

PNG TUNA TAGGING PROJECT (PNGTP-3)

CRUISE REPORT No. 3

Bismarck and Solomon Seas, northern and eastern seas

20th May – 6th June, 2013

INTRODUCTION

This report summarizes activities of the third cruise of the third annual charter of the Papua New Guinea Tagging Project (PNG TP-3) during an eighteen day period in May-June 2013. After leaving Madang port at the end of Cruise 2, the vessels fished in the Central Bismarck Sea, before moving to waters north of Manus then crossing the northern Bismarck Sea to Kavieng for the full moon break. The vessels then fished in the eastern sea and briefly in the north-eastern Solomon Sea before clearing outwards from PNG at Buka and returning to Noro at the end of the two-month charter.

Scientific personnel involved in the cruise are listed below in Table 1.

Table 1. SPC, NFA and other personnel onboard during Cruise 3

Name	Title	Affiliation	
Bruno Leroy	Co- cruise leader	SPC	20/5 -6/6/2013
Antony Lewis	Co- cruise leader	SPC consultant	20/5 -6/6/2013
Benthly Sabub	Tagging Technician	NFA	20/5 – 27/5/2013
Chris Molai	Tagging Technician	NFA	20/5 – 4/6/2013
Simon Hoyle	Senior Scientist	SPC	27/5 – 4/6/2013
Pete West	Cameraman		20/5 – 27/5/2013
Yannick Rose	Cameraman		4/6 – 6/6/2013

GENERAL DESCRIPTION OF SEARCHING and FISHING ACTIVITY

The vessel left Madang with a small quantity of poor quality bait and unsuccessfully fished the Usu seamount before finding good fish north of Sherburne Reef on the way into Seeadler Harbour (Manus). With good bait, the vessel searched north from Manus, finding some fish along a current boundary 60nm north of Manus, but then nothing until a large early morning catch on the TAO Eq 147^oE buoy; again, with good bait from Seeadler Harbour, caught the night before full moon, the vessel then crossed the northern Bismarck Sea to Kavieng for the full moon break, fishing very few fish en route, even close to Steffen Straits. After leaving Kavieng for area 3, the vessel battled strong current off the east coast of New Ireland, and found very few fish until encountering an area of small fish north-west of Nuguria. Baiting was not possible in Nuguria, and less than 100 fish were tagged in two days fishing around Nissan and Carterets, with very few fish seen apart from an area of large actively feeding fish near Nissan that would not bite. A visit to the TAO 5S 156E buoy produced only a moderate catch, and no sightings off the north-east coast of Bougainville. Two day's fishing west of Buka, with excellent bait from Taiof, produced excellent results on one day. The TAO buoy was fished again on the final day with some success until the limited bait was exhausted, and no fishing was possible on the final run home down the east coast of Bougainville.

The track of the cruise in the PNG EEZ, based on school, 0600, 1800 and 2400 hrs positions, is found below as **Figure 1** and a summary of general movements and tag releases follows as **Table 2**.

A compilation of the daily log extracts, detailing daily activities, is provided as **Appendix 2**.

