



The South African Tuna Pole Trip report

RV: MVF Malachite

Registration No.: ZTIS

ICCAT Registration No.:

27/03/2023 to 05/04/2022

Observer: Siphelo Macozoma

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Trip Summary

The South African flagged tuna pole and line fishing vessel (MFV Malachite) HTB 348 was engaged in the fishing activity as per the Fisheries Improvement Project (FIP) a project managed by WWF South Africa (WWF-SA) and funded Marine Stewardship Council's (MSC) Ocean stewardship Fund. The South African observer onboard Siphelo Macozoma (an observer) was deployed on the vessel to collect scientific and compliance data. The vessel was targeting tuna and tuna like species. Fishing occurred at 34 45.47/ 18 15.44. The fishing occurred over 9 days on the 28/03/2023 till 05/04/2023.

The vessel sailed from Hout Bay harbour on the 27/03/2023 at around 21:33 and started fishing on the following day on the 28/03/2023 to 05/04/2023 (9 days) and the vessel returned to Hout Bay harbor immediately after the last attempt to make a catch. The vessel landed on the 06/04/2023 at 01:43.

The tuna pole vessel gear was composed of a maximum of 9 poles and 9 gaffs for 18 men. The 9 poles were fitted with hook and artificial squid-like bait and additional man was responsible for the chum (sprinkling bait in the water during the fishing activity). The vessel was equipped with acoustic sonar used to detect the fish. The stern was fitted with 3 trolling lines with a length of (14m, 16m and 18m) also called strikes baited with artificial squid-like bait. The starboard side was fitted with 15-meter water pipe with small holes punched (water sprinkler). The fishing activity started when the fish was detected on the strikes or on the sonar. Water sprinkler was used to confuse the fish or as the disguising method while poles were used to lure it closer to the vessel starboard side. All Artificial bait, frozen bait and live bait were used during fishing. The fishing activity lasted for an average of 3 to 40 minutes because rods and reels were used to catch Yellowfin tuna and that last from 30 to 40 minutes per stop. A total of 51 set or fishing attempts were conducted for the entire trip. The vessel used frozen pilchard (*Sardinops spp*), live ocean anchovy (*Encrasicholina Punctifer*) as a chumming bait, while artificial squid was used on poles and strikes. All fishing attempts were 100% observed. On the 1st of April the sea was slightly rough, with the wind of 15 to 20 knots and that interrupted fishing, so half of a day was lost because of bad weather.

The retained species was longfin tuna also known as albacore (*Thunnus alulanga*), Yellowfin tuna (*Thunnus albacares*) and Skipjack (*Katsuwonus pelamis*) and the catch was confirmed by the vessel captain using eye estimates. There were no other species that were retained other than the three species.

The 145 albacore species measurements taken were recorded for fork length (F.L) and 74 Yellowfin tuna were taken and recorded too.

The chumming bait attracted seabirds to feed on bait, this was noted as a major attraction for seabirds and that led to a number of seabirds hovering over the vessel and 13 birds were caught during fishing days, 12 were safely removed, 1 died and it was kept on board (freezer). In the entire trip there were no seabirds nor sea-mammals that were caught but few were sighted.

About 46 vessels were sighted, some were long line trawlers and some were small vessels targeting tuna were also sighted in the area. The identifiable vessels were: Equinox, Avro warrior, Ocean Clipper, Southern Cross, Kariba, Django, Sneuberg, Nicky B, Tyler's Tide, Perle da atlantic, Endurance, Braveheart, Dr. Fish, Ilda, Langerberg, Black pearl, S.W Heron, Albatros, Mpho. There were no illegal unreported and unregulated (IUU) vessel sighted in the area. And the water temperature was ranging from 19.5 degrees celcius to 20.1 degrees celcius over the period of nine days.

A. Trip Summary

Table 1.1: Trip summary

BOARDING		DISEMBARKATION
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Date	27/03/2023	Time (GMT)	21:33	Date	06/04/2023	Time (GMT)	01:43
Location	Hout Bay (-34.0562 S, 18.3401 E)		Location	Hout Bay (-34.0562 S, 18.3401 E)			

B. Vessel Details

Table 1.2: Vessel details

Vessel name:	MFV Malachite	Call sign:	ZS4240
Port of registration:	Hout Bay	Flag State:	South Africa
Owner:	Twoline trading 163 Pty(LTD)	Charterer:	
Vessel type:	Tuna pole	Fishing gear:	Tuna pole
Size (GRT):	145.3	Length (LOA):	23.15

C. Electronic Equipment

Table 1.3: Electronics equipment

ELECTRONIC EQUIPMENT	
On-board acoustic equipment:	Furuno Omni 5L, Furuno Omni 8L
Position fixing equipment:	Furuno GP39
Vessel monitoring system (present/absent):	Present
Radar:	Onwa
Communications equipment:	VHF Icom IC-M330 & Icom IC-M800 , HF Icom M506
Plotters:	

