

Kian Giap You,
Chui Wei Bong
Choon Weng Lee

Laboratory of Microbial
Ecology, Institute of Biological
Sciences, Faculty of Science,
University of Malaya, 50603
Kuala Lumpur

D08. Oxytetracycline-resistant bacteria in coastal waters in Malaysia

Oxytetracycline (OTC) is one of the most widely used antibiotics in aquaculture worldwide because of its broad spectrum of activity. The prevalence of OTC-resistant environmental bacteria poses a serious *risk* in human and veterinary medicine. In this study, we isolated 140 and 142 OTC-resistant bacteria ($\geq 60\mu\text{g/ml}$) from Port Dickson (PD) and Port Klang (PK), respectively. Among these OTC-resistant bacteria, 79 isolates (25 from PD and 54 from PK) were highly resistant to OTC ($\geq 240\mu\text{g/ml}$). These 79 isolates were then separated into different OTUs by restriction fragment length polymorphism (RFLP) method using three restriction enzymes (*RsaI*, *CfoI*, *DdeI*). The different OTUs were identified via 16S rDNA partial sequencing. The dominant OTC-resistant bacteria in both sites were *Alteromonas* spp., *Pseudoalteromonas* spp., *Shewanella* spp. and *Vibrio* spp. Further testing on the susceptibility of these OTC-resistant bacteria against different classes of antibiotics will be carried out since OTC resistance is known to have cross-resistance to other unrelated antibiotics.