Figure 1: Cruise track during PNGTP-3 Cruise 3

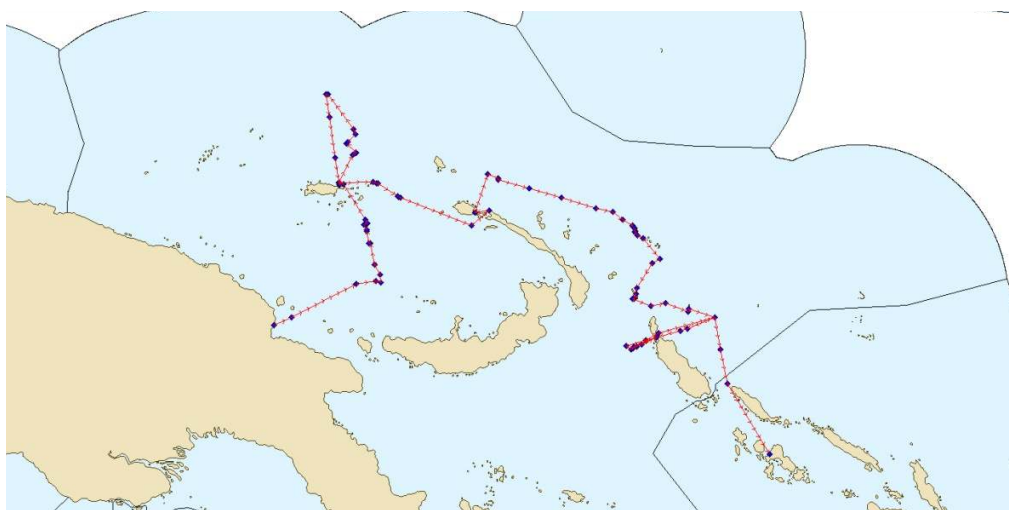


Table 2 Summary of PNGTP- 3 Cruise 3 activity, with the number of conventional and archival tag releases per day

Date	Activity	Conventional releases			Archival releases			Total releases
		SJ	YF	BE	SJ	YF	BE	
20 th May	Departed Madang for fishing central Bismarck							
21 st May	Fishing Usu seamount, baiting Sherburne Rf	69						69
22 nd May	Fishing towards Seeadler Hbr	1584	388	6				1978
23 rd May	Fishing towards TAO Eq 147E; drifting	380	3	2				385
24 th May	Fishing TAO Eq, return to Seeadler (baiting)	2683	118	102				2903
25 th May	Fishing towards Kavieng from Seeadler	39	53					92
26 th May	Fishing AM then full moon break Kavieng port							0
27 th May	In port Kavieng							-
28 th May	In port Kavieng, baiting Nusandaula							-
29 th May	Fishing Tench then towards Nuguria	20						20
30 th May	Fishing to Nuguria, baiting Nuguria aborted	495						495
31 st May	Fishing Nuguria to Nissan, baiting Nissan	81	2					83
1 st June	Fishing Nissan to Carteret Is, baiting Carteret		5					5
2 nd June	Fishing TAO 5S 156E, baiting Taiof	160	146	13				319
3 rd June	Fishing west Buka, baiting Taiof	1350	138	2				1491
4 th June	Fishing west Buka, clearance Buka;							0
5 th June	Fishing TAO 5S 156E then towards Noro	238	440	16				694
6 th June	In port Noro – end of charter							
TOTAL		7089	1303	141				8534

TAG RELEASES

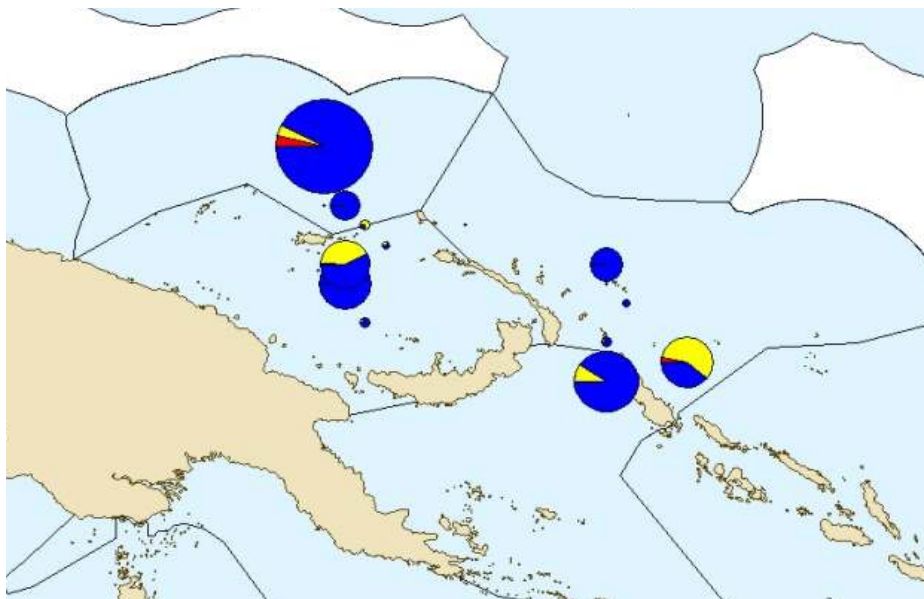
Of the 18 days of the cruise, all or part of four days were spent in port, with no fishing on the arrival day, and one half-day fishing on the final day. A total of **8534** fish was tagged and released with conventional tags during the cruise, comprising 7089 skipjack (83.1 %), 1303 yellowfin (15.3 %) and 141 bigeye (1.7 %). The average number of fish tagged per day's fishing (12.5 days) was around **680**. Two days or part days produced zero catch, with twenty fish or less. Three day's fishing provided more than 1000 fish in each case (6372 total, 75% of the total number of fish tagged), with one of these involving a TAO buoy.