D. Fishing Operation Summary

Table 1.4: Fishing operations summary

Total number of days in the fishing area	9
Total number of days fished	8
Days lost (weather, breakdown...)	0
Total number of days steaming.	2

Target species	Albacore tuna and tuna like species
Total number of sets.	51
Total number of hooks set	10
Total number of hooks lost	19
Total number of hooks sampled	30
Total number of sets sampled	37
Bait used	Pilchard frozen, live bait and artificial squid
Origin of Bait	South Africa
Bait Ratio	50% Pilchard, 30% Anchovy live bait and 20% Artificial Squid
Total number of Crew members	18

E. Gear Description

The fishing gear only comprised of a set of fishing poles with a short line and hook fitted with artificial bait, a set of three trolling lines baited with an artificial squid-like bait and placed astern of the vessel. The vessel was further equipped with bamboo gaffs and a J-shaped steel attached to it to assist lifting the fish onto the fishing vessel.

Table 1.5: Gear Description

Gear Description						
Poles 1	Material	Bamboo	Gaff	Material	Bamboo	
	Average Length (m)	7.2m		Average Length (m)	3.1m	
	Number	1		Number	1	
	Average Nylon Length (m)	0.8m				
Poles 2	Material	Bamboo	Hooks	Barb present	Yes	No
	Average Length (m)	6.2m		Brand	Land-it	
	Number	10		Size	0/4	

Troll Lines	Used (√)	Yes	No
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Length of a troll line – 1 (m)	14m	Attached Object	Yes	
Length of a troll line – 2 (m)	16m	Attached Object	Yes	
Length of a troll line – 3 (m)	18m	Attached Object	Yes	
Lure Lines		Used (√)	Yes	No
Lure line bait material	Artificial Squid(Rubber)	Hooks present (√)	Yes	
Average Casting coverage (m)		Was it mitigating Seabirds	Yes	

F. Retained Catch Details

Table 1.6: Catch Details

Date (dd/mm/yyyy)	Species	Square number (1°x1°)		Processing code	Number of fish caught
28/03/2023 - 05/04/2023	ALB	308	145	RD	308
28/03/2023 - 05/04/2023	YFT	82	74	GT	82
28/03/2023 - 05/04/2023	SKJ	15	15	GT	15

Processing Details

Albacore fish caught was wrapped with a plastic and packed/kept in freezer, whole and unprocessed [Round (whole, live)].

And each Yellowfin was also wrapped with a plastic packed in a freezer and processed [GT (Gilled, gutted and tailed.)]

Table 1.7: Retained fish

Species	Processing Code	Comments
ALB	RD	Whole fish was retained in its round form.
YFT	GG	The fish was processed, Gills and Stomach were removed. [GT (Gilled, gutted)]
SKJ	GG	The fish was processed, Gills and Stomach were removed. [GT (Gilled, gutted)]

Fish Discards

All the ALB & SKJ catch was retained and 100% of the albacore tuna species was caught by the vessel.

The YFT fish and SJK fish was processed, Gills and Stomach were removed. [GG (Gilled, gutted)].

Table 1.8: Fish discards

Date (dd/mm/yyyy)	Species	Square number (1°x1°)	Number or Weight (kg)	Reason
	0	0	0	There were no discards

Table 1.9: Tags made

Species	Tag type	No. animals tagged	Comments
0	None	0	No tags made.

Table 2.1: Tags recovered

Tag No.	Species	Length (cm)	Length type	Weight (kg)	Weight type	Position of recovery	Finder details	Comments (e.g. Full label on tag, tag type)
0	0	None	None	None	None	Lat: N/S Long: E	None	There were no tags recovered

G. Biological Data Summary**Biological Data Collection**

There was a total of 46 individuals sampled and Fork-Length measured.

32 were ALB and 14 were YFT

Table 2.2: Species sampled and measured

Species	Total No. individuals sampled	No. measured	No. weighted	No. Sexed	Maturity stage recorded	Otoliths collected	Other (specify)	Carca ss retained
ALB	145	145	Not recorded	Not recorded	Not recorded	0	None	0
YFT	74	74	Not recorded	Not recorded	Not recorded	0	None	0

Biological Sample Storage Location

There were no samples stored.

Table 2.3: Type of Sampling and Storage

Sample type	Species	No. collected	Location to be sent/stored

None	0	0	There were no samples stored.
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Biological Sub-sampling Methodologies

The albacore and Yellowfin tuna was measured for fork length using a tape measurement. No further samples taken.

H. Summary of Meteorological Details

The vessel had to sail at 21:33 because the sea was rough during the day, so the vessel had to delay its sailing till evening. The following day the sea was much calm and flat on, partly cloudy and very light wind. On the second day the south westerly light breeze and ripples, with just 1.5 meter of the swell height and south west winds

I. Summary of Fishing Strategy

The vessel used trolling lines, poles and acoustic sonar to detect the fish. Birds diving and water ripples were also used to detect the fish from the distance. The captain also used they used historical and forecast sea surface temperatures to decide the fishing ground. Once the fish was detected and the bait master would immediately throw the dead-pilchards bait. The water will be released, and the pole men and gaffers would be on standby to put sticks in the water. After catching a few the the anchovy live bait will be thrown also by the second bait master.

