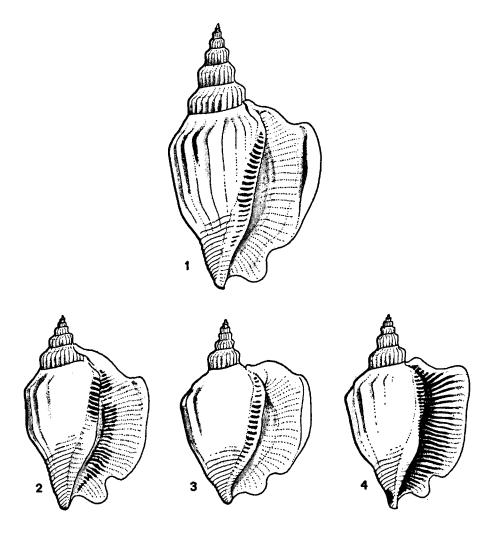
- the nominate S. (D.) p. plicatus (Röding, 1798) from the Red Sea and the Persian Gulf.
  - S. (D.) p. columba Lamarck, 1822, from East Africa,
  - S. (D.) p. sibbaldi Sowerby, 1842, from the north-western Indian Ocean, and S. (D.) p. pulchellus Reeve, 1851, from the western and central Pacific.

The westernmost limit of the range of S. p. pulchellus is generally considered to be an imaginary line running from southern Japan, via Taiwan and East-Borneo, to Cape York, Australia. The eastern border of the range of S. p. sibbaldi is either believed to be formed by the west coasts of Thailand, Malaysia and Sumatra (Walls, 1980: 162), or by the seas around Sri Lanka (Abbott, 1960: 91; Kronenberg & Berkhout, 1981). In both instances there is a considerable distance between the ranges of these two taxa, which makes it unclear whether they are reproductively isolated or not. The former case would imply a full species status for S. pulchellus next to S. plicatus s. l. (fig. 5).

However, Kronenberg & Berkhout (1986: 364) were the first to report specimens of S. p. pulchellus caught by Madras fishermen, as well as a beached shell from the Andaman Islands. A Madras specimen is figured here (figs. 6-7).

Ma Siu-tung (1976: 371, pl. 4 fig. 6) reports S. p. pulchellus from the island of Hainan, a first record for this subspecies from the Chinese coast.

<sup>&</sup>lt;sup>1</sup> Contributions to the knowledge of Strombidae. 2. See: Corresp.blad Ned. Malac. Ver. 283 (maart 1995): 52-53.



Figs. 1-4. Shells of the four subspecies of Strombus (Dolomena) plicatus (Röding, 1798). 1, S. (D.) p. plicatus; 2, S. (D.) p. columba Lamarck, 1822; 3, S. (D.) p. sibbaldi Sowerby, 1842; 4, S. (D.) p. pulchellus Reeve, 1851.

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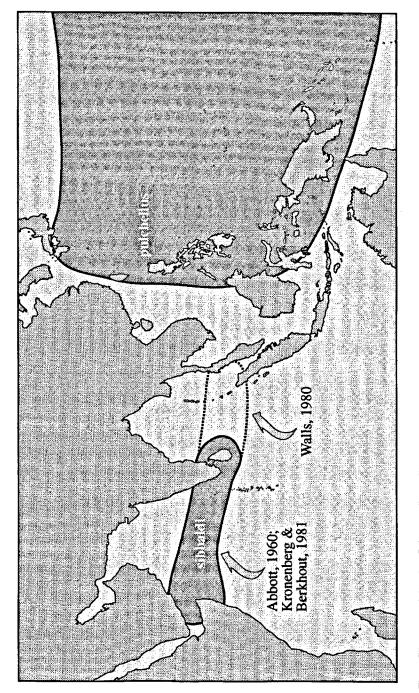
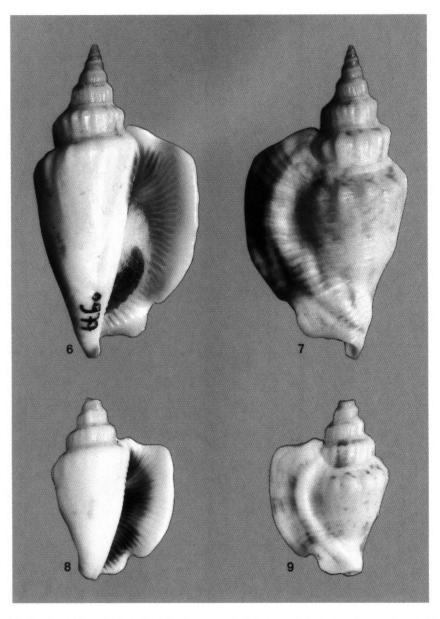


