

LANDINGS AND LENGTH COMPOSITION OF YELLOWFIN, SKIPJACK AND BIGEYE TUNAS
CAUGHT IN THE EASTERN TROPICAL ATLANTIC BY THE TEMA-BASED TUNA FLEET, 1975

by

M. Ansa-Emmin

SUMMARY

Landings and length frequency distribution of yellowfin, skipjack and bigeye tunas caught by the Tema baitboats during 1975 have been analyzed and discussed. The paper also discusses, in brief, the problem of misidentification of young yellowfin as bigeye tuna.

RESUME

Les débarquements et la distribution de fréquences de taille de l'albacore, du listao et du thon obèse capturés par les canneurs de Tema au cours de l'année 1975 sont analysés et commentés. Le présent document fournit également un bref exposé sur le problème de l'identification erronée de jeune albacore comme thon obèse.

RESUMEN

Analiza los desembarques y la distribución de frecuencias de talla del rabil, listado y patudo, capturado en 1975 por los barcos de cebo con base en Tema. El documento trata brevemente el problema de identificación del rabil joven y el patudo.

Tables 6 - 20 reproduced in Data Record Vol. 9
Tableaux reproduits dans le Vol. 9 du Recueil de Données
Cuadros reproducidos en Vol. 9 de la Colección de Datos Estadísticos .

Introduction:

During 1975, thirty-four foreign and five Ghanaian tuna vessels were registered to operate from Tema. Out of these, thirty-two foreign and five Ghanaian vessels operated. The details are as follows:-

1975 - TEMA BASED TUNA VESSELS

FLAG	GEAR	NUMBER REGISTERED	NUMBER OPERATED
JAPANESE	BAIT BOAT	22	20
"	PURSE SEINE	1	1
KOREAN	BAIT BOAT	6	6
"	LONG LINE	1	1
PANAMANIAN	BAIT BOAT	4	4
GHANAIAN	" "	4	4
"	PURSE SEINE	1	1
TOTAL:		39	37

The same number of vessels operated during 1974 but as can be seen in the tables the landings were lower in 1975. For economic reasons, most of the vessels did not operate during certain periods of the year. Biological sampling and monitoring of catch for stock assessment purposes however continued during the year.

This report contains landings and biological data for the Tema-based tuna fleet.

Biological Sampling Procedures

Samples were obtained from tuna vessels whenever they were in port. A sample each of yellow fin, skipjack and big eye was drawn from a well before the fish were sent to the cold stores. Data on location of catch, total catch, date of catch, weight of sample, and well number were also taken. Each sample consisted of 50 fish.

In all, 74 samples of yellow fin, 90 of skipjack and 16 of big eye tunas comprising 3700, 4500 and 800 specimens respectively were taken.

Landings

Landings by the various vessels operating from Tema are given in Tables 1 - 4. Data for yellow fin, skipjack and big eye tuna, have been compiled by quarter, area, flag and gear. The skipjack landings include those by Ghanaian artisanal fisheries. Table 4 shows landings of the other tuna species by quarter, flag and gear for the Eastern Atlantic.

Total landings of tunas including those by the artisanal fisheries dropped from about 55000 metric tons in 1974 to 31,000 metric tons in 1975 (Table 5). This drop is attributed to suspension of fishing during most part of 1975. It is observed in Table 5 that there was a sharp rise in the landings of big eye tuna (T. obesus). A substantial portion of this catch is probably yellow fin tuna because there was a practice on these vessels where by fishermen referred to the young yellow fin as big eye tuna.

It is estimated that about 40% of this catch should be young yellow fin tuna.

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Size Frequency

Tables 7 to 21 give the quarterly length frequency distribution by species, gear and ICCAT areas. Apart from the length frequencies, the tables give the number of samples, total number of fish in the samples, weight of the samples and the landings. The flag of the vessels have not been indicated. The samples have been taken from Japanese Korean, Panamanian and Ghanaian flag vessels.

The length frequency distributions have not been weighted by the total catch of the Tema based fleet. No strata substitutions were made. All the length data in the report are "fork length" i.e. a projected straight distance from the tip of the upper jaw to the posterior tip of the shortest caudal ray (fork).

