



Research Highlight

Evaluation of Parasites and Ecto-symbiont in Wild Mud Crab

M.Z. Ihwan

Institute of Tropical Aquaculture,
Universiti Malaysia Terengganu, 21030,
Kuala Terengganu, Terengganu, Malaysia

Mud crabs in the genus *Scylla* spp. are usually considered as a significant source for small scale fishers all over the Asia Pacific region. Mud crabs are the most traded seafood commodity in Asia. Accordingly, three species of mud crab in Malaysia have been identified which include *Scylla olivacea*, *Scylla paramamosain* and *Scylla tranquebarica*¹.

There is an increased demand for mud crabs over the last decade which urges the development of the mud crabs aquaculture industry. For the aquaculture industry, there is a dire need to manage the health of mud crab population especially in culturing aspects to consider the effect of parasites, therefore, understanding the parasites profile of mud crab is needed.

Accordingly, parasites are the organisms that live on the external or internal parts of a living host and derive their nutrients from the host but give nothing in return². Parasites are categorized into 2 group's i.e., Ectoparasites (lives on the surface of the host) and Endoparasites (lives inside the body of the host). Parasites can contribute to the diseases and cause

severe damage to the wild organism population³.

But despite these facts, the preliminary study regarding parasites infection in wild, as well as cultured crab populations and seeds production facilities, gain little attention. Also, the infected mud crab can be potentially affected and may transmit to other crabs but not much data is available in this regard except for other crustaceans⁴.

These facts urged scientists to conduct a new study to investigate the occurrence and mean intensity species of parasites and ecto-symbiont found in three species of wild mud crab, genus *Scylla*⁵. For this purpose, 73 samples of wild mud crab genus *Scylla* were collected by researchers in Malaysia.

During this experiment, the percentage prevalence of parasites was found to be 81.9%. Scientists collected a total of 887 parasites that include barnacle (*Octolasmis* spp.), sessile protozoan (*Epistylis* sp.), ciliates, nematode as well as copepod. However, the higher number of parasites was barnacle with a prevalence of 71.1% and mean intensity 14.4 followed by ciliates, nematode, copepod, and sessile protozoan

Key words:

Mud crabs, small scale fishers, ecto-symbionts, parasites, crustaceans, sessile protozoan, barnacle, nematode, copepod

with the prevalence of 18.1, 8.4, 2.4 and 1.2% and mean intensity 1.1, 2.1, 2.0, 1.0, respectively.

Conclusively, the parasites and ecto-symbionts are common parasites that reside in wild mud crab, genus *Scylla* and among them pedunculate barnacles, genus *Octolasmis* is the most widespread species that have been found during this research.

REFERENCES

1. Anwar, K.M.Z., 2005. A comparative study of ectoparasite on seabass, *Lates calcarifer* (Bloch, 1970) between hatchery and cage culture. Undergraduate Thesis, Faculty of Agrotechnology and Food Science.
2. Ihwan, M.Z., F. Shaharom-Harrison, H. Marina and W. Wahidah, 2013. A comparative prevalence study of ectoparasites in wild and cultured grouper before and after transportation. *J. Sustainable Sci. Manage.*, 8: 121-125.
3. Ihwan, M.Z., W. Wahidah, M.A. Ambak, M. Ikhwanuddin and H. Marina, 2015. Investigation of parasites and ecto-symbiont in wild mud crab, Genus *Scylla* from Terengganu Coastal water, Malaysia: Prevalence and mean intensity. *Int. J. Zool. Res.*, 11: 151-159.
4. Ikhwanuddin, M., 2013. Mud Crab: Culture System and Practice in Malaysia. Penerbit UMT, Malaysia, Pages: 38.
5. Jithendran, K.P., M. Poornima, C.P. Balasubramanian and S. Kulasekarapandian, 2010. Diseases of mud crabs (*Scylla* spp.): An overview. *Indian J. Fish.*, 57: 55-63.