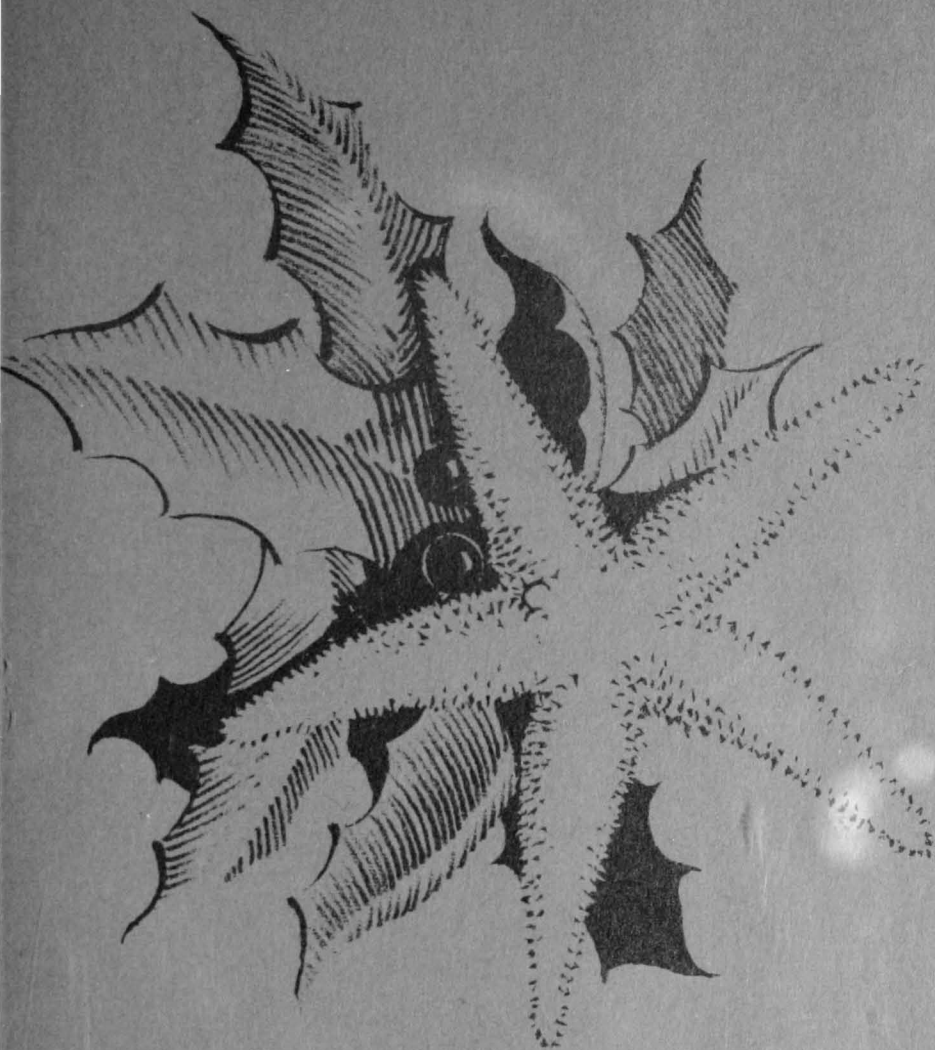


Ornamental Use of Starfishes



UNITED STATES DEPARTMENT OF THE INTERIOR
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Figure 1.--Starfish, *Asterias forbesi*, one of the most destructive predators of oysters in Long Island Sound and other Atlantic coast areas.

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INTRODUCTION

The common starfishes, Asterias forbesi and A. vulgaris (fig. 1), are among the most serious predators of the American or Eastern oyster (Crassostrea virginica) in the coastal waters of New England and New York and in Long Island Sound. They also destroy the valuable Atlantic bay scallops (Aequipecten irradians), as well as less valuable species. Many authorities attribute the depletion of the oyster resources of Long Island Sound almost entirely to starfish predation (Galtsoff and Loosanoff, 1939).

Millions of starfishes are caught annually--either inadvertently in harvesting and transplanting oysters, or deliberately by "mopping" oyster beds to remove some of these predators. Mopping is expensive and at best offers only temporary control of starfish predation (fig. 2).

