



The University of Hong Kong
School of Biological Sciences

**Qualifying
Seminar**

Winter Mortality Syndrome (WMS) in Hong Kong oysters: cause, impact and solutions

Date: 7 December 2023

Time: 15:15

Venue: KBSB 3N-01



About the speaker:

Lee Tin Hang (David) is a PhD student from Hong Kong Oyster Hatchery & Innovation Research Unit (HKO-HIRU), he has graduated from University of Exeter in B.Sc Economics, later he studied in University of Stirling and graduated from M.Sc Sustainable aquaculture with Merit. He is now perusing PhD study in HKU and working on winter mass mortality in edible oysters using Hong Kong's unique aquaculture habitat and species.

Abstract:

There are many challenges in the rapidly growing aquaculture industry around the globe. Repeatedly occurring winter mass mortality events are one of the main obstacles found in modern aquaculture. The study of such events is extremely crucial for the development of both long-term and short-term mitigation strategies.

The speaker will explain how he designed his experiments to investigate the winter mass mortality happening to *Crassostrea hongkongensis* (Hong Kong oyster) the main species cultured in Hong Kong and whole of southern China – which is accounting about 1/4th of global production.

The speaker will also report on the findings of his study so far and present his future experiments. *Eugymnanthea japonica*, a hydrozoan that is known to inhabit in the cavity of bivalves was found in oysters during winter mortality with studies showing such hydrozoan decreases the condition index in bivalve. Furthermore, laboratory experiment showed that Hong Kong oyster suffers from high mortality under environmental stressors such as high salinity and high temperature. Winter mortality is a complex process that requires an interdisciplinary approach with both field and laboratory experiments in close collaboration with growers to understand the cause, the impact and to find a potential solution. The speaker hopes his study of the subject can become the foundation of this never scientifically explored subject in the Hong Kong oyster aquaculture industry.