

# PNG TUNA TAGGING PROJECT (PNGTP)

## CRUISE REPORT No. 3

### INTRODUCTION

This report summarizes activities of the third and final cruise of the Papua New Guinea Tagging Project (PNGTP) during a thirty-six day period from June 8<sup>th</sup>, with departure from Kavieng to July 13<sup>th</sup> 2011, with arrival of the vessel in Noro, Solomon Islands at the end of the charter. Apart from the initial week spent in Area 2, the remainder of the cruise activity was directed at the northern and eastern parts of the PNG EEZ (Areas 1 and 3 in Figure 1).

Scientific and observer personnel onboard the FV Soltai 105 during Cruise 3 is listed below in Table 1.

**Table 1: SPC and PNG personnel onboard during Cruise 3**

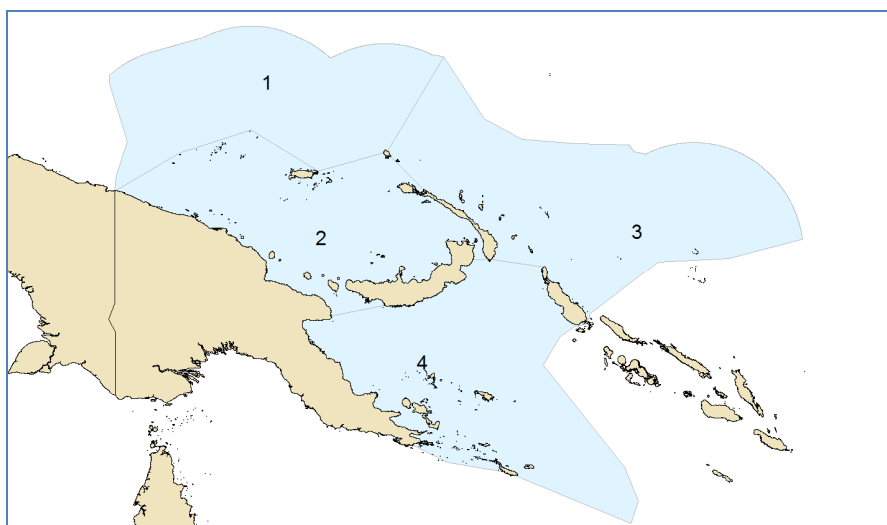
Name	Title	Affiliation	Period
Brian Kumasi	Cruise Leader	NFA	08/06/11 – 21/06/11; 7/07/11– 13/07/11
Antony Lewis	Cruise Leader	SPC	18/06/11 – 13/07/11
Caroline Sanchez	Tagging Technician	SPC	09/06/11 – 16/06/11
Simon Nicol	Principal Scientist	SPC	18/06/11- 28/06/11
Sharmaine Siaguru	Tagging Technician	NFA	04/05/11 – 08/06/11
Benthly Sabub	Tagging Technician	NFA	04/05/11 – 11/07/11
Malakai	FV Leilani crew	NFC Kavieng	18/6/11 – 28/6/2011
Kevin Anana	Fisheries Officer	ARB Buka	28/06/11 – 04/07/11

### PROJECT OBJECTIVES

The stated objective of the PNG Tagging Project was to release 30,000 tagged fish over three months of vessel charter, in each of three successive years; the preferred species composition of the releases would be 70% skipjack, 25% yellowfin and 5% bigeye, with releases to be well distributed across the four areas as defines in the figure below.

**Figure 1: Areas within the PNG EEZ identified for tag releases.**

The Coral Sea is generally not included

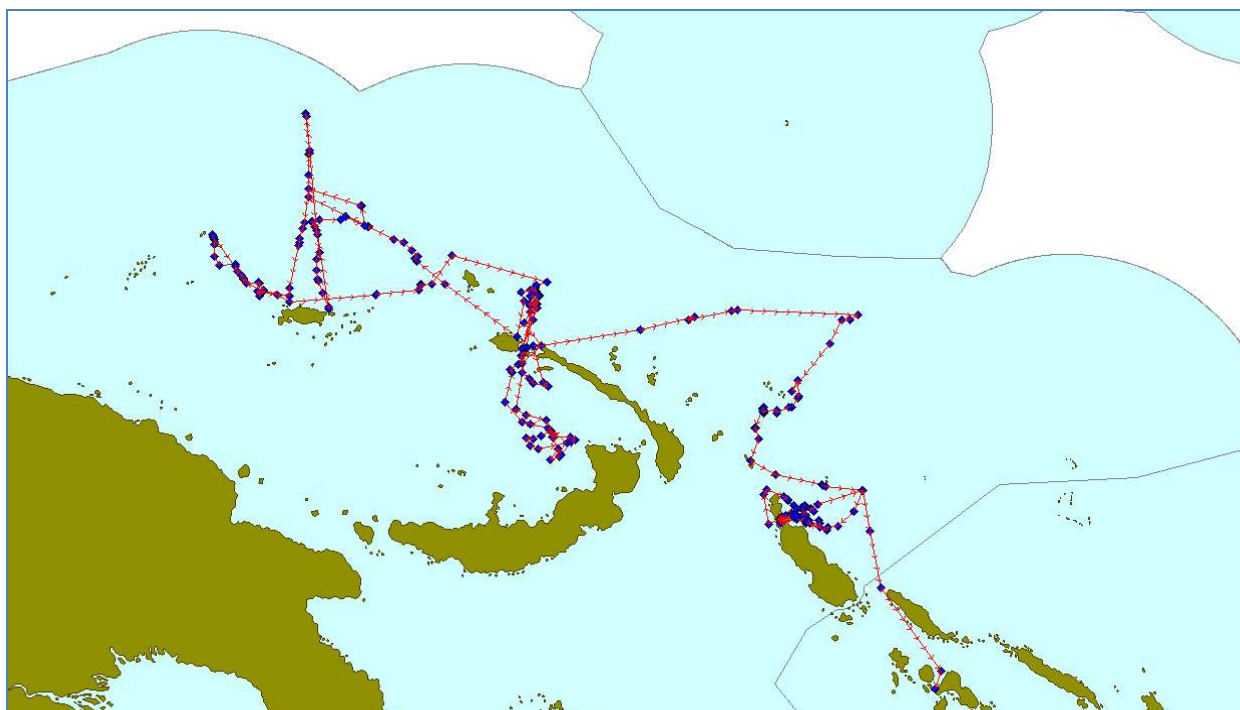


### GENERAL DESCRIPTION OF SEARCHING and FISHING ACTIVITY

The first week of the cruise was spent in the north-eastern Bismarck sea, where fish were plentiful but catching generally poor due to the abundance of natural bait. Tench Island provided several days of good fishing on either side of the full moon break before the vessel moved to Area 1, north of Manus, where long range fishing north to the limits of the EEZ was somewhat constrained by the less robust bait obtained in Seadler Harbour and generally poor biting. With excellent bait obtained from Nares Harbour, variable fishing success was enjoyed north to the Equator (Kaniet./Sae Islands) and north of Manus, with much of the fish associated with large bait schools, often with whales in attendance, and generally showing poor biting response. Activity then shifted to the eastern EEZ (area 3) where fishing success improved markedly, initially near Lyra reef en route to the TAO 2S 156E buoy, then around the Fead Islands (Nuguria) and finally east of Buka, where six days were spent successfully fishing abundant free schools, before a final successful visit to the TAO 5s 156E buoy, thence to Noro for the conclusion of the charter.