Table 1

LANDINGS OF YELLOW FIN (THUNNUS ALBACARES)

ICCAT AREA: 2 (G)

QUARTER	FLAG	GEAR	LANDINGS IN METRIC TONS
1ST QUARTER	JAPANESE	BAIT BOAT	790.808
	"	PURSE SEINE	224.063
	KOREAN	BAIT BOAT	317.643
	PANAMANIAN	" "	90.400
	GHANAIAN	" "	51.760
TOTAL:			1474.674
2ND QUARTER	JAPANESE	BAIT BOAT	43.135
	KOREAN	" "	284.264
	"	LONG LINE	-
	PANAMANIAN	BAIT BOAT	163.151
	GHANAIAN	" "	5.350
TOTAL:			495.900
3RD QUARTER	JAPANESE	BAIT BOAT	47.947
	KOREAN	" "	130.847
	PANAMANIAN	" "	92.332
	GHANAIAN	" "	196.568
	"	PURSE SEINE	17.791
TOTAL:			485.485
4TH QUARTER	JAPANESE	BAIT BOAT	54.195
	KOREAN	" "	380.020
	"	LONG LINE	42.710
	PANAMANIAN	BAIT BOAT	218.358
	GHANAIAN	" "	231.888
	"	PURSE SEINE	63.305
TOTAL:			990.476

Annual Total:

3446.535

Note:

All weights are "frozen weight".

Table 2

LANDINGS OF SKIPJACK TUNA (*KATSUWONUS PELAMIS*)

ICCAT AREA: III

QUARTER	FLAG	GEAR	LANDINGS IN METRIC TONS
1ST QUARTER	JAPANESE	BAIT BOAT	2957.762
	"	PURSE SEINE	202.569
	KOREAN	BAIT BOAT	748.755
	PANAMANIAN	" "	183.970
	GHANAIAN	" "	165.167
	"	ARTISANAL	11.068
TOTAL:			4275.291
2ND QUARTER	JAPANESE	BAIT BOAT	304.814
	KOREAN	KOREAN	1090.789
	"	LONG LINE	-
	PANAMANIAN	BAIT BOAT	783.822
	GHANAIAN	" "	97.573
	"	ARTISANAL	399.210
TOTAL:			2676.208
3RD QUARTER	JAPANESE	BAIT BOAT	280.016
	KOREAN	" "	813.434
	PANAMANIAN	" "	879.217
	GHANAIAN	BAIT BOAT	257.694
	"	PURSE SEINE	117.334
	"	ARTISANAL	491.378
TOTAL:			2649.073
4TH QUARTER	JAPANESE	BAIT BOAT	460.767
	KOREAN	" "	1142.423
	"	LONG LINE	-
	PANAMANIAN	BAIT BOAT	1036.591
	GHANAIAN	" "	721.608
	"	PURSE SEINE	56.425
	"	ARTISANAL	3616.714
TOTAL:			7034.528

Annual Total: 16635.100

Notes:

Except the Ghanaian artisanal catches, all weights are "frozen weight".

Table 3

LANDINGS OF BIG EYE TUNA (*T. OBESUS*) ICCAT

AREA: 5

QUARTER	FLAG	GEAR	LANDINGS IN METRIC TONS
1ST QUARTER	JAPANESE	BAIT BOAT	129.896
	"	PURSE SEINE	9.181
	KOREAN	BAIT BOAT	13.182
	PANAMANIAN	" "	-
	GHANAIAN	" "	-
TOTAL:			151.259
2ND QUARTER	JAPANESE	BAIT BOAT	-
	KOREAN	" "	3.480
	"	LONG LINE	-
	PANAMANIAN	BAIT BOAT	-
	GHANAIAN	" "	-
TOTAL:			3.480
3RD QUARTER	JAPANESE	BAIT BOAT	205.790
	KOREAN	" "	470.664
	PANAMANIAN	" "	281.470
	GHANAIAN	" "	16.152
	"	PURSE SEINE	-
TOTAL:			974.076
4TH QUARTER	JAPANESE	BAIT BOAT	346.654
	KOREAN	" "	914.021
	"	LONG LINE	-
	PANAMANIAN	BAIT BOAT	553.304
	GHANAIAN	" "	263.665
	"	PURSE SEINE	-
TOTAL:			2077.644
Annual Total:			3206.459

Notes:

All weights are "frozen weights".

