

The status of the pearl oyster fishery of Kuwait

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Diving fleets and the pearl oyster grounds

The pearl oyster fishery of Kuwait is exclusively based on trade in natural pearls of *Pinctada radiata*. The diving fleets consist of 25 fibreglass speedboats of 3 to 8m in length, powered with a single 50 to 140 HP gasoline outboard engine.

The current pearl oyster fishing ground is located between the boundary of 20° 06'N, 48° 12'E, and 28°33'N, 48° 30'E, at depths ranging from 10 to 20m. Eleven major pearl oyster beds are scattered within this area.

Daily fishing trips begin at 8 am and last till noon. During this period about 6 dives can be completed of 30 minutes each, followed by 10 minutes rest. A hookah diving system is used for air supply. Wet suit, hood and gloves are worn in winter. Oysters are picked up and placed in a mesh bag as the diver walks or swims over the pearl oyster bed. The collected pearl oysters are placed unsorted in bags weighing about 6 kg (mean \pm S.D., 6.27 ± 0.84 ; $n=31$), before being transported to the pearl oyster market.

The market

The daily catch of pearl oysters in bags is transported from the landing sites to the only oyster market in Kuwait City. The auction starts as soon as the catch arrives, between 1 and 3 pm. There are about 30 permanent merchants of pearl oysters in the market who participate in the daily auction. A few other irregular buyers are present in the market each day. Their number increases substantially at weekends. The price of a bag of pearl oysters reflects the quality and the size of the pearl oyster shell. Large,

clean shells with less bio-fouling are more expensive. The price also varies according to the ground on which the pearl oysters were caught. The pearl oysters in a purchased bag are individually opened in the market with a special curved knife and searched for pearls. The mother-of-pearl is disposed of.

When a big pearl (> 4mm in diameter) is found, it is usually auctioned among the permanent merchants on the same day. Tiny pearls are normally not sold individually, but may be auctioned as a group of small pearls. There are five pearl dealers in the market. These dealers resell to the jewellers in Kuwait or may travel to other countries in the region, especially Bahrain, to seek higher prices.

The pearl oyster market is exclusively for natural pearls. Because there may be attempts to sell a cultured pearl, pearl dealers are wary of people who are not regulars at the market. Pearls found by people other than the permanent merchants may be sold on condition that they are natural pearls. No money is exchanged until this is confirmed. Although the pearl dealers are experts in evaluating a natural pearl, they have occasionally been deceived by cultured pearls. Suspect pearls are usually taken to Bahrain and physically and mechanically examined for any impurity by the Bahrain Ministry of Commerce.

Catch statistics

Pearl oyster landing data, including number of bags, number of pearls found and price, were collected daily from January 1982 to May 1990. Daily landings varied with the season and fluctuated with prevailing weather conditions (Fig.1).

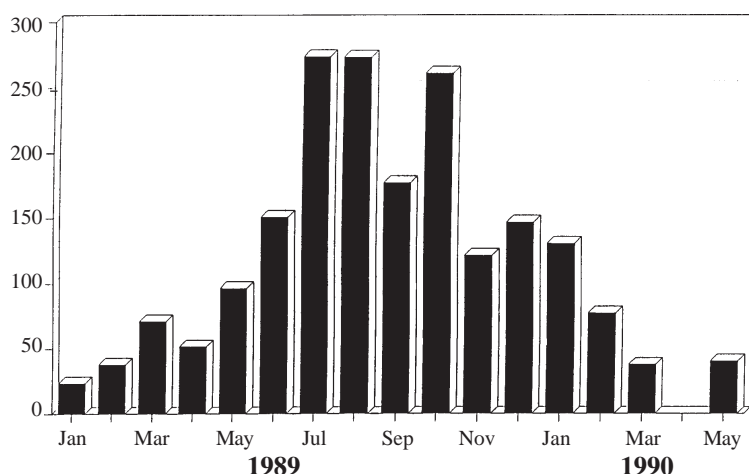


Figure 1. Average number of pearl oyster bags daily landed in 1989–1990 (Mean number of pearl oysters per bag = 132.7 ± 24.0)

Although the mean daily landing for 1989 was 138 bags, it ranged from 23.4 bags in January to 273.7 bags in July. The average number of pearl oysters per bag is about 132 (mean \pm S.D., 132.7 ± 24.0 ; $n=12$). The relatively low number of bags landed in winter was due to the low effort exerted because of the low water temperature and inclement weather. Total landings for 1989 were 46,224 bags (287 tons) or about 6.1×10^6 oysters.

The probability of finding either small or large pearls is approximately 1 in every 4,200 oysters. Tiny pearls (<2mm) are frequently found, at a rate of about 6 pearls per bag (132 oysters). The total value of the pearls sold in the market makes up only half of the value of the pearl oysters.

Size composition of the landing

Hinge length and dorso-ventral measurements were recorded monthly. The majority of pearl oysters

landed were 40 to 56 mm in hinge length with a dorso-ventral measurement of 44 to 76 mm. Smaller oysters of less than 40 mm in hinge length were present throughout the year but were most abundant in January and October (winter and fall). Small oysters sold in the market were usually attached to a larger oyster.

The pearl oyster study in Kuwait plans to continue monitoring the catch and fishing effort in order to investigate the effect of variation in fishing effort on the stock size before any management measures can be implemented. The study also aims to evaluate the impact of the recent oil pollution on the pearl oyster beds.

Northern Territory pearl fisheries in focus

by Margaret Macreadie

Pearling is another bright star on the Northern Territory's horizon.

The pearling industry includes the pearl oyster fishery, which is managed by the Northern Territory Fisheries Joint Authority (Commonwealth/NT) and the pearl oyster culture industry, managed solely by the Northern Territory.

Both sectors of the industry are limited entry, with six companies licensed to collect wildstock oysters, culture pearls and establish pearl oyster hatcheries.

Management of both sectors between 1988 and 1991 was guided by a Pearling Industry Development Plan. This will be replaced early this year by Management Plans prepared in consultation with industry members through the Northern Territory Pearl Industry Advisory Committee.

In the first two years of development, a large proportion of oysters collected was sold for mother-of-pearl while the remainder (those of suitable size/age) were used for half and whole-pearl production.

The projects of the six licensees are all in different stages of development. A number have had several half-pearl harvests and experienced their first whole-pearl harvest late in 1991. Others are still establishing pearl farm sites and conducting initial seeding operations.

Although the value of the industry is currently undisclosed, it has the potential to add many millions of dollars in revenue to the Northern Territory economy.

Excerpts from an article by Margaret Macreadie, 'Spotlight on the Top End: Northern Territory Fisheries in focus' in Australian Fisheries, February 1992, pp. 20-22.

Darwin's new pearl oyster hatchery

by David Field

The Northern Territory's Minister for Primary Industry and Fisheries, the Honourable Mike Reed MLA, opened the NT's first pearl oyster hatchery on 6 November 1991.

Speaking to a group of invited guests at the hatchery, Mr Reed pointed out that increased competition from South-East Asian countries was one of the reasons leading to the decision to develop the