

THE TURTLE FISHERY OF WESTERN AUSTRALIA

As early as 1901 the then Chief Inspector of Fisheries, Mr. C.F. Gale, reported that to his surprise he had observed very large numbers of green turtle in waters off the north-west coast and coastal islands of this State. Despite this enthusiastic report a turtle industry was not established until many years later, and then only on a small and restricted scale. Several attempts were made over the years to commercialise these animals without any marked degree of success although prior to 1939 turtle soup was canned and exported to France.

In recent years two Western Australian processing companies have undertaken commercial exploitation of the green turtle. Each company has one licensed freezer boat operating in adjoining areas off the north west coast to take turtles for an established export market. The areas comprise the territorial waters extending along the coastline for approximately 100 miles northwards from 23° 10' south latitude.

The two boats licensed to take turtles operate on a quota system, caused by a very competitive and limited European market. In 1968 the export of processed turtle meat from Western Australia was 362,027 lbs and in the previous year (1967) it was 299,030 lbs.

The fishing season generally commences in mid-winter, about June or July, and terminates in September or October, depending on when the quota for the available market is obtained.

Of the three species of turtle found in Western Australian waters the green turtle (Chelonia mydes) is the only edible species fished commercially. The loggerhead turtle (Thalassochelys caretta) is abundant, but is not exploited commercially. The hawks-bill turtle (Chelonia imbricata) was once abundant and heavily exploited commercially for its shell. Today, its appearance is a relatively rare occurrence along the coast.

All along the northern beaches of the mainland coast and selected off-shore islands, thousands of female green turtles leave their natural environment - the sea, to make a difficult and exhausting journey. Fortunately the turtles come ashore to lay their eggs shortly after the fishing season closes. Eggs are laid above the high tide mark, and each turtle may lay 150, although larger turtles may lay as many as 200. Quite often this lonely struggle is completely wasted, because hatched youngsters fall victim to their numerous and eager predators.

The young turtles hatch after nine to ten weeks and begin

life by digging out of the sandy nest. Not all the eggs hatch, and not all the young turtles that do hatch reach the surface. The weaker suffocate in the sand. Many of those that reach the surface perish, as they have many enemies in the form of sea birds by day and ghost crabs by night, as well as other forms of predators. Of those that make the sea, only two or three turtles out of each nest may reach maturity.

The green turtle has not only a low recruit survival and a very slow growth rate, it has one other main factor that is very important when considering the status of the population. The female evidently only reproduces every three or four years. This factor makes this animal therefore extremely susceptible to over-fishing. Hence the restrictions of only two boat licenses. These boats complete research log books providing information to the Department enabling it to decide if the fishery is in danger of being overfished.

Each licensed freezer boat has several small 16 foot scooter catcher boats, powered by 40 H.P. outboard motors. These scooter boats operate within a one mile radius of the mother freezer boat, in the relatively shallow water inside the offshore reefs, where the turtles graze on the brown and green algae of the rocky sea bed. When a turtle is located it is harpooned from the scooter boats as it races through water from 3 to 8 feet deep. On attaining a full load of about 10 turtles, the scooter boats unload their catch onboard the freezer boat for processing. Turtles are gutted, beheaded, washed, drained and blast frozen. Each carcass weighs about 120 lbs. dressed. When the freezer boat attains a full load, usually about 300 turtles taken in about 3 days fishing, it returns to port to unload its catch.

From the port of landing the catch is taken by freezer trucks to Robbs Jetty, near Fremantle, for further processing and storage pending export. Most of the best quality cuts of meat come from the muscles of the fore-flippers. Very little wastage of the landed dressed turtle occurs.

The Department is concerned about the depletion of turtle stocks mainly because of their susceptibility to over-fishing. In an effort to maintain a satisfactory turtle population off our northern coastline, it is apparent in view of what has occurred in turtle fisheries elsewhere that sanctuary areas will need to be established in the near future.

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