Borneo Journal of Resource Science and Technology (2021), 11(2): 19-29
DOI: https:doi.org/10.33736/bjrst.4058.2021

Note on Historical Records, Geographical Distribution, and Ecological Characteristics of a Mud Lobster, *Thalassina anomala* (Herbst, 1804) (Decapoda, Gebiidea, Thalassinidae) in Sarawak, Borneo

ABID FAIQ RUSYAIDI AMNAH[1] & JONGKAR GRINANG[*2]

[1]Faculty of Resource Science and Technology, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia; [2]Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia

*Corresponding author: gjongkar@unimas.my
Received: 6 October 2021 Accepted: 1 December 2021 Published: 31 December 2021

ABSTRACT

The presence of mud lobster mounds is a common natural feature along coastal areas and tidal influence habitats in Sarawak. However, the number of species of mud lobsters that constructed the mounds is yet to be ascertained. This paper reviews historical records and geographical distribution of mud lobster in Sarawak from various forms of literature. The early records of mud lobster were from Buntal in Kuching, and Lingga in Sri Aman back more than 130 years ago. A few other records were reported from the central and northern regions of Sarawak between 1928 and 2019. All these records have identified mud lobster of Sarawak as *Thalassina anomala* (Herbst, 1804). Our present study at two sites in Buntal area with a careful examination of morphological characters of fresh specimens has confirmed the taxonomy of the species and its existence in the area. Some ecological characteristics of the mud lobster, such as size variation, population density, and mound characteristics, are also discussed. The present study also found that construction of massive mounds by mud lobster has posed a conflict to farmers and coastal communities at Buntal area, who regarded the animal as a pest. On the other hand, research on the potential medicinal value of mud lobster in Sarawak is growing. This implies that accurate taxonomy and comprehensive ecological data of *T. anomala* are necessary to support best practices of mud lobster pest management and sustainable harvesting of the animal for medicinal purposes, which eventually lead to conserving the animal.

Keywords: Aautecology, coastal, decapod, mangrove, mud lobster

INTRODUCTION

Mud lobsters are presently described under a single genus *Thalassina* Letreille, 1806 in family Thalassinidae Letreille 1831. The family Thalassinidae is clade in infraorder Gebiidea along with three families, the Axianassidae Schmitt 1924, Laomediidae Borradaile 1903, and Upogebiidae Borradaile 1903 (see De Grave *et al.*, 2009). The current taxonomics study of mud lobsters have listed worldwide a total of 11 valid species; *Thalassina anomala*, *T. australiensis*, *T. emerii*, *T. gracilis*, *T. kelanang*, *T. krempfi*, *T. pratas*, *T. saetichelis*, *T. spinirostris*, *T. spinosa*, *T. squamifera* (Moh & Chong, 2009; Ngoc-Ho & de Saint Laurent, 2009; Sakai & Türkay, 2012; Lin *et al.*, 2016).

Thalassina anomala was first described by Herbst based on a single male specimen (Herbst, 1804; Ngoc-Ho & de Saint Laurent, 2009). Of the 11 known species, *T. anomala* is widely distributed across the Indo-West Pacific region in the west of India to southwest Japan (Ngoc-Ho & de Saint Laurent, 2009). In Malaysia, *T. anomala* has been reported in the peninsular (Selangor, Penang, Negeri Sembilan, Terengganu) and east (Sarawak) (Moh & Chong, 2009; Ngoc-Ho & de Saint