

**IDENTIFICATION OF MORPHOLOGICAL CHARACTERISTICS
Duthiersia expansa IN WATER BIAWAK (*Varanus salvator*)
USING ELECTRON MICROSCOPE SCANNING**

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ABSTRACT

Duthiersia expansa (*D.expansa*) is a cestoda of the family Diphylobothriidae which is often found in the gut of water lizards (*Varanus salvator*). *D. expansa* worm infection is generally chronic and shows no obvious clinical symptoms but can cause weight loss, edema, ulceration of the intestinal mucosa to death. Although there have been no reports of *D. expansa* worm infections in humans, all types of animals have the potential to transmit diseases to humans both directly and indirectly. The present study being the first to describe morphology of surface ultrastructure of *D. expansa* using scanning electron microscopy in Sidoarjo, Indonesia, managed to compliment and verify the taxonomic valid characteristics of *D.expansa* as Asian *Duthiersia* form. Samples are collected by making incisions in the duodenum to the ileum. Sample preparation was carried out at the Airlangga University Medical School. The scanning electron microscope (SEM) analysis was carried out at the Central Institute of Life Sciences Universitas Brawijaya. The results of scanning electron microscope examination show that the *D.expansa* scolex has five different shapes and sizes, including scolex with a narrow width like an arrow, shaped like a spatula to a width like a fan. But the shape of the fan is more dominating. Existence of posterior pores and hook in scolecs, Crasspedot-shaped of strobila and different forms of microtriches in tegument of the scolex and strobila.

Keyword : morphology, ultrastructure, SEM, *Duthiersia expansa*, water lizard