

ECOLOGICAL STUDIES ON THE JELLY-FISH, *AURELIA AURITA*  
LAMARCK IN URAZOKO BAY, FUKUI PREFECTURE—II.  
OCCURRENCE PATTERN OF THE EPHYRA<sup>1)</sup>

By

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Succeeding to the previous report dealing with the adult stage, a discussion is made in this paper on the year-round occurrence pattern of the ephyra stage of the jelly-fish, *Aurelia aurita* LAMARCK, in Urazoko Bay near Tsuruga (Fig. 1).

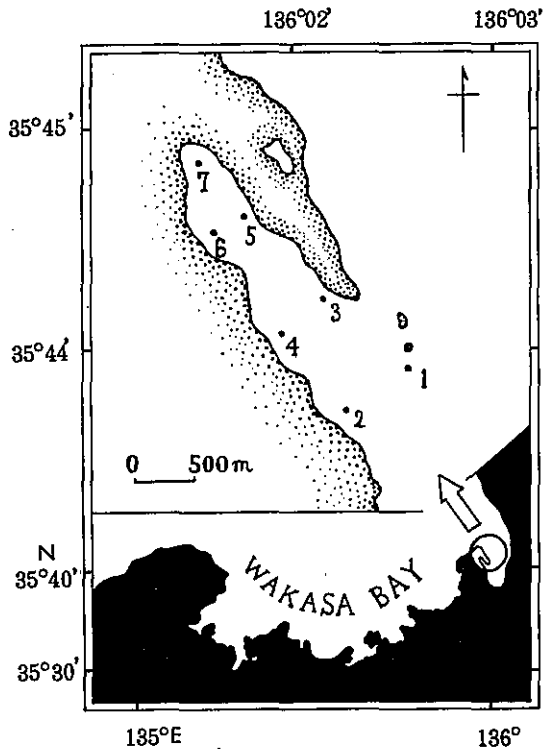


Fig. 1. Map showing the location of hydrographic observation and plankton sampling.

1) Contributions from the Marine Biological Station of Asamushi, Aomori Ken, No. 366