Figure 2 below shows the distribution of tag releases by species during the cruise. Fish were tagged in all four PNG sea areas as defined, with details summarized in **Table 3** below. Area 1 produced the best fishing in a brief two day trip, but fish were scarce in eastern sea, apart from TAO buoy at 5°S 156°E; one good day in NE Solomon Sea, one good day north of Sherburne in Bismarck Sea.

Table 3. Releases of tagged fish by PNG sea area, by species.

Area	Dates	Catch	Notes
Area 1 (Northern Sea)	23 rd – 24 th May	3288 : 3063 skipjack, 123 yellowfin, 102 bigeye	Mostly small SJ on TAO Eq 147°E
Area 2 (Bismarck Sea)	20 th – 22 nd May; 25 th May	2139 : 2088 skipjack, 451 yellowfin	Good free schools and FAD fish ~ Sherburne
Area 3 (Eastern Sea)	29 th May – 5 th June	1616 : 994 skipjack, 593 yellowfin, 29 bigeye	TAO buoy and Nuguria
Area 4 (Solomon Sea)	3 rd - 4 th June	1491 : 1350 skipjack, 138 yellowfin, 2 bigeye	One good day west of Buka

Figure 2 Distribution of tag releases by species during PNGTP 3 Cruise 3



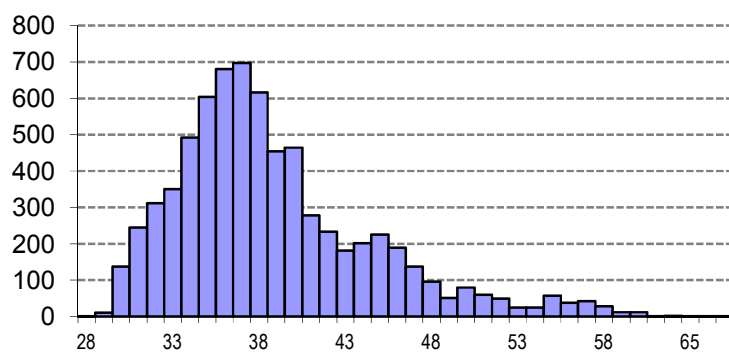
The majority of releases involved fishing on anchored FADs (56%), with free schools 27% , logs 11% and the remainder (<10%) on current lines, drifting FADs) and seamounts. The majority of the releases, 4,965 (58%) were the larger P tags (generally fish > 38 cm), in comparison to 3,569 (42%) of the 11cm Z tags.

The Cruise 3 releases are summarized by school, location, school type day and area in **Appendix Table 1**.

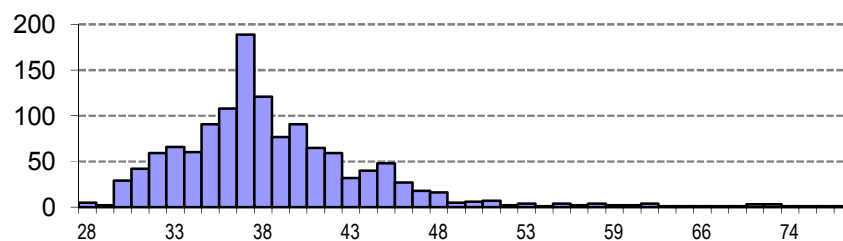
SIZE DISTRIBUTION OF TAGGED FISH

Figure 3 below shows the overall size distribution of fish tagged during Cruise 3.