Efforts to use starfish meal as poultry feed or fertilizer have proved impractical because the product is very high in ash and low in nitrogen. Also, the starfish's fibrous tissue and calcareous skeleton are difficult to process (Lee, 1951).

ATTRACTIVE ORNAMENTS

Despite their destructiveness, however, starfishes are attractive animals. Their radial symmetry is pleasing to the eye, and to many persons they are nostalgic symbols of happy vacation days at the sea shore. They are avidly collected at beaches by vacationers, especially those from inland areas. The attractiveness of these animals offers the possibility of a profitable industry, with very little capital outlay, for those watermen and their families who are most adversely affected by starfish predation. Preserved starfish can readily be prepared as attractive Christmas tree ornaments, interior decorations, and souvenirs. The potential market is indicated by the fact that from 1960 through 1965 imports of Christmas tree ornaments and decorations totaled \$20,750,000. Domestic production of these items was almost negligible (U.S. Department of Commerce, 1966¹).

¹U.S. Department of Commerce. Special tabulation prepared by Consumer Durables Division. Washington, D.C., 1966.

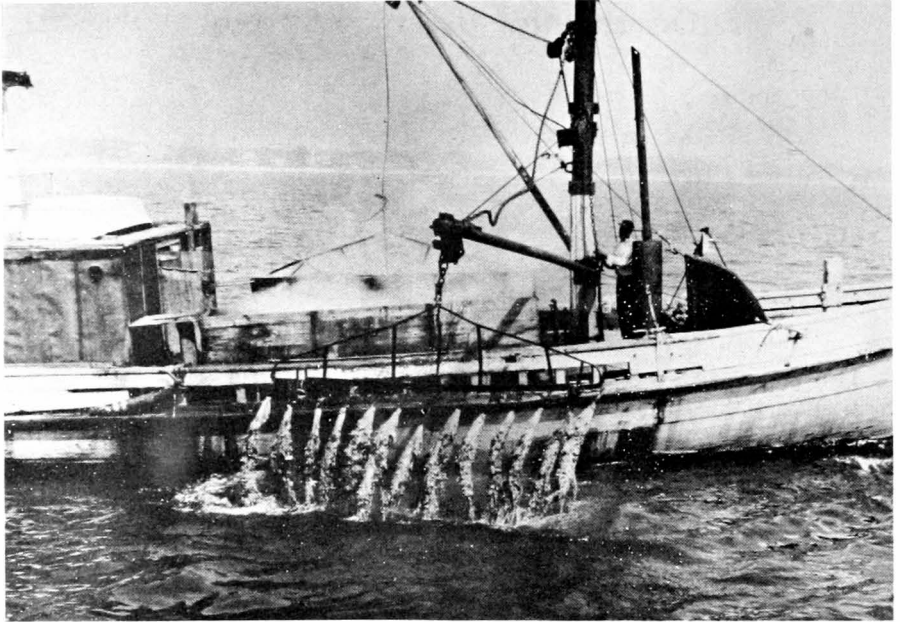


Figure 2.--Long Island Sound oyster boat rigged for "mopping" starfishes. As the mops are drawn over the oyster beds, starfishes become entangled. They are hauled in, killed in vats of hot water, and dumped overboard.

PREPARATION OF STARFISHES

Live starfishes should be washed in fresh water to remove residual sea water and debris, placed on trays lined with waxed or parchment paper, and flattened out with rays evenly spread. The trays are then placed in a slow oven (150° to 200° F.) until the starfishes are completely dry. The starfishes can also be air-dried, if there is a hot sun and there are no problems with flies and odors. Once the starfishes are dry, they can be retained indefinitely in dry storage and processed later.

When completely dry, the starfishes can be spray-painted in any colors desired by using spray guns or aerosol spray cans. Gold, snow, and sparkle paints are especially suitable for Christmas decorations. Starfish may be spray-painted on trays or hung by hooks inserted into the slit (ambulacral groove) on the underside of one of the rays. If desired, commercially available wire hooks may be permanently cemented into the grooves with any good rubber or plastic cement. Earrings, pins, and other personal ornaments can be made with metal accessories that are readily available in hobby shops. Dried starfishes themselves can be offered for sale to hobby and arts and crafts shops.

The range of decorative starfish products is limited only by the creative ability of the individual producer, and the size of his market by his promotional and sales efforts.

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