

***Donax trunculus* (Bivalvia, Donacidae) Infestation with *Bacciger bacciger* (Trematoda, Fellodistomidae) at Port Said coastal zone (Mediterranean Sea)**

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Infection of *Bacciger bacciger* in the *Donax trunculus* was studied in samples collected from the Mediterranean coast at Port Said coastal zone. Sporocysts of *Bacciger bacciger* were embedded in gonadal tissue of the bivalve *Donax trunculus*. Sporocysts of *B. bacciger* were demonstrated in 504 of 1200 clams examined with overall prevalence of infection reaching 73.69%. The prevalence increased to 24% of *D. trunculus* with shell length 34 mm, while individuals less than 15 mm shell length were not infested with *B. bacciger*. Seasonality was recognized in prevalence of infection. The proportion of infected individuals of both sexes was nearly similar (6.56% in males and 8.04 % in females). The proportion of infected clams reduced to virtual castrates of unknown sex reached 28%. The tegument of the sporocyst and cercariae were studied by light microscopy. A birth pore on one side of the sporocyst, unciliate sensory organs and cup-shaped sensory-like structures were present on the tegument. The cercarial body had spines and unciliate sensory organs. The ventral sucker of the cercariae had 2 rings of unciliate sensory organs and supported with tegumental spines. Histopathological effect of *Bacciger bacciger* on *Donax trunculus* was studied and discussed. Results revealed that the most common sites of the sporocyst occurrence were the interfollicular connective tissues in the gonads and muscle fibers of the foot. Degenerative follicles hypertrophy and hyperplastic changes of the connective tissues, granular haemocytes and separation between germ cells and follicular epithelium were the main histological features of the infection in the male *D. trunculus* gonad. While, vacuolization, necrosis and derangement of muscle fibers of foot were the most histological features observed in infected feet by sporocyst. The Siphonal tissue of infected *Donax* was free of sporocysts. The increase in goblet cells and movement of subepithelial mucous glands towards the outer surface were indications of defense against *B. bacciger* infection. The present results indicated that *B. bacciger* promotes a severe castration in the bivalve *Donax trunculus*.

Biography

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