Skipjack : n = 7089



Yellowfin: n = 1303



Bigeye : n = 141

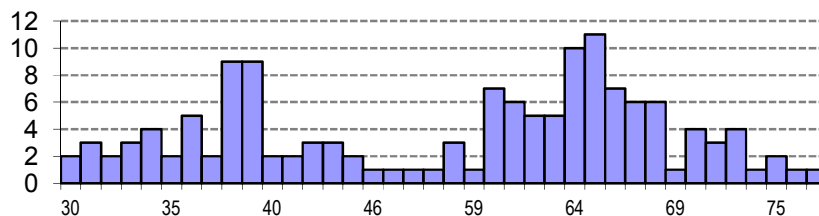


Figure 3. Size distribution of fish tagged during PNGTP 3 Cruise 3

Both the skipjack (n = 7089) and yellowfin size (n = 1303) distributions were broad single modes centred on around 37cm, but with long tails of larger fish on each case – to 60cm plus for skipjack and 70 cm plus for yellowfin. The small number of bigeye (n = 141) ranged between 30cm to nearly 80cm, with most fish 60cm plus.

BAITING

Baiting was generally adequate to supply fishing requirements, with the primary bait grounds of Seeadler Harbour (Manus) and Taiof Island (Buka) reliably providing large quantities of bait, mostly gold anchovy in both cases. Seeadler Harbour even provided a catch of 142 buckets just before dawn on the day of full moon.

Bait catches in the outer island locations of Sherburne Reef, Nissan and Carteret Islands were dominated by sprats and on one case, large *Sardinella* as well. Baiting at one location (Nuguria) was aborted because of resource owners requiring payment for access, which had not previously been required nor negotiated.

Table 4 Summary of bait fishing activity during PNGTP 3 Cruise 1

Date	Location	Catch (bkts loaded, hauls)	Species
May 21 st	Sherburne Reef	88 (2)	Sprats (blue, turquoise)
May 22 nd	Seeadler Hbr	240 (3)	Gold anchovy, sprats
May 24 th	Seeadler Hbr	142 (1)	Gold anchovy, sprats
May 28 th	Nusandaula	130 (2)	Fusiliers, anchovy
May 30 th	Nuguria	-	Aborted (good sprats around light)
May 31 st	Nissan	280 (1)	Sardinella; blue sprats, gold anchovy
June 1 st	Carteret	90 (1)	Blue sprat
June 2 nd	Taiof Island	270 (1)	Anchovy (gold, blue) fusiliers
June 3 rd	Taiof Island	290 (1)	Anchovy (gold, blue)
TOTAL		1530 (12)	

SUMMARY

The final cruise of possibly the final campaign provided a fitting end to the charter, with fish caught in all four PNG sea areas; fishing conditions were however generally poor in the eastern sea, with fish considerably scarcer than on previous visits. Low fish availability was also experienced in the northern Bismarck Sea, and as noted, the success was underpinned by three very good day's fishing which provided 75% of the total number of releases.

The good ship Soltai 101 (and her trusty crew) performed well, on charter for the first time, but with the good lady beginning to show signs of wear tear, especially on electrical and navigational equipment.

The charter total fell just short of the nominal 30,000 target but with close to 110,000 releases in the three years (7 months) of the PNG TP, the exercise has been a resounding success. Thanks to NFA staff, Soltuna vessels (Soltai 105, Soltai 101) crew and support staff, and SPC folk. Special mention to Fishing Master Gray Munukolo for his never say die attitude and skills. Em tasol nau ...

