

Spanner Crabs Threatened in Queensland

by Clive Jones

Clive Jones is an Honours graduate in Science from Queensland University. Having majored in Zoology and Marine Biology he is greatly concerned about the stock depletion of commercial fish and crustacean species especially in light of the over-exploitation of Barramundi in North Queensland waters.

The fishing industry of Queensland, embracing both marine and fresh waters, has weathered some rough seas over the past decade. Now rich resources of fish and crustacean species, many of which have as yet an unquantified potential, are being over-exploited by fishermen who choose to ignore regulations in order to make quick dollars.

The Barramundi (*Lates calcarifer*) and Mud Crab (*Scylla serrata*), both regarded as delicacies in Queensland and throughout Australia, have been exploited to the point of becoming endangered species. Such a situation has arisen from the illegal methods used by unscrupulous professionals and underhanded amateurs. An extensive black market has developed whereby illegally caught Barramundi and undersized Mud Crabs are supplied to southern outlets.

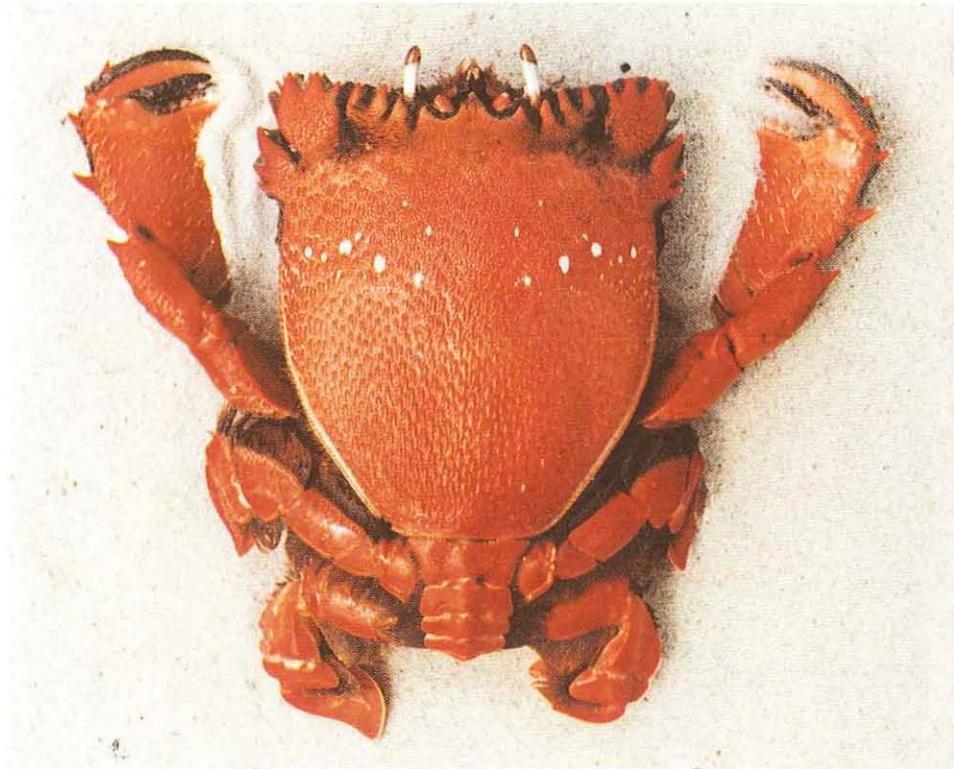
Recently a new commodity has appeared on the scene which, unfortunately, may follow the trend established by the above species. The Spanner or Frog Crab (*Ranina ranina*), has become the centre of a controversy between professional and amateur fishermen in southern Queensland. Unlike the Barramundi or Mud Crab, the Spanner Crab is being threatened by exploitative methods which are at present quite legal.

The consequent publicity that this small, inoffensive crustacean has received has done wonders for its marketing potential; however, it has also increased the likelihood of stock depletion by weekend fishermen.

Amateurs are disposing of crabs through the Queensland Fish Board, by means of a \$20 permit system designed to sell surplus amateur catches. It is apparent however, that this permit system applies only to fish caught on a hand line or rod and not to crabs which can be caught in great numbers with little effort. Two men can catch over one thousand crabs within four hours using a legal limit of four nets each.

Although the present dispute has erupted locally, in southern Queensland, the Spanner Crab is not restricted to this area. The species ranges throughout the Indo-Pacific region, from East Africa and the Indonesian Archipelago to Japan and Hawaii.

In Australia the distribution of *Ranina ranina* extends from the Abrolhos in



Spanner Crab. Photograph — Clive Jones.

Western Australia to the Great Barrier Reef and south as far as Sydney. As do all other members of the family Raninidae, the Spanner Crab burrows in offshore and coastal muds and sands, generally at depths of between six and two hundred metres.

Until now this creature has not been familiar to the public, although fishermen have known of its occurrence for many years. Trawlersmen often find numerous individuals in their haul, whilst anglers wading in shallow water at low tide occasionally disturb them.

The Spanner Crab is usually seen as a bright red, frog-like creature which emerges from the substrate, scurries along for a few metres and then buries itself under a cloud of sand. The crabs lie under the sand with only the front margin of the carapace and the eyestalks protruding. This position is maintained in anticipation of prey approaching, usually small whiting or other fishes, which are seized with the inwardly directed claws. It is the appearance of these claws which confers the name of Spanner Crab.

Although small numbers are taken by trawlers or hand held lines, the major threat being posed to the total population is by the fishermen using crab dillies. These nets consist simply of a galvanized steel hoop approximately one metre in diameter covered with a double layer of fine netting with a mesh size of about 10 centimetres. Nets are baited with fish carcasses and lowered on a floated line to the bottom. Within 20 minutes the dillies can be lifted, with 10 or more crabs tangled in the netting.

It is the ease with which large numbers of crabs can be caught, the simplicity of catching methods and the small monetary outlay on equipment that lures the amateur fisherman. Fishing for Spanner Crabs for the family and friends is an absolutely acceptable weekend leisure activity; however, the possibility of gaining money by selling the crabs has attracted unscrupulous and unthinking people.

Recently it has been announced that a closed season will operate on Barramundi fishing in an attempt to curtail over-exploitation by poachers. It is this sort of measure which must be taken to prevent a similar depletion of Spanner Crab populations. Firstly, the loophole in the law which allows amateur crab fishermen to dispose of crabs through the \$20 permit system, designed for surplus fish catches, must be closed.

In addition, Fisheries Services should stipulate catch quotas for amateurs and enforce laws which prevent amateurs selling directly to the public, restaurants and to the black market. Education of the public in matters of conservation is essential.

It must be realised that fish stocks are finite, that there is a definite limit to the number of a species which can be taken without adversely affecting populations, and that over-exploitation can lead to extinction. For those who choose to remain ignorant of these facts and who are only interested in short term monetary gains, the law should be designed and enforced to discourage such exploitation.

