

WP3

NOTES ON THE FIJI ALBACORE FISHERY

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Albacore (Thunnus alalunga) is the primary target species of chartered longline vessels based at Levuka (Ovalau) and unloading to the PAFCO cannery there. Together with catches of skipjack and small yellowfin by local pole and line vessels (the Government-owned Ika Corporation, as well as private vessels) and purse seiners based in Fiji in previous years, this forms the basis of a valuable F\$20 million export industry for Fiji.

The operation began as a freezer shore base in 1962, servicing Taiwanese longliners fishing the South West Pacific and purchasing product under contract. With the completion of the modern cannery and can factory in 1975, the number of vessels under charter increased, as did the albacore catch (Figure 1), peaking in 1978, when 36 vessels (32 Taiwanese and 4 Korean) landed 5528 tonnes of frozen round albacore. By 1980, 30 vessels were still fishing, but with the declining profitability of longline operations, these numbers shrank to 5 in 1983 and 1984, increasing slightly to 11 last year.

Table 1 shows total longline production, albacore production (wt. & %), and numbers of longliners unloading for the ten years 1976-1985. Albacore landings during this period have totalled nearly 26,000 tonnes, with the percentage of albacore in the annual unloadings varying between 55 and 86%. Yellowfin comprise the bulk of the remainder.

The development of the local pole and line fleet has seen the percentage contribution of albacore to total unloadings decline from over 50% in 1976 to less than 20% in recent years, whilst skipjack has contributed more than 50% since 1981. (Figure 2).

Albacore prices (Figure 3) have declined from over US\$2000/mt in 1981 to US\$1741 in 1985. The current price paid at Levuka is US\$1705/mt. In a recent move, all remaining longliners have chosen not to renew existing charter arrangements although PAFCO retains the option to buy at prevailing spot prices.

It has proved difficult to obtain full coverage of the longline catch on forms distributed by SPC and approved by regional bodies. Language difficulties and the absence of Fisheries staff at Levuka have contributed to this. PAFCO staff have undertaken to transfer data when possible from deck and catch logs (in Chinese) to the standard SPC forms. Even with the declaration of Fiji's EEZ in December 1981, and the formal requirement to register and supply data under the Marine Spaces Act, it has not been possible to obtain full and detailed coverage, apart from the gross unloading details. Between 1981 and 1985, completed catch forms account for only 30% of the total albacore catch in that time. That the coverage is possible is indicated by the 1982 figures, when 90% of the albacore catch was covered by the completed forms after strenuous follow-up activity following the EEZ declaration.

These limited data have been subdivided by month and by 5° latitudinal bands. From this, a moderately consistent year to year pattern of operations emerges, with effort concentrated in tropical and sub-tropical waters (5°S - 25°S, but mainly 10° - 20°S) between October and April, gradually switching to more southerly waters (20° - 35°S, but primarily 25° - 30°S) from May to September.

Average size of albacore (vessel estimate) appears to vary between 14 and 19kg, with no clear trends by area, season or year. There has been no port sampling to obtain a more detailed size breakdown. The longline fish are thus twice the size of recent surface albacore fish at 35° - 40°S.

The data have not been analyzed with respect to variations in catch per unit effort. There are verbal reports however that average catch rates improved sharply during 1985.

Artisanal catches

Albacore are of course never caught or observed at the surface in Fiji but incidental catches have been made during vertical longline operations around FADs, both by SPC Masterfishermen and local fishermen. These albacore, ranging up to 25kg and averaging over 20kg in weight, are generally caught at depths of 150f. or more (G. Southwick, pers.comm) with bigeye (up to 105kg) and yellowfin caught in ascending order up the line.

Future Information Needs

Apart from a commercial interest through the cannery in the future and status of the resource base, Fiji's information needs and ability to provide information are uncertain. There are now no longliners under charter to PAFCO and the future of this arrangement will be influenced by both world market considerations, and the ability of Fiji to offer substantial concessions to vessels based here.

It appears likely that a sizeable surface fishery based on smaller albacore will develop in more southern waters (35° - 40°S) on the basis of the very encouraging catches obtained earlier this year. The degree of interaction of such a fishery with the established longline fishery will need to be assessed.

In the broader sense, the stock structure of Pacific albacore remains unclear. With significant developments in southern waters, the need to address this issue will become more acute.

