A summary about holothurians in Mozambique

by Rabia Abdula [1]

Mozambique is located in southern Africa between latitudes 10°20'S and 26°50'S with an area of nearly 786 000 km² (Figure 1). This country has one of the largest maritime coast in Africa—around 1430 nautical miles—and all the shoreline is bathed by the Indian Ocean (Fisher et al., 1990).

Sea cucumbers are known in Mozambique as 'magajojo' and they are distributed throughout the coast. Capture and processing were introduced by Chinese people in the 1950s.

Fishing areas (Figure 2) are located north (Cabo Delgado and Nampula Provinces) and south (Inhambane and Maputo Provinces).

The principal commercial species captured in Mozambique are: *Holothuria scabra*, *Holothuria nobilis*, *Holothuria fuscogilva*, *Actinopyga echinites*, *Holothuria atra* and *Actinopyga mauritiana*. There are other species occurring in Mozambique waters such as *Actinopyga lecanora*, *Stichopus chloronotus*, *Stichopus variegatus*, *Synapta oceanica* and *Holothuria hilla* for which catch levels are not known, and a few more that are unidentified.

The fishery is artisanal, and is basically 'hand catch'. In the North Provinces (Cabo Delgado and Nampula) the collectors use home-made snorkelling equipment, diving down to depths of 10 to 15 m. In the south (Inhambane Province) the collectors use ready-made snorkelling equipment. There is no information about collectors using scuba for this fishery.

In 1990, the catch registered was 500 t (Dioniso & Munguambe, 1993), 700 t in 1993 (DNP, 1995), 6 t in 1995 and 54 t in 1996 (DNP, 1997). Unfortunately, it is difficult to know if the discrepancy in the catch values is due to irregular registration in the provinces or to over-exploitation.

There are few studies about this resource in Mozambique. The ones available have mainly focused on the economic feasibility of the fishery, and the general biological environment around Inhaca Island. The stocks of *H. scabra* and *H. nobilis* have been drastically decreasing, probably as a result of an intensive exploitation. Actually, in Inhambane Province, fishing for holothurians is forbidden until re-establishment of the resource.

Figure 1

Location of Mozambique in Africa

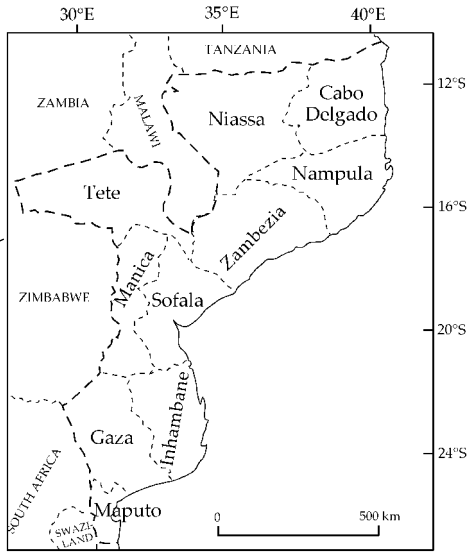

Figure 2

Map of Mozambique showing the provinces boundaries

1. Biologist, Instituto de Investigacao Pesqueira, Maputo, Mozambique, Av. Mao Tse Tung, 389 CP 4603, Maputo, Mozambique. E-mail: Rabia@magumba.uem.mz

In Mozambique, the commercial species are processed as described below (Fisher et al., 1990):

1) Holothurians are opened with a longitudinal slash on the ventral face and then boiled in sea water for one-and-a-half hours.
2) They are buried in the sand (or put in a wooden box, particularly in the Southern region), for one night.
3) They are pressed to remove their skins and internal organs, cleaned, boiled again, dried and finally put out to dry in the sun.

Sea cucumbers are not part of the diet of Mozambicans. In Mozambique this resource is only for sale. The collectors sell the holothurians to Mozambican and foreign enterprises or single traders acting as intermediaries. The prices vary from region to region, and sea cucumbers are mainly exported to South Africa and Asia.

References

ABDULA, R. (1995). Relatorio de viagem a Ilha da Inhaca. Instituto de Investigacao Pesqueira. Maputo. (Unpub.).

ABDULA, R. & F. ATANASIO. (1995). Relatorio de viagem a Provincia de Nampula. Instituto de Investigacao Pesqueira. Maputo. (Unpub.).

DIONISO, E. & F. MUNGUAMBE. (1993). Estado actual de Exploracao de Outros recursos pesqueiros. Seminario sobre os Recursos pesqueiros em Moçambique. Instituto de Investigacao Pesqueira (IIP); Maputo 33 p. (Unpub.).

DIRECCAO NACIONAL DE ADMINISTRACAO PESQUEIRA (DNP). (1995). Estatistica de Pesca (1994–1996). Maputo. 284 p.

DIRECCAO NACIONAL DE PESCAS (DNP). (1997). Relatorio Anual, 1996. Maputo.

FISHER, W., L. SOUSA, C. SILVA, A. FREITAS, J.M. POUTIER, W. SCHEIDER, T.C. BORGES, J.P. FE RALE & A. MASSINGA. (1990). Quia de Campo para Identificacao das Epecies Commerciais Marinhas e de Aguas Salobras de Moçambique. Roma. 424 p.

Aquaculture section

Prepared by S. Battaglene, ICLARM – Solomon Islands

News from the Pacific

1. Ban on the taking and sale of sandfish in the Solomon Islands

There is increasing interest in both the harvest and the management of beche-de-mer in the Pacific region. The price of valuable species like sandfish and white teatfish has risen considerably over the last 12 months. For example, in the Solomon Islands, over 17 new buyers, mainly Chinese, visited in November 1997. Many buyers are now sending boats out to collect animals for central processing, depriving Islanders of much of the profit. The increased demand has seen many stocks overfished. The Solomon Island Government has responded by placing a ban on the collection and sale of sandfish.

2. Progress on the culture of sandfish in the Solomon Islands

A summary of our research over the last 12 months was presented to the Third International Larval Biology meeting in Melbourne, Australia, held from 13–16 January 1998 (see Abstracts Section, this issue).

3. Less progress with white teatfish culture

White teatfish were successfully spawned and the auricularia reared by two programmes in the Pacific in 1997. We achieved this at the ICLARM Coastal Aquaculture Centre in October, but could not rear the larvae past the doliolaria stage. Similar progress was reported in Kiribati by the Japanese-funded Overseas Fishery Co-operation Foundation. Reasons for the failure of larvae to settle remain unclear. Opportunities to spawn white teatfish are restricted by the short spawning season—October to November. Further research is planned in 1998.