

Fishery in California in 1995

by Kristine Barsky

In 1995, 590,000 lbs of California (*Parastichopus californicus*) and warty (*P. parvimensis*) sea cucumber worth US\$ 463,290 were landed in the state of California. This was 9 per cent less than the 646,000 lbs landed in 1994. Eighty per cent of the sea cucumbers were taken by trawl, and the remaining 20 per cent were harvested by divers. Almost all of the landings were made in southern California (south of Pt. Conception).

Only 78 of the 116 fishermen possessing sea cucumber permits made landings in 1995. The average ex-vessel price for both sea cucumber species, regardless of the

way it was harvested, was US\$ 0.70/lb. The price ranged between US\$ 0.20 and US\$ 1.00/lb.

Landings for the first half of 1996 totaled 368,000 lbs, greater than the 3-year average of 213,000 lbs for the same period. Since summer and fall are normally the time of peak trawl activity, landings this year will probably exceed last year's.

Legislation is pending that will affect the way in which the sea cucumber fishery will be regulated in the next fishing season.

A brief survey of the commercial sea cucumber *Isostichopus fuscus* (Ludwig, 1875) of the Galapagos Islands, Ecuador

by J. Sonnenholzner¹

Introduction

The sea cucumber fishery was originally located along the continental Ecuadorian coast in 1988. Four years later this fishery was centered mainly on the western side of the Galapagos archipelago (Aguilar et al., 1993). Traditional fishing in the Galapagos Islands is relatively undeveloped and there has never been any traditional fishing of sea cucumbers (Conand, 1995). Giant sea cucumbers *Isostichopus fuscus* are caught by artisanal fishermen, and this fishery has developed without any control around the Galapagos Islands during the last eight years (De Paco et al., 1993). Ecuador's General Fisheries Direction has reported that ten companies are exporting dried sea cucumbers and the data shows that sea cucumber fishery was less than 0.04 t (fresh total weight) from 1983 to 1988 and 50.3 t from 1989 to 1995.

The highest catch (30 t) was reported in 1995. These products are all exported, 66.7 per cent to the U.S. and 33.3 per cent to Taiwan. The maximum value paid per kg/net in Ecuador is US\$ 30.00. The aim of this paper is to contribute briefly with biological and ecological information on the giant commercial sea cucumber *I. fuscus* in the western side of the archipelago area where they were intensively fished.

Location and distribution

The Galapagos Islands are volcanic islands located 570 miles (960 km) off the continental Ecuadorian coast and are composed of thirteen large islands, six small islands and forty-two islets (Anon, 1992). Fernandina and Isabela islands are characterised by vertical drop-offs that fall dramatically and have mixed bottoms of rocks and sand with dispersed coral communities. The eastern side of the Fernandina Island has semi-exposed and protected areas (Wellington, 1975).

Isostichopus fuscus is limited to the west American coasts (Deichmann, 1958) and it is distributed in the western zone of the Galapagos Islands. It is the most commonly found sea cucumber species in shallow waters (<20 m) (Wellington, 1975).

Field procedures

In April 1993, individuals (n = 200) from rocky reefs, boulders and broken coral rubble from depths of 0 to 24 m on the eastern side of the Fernandina Island were collected in five stations covering a sampling zone, 17.30 km along the Bolivar Channel from Punta Mangle (0°25' S, 91°23' W) to Punta Espinoza

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