

***Viduoliva tricolor abbasi*, new subspecies (Gastropoda: Olividae)  
from Indonesia**

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**ABSTRACT** A new *Viduoliva* Petuch & Sargent, 1986 taxon is described from Solor Island, Indonesia and compared with *Viduoliva tricolor* (Lamarck, 1811), *Viduoliva vidua* form *cincta* (Dautzenberg, 1927), *Viduoliva reticulata* form *azona* (Dautzenberg, 1927), *Miniaceoliva irisans* (Lamarck, 1811) and *Mineaceoliva caerulea* (Röding, 1798).

**KEYWORDS** Gastropoda, Olivoidea, Olividae, *Viduoliva*, Solor Island, Indonesia, new subspecies.

## INTRODUCTION

*Viduoliva* is a major genus within Olividae with many species collected in Indonesia. In the summer of 2011, two specimens of another *Viduoliva* taxa were collected. This taxon was not included in the works by Dharma (2005), Thach (2015), Springsteen & Leobrera (1986), Hinton (1972), Wilson (1994), Swennen *et al.* (2001), Zeigler (1969), Abbott & Dance (1986), Tursch & Greifeneder (2001) and Sterba (2003). In this article, it is described as new to science.

### Abbreviations:

ANSP Academy of Natural Sciences  
Philadelphia, USA  
MNHN Muséum National d'Histoire Naturelle,  
Paris, France  
SH Shell height

### SYSTEMATICS:

Class Gastropoda Cuvier, 1797  
Superfamily Olivoidea Latreille, 1825  
Family Olividae Latreille, 1825  
Genus *Viduoliva* Petuch & Sargent, 1986  
Type species: *V. vidua* (Röding, 1798)

*Viduoliva tricolor abbasi* Thach & Berschauer  
new subspecies (Figures 1-10)

**Diagnosis:** *Viduoliva tricolor abbasi* n. ssp. is readily recognized by its characteristic grayish blue color without orange dashes, widely-spaced axial stripes, broad or numerous spiral bands, slightly convex lateral sides and yellow plications plate with highly raised plaits at the fasciole.

**Description:** Shell medium-sized for the genus (39.2-44.2 mm in height) and slightly cylindrical in shape with inflated whorls. Spire low onion-shaped and ornamented by black tangential strokes with orange margins, apex highly raised. Body whorl cloak glossy with slightly convex sides, broad double spiral band and widely-spaced axial stripes, pattern-free shoulder zone very narrow. Shell width 48.4% of shell height (after measurements made on two types). Filament channel open and occupying 1.5 whorls, posterior callus slightly above level of channel. Anterior band with blackish dots, fasciole with highly raised plaits that are separated by deep grooves. Parietal wall with strong distinct and regular parietal plaits.

Aperture elongate with length 88.9% of shell height, outer lip thick with numerous black dots at outer margin. Color grayish blue (without orange dashes on dorsal side) with darker spiral bands and axial stripes, yellow plications plate, bluish white aperture and white apex.

**Type material:** Holotype 39.2 mm SH in ANSP (Figures 1-5 & 10b). Paratype 44.2 mm SH in MNHN (Figures 6-10a); Holotype and Paratype from type locality.

**Type locality:** Solor Island, Indonesia.

**Habitat:** The specimens were found at 30m from the shore in fine white sand with sea grass on sand banks off Northeastern part of Island.

**Etymology:** This new species is named in honor of John Abbas who discovered the type material.

## DISCUSSION

- *Viduoliva tricolor abbasi* n.ssp. is closest to *Viduoliva tricolor* (Lamarck, 1811) (Figure 11) but differs by eight characters that are summarized in Table 1.