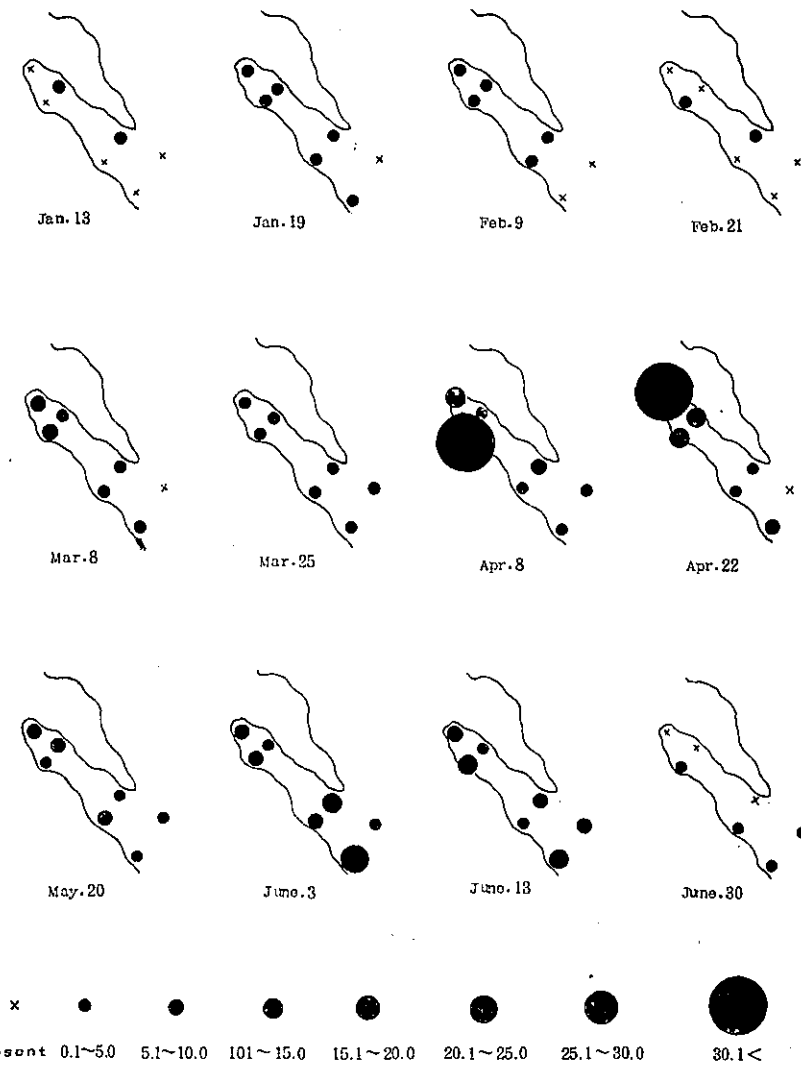


Fig. 2. Seasonal change in the occurrence of the ephyra stage of *Aurelia aurita*, from November 1966 to October 1967. Closed circles refer to the number of ephyra per  $m^3$  collected at respective station. No ephyra was collected at all in the periods November to December, 1966 and July to October, 1967.

Sampling was made usually twice a month by vertical haul of a plankton-net (45 cm in mouth aperture, 0.33 mm in mesh) together with hydrographic observations throughout the period from November 1966 to October 1967. The results obtained are summarized as follows:

1) Occurrence of the ephyrae extended from middle January to late June, with the peak in April (Fig. 2). Therefore, strobilation of the polyp of *Aurelia*

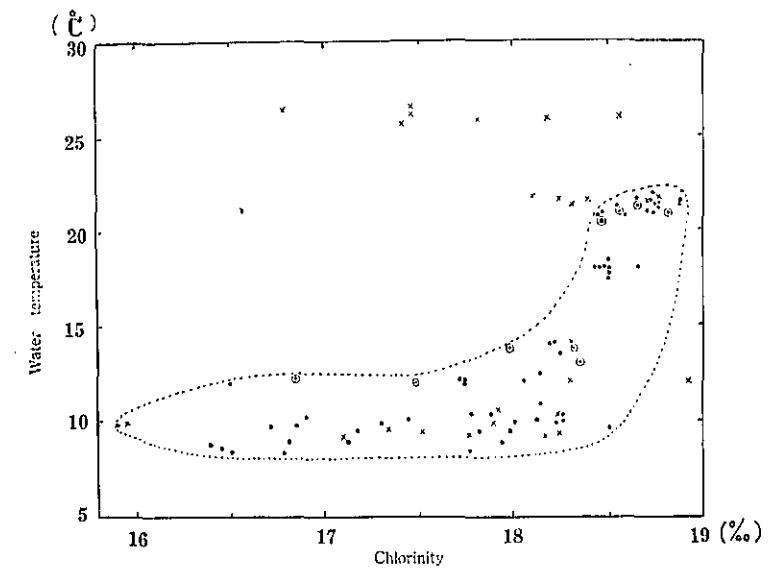


Fig. 3. Hydro climograph showing the environmental relationship in the occurrence of the ephyra stage of *Aurelia aurita* in Urazoko Bay. Both water temperature and chlorinity refer to the surface value. The main range of occurrence is indicated by broken line. x: No ephyra •: 0.1~10.0 ephyrae per  $m^3$  ○: More than 10.1 ephyrae per  $m^3$

*aurita* was supposed to continue through the early season of the above-mentioned period in this bay.

2) Ephyrae were distributed rather evenly in the inner part as well as in the mouth of the bay, except when the highest population density ranging from 33.1 to 68.0 per  $m^3$  was recorded in the inner part of the bay at the peak of occurrence in April (Fig. 2).

3) Ephyrae occurred under the conditions of 8° to 22°C in surface water temperature and 15.9 to 18.9‰ in surface chlorinity, and abundant occurrences more than 10.1 per  $m^3$  in population density were observed under the conditions of 11° to 21°C and 16.9 to 18.8‰ (Fig. 3).