Table 1

LONGLINE PRODUCTION

YEAR	WEIGHT	% ALBACORE	ALBACORE WEIGHT IN METRIC TONNES	NO. OF VESSELS
1976	4387.75	55.5%	2437	37
1977	5555.5	71.8%	3989.2	42
1978	8418.0	65.7%	5528.5	36
1979	3575.154	69.1%	2470	33
1980	5676	59.02%	3350.3	30
1981	3219.29	71.3%	2297	26
1982	2139.53	73.5%	1573.05	13
1983	1599	86 %	1376.02	5
1984	1432.49	81.1%	1162.05	5
1985	2105.6	73.4%	1545.55	11
TOTAL	381083.3	67.89	25728.67	

Figure 1

ALBACORE PRODUCTION BY YEAR

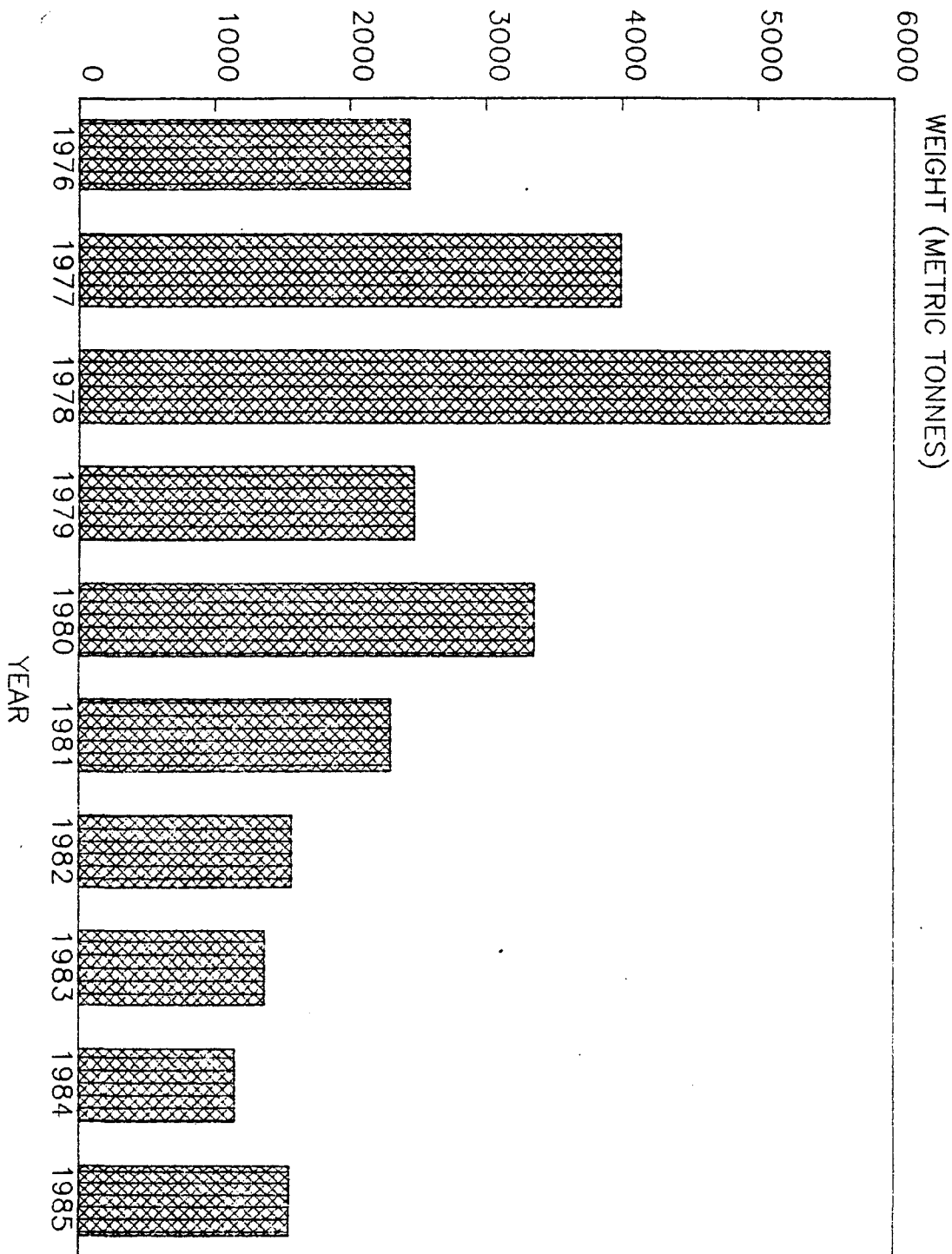


Figure 2

PERCENTAGE ANNUAL SPECIES COMPOSITION LANDED AT LEVUKA



FIGURE 3.

TRENDS IN TUNNY PRICES