	<i>V. tricolor abbasi</i> n. ssp.	<i>V. tricolor</i>
Spiral bands	Broad or more numerous	Narrower or obsolete
Axial stripes	Widely-spaced	Usually obsolete
Color	Grayish blue	Three colors
Pattern	Lacking orange dashes	With numerous orange dashes
Lateral sides	Slightly convex	Nearly straight
Plications plate	Yellow with highly raised plaits	Yellowish with smooth or slightly raised plaits
Aperture	Bluish white	White
Mean adult size	Medium-sized (40-45 mm high)	Larger (50-55 mm high)

**Table 1.** Comparison of *Viduoliva tricolor abbasi* with *Viduoliva tricolor*

- *Viduoliva vidua* form *cincta* (Dautzenberg, 1927) (Figure 12) differs mainly from *V. tricolor abbasi* by not convex lateral sides, white (not yellow) plications plate, not grayish blue color and lacking axial stripes.

- *Viduoliva reticulata* form *azona* (Dautzenberg, 1927) (Figure 13) differs mainly from *V. tricolor abbasi* by tripartite (not bipartite) anterior band, not grayish blue color, cloak pattern reaching filament channel and lacking axial stripes.

- *Miniaceoliva irisans* (Lamarck, 1811) (Figure 14) differs mainly from *V. tricolor abbasi* by not convex lateral sides, not grayish blue color, tripartite (not bipartite) anterior band, plications plate paler in color and lacking axial stripes.

- *Miniaceoliva caerulea* (Röding, 1798) (Figure 15) differs mainly from *V. tricolor abbasi* by purple (not bluish white) aperture, not greyish blue color, high conical (not low onion-shaped) spire, ivory white (not yellow) plications plate and lacking axial stripes.

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## REFERENCES

- Abbott, T. & P. Dance. 1986.** Compendium of Seashells. American Malacologists Inc, Florida, USA, 411 pp.
- Dharma, B. 2005.** Recent & Fossil Shells of Indonesia. ConchBooks, Hackenheim, Germany, 432 pp.
- Hinton, A. 1972.** Shells of the New Guinea and Central Indo-Pacific. Jacandra Press, Melbourne, Australia, 98 pp.
- Sterba, G.H.W. 2003.** Olividae A Collectors Guide. ConchBooks, Hackenheim, Germany, 172 pp.
- Swennen, et al. 2001.** The Molluscs of the Southern Gulf of Thailand. Biodiversity Research and Training Program. Bangkok, Thailand, 166 pp. & 44 color plates.
- Springsteen, F.J. & F.M. Leobrera. 1986.** Shells of the Philippines. Carfel Shell Museum, Manila, Philippines, 377 pp.
- Thach, N.N. 2015.** Shells of Vietnam. ConchBooks, Hackenheim, Germany, 337 pp. and 91 color plates.
- Tursch, B. & D. Greifeneder. 2001.** Oliva Shells. The Genus Oliva and the Species problem. L'Informatore, Piceno, Italy & Bosque BMT, Costa Rica, 569 pp.
- Wilson, B. 1994.** Australian Marine Shells. Vol. II. Odyssey Publishing Co., Kallaroo, Australia, 370 pp. & 53 color plates.
- Zeigler, R.F. 1969.** Olive Shells of the world. Rochester Polychrome Press, New York, USA, 96 pp.

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Figures 1-10: *Viduoliva tricolor abbasi* n. ssp. Solor Island, Indonesia, Figures 1-5 & 10b: Holotype (39.2 mm SH) in ANSP; Figures 6-10a: Paratype 1 (44.2 mm SH) in MNHN; Figure 11: *Viduoliva tricolor* (Lamarck, 1811) for comparison, photo of Tursch & Greifeneder; Figure 12: *Viduoliva vidua* form *cincta* (Dautzenberg, 1927), 48 mm for comparison; Figure 13: *Viduoliva reticulata* form *azona* (Dautzenberg 1927), 29.1 mm for comparison, photo of P. & G. Poppe; Figure 14: *Miniaceoliva irisans* (Lamarck, 1811), 53 mm for comparison; Figure 15: *Miniaceoliva caerulea* (Röding, 1798) 54.7 mm for comparison.