The track of the cruise in the Bismarck Sea, and the northern and eastern EEZ, based on school and 1800 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 2: Cruise track during PNGTP Cruise 3**



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

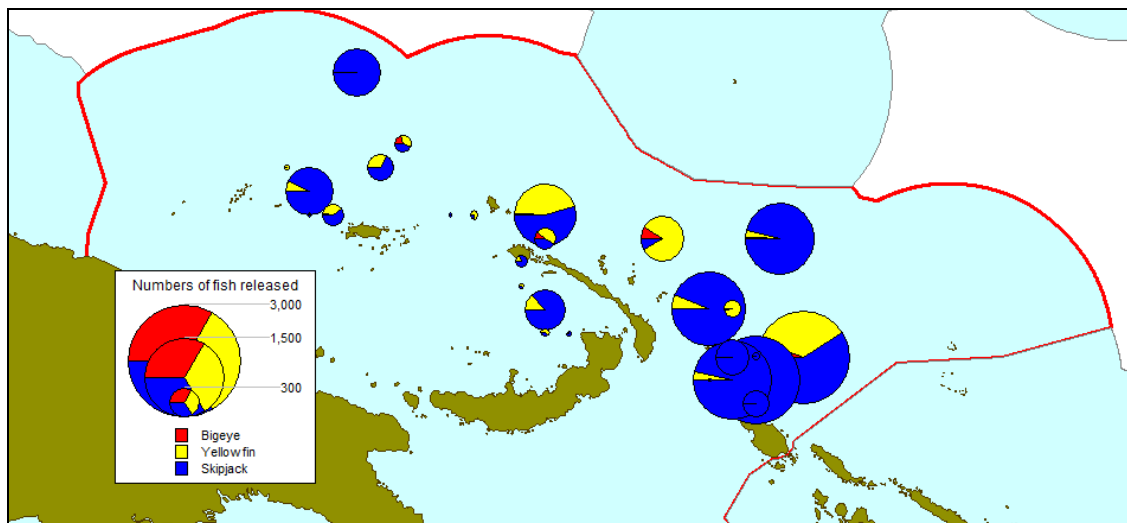
Date	Activity	Conventional releases			Archival releases			Total releases
		SJ	YF	BE	SJ	YF	BE	
June 8th	In port Kavieng, baiting Nusandaula							
June 9th	Fishing Dyaul, baiting Nusandaula	1						1
June 10th	Fishing west of Cape Lambert, drifting	387	40					427
June 11th	Fishing west of Cape Lambert; baiting CL	13	5					18
June 12th	Fishing west of Cape Lambert, baiting CL	13	45					58
June 13 <sup>th</sup>	Fishing north Cape Lambert, bait Nusandaula	65	16					81
June 14 <sup>th</sup>	Fishing Tench Island, bait Nusanduala	448	224	5				677
June 15 <sup>th</sup>	Fishing south Byron Strait; in port Kavieng		3					3
June 16 <sup>th</sup>	In port Kavieng – full moon break							-
June 17 <sup>th</sup>	In port – depart PM for baiting at Nusanduala							-
June 18 <sup>th</sup>	Fishing near Tench Is; baiting Ysabel Pass	16	154					170
June 19 <sup>th</sup>	Fishing towards TAO Eq 147E							0
June 20 <sup>th</sup>	Fishing TAO Eq then north towards TAO 2N	642						642
June 21st	Fishing towards Manus; baiting Seeadler Hbr	2						2
June 22nd	Fishing south and south-east of TAO Eq	224	124	25				373
June 23 <sup>rd</sup>	Fishing TAO Eq then to Nares Harbour							0
June 24 <sup>th</sup>	Fishing towards Sae/Kaniet	354	21					375
June 25 <sup>th</sup>	Fishing back to Nares Harbour	423	108	4				535
June 26 <sup>th</sup>	Fishing towards north of Mussau	18	32					50
June 27 <sup>th</sup>	Fishing near Tench, then Ysabel for baiting	136	145	23				304
June 28 <sup>th</sup>	In port Kavieng for fuel/provisions/clearance							-
June 29 <sup>th</sup>	Fishing towards TAO buoy 2S 156E	46	454	46				547
June 30 <sup>th</sup>	Fishing TAO buoy then towards Nuguria	1297	38	10				1345
July 1 <sup>st</sup>	Fishing around Fead Is. (Nuguria)	839	204					1043
July 2 <sup>nd</sup>	Fishing towards Nissan Island	481						481
July 3 <sup>rd</sup>	Fishing towards TAO 5S 156E	452	50	8				510
July 4 <sup>th</sup>	Fishing towards Buka via east coast	1017	168	21				1206
July 5 <sup>th</sup>	In port, then fishing east coast	679	21					900
July 6 <sup>th</sup>	Fishing east coast Buka (weather)	257	4					261
July 7 <sup>th</sup>	Fishing east coast Buka (weather)	132						132
July 8 <sup>th</sup>	Fishing east coast Buka	766	51					817
July 9 <sup>th</sup>	Fishing east coast Buka	847						847
July 10 <sup>th</sup>	Fishing east coast Buka	100						100
July 11 <sup>th</sup>	In port; steaming towards TAO 5S							-
July 12 <sup>th</sup>	Fishing TAO 5S; steaming to Noro	854	525	89				1468
July 13 <sup>th</sup>	In port Noro – charter finished							
	<b>CRUISE 3 TOTAL</b>	<b>10727</b>	<b>2433</b>	<b>232</b>				<b>13392</b>

## TAG RELEASES

Of the 36 days of the cruise, all or part of eight days were spent in port for provisions, water, fuel, personnel change and customs clearance. 28 days (or part thereof) were spent fishing, mostly in Area 3 (16 days), with six days in Area 6, and six days in Area 1. A total of **13392 fish was tagged and released** with conventional tags during the cruise, comprising 10727 skipjack (61%), 2433 yellowfin (18.2%) and 232 bigeye (1.7 %). No archival tags were deployed during the cruise. Two days with zero catch were experienced, 4 days when over 1000 fish were tagged and a relatively low average of 478 fish tagged per fishing day.

The majority of fish during the cruise were tagged in eastern sea waters (Area 3 - 10,827), with smaller numbers in area 1, north of Manus (1,730), and in the Bismarck and surrounds (835). The figure below shows the distribution of tag releases by species during the cruise.

