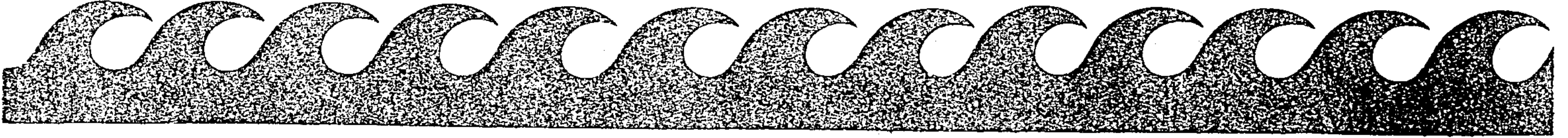


# THE SUNRAY VENUS CLAM <sup>10 247</sup>

OTHER NAMES: *None*

SCIENTIFIC NAME: *Macrocallista nimbosa*

WHERE HARVESTED: *Northwest (Gulf) coast of Florida*



The sunray venus clam ranges from South Carolina to Florida and the Gulf States. Its attractive shell is popular with shell collectors and tourists. It is relatively common throughout its range, and the shells may be collected from the local beaches or taken alive in shallow water. Commercial interest in the potential of the sunray as food was aroused through inadvertent encounters with large numbers of clams in shallow water areas. Commercial harvesting began in 1967, and presently the largest producing clam bed in Florida is the sunray venus bed off Port St. Joseph.

**DESCRIPTION:** Mature sunrays (4 — 5 years old) are 5 — 7 inches long. The shell is elongate, compressed and glossy-smooth with a thin, varnish-like protective covering. Its color is dull pink to bluish purple with broken radial bands of darker color. The interior of the shell is a flat white with a blush of red over the central area. The period of a sunray's most rapid growth is its first year, during which it may attain a size of 3 inches in length.

**HABITAT:** Research by the Florida Department of Natural Resources has indicated that sunray venus clams are restricted almost entirely to depths of forty feet or less and that the greatest concentrations occur in quartz sand. In contrast to the rather uniform shell length found on the fishing grounds (10 — 40 feet deep), catch lengths in shallow waters ranged from one inch to 5 inches. The dominance of smaller clams inshore and the completely opposite information offshore suggest a movement of young adults from the shallow areas to the deeper fishing grounds.

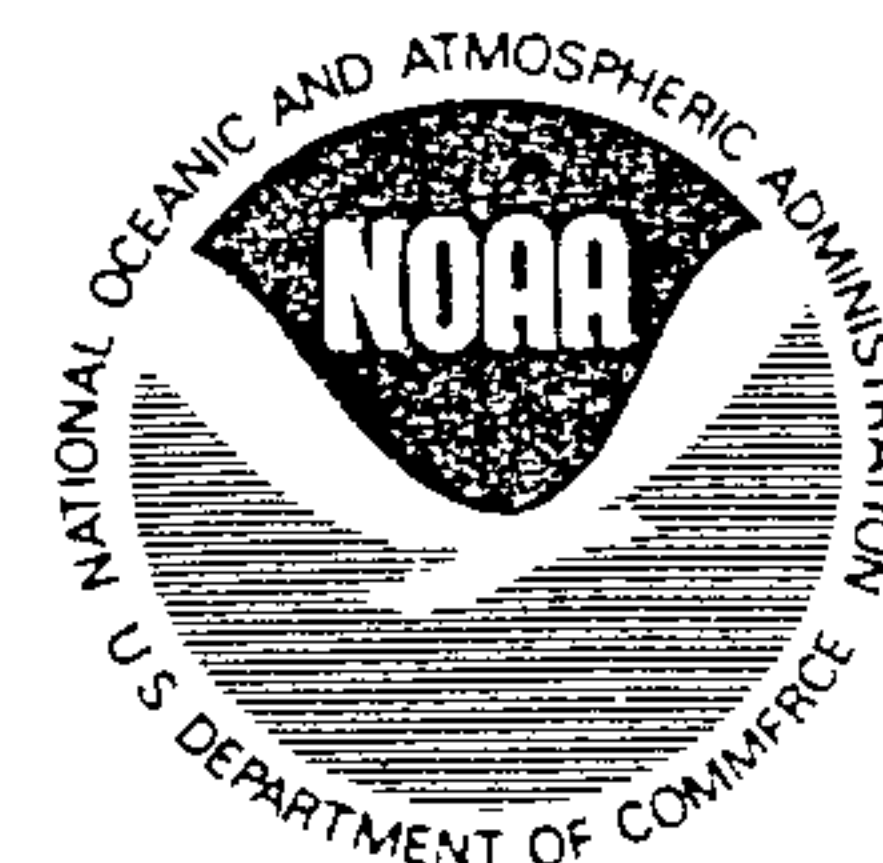
**HARVESTING:** Sunrays are harvested exclusively by dredge fishing. The dredge is a "Nantucket" type which uses water pressure to dig the clams and force them back into the metal catch container. The entire unit (dredge, water hose, and clams) is then lifted onto the deck, emptied, and returned overboard to continue fishing. The dredge is usually dragged from 10 — 15 minutes. This relatively short towing time prevents overfilling of the dredge and undue breakage of clams. It also allows the crew sufficient time for sorting and bagging the catch prior to the next emptying of the dredge. One advantage of this harvesting method is that it leaves the finfish of the area undisturbed. They are rarely collected, because of their ability to avoid the dredge.

Light intensity affects the harvesting of sunray venus clams. During periods of highest light intensity (noon hours), a portion of the population burrows deeper, reducing the number of clams harvested per drag. Divers' observations from St. Joseph's Bay, Fla., have given further evidence that sunrays are light-sensitive. A thorough search of the area around noon yielded no clams. The same area beginning at 1:30 p.m. showed some clams to be present three to six inches deep. As work continued, sunray siphons appeared throughout the entire area and 530 sunrays were collected in 1½ hours. The absence and then appearance of sunray siphons indicates vertical migration or a possible relationship between siphon activity and light intensity.

**CONSERVATION AND MANAGEMENT:** The only potential problem

is the small size of the fishing grounds. To date, though, this has not emerged very seriously. Because of a plentiful supply of clams in general, processors of the sunray venus have encountered difficulty in marketing their higher-priced, higher-quality clam. Processors are currently engaged in a consumer education program, communicating to shoppers that sunray venus clams are worth the extra pennies they cost. Partly because they come from sandy bottoms (no mud) and partly because they are hand-shucked and hand-packed, they are cleaner and have no grit. Some people feel that they are also sweeter and more tender than most other clams.

**USES:** Sunray venus clams are currently available only in five and ten-pound frozen minced blocks. These raw meats are of high quality and readily useable in chowder, fritters, patties, dips, and clam loaf.



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