

Communication

Two species of Strombidae (Mollusca: Gastropoda) from Pasumpahan Island, Padang City, West Sumatra, IndonesiaRofiza Yolanda^{1,3} & Jabang Nurdin²¹Graduate School of Biology, Department of Biology, Faculty of Science, Prince of Songkla University 15 Karnjanavanich Rd., Hat Yai, Songkhla 90110, Thailand; padangers@gmail.com²Department of Biology, Faculty of Mathematics and Natural Sciences, Andalas University, Padang 25163, West Sumatra, Indonesia; jabang_nurdin@yahoo.com³Corresponding author**Abstract**

A brief survey was done in Pasumpahan Island, Padang city, West Sumatra, for members of the Strombidae. A total of 4 individuals of Strombidae belonging to 2 species, *Harpago chiragra* and *Lambis lambis*, were recorded.

<http://zoobank.org/urn:lsid:zoobank.org:pub:68C1A3AB-F751-41B4-AF46-15F424FE0579>**Introduction**

The family Strombidae Rafinesque, 1815, occurs exclusively in tropical and subtropical seas, mostly in shallow water (Dharma, 1988, 2005; Abbot & Dance, 2000). Many members of this group are very popular with collectors because of their large, thick and solid shells, which are often adorned with wing-like projections or digitate outer lips (Savazzi, 1991; Poutiers, 1998). The Strombidae consists of some 23 genera and 92 species which have been registered around the world (Gofas, 2009). Until now, 19 strombid genera comprising some 42 species have been recorded from several locations in Indonesia (Dharma, 2005).

A short survey for strombids was done from 31 December 2016 to 01 January 2017 at Pasumpahan Island (1°07'07.65"S and 100°22'11.07"E), off Padang city, West Sumatra (Figure 1). The size of this island is about 5 hectares and has several different habitats (e.g., sandy substrate with seagrass and seaweeds, rocky rubble, and also coral reef). The survey yielded two species, namely *Harpago chiragra* (Linnaeus, 1758) and *Lambis lambis* (Linnaeus, 1758), and the result is here reported for documentation purposes. The samples were deposited in the Laboratory of Biology, Biology Education Study Programme, Faculty of Teacher Training and Education, University of Pasir Pengaraian, Rokan Hulu District, Indonesia.

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Family Strombidae Rafinesque, 1815**Genus *Harpago* Mörch, 1852*****Harpago chiragra* (Linnaeus, 1758)****(Fig. 2a)**

Diagnosis. The following diagnosis is based on Poutiers (1998). Shell large, thick and heavy, with a moderately high, pointed spire and large marginal spikes on the strongly flaring outer lip. Spire whorls slightly concave on their apical half, with fine spiral threads and a row of relatively small knobs on the sharply angulate shoulder. Dorsal side of body whorl rough, with low, irregular spiral cords and 2 or 3 spiral rows of blunt tubercles, forming large knobs on the shoulder. Middorsal tubercle of the shoulder generally much thicker and higher than the others in female specimens. Ventral side of shell extensively glazed. Columella and outer lip of the aperture nearly smooth. Outer lip with a deep stromboid notch and 6 slender, hollow digitations. Anterior most 3 digitations of the outer lip rather short and bent posteriorly (in males), or long and recurved towards dorsal side of shell (in females). Inner lip with a heavy, extensive callus, becoming thinner on shoulder area and tending to cover most of the ventral side of body whorl and spire. Siphonal canal forming a rather wide and moderately developed digitation anteriorly, slightly bent towards the right. Colour: outer coloration of shell variable, cream to tan, often with various patterns of brown, purplish tan, or bluish black. Glazed ventral side rich pink, orange, or purple tan, sometimes whitish.

Material examined. One specimen, shell length 20.5 cm, from shallow water amongst coral rubble and muddy sand, 31 December 2016.