**Figure 3: Distribution of tag releases by species during Cruise 3**



Free schools provided a slight majority of the fish tagged (53.6%), mostly in area 3 in the latter part of the cruise, with anchored FADs (24.6%), drifting FADs (10.7%) and logs (6.9%) also contributing significant release numbers. Smaller numbers of fish were tagged from other school types – island-associated, current line-associated and marine mammal-associated

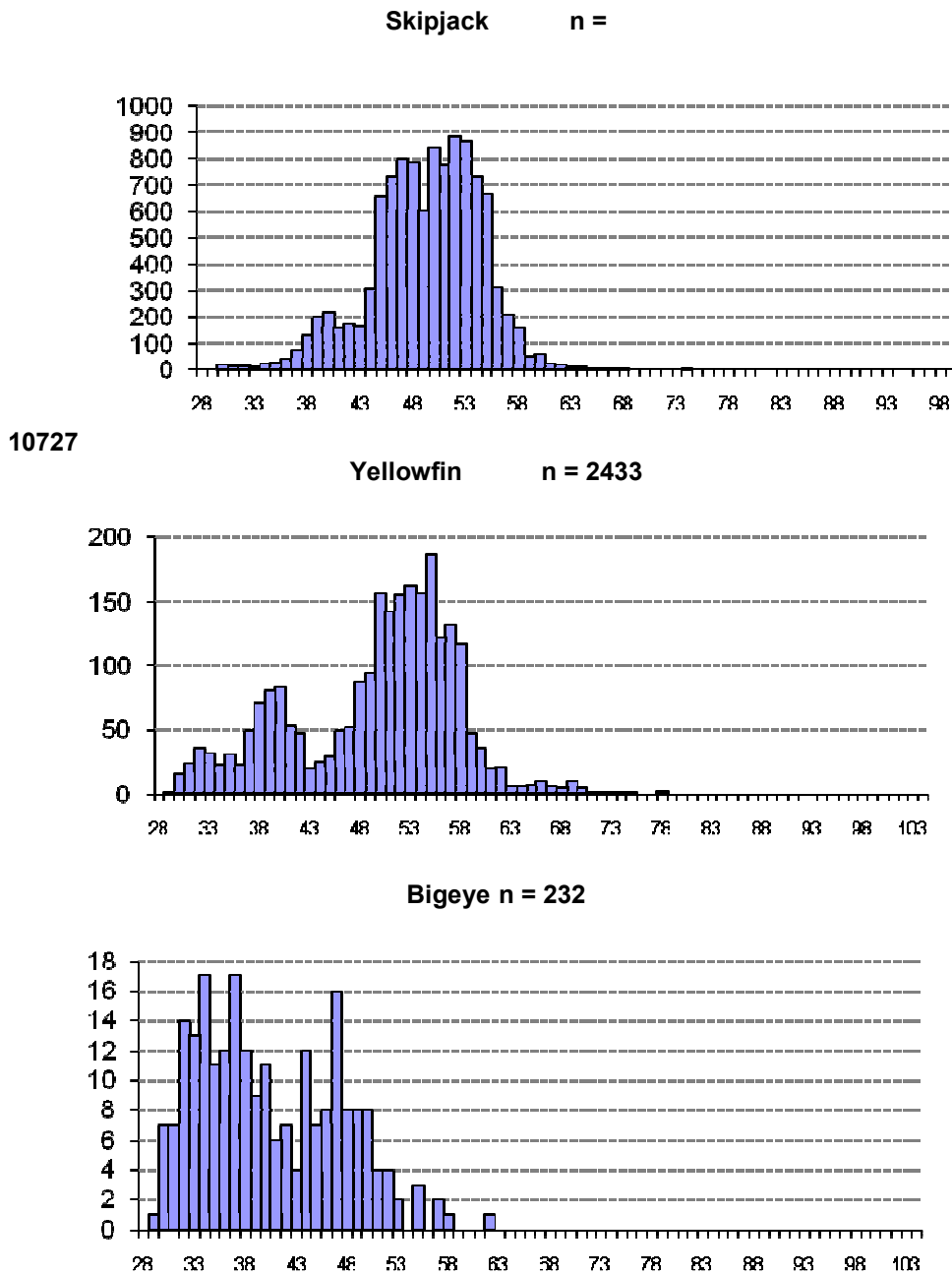
The majority of the releases (11,562, 86 %) involved the larger 13cm tags P; less than 10% of the fish tagged during the cruise were 39cm and below, the size usually reserved for the smaller 11cm Z tags. However, Z tags were also used for larger fish on several days during the cruise when P tags were temporarily unavailable. Of the 1,830 Z tags deployed (14%), 1199 were on fish > 40cm, thus with only 231 genuine Z tags, a very low proportion of total releases by previous standards.

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

## SIZE DISTRIBUTION OF TAGGED FISH

**Figure 4** shows the overall size distribution of fish tagged during Cruise 3, which were generally larger on average than fish tagged in the Bismarck Sea during Cruise 2, and in the Solomon Sea in Cruise 1. The skipjack size distribution shows a multimodal distribution, with most fish between 45cm and 55cm, and a minor mode centered on 40 cm. The yellowfin size distribution shows several minor modes centered on 32cm and 40cm, with broad mixed mode, the majority of fish tagged, between 48cm and 60cm. The small number of bigeye tagged was of varying sizes, mostly between 38 and 52cm.

**Figure 4: Size distribution of fish tagged during Cruise 3**



The size of skipjack tagged north of Manus, mostly in area 1, showed a bimodal size distribution (40, 55cm), with yellowfin also smaller in size (40cm mode). Fish tagged in Area 3 were mostly larger, with most skipjack > 50cm, but with a smaller mode centred on 48cm tagged at Tench Island, and near the two TAO buoys. Yellowfin size in Area 3 was more variable, but with three clear modes (30,40 and 51cm )seen in the catch on repeat visits to the TAO 5S buoy.

## BAITING

Baiting was generally successful, with an average catch of over 200 buckets per night during the cruise, and numerous occasions where bait surplus to capacity, usually rated around 300 buckets but up to 360 buckets depending on the species involved, was released. Nares Harbour provided high quality bait on two occasions, Nusandaula (5 visits) was generally reliable though with varying species composition, Nissan Island, visited for the first time yielded a surprisingly good catch of gold anchovy, whilst Seadler Harbour (Manus) provided small rather weak anchovy on the single occasion visited. The site most regularly visited during the cruise, Taiof island (Buka) – 7 visits – provided lower catches than on previous visits but still yielded over 150 buckets per night on most occasions. The two former commercial baiting areas visited - northern Ysabel Pass (2 visits) and Cape Lambert (2 visits) both provided good baiting. Fusiliers more often dominated catches than previously, with anchovy abundance down at some baiting sites. Table 4 below summarizes bait catches by location.

