

Spatiotemporal distribution of splendid ponyfish, *Leiognathus splendens* (Cuvier 1829), in coastal waters off southwestern Taiwan

計劃名稱：台灣西南海域黑邊鰻的時空分布與適溫洄游之研究

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Abstract

From January 2001 to January 2004, shrimp trawler were conducted in 7 sites, from south to north including Fangliao (FL), Linbian (LB), Dapeng Bay (DP), Linyuan (LY), Jhongjhou (JJ), Zuoying (ZY) and Jiading (JD), by OR3 vessel along the coastal waters off southwestern Taiwan. Among the 24 cruises and 299 trawling samples, splendid ponyfish, *Leiognathus splendens* (Cuvier 1829) with a 62% occurrence and 55% total number of catch, was the most abundant species. They only occurred at inshore waters northward to Jhongjhou in summer (June to October) (Figure 1), while the northeastern monsoon (China Coastal Waters) retrogress northwardly and southwestern current (South China Sea Surface Current) enters the Taiwan Strait (Figure 2-1 and 2-2). No fish was caught in the bottom waters with water temperature and salinity lower than 22.5°C and 32.9 psu, respectively (Figure 3), suggesting that the seasonal movement of the fish may highly related to water mass influencing by water of South China Sea.

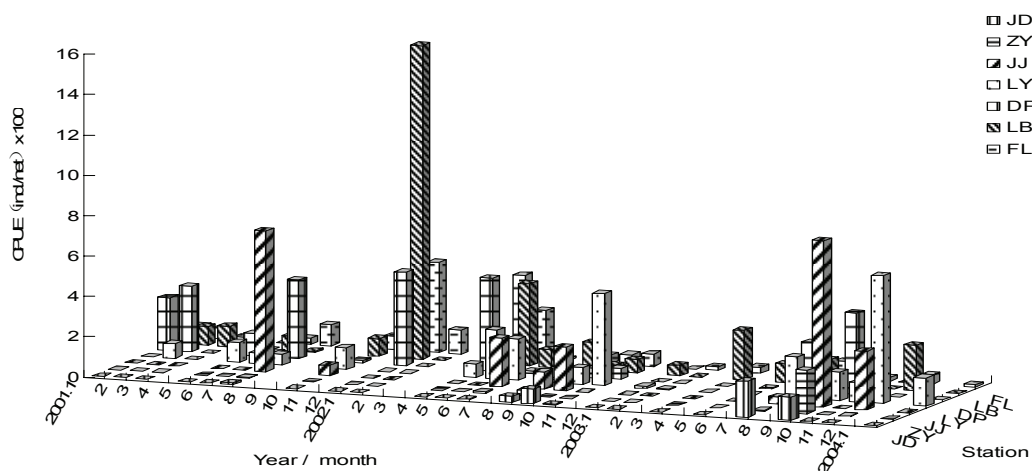


Figure 1. The CPUE monthly variation of splendid ponyfish in January 2001 to January 2004 at seven sampling stations along southwestern Taiwan.

