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台灣南部常見魚類細菌病原

生物組

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摘要

為防治水生動物細菌感染症，需要了解常見水生動物細菌性病原。自 112 年至 113 年 10 月間收集自嘉義縣、臺南市與屏東縣動物防疫機關所由水生動物分離 1547 株病原菌，主要為鏈球菌（含 *Streptococcus agalactiae*、*S. iniae*、*S. dysgalactiae* 與 *Lactococcus garvieae*）327 株，產氣單孢菌（含 *Aeromonas veronii* 與 *A. hydrophila*）215 株，弧菌（含 *Vibro cholerae* 與 *V. vulnificus*）238 株，愛德華氏菌（含 *Edwardsiella tarda*、*E. piscicida* 與 *E. anguillarum*）158 株，以及 12 株奴卡氏菌（*Nocardia seriolae*）。其中愛德華氏菌無法以傳統 16s 基因定序鑑別種別，須改以其他基因如 *sodB* 基因定序，各分離株的生化性狀雖有差異，但無法以商品化套組鑑定種別，大多數分離株對抗菌劑具有感受性。無乳鏈球菌（*S. agalactiae*）與海豚鏈球菌（*S. iniae*）分離株中均有出現黏液型菌落，表示可能有不同血清型的分離株。結果顯示水生動物病原株別間基因與生化性狀具有差異，未來以藥物或疫苗防治細菌感染症時，須考慮到菌株之變異。

Prevalent Bacterial Pathogens in Fish from Southern Taiwan

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Abstract

To prevent and control bacterial infections in aquatic animals, it is urgent to investigate the prevalent bacterial pathogens in aquatic animals. From 2023 to October 2024, 1547 isolates of pathogenic bacteria were collected from aquatic animals isolated by the local animal disease diagnostic laboratories in Chiayi, Tainan and Pingtung, including 327 isolates of *Streptococcus agalactiae*, *S. iniae*, *S. dysgalactiae* and *Lactococcus garvieae*, 215 isolates of *Aeromonas veronii* and *A. hydrophila*, 238 isolates of *Vibrio cholerae* and *V. vulnificus*, 158 isolates of *Edwardsiella tarda*, *E. piscicida* and *E. anguillarum*, and 12 isolates of *Nocardia seriolae*. Of these, *Edwardsiella* species could not be identified by conventional 16s gene sequencing and required further sequencing of other genes such as *sodB*. Although the biochemical characteristics of the *Edwardsiella* isolates varied, the species could not be identified by the commercial kit, and most of them were susceptible to antimicrobial agents. Mucoid colonies were found in both *S. agalactiae* and *S. iniae* isolates, suggesting isolates with different serotypes may exist. The results showed that there were genetic and biochemical differences between the bacterial isolates from aquatic animals. That isolate variation may be taken into account in the future when antimicrobials or vaccines are used to control bacterial infections.