J. Summary of Depredation

Table 2.4: Summary of Depredation

Depredation	Comment (YES/NO/FIGURES)
Number of sets with observed depredation	No sets were observed
Percentage of sets with observed depredation	No percentage of sets were observed
Percentage of catch per species damaged by depredation	No percentage of catch per species were damaged
Was fish loss attributed to predator but not directly observed?	No fish loss attributed to predator
List of predator species observed	No species observed to be depredated

K. Summary of Incidental catches

Mitigation Measures

There were official mitigation measures for the fishery. A long pole tied with a plastic was waved during fishing to scare the birds. 13 birds were caught during fishing days, 12 were safely removed, 1 died (*Puffinus*) and it was kept on board (freezer). No sea mammals were caught. No sharks were caught.

Table 2.5: Mitigation Measures

Mitigation Measures	Comment (YES/NO/FIGURES)
Did the vessel operate south of 25°S?	No
List of mitigation measures used	No mitigation measures were applied
If Tori lines were used: Tori was never used	
What was the number of sets on where the Tori lines were deployed?	No

What was the percentage of sets on which Tori lines were deployed?	No
Were the Tori lines constructed according to the guidelines recommended by IOTC?	No

Incidental catches

There were no incidental catches.

Table 2.6: Incidental catches

Species Type	Date (dd/mm/yyyy)	Species (Scientific name)	Square number (1°x1°)	Fate	Comments
Seabirds	28/03/2023 - 05/04/2023	Puffinus	0	Dead: 1 Released alive: 12	13 birds were caught during fishing days, 12 were safely removed, 1 died and it was kept on board (freezer).
Marine Mammals	28/03/2023 - 05/04/2023	0	0	Dead: 0 Released alive: 0	No marine mammals caught
Sea Turtles	28/03/2023 - 05/04/2023	0	0	Dead: 0 Released alive: 0	No sea turtles caught
Sharks	28/03/2023 - 05/04/2023	0	0	Dead: 0 Released alive: 0	No sharks caught

L. Lost Fishing Gear

Hooks were lost during the fishery.

Table 2.7: Lost Fishing Gear

Lost Gear			
Nylon (m)	0	Poles (numbers)	0
Artificial Baits (numbers)	0	Hooks (numbers)	19

M. Waste Generated

Table 2.8: Waste categories generated by the vessel at sea

Waste Category	Action at Sea
Food	Dispose at sea
Cardboard & Papers	Dispose at sea
Plastic	Retained On-Board
Fishing gear	Retained On-Board
Oil	Retained On-Board
Glass	Retained On-Board

NO. Vessel Sightings

There were 46 vessels also targeting tuna sighted in the area.

Table 2.9: Vessel Sightings

Vessel Name	Type of Vessel (fishery, factory ship, carrier, e.t.c)	Vessel position (Lat, Long)	Vessel Activity	Comment
Equinox	Fishery	Not recorded	Fishing the Albacore tuna	
Southern Cross	Fishery	Not recorded	Fishing the Albacore tuna	
Ocean Clipper	Fishery	Not recorded	Fishing the Albacore tuna	
Dr. Fish	Fishery	Not recorded	Fishing the Albacore tuna	
Django	Fishery	Not recorded	Fishing the Albacore tuna	
S.W Heron	Fishery	Not recorded	Fishing the Albacore tuna	
Kariba	Fishery	Not recorded	Fishing the Albacore tuna	
Sneuberg	Fishery	Not recorded	Fishing the Albacore tuna	
Langerberg	Fishery	Not recorded	Fishing the Albacore tuna	
Albatros	Fishery	Not recorded	Fishing the Albacore tuna	
Easy Rider	Fishery	Not recorded	Fishing the Albacore tuna	
Mpho	Fishery	Not recorded	Fishing the Albacore tuna	
Tyler's Tide	Fishery	Not recorded	Fishing the Albacore tuna	
Ilda	Fishery	Not recorded	Fishing the Albacore tuna	
Avro Warrior	Fishery	Not recorded	Fishing the Albacore tuna	
Braveheart	Fishery	Not recorded	Fishing the Albacore tuna	

General comments

- Generally, the vessel personnel was co-operative and were willing to assist whenever the observer needed. A number of seabirds were caught and 1 died (Puffinus) but no marine mammals, sharks or turtles caught during the trip;
- The vessel is fitted with Furuno omni pulse acoustic sounder that scans 360 degrees below the vessel to detect the fish;
- Albacore fish caught was wrapped with a plastic and packed/kept in freezer, whole and unprocessed (whole, live);
- The Yellowfin Tuna fish and skipjack tuna fish were caught and processed, removed the gills and stomach (GG) then packed and kept in the freezer.
- There were fish discards. There fish was caught, gills were removed and they were disposed at sea(GG);
- The vessel personnel and the officers complied with all the permit condition