Fig. 5. The range of Strombus (Dolomena) plicatus sibbaldi Sowerby, 1842, as given in the literature (see text) and the range of S. (D.) p. pulchellus Reeve, 1851, as it was formerly known. R.P.A. Voskuil del.



Figs. 6-9. Strombus (Dolomena) plicatus pulchellus Reeve, 1851. 6-7, dregded off Madras, India, xii.1982; 39 mm (large); colln. G.J. Visser/0977. 8-9, found at high tide line on Mawun beach, southern Lombok, Indonesia, 29.x.1994; 22 mm (without apex and tip of anterior canal) (average); colln. G.J. Visser/0977b. Photographs by R.P.A. Voskuil.

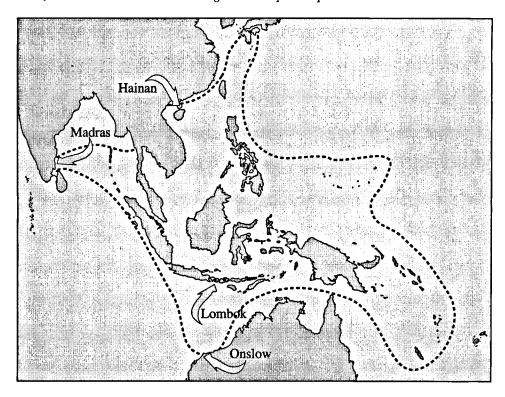


Fig. 10. The possible range of Strombus (Dolomena) plicatus pulchellus Reeve, 1851, based on recent records.

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Wilson & Gillet (1980: 26, pl. 26 figs. 6, 6a) report the subspecies to have been dredged between Onslow and the Dampier Archipelago, West Australia. A similar record is given by Wells & Bryce (1986: 64).

While on a collecting trip in Indonesia, we found a single worn, but unmistakable S. p. pulchellus in the high tide line of Mawun beach, South Lombok, approximately 5 km west of Kuta (figs. 8-9). To our knowledge this is the first record of this subspecies from the region, fossils from Java and Sumatra excepted (Abbott, 1960).

These additional records indicate a considerable extension west- and southward of the known range of S. p. pulchellus (fig. 10). The westward extension implies the possibility of a contact zone between the ranges of S. p. pulchellus and S. p. sibbaldi, and, consequently, either falsification or confirmation of the subspecific status for S. p. pulchellus.

The fact that S. p. pulchellus from the Madras area differs from the central Indo-Pacific specimens both in shape and in (greater) size, may be an indication that this area forms the transition zone between the subspecies, where intergrading shell-forms may be found.

We furthermore believe that the range of S. p. sibbaldi as shown by Walls (1980) is erroneous and we suggest that he may have included specimens of S. p. pulchellus within that range.

#### REFERENCES

WALLS, J. G., 1980. Conchs, tibias, and harps: 1-191. Neptune, N. J., U.S.A. WELLS, F. E., & C. W. BRYCE, 1985. Seashells of Western Australia: 1-207. Perth. WILSON, B. R., & K. GILLET, 1980. Australian shells (revised edition): 1-152. Sydney.