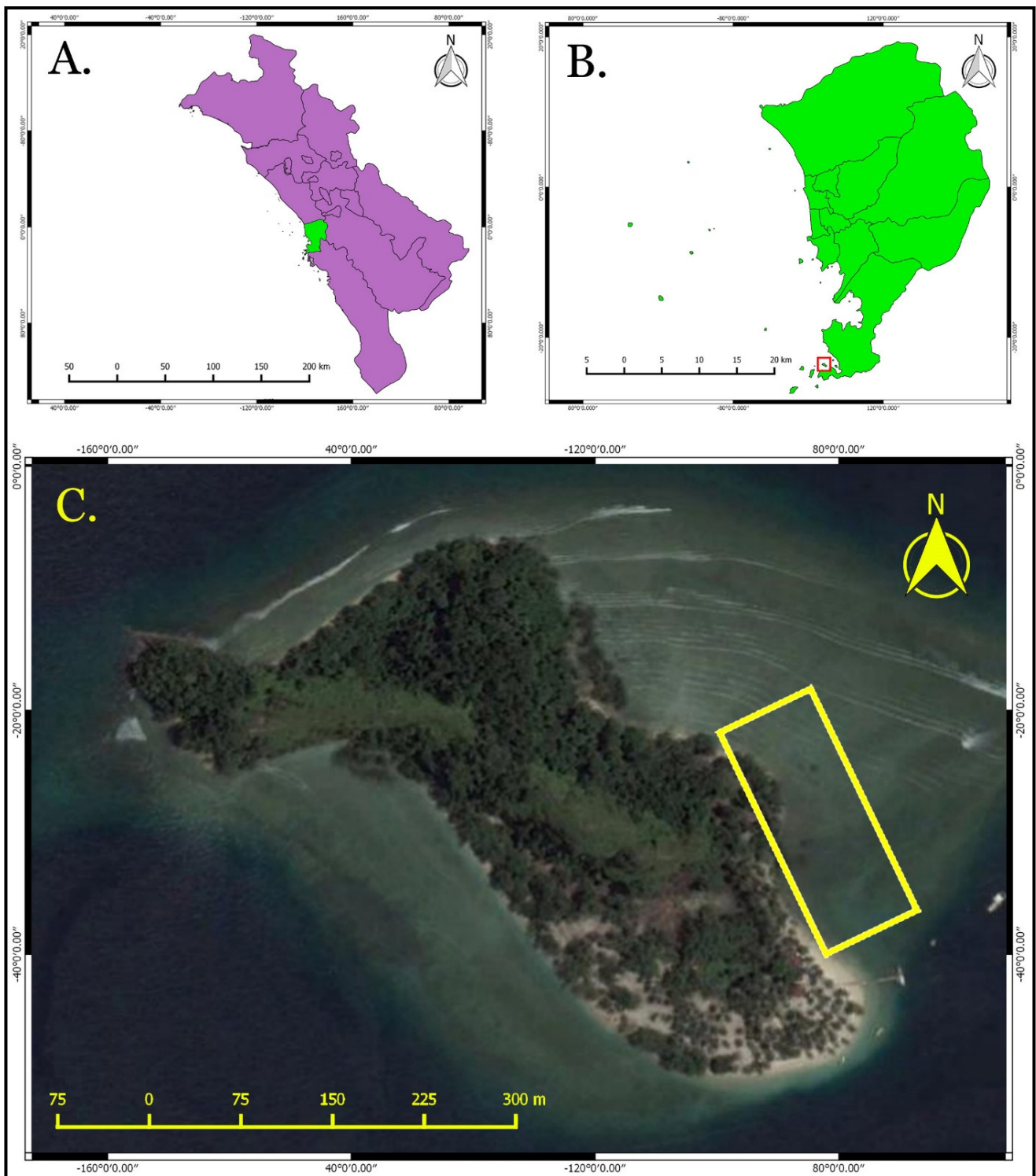


Fig. 1. A. Location of Padang (green) in West Sumatra; B. Padang city with the location of Pasumpahan Island indicated within the red square; C. Satellite image of Pasumpahan Island with sampling locations indicated by the yellow rectangle.

Genus *Lambis* Röding, 1798

***Lambis lambis* (Linnaeus, 1758)
(Fig. 2b)**

Diagnosis. The following diagnosis is based on Poutiers (1998). Shell large, thick and heavy, with a moderately high, pointed spire and large marginal spikes on the

strongly flaring outer lip. Spire whorls slightly concave on their apical half, with fine spiral threads and a row of relatively small knobs on the sharply angulate shoulder. Dorsal side of body whorl rough, with low, irregular spiral cords and 2 or 3 spiral rows of blunt tubercles, forming large knobs on the shoulder. Middorsal tubercle of the shoulder generally much thicker and higher than the others in female specimens. Ventral side of shell