APPENDIX TABLE 1

Releases of tagged fish by date, location, school type and species during Cruise 3

Project PNGTP - Papua New Guinea #3			Cruise 3 To 3			Vessel Soltai 101			TAG TOTALS				
Event no	Tagged sch no.	Date	Lat	Lon	Sch type	Assoc.	Start	Stop	YFT	BET	SKJ	OTH	TOTAL
2	1	21-May-2013	0414.250S	14816.740E	4	8	0852	0904	10	0	59	0	69
4	2	22-May-2013	0303.400S	14756.800E	2	2	0745	0829	0	0	623	0	623
5	3	22-May-2013	0301.600S	14756.700E	2	7	0840	0901	0	0	438	0	438
7	4	22-May-2013	0253.930S	14756.040E	2	2	1017	1028	16	0	79	0	95
8	5	22-May-2013	0253.180S	14758.120E	1	3	1044	1125	372	6	444	0	822
10	6	23-May-2013	0115.857S	14742.118E	4	1	1221	1320	1	0	378	0	379
11	7	23-May-2013	0103.300S	14728.900E	1	3	1455	1502	2	2	2	0	6
14	8	24-May-2013	0003.726N	14700.152E	2	3	0555	0820	118	102	2683	0	2903
15	9	25-May-2013	0158.165S	14811.131E	3	1	1243	1246	0	0	3	0	3
16	10	25-May-2013	0157.800S	14813.030E	4	5	1306	1320	38	0	10	0	48
17	11	25-May-2013	0216.179S	14840.168E	2	4	1740	1752	15	0	26	0	41
19	12	29-May-2013	0152.944S	15059.687E	4	1	1207	1215	0	0	20	0	20
21	13	30-May-2013	0255.837S	15406.613E	2	1	1400	1420	0	0	133	0	133
22	14	30-May-2013	0257.767S	15408.249E	2	1	1445	1509	0	0	342	0	342
25	15	30-May-2013	0304.460S	15410.070E	4	1	1605	1617	0	0	18	0	18
26	16	30-May-2013	0309.470S	15413.750E	4	1	1700	1705	0	0	2	0	2
27	17	31-May-2013	0347.020S	15434.400E	4	1	0749	0756	0	0	29	0	29
28	18	31-May-2013	0436.062S	15408.489E	5	1	1337	1415	2	0	52	0	54
30	19	01-Jun-2013	0435.820S	15407.332E	5	1	0606	0617	5	0	0	0	5
33	20	02-Jun-2013	0502.002S	15601.493E	2	3	0530	0620	146	13	160	0	319
35	21	03-Jun-2013	0541.786S	15413.182E	4	2	0757	0835	7	0	180	0	187
36	22	03-Jun-2013	0543.680S	15408.304E	4	1	0917	1040	131	2	1170	1	1304
39	23	05-Jun-2013	0501.952S	15601.642E	1	3	0520	0715	440	16	238	0	694
CRUISE 3 TOTALS									1303	141	7089	1	8534

APPENDIX 1

DAILY LOG EXTRACTS – PNGTP-3 Cruise 3

20th May

After bringing Francois to the airport for the 06am flight and checked without success for Pete's (cameraman) missing luggage, went to town for food shopping and to send 2 sick crews for medical check at the hospital. After all crew finally come back and custom / immigration clearance finished, cast off the ropes at 1520 hrs and start steaming towards the 550 m Thomas Usu Jr. Seamount about 160nm away in calm conditions.

21st May

After a quite passage overnight, passed the FAD FRA c16 position but missing; continued towards 550 m seamount; met a free school at 0748 hrs but fish didn't come to the boat. In the south edge of seamount, managed to tag 69 fish at high bait cost. Weak baits from Rasch passage were dying quickly in the tanks and ran out of ammunition after unsuccessfully trying to attract fish at 1015 hrs on the seamount summit area. Not much choice other than steaming to Sherburne reef baitground about 42 nm away; arrived off Sherburne entrance at 1530 hrs and spent about 40 min taking images of the boat from the dinghy. Went through the pass at 1645 hrs, at anchor at 1707 hrs in flat calm and hot weather; clear sky and big moon; no baiting until morning

