

養殖蝦的腸炎弧菌感染症

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摘要

蝦類養殖是台灣重要水產養殖產業，而水產動物會因為在養殖過程中被食媒性病原污染而造成人類疾病。近來蝦類養殖業者發現有養殖蝦大量死亡現象而送至大專院校尋求診斷，因此檢體轉送至本所進行食媒性病原分離鑑定。由宜蘭的草蝦、白蝦檢體中增菌分離出腸炎弧菌（或稱副溶血弧菌 *Vibrio parahaemolyticus*），所有分離株均為 TL 毒素（thermolabile hemolysin）陽性而 TDH 與 TRH 毒素（thermostable direct hemolysin, thermostable direct hemolysin-related）陰性。因檢體呈現不同程度的肝胰腺壞死，因此對已發表之白蝦新興弧菌感染症毒力因子進行核酸檢測，發現 1 場草蝦場與 2 場白蝦場的分離株帶有已知的毒素因子（Pir-like toxin）。本研究結果顯示，發病的養殖草蝦或白蝦檢體中可以分離出腸炎弧菌，而這些分離株會帶有毒力因子。

***Vibrio parahaemolyticus* Infection of Cultured Shrimp in Taiwan**

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Abstract

The shrimp farming industry is one of the most important aquacultures in Taiwan. Aquatic animals infected or contaminated by foodborne pathogens can cause food poisoning in humans. Recently, shrimp farmers in Taiwan have experienced massive losses of juvenile shrimp and as a result, the diseased shrimp were submitted to a college for diagnosis, followed by referral to Animal Health Research Institute for foodborne pathogen isolation. *Vibrio parahaemolyticus* strains producing TL toxin (thermolabile hemolysin), and not producing TDH and TRH toxin (thermostable direct hemolysin, and thermostable direct hemolysin-related, respectively) were isolated by enrichment of *Vibrio* species from diseased giant tiger prawns (*Penaeus monodon*) and Pacific white shrimp (*Penaeus vannamei*). Due to varying degrees of necrosis observed in the hepatopancreatic gland, nucleic acid detection for the published virulence factors found in emerging *Vibrio parahaemolyticus* infections in shrimp was carried out. The isolates obtained from one giant tiger prawn farm and two Pacific white shrimp farms possessed the published virulence factor, Pir-like toxin. The results of the present study revealed that *V. parahaemolyticus* encoding a previously characterized virulence factor could be isolated from the diseased tiger prawn and white shrimp in Taiwan.