



ASIAN-PACIFIC AQUACULTURE 2017

Transforming For Market Needs

Putra World Trade Centre

July 24-27, 2017 • Kuala Lumpur, Malaysia

Hosted by: Department of Fisheries, Ministry of Agriculture & Agro-Based Industry, Malaysia



Gold Sponsor



SHENG LONG

President Reception Sponsor



FISHANCE

Session Sponsors



WAS Premier Sponsors



HEMOLYMPH EXTRACTION UNDER THE LENSE: VISUALIZATION OF THE CARDIOVASCULAR SYSTEM OF THE BLUE MUSSEL (*Mytilus edulis*)

Mieke Eggermont*¹, Pieter Cornillie, Nancy Nevejan, Peter Bossier, Manuel Dierick, Dominique Adriaens, Patrick Sorgeloos, Tom Defoirdt, Annelies Maria Declercq

¹Laboratory of Aquaculture and Artemia Reference Center, Ghent University, Rozier 44, 9000 Gent, Belgium

Bivalve hemolymph is commonly used in a broad range of research domains such as eco(toxico)logy and immunology. The minimally described hemolymph withdrawal protocols and reported locations (adductor muscles and heart) raise questions regarding the exact origin of the aspirated hemolymph and possible contamination with other body-fluids, which might have biased the conclusions that were drawn from these studies. A good description of the species-specific anatomy is lacking in many bivalves but essential for a correct hemolymph withdrawal. In this study we visualized and discussed the cardiovascular anatomy of the blue mussel (*Mytilus edulis*) as model organism and generated three-dimensional reconstructions based on micro-CT and histological slides. Other organs, such as the gastro-intestinal system, the muscular system and body-cavities, were included as well because of their close relationship to the cardio-vascular system.

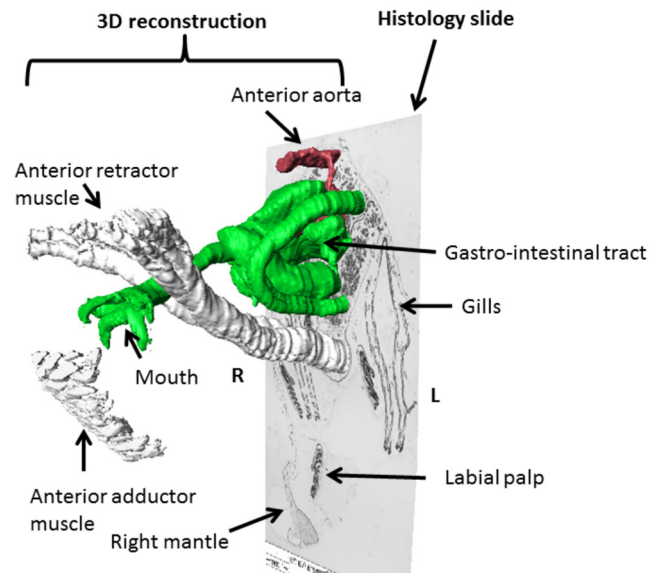


Fig. 1: 3D reconstruction of the blue mussel based on histology