Table 4

LANDINGS OF OTHER SPECIES: AREA: EASTERN ATLANTIC

QUARTER	FLAG	GEAR	LANDINGS BY SPECIES (IN METRIC TONS)		
			ATLANTIC LITTLE TUNA	FRIGATE MACKEREL	OTHERS
1ST QUARTER	JAPANESE	BAIT BOAT	144.745	-	13.421
	"	PURSE SEINE	8.312	-	-
	KOREAN	BAIT BOAT	42.524	-	4.933
	PANAMANIAN	" "	10.631	-	1.099
	GHANAIAN	" "	7.250	-	2.091
	"	MISCELLANEOUS GEAR	-	2993.471	47.800
TOTALS:			213.462	2993.471	69.344
2ND QUARTER	JAPANESE	BAIT BOAT	5.457	-	10.571
	KOREAN	" "	60.684	-	2.481
	"	LONG LINE	2.672	-	134.874
	PANAMANIAN	BAIT BOAT	23.937	-	5.273
	GHANAIAN	" "	0.703	-	165.000
	"	MISCELLANEOUS GEAR	-	433.925	18.000
TOTAL:			93.463	433.925	336.199
3RD QUARTER	JAPANESE	BAIT BOAT	1.396	-	1.865
	KOREAN	" "	5.701	-	11.573
	PANAMANIAN	" "	4.961	-	4.011
	GHANAIAN	BAIT BOAT	57.938	-	2.429
	"	PURSE SEINE	0.599	-	42.948
	"	MISCELLANEOUS GEAR	-	1345.039	63.500
TOTALS:			70.595	1345.039	126.326
4TH QUARTER	JAPANESE	BAIT BOAT	9.684	-	5.186
	KOREAN	" "	29.846	-	11.862
	"	LONG LINE	-	-	15.063
	PANAMANIAN	BAIT BOAT	25.066	-	11.709
	GHANAIAN	" "	63.746	-	127.392
	"	PURSE SEINE	7.785	-	20.856
	"	MISCELLANEOUS GEAR	-	1228.154	4.400
TOTALS:			136.127	1228.154	196.468

Annual Total: 513.647 6000.589 728.337

Note:

Except the Ghanaian Artisanal catches, all weights are "frozen weights".

Table 5

TOTAL LANDINGS IN THE PORT OF Tema
BY SPECIES

SPECIES	1974	1975
YELLOW FIN	12247.323	3446.535
ALBACORE	21.258	0.559
SKIPJACK	23478.412	16635.100
BLACK SKIPJACK	626.281	510.975
BIG EYE	706.501	3206.459
FRIGATE MACKEREL	6295.306	6001.000
OTHERS	1331.771	730.050
TOTAL:	44706.852	30530.678

* WEIGHT IN METRIC TONS

APPENDIX I

LICENSED VESSELS THAT OPERATED FROM TEMA - 1975

NAMES OF THE VESSELS	FLAG	GEAR	GROSS TONNAGE
KUROSHIO MARU No. 61	JAPANESE	BAIT BOAT	283.88
" " " 62	"	" "	284.76
" " " 63	"	" "	284.78
" " " 73	"	" "	239.97
" " " 75	"	" "	303.37
" " " 78	"	" "	284.73
KATSUSHIO MARU " 201	"	" "	284.61
" " " 202	"	" "	284.92
" " " 203	"	" "	284.85
" " " 205	"	" "	284.59
" " " 206	"	" "	284.76
" " " 301	"	" "	373.64
SANYO MARU " 15	"	" "	288.57
" " " 82	"	" "	284.76
" " " 85	"	" "	269.69
SUMIYOSHI MARU " 5	"	" "	499.93
" " " 35	"	" "	402.09
SEISHO MARU " 30	"	" "	284.60
KYOWA MARU " 1	"	" "	252.18
NANSEI MARU " 3	"	" "	192.66
GENPUKU MARU " 82	"	PURSE SEINER	499.66
DONG WON " 801	KOREAN	BAIT BOAT	245.72
" " " 803	"	" "	249.26
TAE CHANG " 33	"	" "	269.09
" " " 35	"	" "	250.41
" " " 36	"	" "	195.32
HAE WANG " 205	"	" "	188.84
TONG WHA " 73	"	LONG LINER	265.77
PATERA " 31	PANAMANIAN	BAIT BOAT	432.31
" " " 32	"	" "	192.89
DAE BONG " 1	"	" "	456.77
" " " 2	"	" "	457.11
JOY	GHANAIAN	" "	253.88
TRUTH	"	" "	215.96
LEADER	"	" "	251.90
NO CATCH NO PAY J/V	"	" "	284.73
BOREAL	"	PURSE SEINER	104.00

* DID NOT OPERATE BUT LICENCED.

KUROSHIO MARU NO. 65

" " NO. 66