

Lamellodiscus spp. (Monogenoidea: Diplectanidae) Infecting the Gill Lamellae of Porgies (Spariformes: Sparidae) in Dakar Coast

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Abstract : In Senegal, the fishing sector plays an important role in socio-economic development. However, he is going through enormous difficulties, caused by the scarcity of fish on the Senegalese coast, the overexploitation of fishery resources. Based on this observation, the authorities are betting on the development of aquaculture. It is in this context that the exploration of fish from the highly consumed Sparidae family remains a good solution. Indeed, the Sparidae family has good characteristics for farming at sea. However, parasites can proliferate and destroy the efforts made to cultivate fish in confined areas. the knowledge of these parasites in particular the monogeneans, very specific to the sparidae fishes will allow to better know the bio-ecology of the fishes. Better know the main parasitic monogeneans of the genus Lamellodiscus of sparidae fish of the genus Pagrus harvested in Senegal. It will first be a question of identifying from the observation of the morpho-anatomical characters, Monogeneans of the genus Lamellodiscus, branchial parasites collected from three species of host: Pagrus caeruleostictus , Pagrus auriga and Pagrus africanus. Then to evaluate the spatial and temporary distribution of parasitic indices on two Dakar landing sites (Soumbédioune and Yarakh) and finally to determine their specificity. The fish examined were purchased directly from the landing sites in Dakar and then transported to the laboratory where they were identified, then dissected. The gills were examined under a magnifying glass and the monogeneans were harvested, fixed in 70% ethanol and then mounted between slide and coverslip. The identification of the parasites is based on the observation of the morpho-anatomical characters and on the measurements of the sclerified organs of the haptor and the male copulatory organ. In total out of the 90 individuals examined: Pagrus auriga (30), Pagrus africanus (30) and Pagrus caeruleostictus (30), 6 species of monogeneans of the genus Lamellodiscus (Monogenea, Diplectanidae) are obtained: L. sarculus, L. sigillatus, L.vicinus, L. rastellus, L. africanus n.sp and L. yarakhensis n.sp. Our results show that specimens of small sizes [15-20[cm are the most infested. The values of infestation intensity and abundance are higher in fish from Yarakh and also during the cold season. it is the species Pagrus caeruleostictus which records the highest parasitic loads in the two localities. the majority of the parasites identified have a strict or oioxene specificity. It appears from this study that fish of the genus Pagrus are highly parasitized by monogeneans of the genus Lamellodiscus with a general prevalence of 87.78%. Each infested fish has an average of 30 monogeneans of the genus Lamellodiscus.

Keywords : monogeneans, Lamellodiscus, Dakar coast, genus Pagrus

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