Two Records of Patchy Occurrences of the Oceanic Shrimp
Sergestes similis HANSEN off the East Coast of Honshu, Japan

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Abstract: Two recent records of the occurrences of the pelagic shrimp, Sergestes similis HANSEN, are reported. They provide evidence of dense swarms of S. similis in midwater off the east coast of Honshu, Japan, in spring.

On one occasion, S. similis was found in a stomach of the basking shark, Cetorhinus maximus (Gunnerus). The shark, 8.11 m in total length, was accidentally trapped in a set net off Izu-oshima Island on April 18, 1974, and its foregut was filled only with S. similis. Feeding and swimming behavior of the basking shark, condition of the gut contents, and temperature profiles of the sea revealed that S. similis was predated upon by the shark near the island when the shrimp swarm below 100 m depth at night. On another occasion, S. similis was fished by a commercial ground trawler 31 miles off Cape Shioyazaki on April 4 and 5 and off Hitachi on April 11, 1976. The trawlings were made around 500 m depth at daytime, and a total of 3.8 tons of S. similis was caught and marketed. The size-frequency distribution and sex ratio of S. similis in both occurrences from off Izu-oshima Island and off Cape Shioyazaki coincided very well. The samples consisted of identical population of probably 2nd year class having a body length mode between 46.0 and 50.0 mm. The sex ratio was skewed greatly toward females in both samples, that is 38:2 and 100:3 respectively. These two phenomena are discussed in relation to the life history of S. similis.
3. 考察

うばぎはは太平洋、インド洋および大西洋の寒帯域から暖帯域にかけて広く分布する。日本近海では3～6月に太平洋沿岸に出現することが知られているが、伊豆大島での捕獲記録は著者らの調べた範囲では今回が最初である。

うばぎはは一般にブランクトン食性魚として知られている。しかし、その食性についての知見は少なく、胃内容物として魚卵、毛小魚、Calanusを含むことが多い。この種はソソアやメガロバ幼生などが記録されているにすぎない（MATTHEWS and PARKER, 1950; J.E. FITCH, 未発表）。うばぎはの2ノット程度で遊泳しながら卵を飲み込み、卵巣でしょとうことを示す（MATTHEWS, 1962）。捕獲された個体の前胃がS. similisの単一層によって充満し、未消化の状態のものが多かったことから、捕食されたS. similisが伊豆大島近海でかなり難航の高い群を形成していたことが推定される。

Fig. 1. Size-frequency distribution of Sergestes similis, females.