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

Date	Location	Catch (bkts loaded, hauls)	Species
June 8th	Nusandaula	240 (1)	Hq, silver sprat, fusiliers, h/h
June 9th	Nusandaula	230 (1)	
June 11 <sup>th</sup>	Cape Lambert	265 (2)	Anchovy, Hq, h/h, fusilier
June 12 <sup>th</sup>	Cape Lambert	27(2)	Anchovy
June 13 <sup>th</sup>	Nusandaula	151 (2)	Sprats, sardines, fusiliers
June 14 <sup>th</sup>	Nusandaula	5 (1)	Anchovy, sprat
June 17 <sup>th</sup>	Nusandaula	209 (2)	Sardines
June 18 <sup>th</sup>	Ysabel Pass	285 (1)*	Silver sprat, gold anchovy
June 21 <sup>st</sup>	Seeadler Hbr	300 (2)*	Gold anchovy
June 23 <sup>rd</sup>	Nares Hbr	320 (1)*	Silver sprat, blue anchovy
June 25 <sup>th</sup>	Nares Hbr	230 (1)*	Silver sprat, blue anchovy
June 27 <sup>th</sup>	Ysabel Pass	195 (1)*	Silver sprat, gold anchovy
June 30 <sup>th</sup>	Nuguria	250 (2)	Fusiliers, sprats (d,l), h/h, cardinals
July 1 <sup>st</sup>	Nuguria	110 (2)	Fusiliers, t/sprat,h/h, cardinals
July 2 <sup>nd</sup>	Nissan	170 (1)*	Gold anchovy
July 4 <sup>th</sup>	Taiof Island, Buka	172 (3)	
July 5 <sup>th</sup>	Taiof Island, Buka	184 (3)	G/s herring, t/sprat, fusiliers
July 6 <sup>th</sup>	Taiof Island, Buka	175 (2)	Fusiliers. Hq, sprat
July 7 <sup>th</sup>	Taiof Island, Buka	74 (1)	Fusiliers. Hq,cardinals
July 8 <sup>th</sup>	Taiof Island, Buka	192 (4)	Gold anchovy, fusiliers, Hq, priests
July 9 <sup>th</sup>	Taiof Island, Buka	121 (3)	Fusiliers, Hq, little priest
July 10 <sup>th</sup>	Taiof Island, Buka	120 (2)	Fusilier, Hq
Total			

\* Partial loading only

## **CONCLUSIONS**

After some difficult fishing conditions during the first two weeks, the cruise finished well, with nearly 9,000 fish tagged in the last two weeks of the cruise in Area 3, providing a good conclusion to the year's charter, with over 13,000 tuna tagged during the cruise.

This added to the 10, 228 tagged during the short Cruise 1, and 16, 948 during Cruise 2, exceeding 40,000 in total on the three cruises. The nominal target of 30,000 was this considerably exceeded and the species composition – 70.7% skipjack, 28.5% yellowfin and 0.9% bigeye – was close to expectations, albeit with fewer than expected bigeye tagged.

Good distribution of tag releases across the four identified areas was achieved, with release numbers in areas 1-4 of 1,784, 17,729, 11,418 and 9,697 respectively. Fishing activity in area 1, the most remote from good baiting locations and the smallest of the three areas, was hampered by less robust bait species being available during the cruise and poor biting due to natural bait abundance.

The vessel and crew provided a reliable and high quality platform for the work, and no significant problems were experienced during three months charter. Bait catches were lower than on previous visits at one key location, but other new baiting locations were explored with good success, and fishing was never compromised to any extent by lack of bait. Future charters may have to give more attention to formalizing access to key baiting areas with traditional users and custodians.

