SPAWNING GROUNDS FOR Panulirus ornatus

PAPUA NEW GUINEA

* Research has shown that the stocks of lobsters from the PNG area of the protected zone undertake a spawning migration into the Gulf of Papua.
* Spawning does not occur in the PNG area of the protected zone. One exception is the area around Parama Island and sometimes Bobo Island at the NE extremity of the protected zone. Small numbers of berried females are consistently taken in the Parama reef area during the normal breeding season December to March. Generally these lobsters are small, and always few in number.
* Mating and oviposition occurs as the lobsters migrate across the Gulf of Papua. Usually most females are berried by the time they reach the Orokolo/Kerema Bay area, but the eggs are carried for about one month before hatching. A few females would shed eggs before reaching the Yule Island area but the vast majority do not release eggs until they have entered the reef systems.
* Once eggs are shed the female will deposit new eggs within a few days, 3 to 4 batches being produced during the 4 month breeding season. Therefore spawning occurs at the termination of the migration.
* Some lobster have been shown to terminate their migration within the Gulf of Papua. Koilahu reef just East of Orokolo Bay is the most westerly reef, with some small areas in Kerema Bay and more extensive submerged reefs further East. These lobster remain in these reef systems throughout the spawning season so there is some release of lobster larvae in the Eastern area of the Gulf of Papua as well as the Yule Island area.
* **As the release of larvae takes place within the reef systems it is not possible to allow lobsters to spawn before they are taken by trawling.**

AUSTRLIAN AREA OF THE PROTECTED ZONE

* Throughout the main area of the fishery there are no spawning grounds.
* At the Eastern extremity of the reef systems towards the outer Barrier reef (Murray and Darnley Islands) berried females are taken during the normal spawning season (December to March).This area is similar to the East Coast of Queensland and it is thought that these lobsters undertake short migrations to spawn in deeper water. They do not migrate into the Gulf of Papua.
* Surveys by manned submarine located spawning P.ornatus in the deep waters of these outer barrier areas.

AUSTRALIAN EAST COAST

* The main fishery on the East Coast occurs on the middle reef area. A few berried females are taken on the shallow reefs but these are probably an anomaly, the majority of lobsters migrating to deeper water to spawn.
* The spawning season on the East Coast is similar to that in the Gulf of Papua.
* Berried females have been trawled off Townsville in 150m and observed by submarine off Murray Island. It is difficult to assess the main spawning areas as the breeding lobsters are not accessible to the dive fishery.
* During one season when abundant food occurred in the far North around Collette reef, a large amount of fishing occurred at the start of the season (1st February). Fishing was mainly at 18-25 metres and a large number of breeding females were encountered. These lobsters would probably have normally been breeding in deeper water but were there because of the abundant food. Breeding lobsters had not previously been located in this northern area.
* It is suggested that spawning occurs throughout the deeper waters from Murray Island in the North and along the Queensland East Coast. Only spawning grounds North of Cooktown could provide larval recruitment to the common stocks on which the East Coast, Torres Strait, Gulf of Papua and Yule Island fisheries are based.