22nd May

First bait set at 0400 for 75 bkts, second set at 0515 for an extra 13 bkts; started engine at 0535 hrs and went through the Sherburne pass at 0555 hrs, starting fishing in the north direction, targetting RD FADs. Between 0745 and 1030 hrs, found large areas with many schools of fish, but only a few managed to catch and tag, mainly small fish around logs and floating debris on current line and some bigger fish; a few actively feeding and associated with whales and a silky shark pod but not interested in the bait; tagged 1156 fish in 3 schools then another 822 on an RD FAD where finished the bait; start steaming towards Seadler at 1130 hrs; hooked 2 small blue marlin on the troll line (land one and lost the other); arrived in Seadler at 1900 hrs and at anchor about 10 min later. Missing bag with cameraman's gear arrived soon after, brought personally by Usu family. Bait gathered quickly at the lights but the big moon allowed only the catch of 50 bkt at the 2145 hrs first set.

23rd May

Second bait set at 0400 hrs with 110 bkts and last set on the light boat for 80 bkts total of bkts onboard a comfortable 240. Headed out Seadler at 0550 hrs and started steaming to first Frabelle Fad 30 nm away; good opportunity for the cameraman to shot some various scripted actors to the great amusement of the crowd; Fra#Co2 was not there, went to another one not on the 2013 list at 1110 hrs but no fish; fished a large area of splashing/boiling fish for an hour but only slow biting - much natural bait; used 1.5 tanks for just 380 fish; checked TPJ 89 but few fish - 6 with 2 YF, 2 BE; one free school not too far away but just very small (20 cm) skipjack; steamed 16nm to next FAD, only to find no birds and just very small SJ (20 cm) again; another FAD nearby but not checked (no birds); headed for TAO Eq 147E and will drift overnight nearby; a modest 385 for the day - 3 YF, 2 BE; some good filming done, maybe the only saving grace of an ordinary day. Stamed until midnight and drifted near TAO Eq 147E.

24th May

Drifted from 0100 hrs onwards after steaming 10 nm up current from TAO buoy; flat calm conditions continue; started engines 0445 hrs to steam to buoy, since only drifted 5 nm - good mark underneath on arrival; outboard for inflatable would not start for filming; started fishing 0555 hrs - spectacular bite for over 2 hrs until bait ran out; episode of medium bigeye (60-73 cm), some YF and large SJ after an hour and a half, but short-lived; mostly smaller SJ but 2903 tagged, with 118 YF and 102 BE, the latter mostly 60cm plus; also 15 tags returned, 2 from today (both Z tags) but also 13 (P tags) from previous 2 weeks before; more filming then set off for

Manus 0930 hrs; oily calm and an absolute fish desert; crew meeting on foredeck with update on bonus , advances in Kavieng and port call details; arrived Seeadler 2200 hrs and set lights for baiting, the last night before full moon, with some trepidation re baiting success.

25th May

After a pleasingly good bait haul at 0430 hrs that gave us 142 buckets of anchovies and sprats, left Seeadler at 0550 hrs in calm weather and started fishing westward; nothing to be seen the whole morning; first sightings on seamount near Los Reyes - Leilani bottom fishing nearby on 211m peak; rippler of mostly AT; a few small SJ tagged and about 40 small YF, all those at the stern; headed for RD 8801 some 30nm distant as our last hope on a very slow hot day; chanced upon a dFAD 1740 hrs - not much fish with it but 41 tagged (15 YF); strained to get to the FAD after sunset, deck lights on etc but no fish underneath - the cupboard was bare; poles down and headed for Steffen Strait with ETA ~ 0700 hrs - might get lucky as still 3 tanks of good bait left; boat speed a big handicap today, making only 8 kts against the current and engine in need of tuning; just 92 for the day (53 YF).

26th May

After a very quiet passage overnight in flat calm seas, daylight near Mait Island light, then searched towards Albatross FAD position; still 3+ tanks of good bait; no FAD in place and no fish seen, not even kawakawa; more filming just outside Albatross channel then inside for full moon break; alongside Fisheries wharf 1015 hrs; let the howling commence ! (and it did...)