## APPENDIX TABLE 1

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

Event no	Tagged sch no.	Date	Lat	Lon	Sch type	Assoc.	Start	Stop	YFT	TAG TOTALS			
										BET	SKJ	OTH	TOTAL
4	1	09-Jun-2011	0301.588S	15028.486E	4	1	1305	1340	0	0	1	0	1
7	2	10-Jun-2011	0343.688S	15032.439E	2	3	0907	0932	1	0	0	0	1
8	3	10-Jun-2011	0359.474S	15057.144E	1	3	1322	1423	39	0	387	0	426
10	4	11-Jun-2011	0359.646S	15056.646E	1	3	0551	0632	1	0	2	0	3
15	5	11-Jun-2011	0409.676S	15116.710E	2	1	1654	1712	4	0	11	0	15
17	6	12-Jun-2011	0359.379S	15055.941E	1	3	0843	0915	19	0	0	0	19
20	7	12-Jun-2011	0413.695S	15036.417E	1	3	1340	1409	26	0	13	0	39
24	8	13-Jun-2011	0301.727S	15018.419E	1	2	1544	1600	4	0	1	0	5
26	9	13-Jun-2011	0254.138S	15024.204E	2	1	1753	1800	12	0	64	0	76
27	10	14-Jun-2011	0146.804S	15036.827E	1	2	1121	1259	218	5	269	0	492
28	11	14-Jun-2011	0146.510S	15045.204E	1	1	1429	1510	6	0	162	0	168
29	12	14-Jun-2011	0145.817S	15045.087E	1	1	1518	1529	0	0	17	0	17
30	13	15-Jun-2011	0252.958S	15028.886E	1	1	0800	0820	3	0	0	0	3
31	14	18-Jun-2011	0141.306S	15040.804E	2	9	0640	0645	6	0	0	0	6
34	15	18-Jun-2011	0138.678S	15041.505E	2	9	0752	0816	112	0	16	0	128
36	16	18-Jun-2011	0142.037S	15037.292E	1	9	0933	1000	36	0	0	0	36
47	17	20-Jun-2011	0113.478N	14657.522E	2	1	1605	1815	0	0	642	0	642
49	18	21-Jun-2011	0110.548S	14707.550E	3	5	0920	0935	0	0	2	0	2
55	19	22-Jun-2011	0037.811S	14705.452E	1	2	0705	0750	65	1	175	0	241
57	20	22-Jun-2011	0033.456S	14703.541E	1	2	0843	0900	21	0	1	0	22
59	21	22-Jun-2011	0028.764S	14736.525E	2	2	1300	1320	8	4	0	0	12
61	22	22-Jun-2011	0017.329S	14751.462E	2	7	1755	1815	30	20	48	0	98
69	23	24-Jun-2011	0128.817S	14556.840E	2	3	0900	1005	11	0	349	0	360
70	24	24-Jun-2011	0125.329S	14553.277E	1	2	1043	1055	5	0	5	0	10
77	25	24-Jun-2011	0047.614S	14526.810E	2	1	1815	1822	5	0	0	0	5
79	27	25-Jun-2011	0134.130S	14559.394E	1	3	0807	0823	6	1	12	0	19
80	26	25-Jun-2011	0128.843S	14556.711E	1	3	0615	0730	30	1	305	0	336
81	28	25-Jun-2011	0133.807S	14611.831E	2	2	0950	1025	72	2	102	0	176
85	29	25-Jun-2011	0145.993S	14629.415E	2	1	1555	1610	0	0	4	0	4
88	30	26-Jun-2011	0134.936S	14849.798E	5	1	1200	1225	0	0	3	0	3
89	31	26-Jun-2011	0134.910S	14900.697E	1	4	1345	1400	32	0	13	0	45
90	32	26-Jun-2011	0106.039S	14919.636E	3	2	1745	1815	0	0	2	0	2
94	33	27-Jun-2011	0154.771S	15042.945E	5	5	1045	1105	22	0	13	0	35
95	34	27-Jun-2011	0154.951S	15039.287E	2	1	1125	1135	26	3	38	0	67
97	35	27-Jun-2011	0153.055S	15040.791E	5	5	1405	1412	4	0	2	0	6
98	36	27-Jun-2011	0158.403S	15043.497E	5	1	1450	1500	1	0	5	0	6
99	37	27-Jun-2011	0202.010S	15036.467E	2	1	1550	1645	92	20	78	0	190
100	38	29-Jun-2011	0206.951S	15316.428E	2	4	1120	1235	450	44	37	0	531
103	40	30-Jun-2011	0209.553S	15548.460E	2	1	0702	0720	11	1	481	0	493
104	41	30-Jun-2011	0209.613S	15540.774E	2	4	0800	0840	27	9	816	0	852
108	42	01-Jul-2011	0341.356S	15437.002E	2	1	1305	1323	118	0	5	0	123
111	43	01-Jul-2011	0341.743S	15423.913E	2	1	1530	1555	0	0	218	0	218
112	44	01-Jul-2011	0339.990S	15424.313E	2	1	1617	1640	0	0	64	0	64
113	45	01-Jul-2011	0339.539S	15423.644E	2	1	1650	1710	0	0	331	0	331
114	46	01-Jul-2011	0337.450S	15423.332E	2	1	1720	1735	86	0	169	0	255
115	47	01-Jul-2011	0336.568S	15423.581E	2	1	1745	1755	0	0	67	0	67
116	48	02-Jul-2011	0356.769S	15416.026E	1	1	1130	1205	0	0	481	0	481
118	49	03-Jul-2011	0442.291S	15435.681E	2	1	0600	0615	0	0	392	0	392
119	50	03-Jul-2011	0453.095S	15521.666E	4	1	1215	1220	0	0	30	0	30
121	51	03-Jul-2011	0458.015S	15601.057E	1	3	1720	1755	50	8	30	0	88
122	52	04-Jul-2011	0458.027S	15600.941E	1	3	0530	0622	168	21	352	0	541
124	53	04-Jul-2011	0534.563S	15526.852E	1	7	1320	1350	0	0	214	0	214
126	54	04-Jul-2011	0529.883S	15505.055E	2	1	1640	1655	0	0	372	0	372
127	55	04-Jul-2011	0528.533S	15504.285E	2	1	1710	1715	0	0	79	0	79
128	56	05-Jul-2011	0522.474S	15505.599E	2	1	1525	1545	0	0	98	0	98
129	57	05-Jul-2011	0516.440S	15502.505E	2	1	1625	1640	0	0	318	0	318
130	58	05-Jul-2011	0514.659S	15501.900E	2	1	1650	1702	0	0	264	0	264
131	59	05-Jul-2011	0513.118S	15504.824E	2	1	1730	1748	21	0	202	0	223
132	60	06-Jul-2011	0502.138S	15424.302E	4	1	1110	1114	0	0	8	0	8
134	61	06-Jul-2011	0506.362S	15447.875E	2	1	1445	1450	0	0	108	0	108
135	62	06-Jul-2011	0507.576S	15447.434E	2	1	1500	1512	4	0	141	0	145
137	63	07-Jul-2011	0520.612S	15451.344E	2	1	1103	1113	0	0	84	0	84
139	64	07-Jul-2011	0523.537S	15501.936E	2	1	1655	1710	0	0	48	0	48
141	65	08-Jul-2011	0523.608S	15453.119E	2	1	0705	0810	51	0	766	0	817
142	66	09-Jul-2011	0527.308S	15517.915E	1	1	1130	1137	0	0	9	0	9
146	67	09-Jul-2011	0527.782S	15508.583E	2	1	1435	1450	0	0	151	0	151
147	68	09-Jul-2011	0528.385S	15507.114E	2	1	1508	1520	0	0	247	0	247
148	69	09-Jul-2011	0523.090S	15455.965E	2	1	1650	1710	0	0	197	0	197
149	70	09-Jul-2011	0515.271S	15456.799E	2	1	1730	1745	0	0	243	0	243
150	71	10-Jul-2011	0518.998S	15513.245E	2	1	1715	1726	0	0	100	0	100
151	72	12-Jul-2011	0457.903S	15600.581E	1	3	0513	0730	525	89	854	0	1468
<b>CRUISE 3 TOTALS</b>									<b>2433</b>	<b>232</b>	<b>10727</b>	<b>0</b>	<b>13392</b>



## APPENDIX 1

### DAILY LOG EXTRACTS – PNGTP Cruise 3

#### 8<sup>th</sup> June

Kavieng Fisheries wharf - 0700hrs off to the airport to leave BML for departure at 0900hrs; various shopping for crew and scientific staff during the day aided by vehicle from NFC. 580l of fuel loaded as outstanding from InterOil in Alotau. Caroline Sanchez not able to make connection to Kavieng so will join vessel a day late. Left fisheries wharf at 1700hrs for Nusandaula to bait, arriving at baitground 2000hrs.

#### 9<sup>th</sup> June

First net at 0000hrs - 240 buckets of mixed bait of fusiliers, small herring, large anchovy, sardines and small silver sprats; decided to head for Dyaul seamount for a day trip and back in to Nusandaula in the evening to top up with bait and rendezvous with Caroline before heading to Cape Lambert; 0530 hrs sunrise over Dyaul, almost on seamount, flat oily seas and no wind to speak of; 0700hrs on seamount, dark cloudy day with slight drizzle hampering spy team; continuing to search in overcast conditions with very little activity; schools of large yellowfin and skipjack sighted and chummed; after initial response schools moved away from the vessel chasing flying fish - a case of "fish stay but kaikai no; ~60 buckets of bait used for only 1 fish tagged; abandoned fishing at 1500hrs to return to baitground and rendezvous with NFC banana boat ferrying Caroline across; anchored baitground 1900hrs; first net at 2315hrs for 230 buckets of mixed bait, mainly fusilier and small herring with silver sprats, hardy heads and a few sardines mixed in.

#### 10<sup>th</sup> June

210 buckets already carried and another 230 loaded; anchor up at 0024hrs and headed for FADs NW of Cape Lambert; 0630hrs 10nm off first FAD 8100; bait survived well overnight; VMS activity summary showed PS vessels to the west of FAD 8100; 0730hrs log school chummed but no bite; FAD 8100 missing so proceeded to FAD 8101; again same thing at FAD 8101, bait moved away from the boat and just out of reach despite innovative maneuvering by Fishing Master; decided to continue to fish south and dispose of some of the fusilier and hardy heads to make space in the bait wells for baiting better species at Cape Lambert; luck changed at FAD 8261 when hungry school of good-sized skipjack and yellowfin (45cm-58cm) came on; investigated FAD 8143 and decided to go back and tie up on FAD 8261, fish it in the morning with the 2.5 tanks of bait left and head for the seamount west of Cape Lambert before going in to bait.