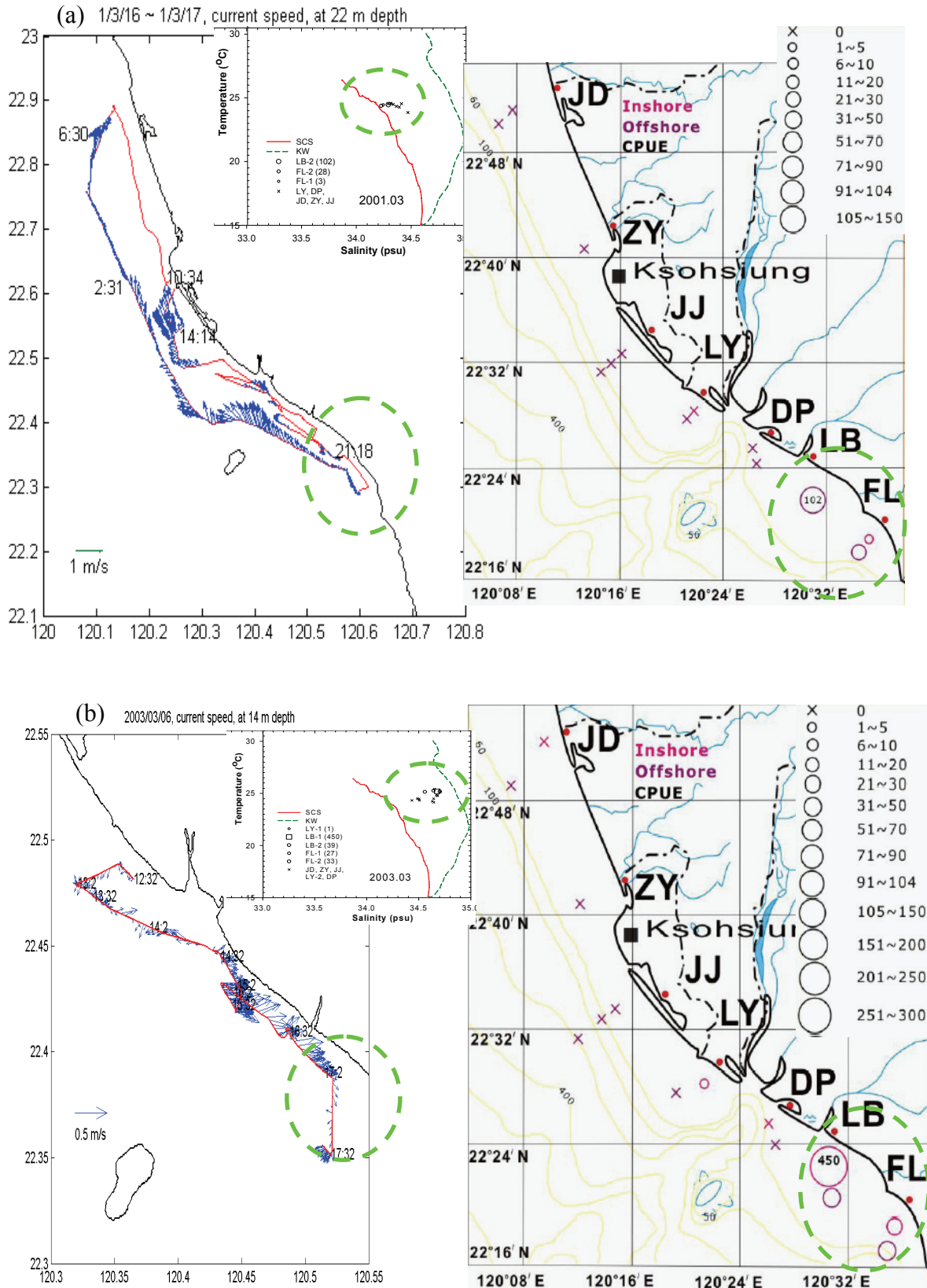


Figure 2-1. Current speed and direction to CPUE of splendid ponyfish in (a) March 2001, and (b) March 2003.

