

ニシンとスプラットの間腎腺におけるクロム親性細胞の存在

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Short Paper

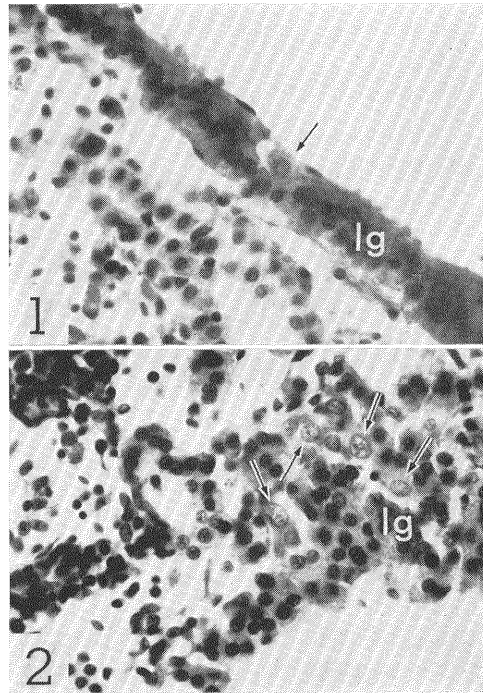
Presence of Chromaffin Cells in the Interrenal Glands of Herring and Sprat*

As for the interrenal gland of fish in Clupeidae, its distribution has been described in the head kidneys of sprat, *Clupea sprattus*¹⁾ and Pacific herring, *C. pallasii*.²⁾ However, the presence of chromaffin cells has not yet been definitely demonstrated in the head kidneys of the fishes belonging to the family. During my stay in England, I had the opportunity to examine the kidneys of two species of Clupeidae, i.e., sprat, *C. sprattus* and Atlantic herring, *C. harengus*. These fishes (four specimens of sprat and six ones of Atlantic herring) were collected at Plymouth Laboratory of Marine Biological Association of United Kingdom on 6th of March, 1972. After fixing in ZENKER-formol fluid and embedding in paraffin, sections of head kidneys were made at 6 μ in thickness and stained with MAYER's acid hemalum and eosin.

The head kidneys of sprat and Atlantic herring were not clearly discernible from body kidney as in Salmonidae. Usually, teleostean head kidneys are composed of lymphoid tissue³⁾. In sprat and Atlantic herring, however, the head kidneys were composed of renal tissue, and renal corpuscles, uriniferous tubules, and initial collecting tubules were seen in the head kidney. The interrenal glands of sprat and Atlantic herring were located around the post-cardinal vein and its branches observed in the head kidneys (Figs. 1 and 2). NANDI²⁾ reported in Pacific herring, *C. pallasii*, that the cells exhibiting chromaffin reaction could not be demonstrated in the interrenal gland of the head kidney fixed with ORTH's fluid. In the present observation, however, definite chromaffin reaction was observed in several cells detected separately (Fig. 1) or in two or three cells group (Fig. 2) among the interrenal glands of sprat or Atlantic herring. The cytoplasm of these cells was coloured in brown and the nuclei were pale,

irregular and larger in size than those of the interrenal cells. Thus, the presence of chromaffin cells was confirmed in the two species of Clupeidae.

I wish to thank staff of Plymouth Laboratory for the facilities they gave me during the collection of sprat and Atlantic herring. This work was carried out under the auspices of the United



Figs. 1 and 2. Chromaffin cells (arrows) in the interrenal glands (lg) of sprat (Fig. 1) and Atlantic herring (Fig. 2). $\times 540$ ZENKER-formol fluid, MAYER's acid hemalum and eosin stain.

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