#### 11<sup>th</sup> June

0530hrs let go of FAD; 0550hrs commenced chumming FAD but slow bite and not many fish came on; 3 tagged and decided to move on to FAD 8143 before attempting the seamount west of Cape Lambert; heading to FAD 8143 and came across Frabelle PS vessel; radio message to PNG observer onboard for tags; reply was vessel would take tags to Lae; 0715 hrs commenced chumming on FAD 8143 but no bite despite fish being present; continued on to seamount, but no activity on the seamount so turned around to go to FAD 8465 and FAD 8252 before heading in to bait at Cape Lambert; anchored at Cape Lambert 2006 hrs; total for the day 18 only (SKJ 13, YFT 5).

#### 12<sup>th</sup> June

First set at 0200hrs, 185 buckets of mainly anchovy and herring; decided to do second net and fully load before heading back to FAD 8143 and FAD 8261 for a second shot, before circling a group of FADs back to Cape Lambert via the seamount to the west with numerous free schools chummed unsuccessfully yesterday;. second set at 0300hrs, 80 buckets of the same mix of bait; anchor up at 0400hrs and set course for FADs NW of Cape Lambert; FAD 8143 no response to chumming despite fish present at FAD - probably plenty of natural bait in the water; FAD 8261 no fish coming on once again; FADs 8258, 8388 and 8304 the same; FAD 8439 chummed and response from mainly small sized yellowfin (<30cm) - a few tagged and headed for the seamount

west of Cape Lambert before going in to bait; no activity at the seamount in dwindling light so headed back to baitground at Cape Lambert to load up then head for the line of FADs bordering the south edge of the Morgado Square; first net at 2300hrs under dark drizzling conditions produced 27 buckets of anchovy.

### **13<sup>th</sup> June**

Second net produced nil; headed for the FADs along the southern edge of the Morgado square at 0130hrs; first 4 FADs yielded nothing and all new FADs; decided to head north towards New Hanover fishing for free schools and log schools with the 3.5 tanks of bait; numerous logs en route to New Hanover but little response to chumming; a final free school before entering Byron Strait finally gave the boys some action and were asked to land large kawakawa for the NFC staff - had a morale boosting effect on the crew, landing large fish; total for the day 81 (SKJ 65, YFT 16); baiting tonight at Nusandaula and heading for Tench in the morning after 0400hrs bait shot; hope for clouds...

### **14<sup>th</sup> June**

First set at 0400hrs, for 136 buckets of sprats, sardines and fusilier; second net at 0450hrs - 15 buckets of much the same loaded; anchor up at 0600hrs and headed for Tench; fish started coming on at about 1130hrs with three schools netting a good return; 677 tagged (SKJ 448, YFT 24, BET 5); used all the bait by 1500hrs and headed back to Nasandaula to bait and return to Tench tomorrow before heading in to Kavieng for the full moon howling and radar repairs.

### **15<sup>th</sup> June**

First net at 0100hrs - 5 buckets of small fusilier and sprats; decided to head south and try to get at some free schools along the current outside Byron Strait; one school chummed and 3 YFT tagged before the crew let fly on some nice sized kawakawa; headed in to Kavieng for the full moon break, and alongside the fisheries wharf at 1130hrs; met up with ADL and SJN, delayed arrivals from Tokua; NFD radar tech (Bibo Beti) also on hand to fix navigational radar but no parts for bird radar; the howling officially started, as did provisioning; State of Origin viewing in town, but unwelcome result for some (NSW Blues win 18-8).

### **16<sup>th</sup> June**

Early start with bonus payments, market visit, 40KI fuel loaded (10 KI in credit for next visit) and most provisioning completed; Bibo and Caroline to airport for 1430 hrs flight, visit to College and more provisions; long night at Nusa in company of senior officers and political strategy for election of future member for Marovo (and likely Minister) completed.

### **17<sup>th</sup> June**

Inevitable slow start to the day; finished provisioning and market late AM; customs clearance 1330 hrs, then away 1500 hrs after slight delay, with NFC Leilani crew Malakai onboard; good steam to Nusandaula, with one wahoo lost and one tazar ~ 5 kgs caught on new reel; anchored 1730 hrs in 25m after deploying light boat; intermittent rain and good cloud cover; first haul 2030 hrs disrupted by strong current and only 24 bkts of mixed bait; second set on light boat 0915 hrs with better signs - 185 bkts of mostly larger sardines, but carefully loaded and survival good; two tazar in net; up anchor 2200 hrs and headed for area south of Tench where fish caught on previous visit(14th June).

### **18<sup>th</sup> June**

Drifting from 0330 hrs ~ 6 nm south of Tench; conditions lumpy, with west wind, intermittent rain and confused swell; start fishing 0610 hrs on typical Tench bird piles..mostly MT and AT, but with some YF; not good biting on the large sardines; one school 0640 hrs for 6 YF, another at 0750 hrs for 128 fish (112 YF, 16 SJ), then 36 YF at 0930 hrs with numerous large MT and some RR also poled; headed south-west at 1100hrs to check 551m seamount on Tench-Emirau ridge, but no fish seen, then headed towards Ysabel Pass for baiting; regular rain making searching difficult; free school along current line 1330 hrs but no bite; nothing else on the way in, and anchored inside NE Pass 1745 hrs in 22m, with good shelter from the stiff westerly; daily total 170 with 91%

YF (154), mostly 50-60cm; possibly 60 bkts of bait left; good bait showing from the start - first net 2000 hrs ("one net half let go") .. 285 bkts loaded, plus 30 already held - silver sprat and gold anchovy; emptied P3 and topped up P1; anchor up 2100 hrs and headed for TAO 2N 147E via top end of pass at~ 250nm distant.

### **19<sup>th</sup> June**

Good passage overnight - west of Mussau in morning, with low NW swell and light rain; first sighting 0940 hrs - good log with numerous breezers all around, mostly small-medium SJ but some large YF; no bite .. very frustrating but not unusual for log rippers; second log soon after but no jumpers and possibly just bait; third good log 1100 hrs but with poor signs; persisted for some time with another log 1320 hrs with good signs underneath; some jumpers near but again no bite after several passes; first free school 1450 hrs - mostly YF jumpers but still no bite; sunset school of large YF 1750 hrs with dolphins nearby but no chance of attracting; an unwelcome skunk for the day ... headed for TAO Eq 147E at reduced speed - lumpy sea with variable swell not comfortable for drifting.

### **20<sup>th</sup> June**

Drifting from 0400 hrs near TAO Eq buoy; started fishing 0540 hrs in partial light but never any good signs, unlike previous visit; gave up 0630 hrs and opted to head for TAO 2N, with almost 4 tanks left; good log just after 0800 hrs but mostly small R/R and mahi, with a few tuna jumpers; small log 1040 hrs with big ball down at 60m but did not come up; crossing the equator ceremony for 3 initiates; showing respect for King Neptune seemed to have an immediate effect, with good free school nearby, but did not bite in middle of day with oily calm sea; nothing all afternoon until came across a large area of rippling/jumping SJ at 1600 hrs, about 50nm south of TAO 2N; good slow bite in repeated passes for two hours for 642 fish, all SJ; with just one bait tank left, opted to head back to Manus, to be able to bait Tuesday night and save a day; over 2000 for the cruise now and spirits better after the smelly day yesterday and most of today; will check TAO Eq on the way south (~ 0230 hrs) but only stop if masses of fish, which seems unlikely; BRK and SHS to disembark tomorrow.

