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**YELLOWFIN TUNA LANDINGS IN AMERICAN SAMOA  
1976-1994**

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**WESTERN PACIFIC YELLOWFIN RESEARCH GROUP**

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## **Introduction :**

The main source of tuna landings in American Samoa comes from the distant water fishing vessels that discharge their catches at the two canneries operating in the Territory. Total landings at the canneries ranged from 160 000 tonnes to 223 000 tonnes during the period of 1988 - 1994. This supply comes from the three fisheries; purse seine (accounts for 50 % of total landings), longline (14 %), jig/trolling (1 %), and transshipments of fish accounts for the rest of the total landings.

The artisanal landings constitutes a minor portion to the total landings of tuna.

Yellowfin tuna is caught mainly by purse seiners, longline including jig, and to a lesser extent, trolling by the artisanal fleet.

## **Yellowfin tuna landings.**

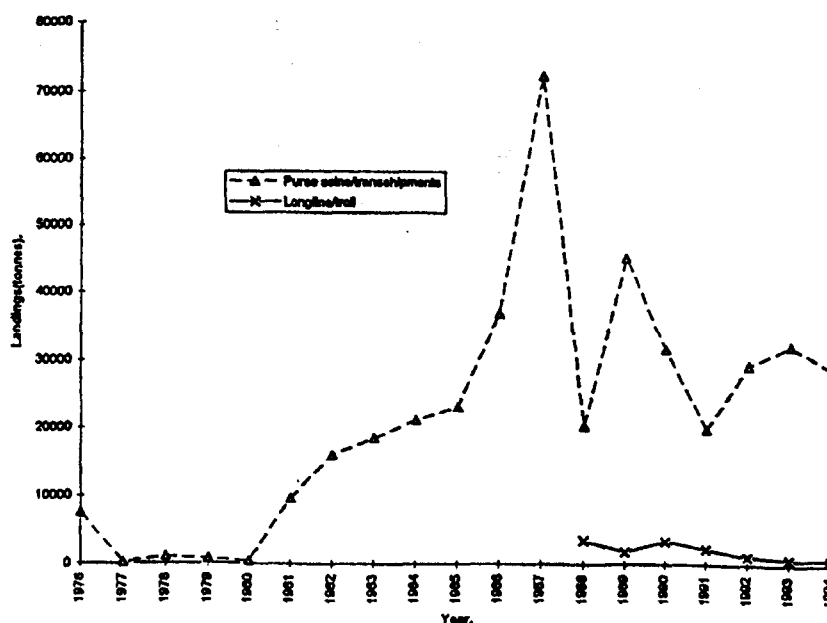
### **1. Commercial landings at the canneries :**

Yellowfin tuna accounted for 18 % of all fish landed at American Samoa's canneries. The annual average landing since 1986 is 37 000 tonnes which has a range of 20 000 - 50 000 mt (Table 1). By fishing methods, purse seine (including transshipments) account for 93 % of total yellowfin landings and the remaining 7 % is bycatch from trollers and longliners (Fig. 1).

Table 1. Estimated landings of Yellowfin tuna at the canneries in American Samoa, 1976 - 1994. Longline data prior to 1988 are not available. Weights in metric tonnes.

<u>YEAR</u>	<u>PURSEINE AND TRANSSHIPMENT</u>	<u>LONGLINE AND TROLLING</u>	<u>TOTAL DISTANT WATER LANDINGS</u>
1976	7500		
1977	200		
1978	1000		
1979	700		
1980	370		
1981	9700		
1982	15900		
1983	18500		
1984	21200		
1985	23200		
1986	37000		
1987	72700		
1988	20500	3500	24000
1989	45500	1800	47300
1990	31900	3300	35200
1991	20000	2200	22200
1992	29500	1100	30600
1993	32413	752	33165
1994	29102	682	29784

Figure 1. Yellowfin tuna landings at the canneries by purse seiners/transshipment and longliners/trollers in American Samoa, 1976 - 1994.



## 2. Artisanal landings of yellowfin tuna in American Samoa.

The number of local boats that participate in the yellowfin tuna fishery averages at 37 per year and ranges from 23 to 46 since 1986. The landings range from 7 to 23 tonnes during the same period and averages 16 tonnes per year, Table 2.

Boattrips per year is used as an index of effort to calculate catch per unit of effort for the fishery. Generally, there is an increase in the catch rates of yellowfin tuna since 1986 (Fig. 2.). Figure 3 shows little variations in the number of boats involved in the fishery but the number of boattrips per year markedly decline and in particular between 1990 and 1993 which is the period of the two cyclones. This trend changes and shows a steep increase after 1993.

Table 2. Estimated artisanal landings(tonnes), the number of boats participating, the number of boattrips per year and the catch rates of the yellowfin tuna fishery in American Samoa, 1986 - 1994.