27th May

Early rise (0400hrs) to drop Lord Benthly at airport; no ticket seemed to have been issued so had to buy; some shopping but no market on Monday except corner market;extravagant lunch at Nusa. Simon Hoyle arrived 1700 hrs with cash money, laptops etc.; first fuel truck (of three) arrived about same time. Dinner at Nusa, last night for Pete the cameraman, and quite a night it was.

28th May

Market visit for some veges and fruit; almost 20,000 kina advances given to the crews for last Kavieng shopping, last fuel truck loaded (30 Kl total), ready to sail after lunch; cast the ropes at 1355hrs to Nusandaula baitground; two wahoo hits en route but both missed; arrived Nusandaula 1615 hrs, and at anchor 10 min later. Much of the Manus bait still alive in tanks and good quality; first set at 2000 hrs for 106 bkts of mainly strong small fusilier, with some gold anchovy; second set on the light boat for a mere 24 bkts; decided to wait till 2300 hrs before heading to Tench; good passage in calm conditions.

29th May

Arrived closed to Tench at about 0530 hrs and start searching at 0600 hrs; no sightings apart from a few flighty birds so opted to head for Nuguria 0830 hrs - approx 260 nm; moderate NE wind and current so making just 7-8 kts, mostly < 7.5 kts; chased one school for 6 nm, for just 20 SJ tagged; fruitless search all afternoon; slow progress all day and 32 nm NNW of Simberi at 1800hrs; will be a pleasant run overnight and hopefully out of the desert and into fish tomorrow; just the 20 for the day.

30th May

Slow progress overnight but picked up speed from 0200 hrs onwards and close to 9 kts by 0600 hrs; several p/s sightings during the night; started to search for fish in calm sea with a gentle swell about 90 nm from Nuguria. Observed a high density of man-o-war type jelly fish floating, not a good place for a swim; only one elusive quick running school seen the whole morning - no fish caught; started meeting schools of small skipjack from 1400 hrs NNW of Nuguria; chummed 6 and released tags from 4 schools for a total of 495 fish, all SJ between 32 and 39 cm; stopped at 1700 hrs to be not too late to come in to Nuguria baitground, still about 30 nm away; arrived at 2020 hrs and at anchor about 15 min later; local people arrived and asked for a sum of money (1000K) but didn't have in hand as not forewarned; also said vessel had not followed agreed procedure in calling in to wharf before going to baiting ground, a requirement not passed on to the

current personnel; had to abort baiting, despite a good showing of sprats, and with risk of theft, decided to leave and drift outside for the night near Sable Island.

31st May

Started engine at 0540 hrs, about 10 nm SSE of Sable island, fished towards it and in the south of it; one p/s boat sighted; a running school was fished at almost 0800 hrs that only provided 29 SJ tagged; that was all for the mornin; nothing else until on western side of Nissan where large area of boiling/splashing fish that of course would not bite; mostly medium SJ but some large YF; 54 taggd on several passes, mostly SJ 55-65 cm; drifted for an hour until 1530 hrs in the hope that biting would improve but nogat; headed in to anchor at 1600 hrs and anchor down 1645 hrs; bait slow to gather - first haul 2200 hrs for 280 bkts of large sardines with some sprats; no need for light boat set.

1st June

Large area of boiling fish, as yesterday, SW of entrance; some reponse to better bait but only 5 YF tagged; opted to head towards Carterets; oily calm and little surface activity; chased an area of running fish 0925 hrs but no chance of stopping it; nothing else all morning; searched eastwards to Carteret then south to 7nm south of South Channel but nothing seen; futile chase of an r/r and kawakawa school close to passage more in hope than reality but ~ 6 rr poled; inside channel and anchored ~ 1705 hrs; still some Sardinella and smaller bait left for run to TAO 5S, but will still bait tonight; an unimpressive 5 fish for the day; light set only on main vessel; bait gathering well, with first and only set 2220 hrs; 90 bkts of nice blue sprats loaded on top of remaining sardines then head for TAO buoy 2300 hrs.