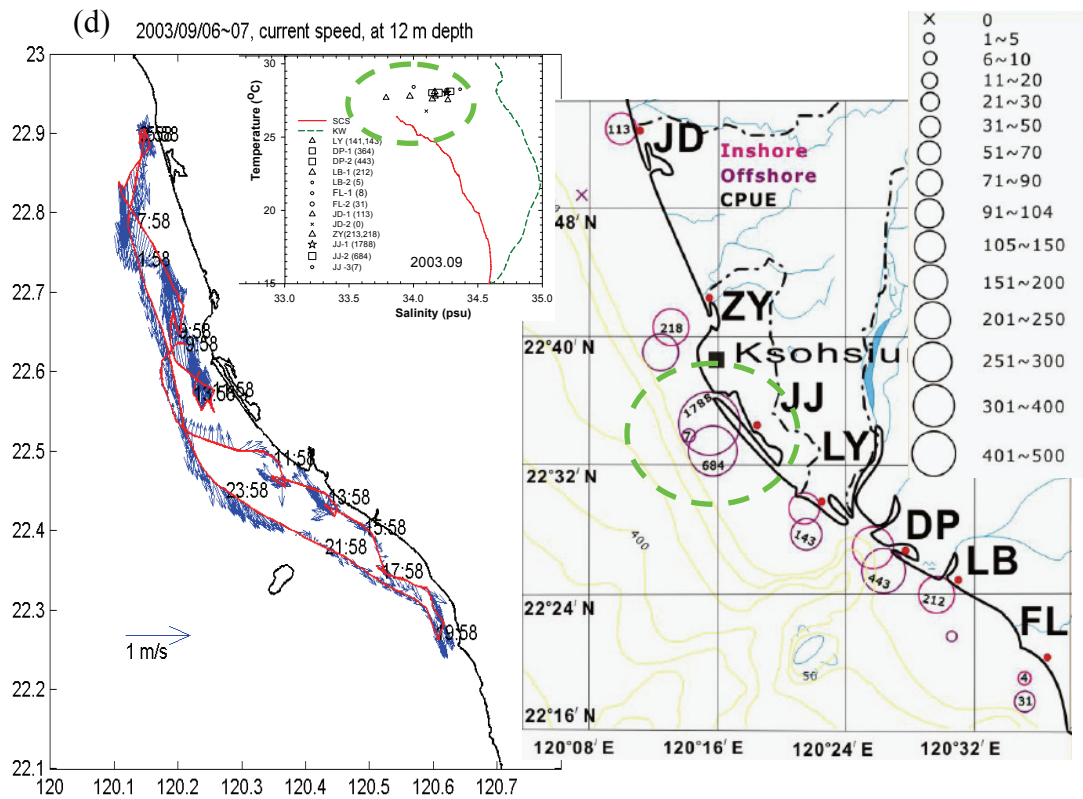
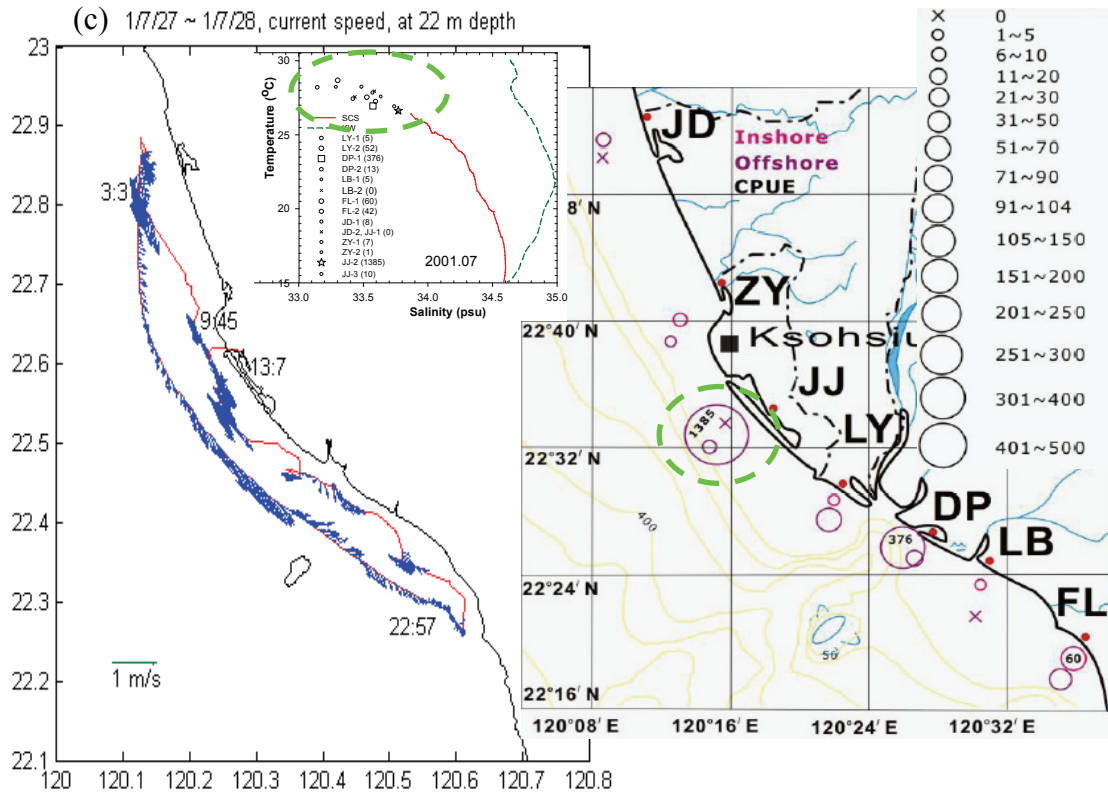


Figure 2-2. Current speed and direction to CPUE of splendid ponyfish in (c) July 2001, and (d) September 2003.