### **21<sup>st</sup> June**

Checked TAO Eq at 0230 hrs but no good signs, so continued south towards Manus; NE wind 10-15 kts with slop, but on port quarter; SJ jumpers with a whale 0815 hrs but did not bite; much larger area of rippling fish - large YF, SJ, MT, mahi feeding on punctifer (?) at 0920 hrs, with 4-5 medium-size whales nearby, but only two large SJ poled; one log checked but large YF only; two logs checked 1145 hrs but no signs and not chummed; good splasher 1315 hrs but did not bite; heading in when sighted NFC FAD (two months since deployment) near passage (0.8 nm) ; rippler nearby, large YF jumping and red spot down at 60m; chummed briefly before going in, without response, but might be good another time .. anchored 1600 hrs inside Seeadler Harbour (no port call); tearful farewells to SHS and BRK, who were then transported by dinghy to salubrious Harborview Hotel; no incoming passengers, it seems, so down to SJN, ADL, BES and Malakai from NFC; skunk cunningly avoided for the day, with two large SJ tagged - em tasol; once again, no fish in the dead zone out to 30nm or so from Manus; the game is afoot now for the run home, with target of 12,000 fish in 3 weeks, to reach the 40,000; first net 2000 hrs after discussion with traditional owners - first the pretender (Jack Daniels ..yes) then father of Malakai, the real deal; ~ 600 bkts, of which 180 loaded .. some weak bait included; much bait dispensed to thankful onlookers, plus predators in net, then the 3 baskets left in brine tank; second set on lightboat at 0930 hrs, for 120 bkts, to fill up, then up anchor 2230 hrs headed for TAO Eq.

### **22<sup>nd</sup> June**

Light NNW wind at 0600 hrs, 50nm south of TAO Eq; log at 0700 hrs with fish slow to come up; mostly small fish, SJ and YF, with 241 tagged (65 YF, one BE); used both for'ard tanks, so opted for change in strategy in view of weak bait with heavy mortality; will fish east towards FAD cluster and where recent p/s activity, then TAO Eq tomorrow morning before going to Nares to bait; TPJ FAD (027) at 0830 hrs with flotsam all around, but no signs and no bite; log soon after

produced 22 fish, nearly all YF; large area of logs on current line 0950 hrs but RR and mahi only; 0950 hrs good log with free school nearby - did not bite then chummed log itself which yielded a few fish (12), with 5 BE; would have been a good school at another time of day; searching made difficult much of the afternoon by heavy rain in squalls; RD 8009 missing; free school around 1530 hrs briefly rose then went down, and then lost in rain; another school lost in rain also; headed towards RD 8035 but time running out; FAD missing but some schools nearby just on dark, initially on current line then close by, with large whale (sperm?) lurking; good school and lights turned on to keep fishing; two quick bites for 98 fish (20 BE, 30 YF); all up, a day that might have been, but wasn't - 373 total with 25 BE and 124 YF (40%); finished 1815 hrs and headed for TAO Eq to drift until dawn, with ~ 100 bkts left.

### **23<sup>rd</sup> June**

Drifting 4 nm from TAO Eq 0100 hrs; few signs on buoy at 0600 hrs - chummed but nothing other than trigger fish and RR - initially despair, which turned to wrist-slitting; the morning oily calm and hot, with few signs of life on the run into Nares Harbour; revised cruise plan will now see fishing Sae/Kaniet via 547m seamount tomorrow (bait willing), return to Nares, then north of Mussau to Tench, Ysabel and Kavieng; several current lines with flotsam and a few birds checked but no bite; rippler/boiler of mostly YF 1120 hrs but no bite; ditto one hour later with larger area of SJ but much bait in water; good school of lazy jumping SJ on flying fish 1740 hrs but no bite despite several approaches to vessel; desperate search for sunset school to avoid olfactory unpleasantness but alas in vain, with heavy rain obliterating any possibility; anchored Nares Harbour 1930 hrs in 29m; another day of good fish, good bait but no chocolates; first net 0900 hrs after strong trace close to bottom; excellent haul of 500 bkts plus of silver sprat (90%) and blue anchovy; 340 bkts loaded; set for 0300 hrs departure for 547m seamount.

### **24<sup>th</sup> June**

On 547m seamount position 0615 hr with p/seiner setting nearby and other vessels in vicinity; seamount not verified by sounder and may not exist at that location; pod of pilot whales; RD 8357 apparently missing; first FAD 0800 hrs, possibly TPJ-26; few signs, no bite; another FAD (RD 8313 ) with seiner brailing nearby; long slow bite for an hour with repeated passes - 356 tagged (just 9 YF); good log at 1040 hrs but limited bite at that time of day - 9 tagged (5 YF); RD 8401 with no signs; another large log 1220 hrs but RR only; RD 8408 missing; RD 8505 15nm to SW - large log nearby but not good signs on either and only RR; no fish tagged; headed towards 816m seamount south of Kaniet Is; running school near seamount but never stopped it; numerous schools between Kaniet and Sae in the fading light - first school just 3nm W of Kaniet, but all RR (20 poled); large area of mixed RR and YF (some SJ) but never came on; sunset school at 1815 hrs saw 56 cm YF poled at stern, then futile chase of after "sunset school" at 1830 hrs; a modest 375 for the day (21 YF), but sure beats a skunk; passed 30,000 for PNGPT, so hats off to all concerned, and still 2.5 weeks to salvage more bonuses; steaming to near RD 8401 (50nm) then will drift overnight .. not enough fish north to justify staying there for the morning.

### **25<sup>th</sup> June**

Drifting from 0015 hrs north of RD 8313; start engine 0520 hrs to approach FAD; RD seiner setting on RD 8005 10nm away; slow start but kept biting for an hour, with 336 tagged (30 YF, 1 BE); TPJ 26 with few signs - very small AT, SJ and RR, but 19 tagged, mostly Z tags; RD 8357 missing; new RD FAD sighted to the NE with current line and logs nearby; logs yielded 112 fish (45 YF) but nothing on raft which appears very new indeed; kept heading south towards 547m seamount and hope to hit inshore schools in afternoon; dFAD (EU type) found 1230 hrs; Queen Evelyn nearby; also whale; some signs but middle of the day and no bite; moved closer inshore - numerous bait schools and the occasional whale, but few fish; large area of noddies with mixed fish 1550 hrs - limited bite with 4 larger (60cm) SJ tagged; several bird flocks chased but no chum thrown; eventually persuaded FM to call it a day when chasing a whale school which we were not gaining on; 535 for the day - 108 YF, 4 small BE, and turned for Nares 1730 hrs and anchored 1900 hrs for baiting; need about 180 bkts to fill three tanks and top-up - amazing bait combo; over 2,000 tagged since leaving Kavieng - modest indeed, hard won stuff; first net 2030 hrs for ~ 400 bkts, of which 230 loaded; same species (silver sprat, blue anchovy); up anchor 2100 hrs and headed for north of Mussau at slightly increased speed.