<u>YEAR</u>	<u>ARTISANAL LANDINGS(T)</u>	<u>NUMBER OF BOATS/YR</u>	<u>BOATTRIPS/YR</u>	<u>CPUE (KG/B.TRIP)</u>
1986	22	46	552	40
1987	11	32	345	32
1988	21	46	361	58
1989	22	43	395	56
1990	10	35	193	52
1991	14	27	169	83
1992	10	23	137	73
1993	7	32	124	56
1994	23	31	390	59

Figure 2. CPUE (kg/boattrip) for the yellowfin tuna fishery of American Samoa, 1986 - 1994.

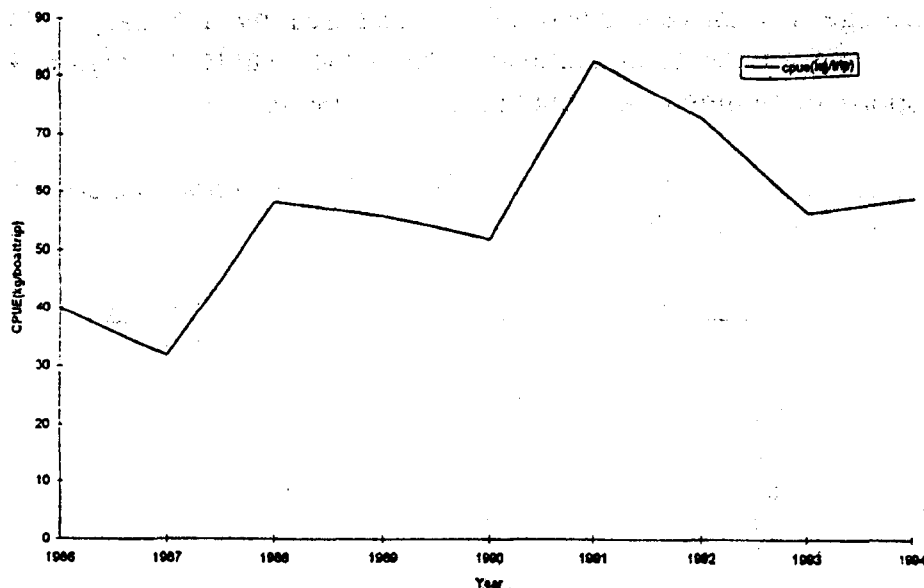
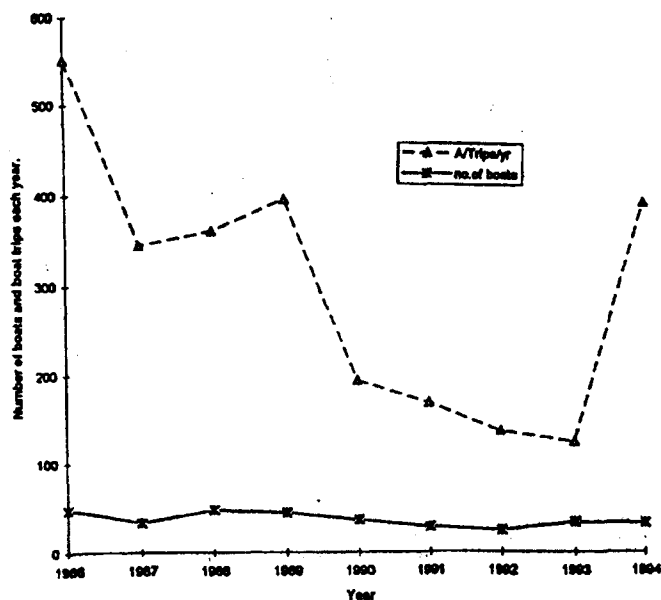


Figure 3. The number of boats participating as compared to the number of boattrips per year for the yellowfin tuna fishery of American Samoa, 1986 - 1994.



### 3. Sportfish tournaments.

Catches average 1.0 mt/year since 1977, increased by 1.5 mt/yr and constitutes 10 % to the total landings after 1986, Table 3. Figure 4 compares sportfish landing to artisanal landings, 1986 to 1994.

Table 3. Estimated sportfish landings for yellowfin tuna fishery of American Samoa, 1977 - 1994.

<u>YEAR</u>	<u>SPORTFISH CATCH TONNES</u>	<u>YEAR</u>	<u>SPORTFISH CATCH TONNES</u>
1977	0.13	1986	0.48
1978	0.95	1987	0.76
1979	0.85	1988	1.00
1980	0.01	1989	1.40
1981	0.10	1990	0.60
1982	0.35	1991	3.20
1983	0.35	1992	4.30
1984	0.44	1993	0.67
1985	0.11	1994	1.20

Figure 4. Sportfish landings compared to artisanal landings of yellowfin tuna in American Samoa, 1986 - 1994.