2nd June

Arrived at the buoy 0330 hrs - only small mark on sounder; drifted until began chumming 0515 hrs - slow but steady bite over repeated passes, mostly small YF and slightly larger SJ, with a few BE; 320 tagged (146 YF, 13 BE); finished 0620 hrs and began heading towards Buka and Taiof for baiting; calm conditions prevailing, as has been usual; one flighty school chased 1045 hrs but did not slow down; no sightings all morning and early afternoon to Cape L'Averdy then nothing on the way in to Buka Passage - a desert ! Smooth run through a quiet Buka Passage on a late Sunday afternoon; anchored 1615 hrs at Taiof, with lightboat deployed; bait gathered very quickly - wall to wall red sounder by 1830 hrs; first and only net 2200 hrs - "one net half let go" - for 270 bkts loaded, out of a possibly 500, mostly gold anchovy with some fusiliers.

3rd June

Up anchor and away 0420 hrs, heading west into Solomon Sea; signs of fish from 0630 onwards and good area of fish on southern offshore bank 0730 hrs - splashers which cooperated to some degree - large area of fish, and 187 tagged, mostly larger SJ (180); second area of fish in deep channel between the two banks, splashers again, but better biting over a long periods, even from actively feeding foci; some anchovy meatballs with small sharks gorging (silky ?); 1304 tagged in 80 minutes of hectic action (131 YF, 2 BE); out of bait by 1045 hrs (schools needed significant chum), and headed for Taiof, anchoring 1430 hrs; some dramas with Customs clearance needed quick visit to town to sort out but all done; will clear 1400 hrs tomorrow after another day's fishing west of Buka; baiting at Taiof again - first net 2100 hrs for 290 bkts loaded out of possibly 350 total; net boat not needed; will head off at 0200 hrs.

4th June

Anchor up 0200 hrs and headed out for same area as yesterday (30 nm to SW); searching from 0600 hrs - scattered birds initially, one unid. whale pod; first school chummed at 07:30 but SJ too small to be tagged (202-5 cm); one sperm whale seen; second school briefly appeared far to the west (45 nm off) but no bite ; nothing else at all on the way in - one day a rooster (coq sportif), next day a feather duster - tuna fishing is like that, a humbling vocation; headed back for Customs rdv at 1400 hrs; might not bait tonight with still full tanks and good survival; need 800 for the 30,000 PNG TP3 total, and another 1640 for two more bonus to keep several people from the bailiff's cosh; left Buka at 1730 hrs after farewell to Chris and Simon and having taken onboard

Yannick the Canadian cameraman; a relatively painless extraction from PNG, greased by fish, apart from the usual last minute frenetic running around by BML and other; steamed towards the TAO 5S/156E to fish first light in the morning, and hopefully a peaceful night...

5th June

Arrived at TAO buoy 0230 hrs and drifted until dawn; better mark than last visit and current stronger; started fishing 0520 hrs - only became apparent later than half the bait had died suddenly during the evening, and all fishing on the single TAO buoy event; just three taggers; good consistent, with mix of sizes; YF in the slight majority overall but 90% YF at stern; finished all bait by 0715 hrs; 694 fish tagged (440 YF, 16 BE) falling agonizingly short of the 30,000 for PNG-TP3 - total 29921, with 78.2% SJ, 19.9% YF and 1.9% BE (564)); the cruise leader was not pleasant to be around for a while but we move on; 5 tags recovered during the session, all from the last visit on 2nd June; 4 P tags, one Z; interesting to see that the fibrous capsule already secreted around the tag in most cases, after just 3 days, so it happens very quickly; heading towards Noro in calm seas with possibly the first light SE wind of the entire trip - an amazing and unprecedented spell of calm weather; crossed into Solomons about 1700 hrs and changed clocks - on schedule for 0630 hrs ETA Noro.

6th June

Arrived in Noro 0630 hrs after a calm passage overnight and anchored in the stream awaiting Customs and Immigration clearance. A busy day of decommissioning the vessel, and storing the gear, given uncertainties about future tagging plans; the day culminated in what might be the final farewell party - the end of an era but good times had by all.