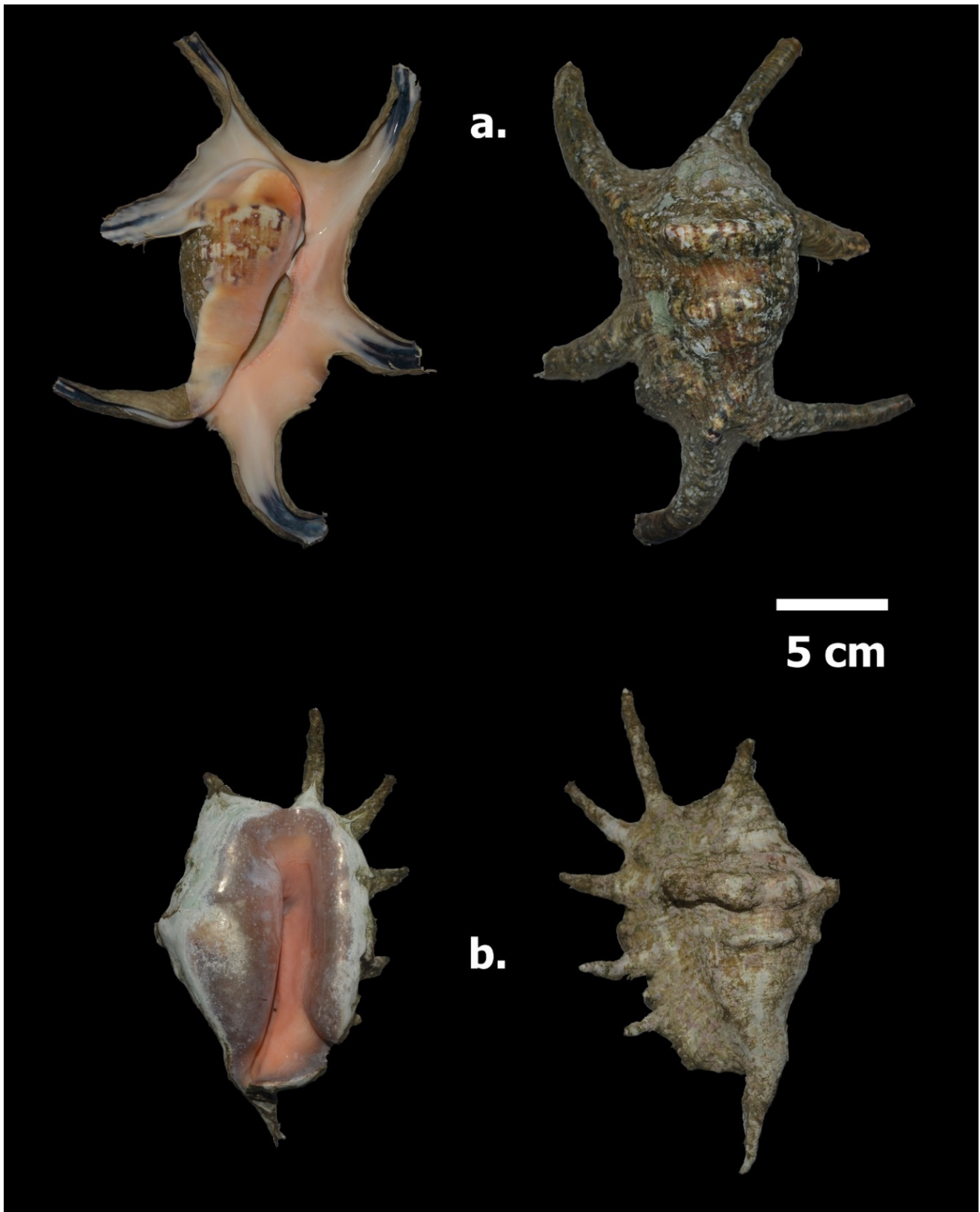


Fig. 2. Strombidae collected from Pasumpahan Island: a, *Harpago chiragra* (Linnaeus, 1758); b, *Lambis lambis* (Linnaeus, 1758). Ventral views (left) and dorsal views (right). Scale bar = 5 cm.

extensively glazed. Columella and outer lip of the aperture nearly smooth. Outer lip with a deep stromboid notch and 6 slender, hollow digitations. Anterior most 3 digitations of the outer lip rather short and bent posteriorly (in males), or long and recurved towards

dorsal side of shell (in females). Inner lip with a heavy, extensive callus, becoming thinner on shoulder area and tending to cover most of the ventral side of body whorl and spire. Siphonal canal forming a rather wide and moderately developed digitation anteriorly, slightly

bent towards the right. Colour: outer coloration of shell variable, cream to tan, often with various patterns of brown, purplish tan, or bluish black. Glazed ventral side rich pink, orange, or purple tan, sometimes whitish.

Material examined. Three specimens; shallow water amongst coral rubble and muddy sand; shell length 15–18.5 cm, 01 January 2017.

Discussion

In this study, only two species of strombids were collected from Pasumpahan Island. This result was very low compared to what has been reported from other Indonesian localities such as Kei Kecil Islands, Southeast Moluccas (7 species, see Kusnadi et al., 2008), Natuna Besar islands, State of Natuna (6 species, see Mudjiono, 2009), Lembah Strait water, Bitung City, North Sulawesi (5 species, see Arbi, 2010), Talise island waters, North Sulawesi (9 species, see Arbi, 2011), Lease Islands, Maluku (9 species, see Haumahu, 2011), Wori waters, North Sulawesi (10 species, see Arbi, 2012), Merta Segara Beach Sanur, Denpasar, Bali (3 species, see Istiqlal et al., 2013), Mokupa Beach, Minahasa, North Sulawesi (8 species, see Firgonitha et al., 2015), and Seribu Islands (7 species, see Mujiono, 2015). The impoverished result could be due to the limited time available to sample the location. In addition only one site was surveyed because there were a lot of visitors at the island during the New Year holidays.

This island has been declared as a Marine Protected Area in this city because of its beautiful beach and rich diversity of marine organisms (e.g., corals, fish, molluscs, and echinoderms; Hidayati et al., 2003). However, over time, the function of the island has changed into a recreational and tourism area, which may have resulted in negative impacts to the coral reefs and organisms (Hawkins et al., 1999; Reef Resilience, 2016). Further study will be necessary to provide more comprehensive data of the Strombidae in Pasumpahan Island.

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