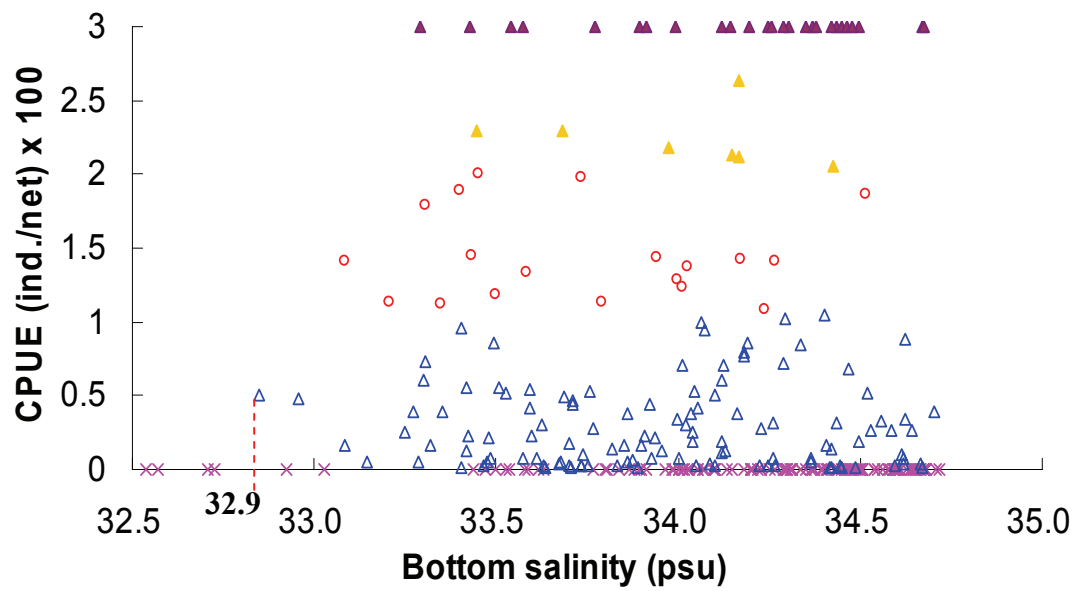
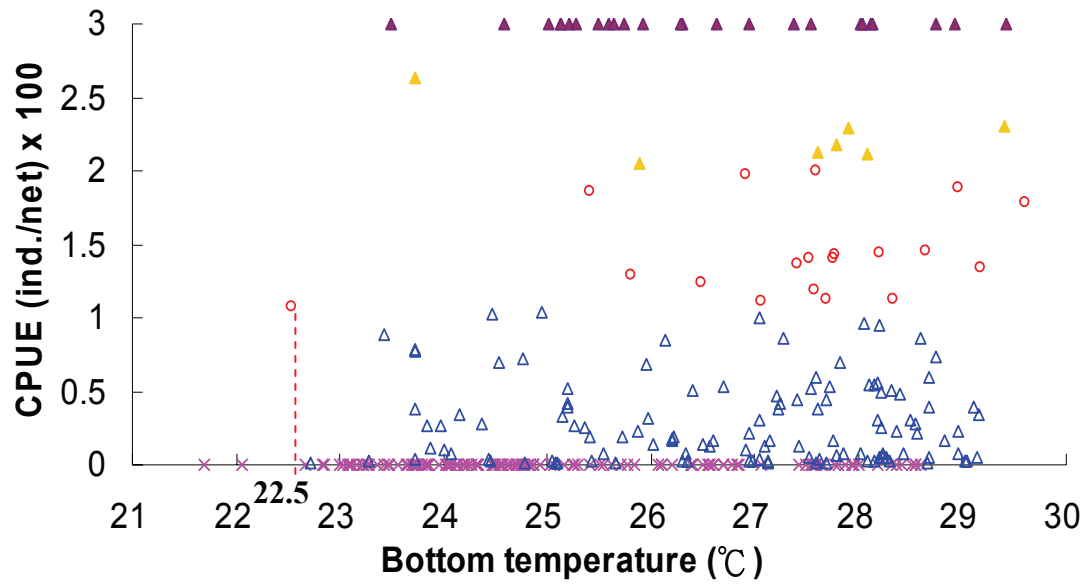


Figure 3. CPUE of splendid ponyfish plots to the bottom temperature and salinity.