

**Histological approach on lateral line organs
of jack mackerel (*Trachurus japonicus*)
(マアジの側線器官に関する組織学的検討)**

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[Objective] For the purpose to understand the response mechanism of fish toward the gear stimuli during capture process, the structure and function of lateral line organs of jack mackerel (*Trachurus japonicus*) was studied through the histological observation.

[Methods] The histological observation was conducted with the binocular microscope, by hematoxylen and methylene blue dye for identifying the structure and distribution of lateral line organs in the head and trunk, and then to identify the histological details of pores and hair cells by preparing the sampled tissue for the photo-microscopic observation.

[Results] Seven canal systems were identified in the head part; such as supra temporal, postotic, otic, supra orbital, infra orbital, operculum and mandibular canals with the width ranging 0.9-1.5 mm. Higher density of pore distribution was located on the nasal area and dorsal area of the head, which is 7-8 and 5 pores/mm² respectively. In the other areas of the head, the density of pores was ranged 1-2 pores/mm². Concerning the trunk part, 29 pores of 12-13 μm diameters were identified along the main lateral line, while no pores were observed along the upper line. The details at the supra orbital and infra orbital canal were also observed with the photo microscope and compared with the previous papers, for identifying the canal and hair cell system.