## **26<sup>th</sup> June**

Good passage overnight - north of Les Reyes Islands at dawn; large area of breezing fish with whales found immediately but not biting; another whale school 0845 hrs but not chummed; another whale on 540m seamount at 1015 hrs; same again 1100 hrs but good small YF with a log - came into sprays but no bite; bait everywhere .. at noon, extensive area of boilers/rippers actively feeding, not biting; more whales also, possibly sei; one log checked but no sign underneath; three fish poled from one boiler; good log with EU radio buoy attached 1345 hrs .. small SJ, RR and some YF .. 45 fish tagged (32 YF) and one sample of 30cm SJ (10 fish) taken; passed over 500m seamount WNW of Mussau 1550 hrs - much area around 420m; several bird flocks up and down during afternoon but not chummed; final insult at 1745 hrs with sunset school on glassy afternoon (mer d'huile) - some fish on log (not many) and rippler nearby, but no bite, despite desperate repeated entreaties; gave up 1830 hrs and headed towards Tench; a kind of yakubarai on stern .. salt will be sprinkled tomorrow and other unusual approaches to exorcise demons.

## **27<sup>th</sup> June**

Drifted from 0300 hrs 6nm north of Tench; squid caught but nothing under boat at dawn; very calm and little activity; started fishing bird piles 0800 hrs - first three with MT, RR, AT and some large scad (Dm); nothing tagged - several samples taken; large area of boilers with whales 1045 hrs - good size SJ and YF but not good bite - 35 tagged (22 YF); another similar area of boilers 1125 hrs ~ 15nm south of Tench - 65 tagged (15 YF, 3 BE); by noon, biting had eased off and birds sitting on water- malolo time - so drifted for an hour before resuming at 1330 hrs; close view of whale engulfing bait .. 5-6 boilers at any one time; 6 tagged at stern; started heading for Ysabel when good running school not boiling encountered at 1550 hrs .. biting in episodes but fished for over an hour in rain and stiff NW wind - 190 tagged (92 YF, 20 BE), with SJ to 65cm and YF similar; no visibility so headed for baitground 1700 hrs; 304 for the day (145 YF, 23 BE) and a rather modest 2,450 for the week .. hard yards but good times; anchored in north Ysabel Pass 1930 hrs, needing 200 bkts of bait to top up, with ~ 145 bkts left; net hauled 2030 hrs, with 196 bkts of silver sprat and gold anchovy loaded - virtually full up; up anchor and headed for Kavieng.

## **28<sup>th</sup> June**

Alongside Fisheries wharf 0100 hrs; samples packed and teary farewell for SJN; AM provisioning, last 10KI fuel, water; fish distributed, mostly to College (~ 750 kgs); discussion with WCS re baiting issues and other bait news from NFA re Manus; customs clearance 1500hrs then awaiting arrival of Kevin Anana from Buka; flight delayed, some crew "late" to get back, and finally departed ~ 1900 hrs; will head straight for TAO 2S with less time now to divert to seamounts en route.

## **29<sup>th</sup> June**

Good steam overnight with low SE swell; 25nm NE of Simberi at dawn - passed 700m seamount at 0300 hrs but existence not verified; 3nm off SW corner Lyra reef at 1120 hrs - fish associated with discarded net and rope, possibly dFAD raft; good bite for over an hour, and 530 tagged, mostly YF 40-75cm (449) but also SJ (37) and BE (43); freed two turtles (hawksbill) tangled in the netting plus bones of an earlier victim, plus one large RR; briefly chased flighty SJ school nearby, for 17 tagged; not enough time visit Lyra Reef closer in, so continued east towards rdv with TAO 2S tomorrow at dawn; running school 1700 hrs but did not stop it; large YF lost just on dark on troll line; called it off at 1800 hrs .. should be at TAO buoy 0530 hrs with about 140 bkts of bait; Nares bait from 25th has been very strong, Ysabel bait less so (smaller sprats). 548 fish (455 YF, 47 BE) for the day, 31,500 for PNG TP and 3000 for the bonus run.

## **30<sup>th</sup> June**

Arrived at buoy 0500hrs, only to find FV Melissa making a set.. closing rings, light raft and fish inside net, no response on VHF; checked buoy but swept clean; submitted violation report then headed for Nuguria in perfect weather, smarting from the pain of travelling 300nm for a cruel deception; redemption was however at hand .. good free school of SJ ~ 15nm SW of the buoy

produced 493 fish in a quick bite (481 SJ, 11 YF, 1 BE), then soon after found a drifting FAD with associated fish - a nice touch of irony - producing 852 fish until the bait ran out - 27 YF, 9 BE; total of 1345 for the day, so a good comeback; done and dusted by 0900 hrs; radioed ahead to Nuguria to confirm baiting will be OK tonight - ETA with anchor down ~ 2000 hrs; good marlin at noon but missed at the gaff by a troop of absolute clowns - 4 passes, no less, and not gaffed before line broke and cruise leader's hands almost gave out; imagine his fury .. but life goes on; uneventful steam in - good bird flock sightings on eastern side; anchored 2115 hrs in 30m after some difficulty with locating good bait site on rough lagoon floor, as before; bait gathered quickly, first net 2350 hrs for 198 bkts of mostly small fusiliers, with sprats (blue, turq), h/h, cardinals and many prickly Stomatopod alima.

### **1<sup>st</sup> July**

Second net on light boat 0100 hrs, for 50 bkts, so 248 total of reasonable hardy bait (small fusiliers); up anchor 0140 hrs, headed out and steamed to 20nm NE of south point, where fish and log sighted on the way in; arrived 0530 hrs in driving rain; nothing in the area of yesterday sightings; several flighty schools chased and chummed but never stopped them - mostly small fish; a nest of 4-5 radio buoys without rafts found 0930 hrs - no fish with them - maybe washed overboard; nothing until 1330 hrs - school of ~ 55cm YF 5nm south of Sable Island; 123 tagged (5 SJ); headed to west of Nuguria for possible afternoon schools; et voila, on the western edge of the Nuguria plateau, a succession of schools from 1500 hrs onwards, mostly SJ with a few YF in one patch; almost 1000 tagged from 5 schools before darkness closed in; a handy 1043 for the day, with 204 YF, all in four hours; headed back to Nuguria pass, two hours distant; dropped off fish at village with Kevin Anana, and anchored at baiting ground 2030 hrs; plan is to fish across to Nissan island, baiting there tomorrow night - first visit.

### **2<sup>nd</sup> July**

First net 0030 hrs for 96 bkts - much less than last night, but similar species composition; second set on light boat 0130 hrs for another 14 bkts in heavy rain, total 110 bkts; anchor up 0300 hrs and head 25nm to SW; drifting in heavy rain - no searching until 0700 hrs and hard even then; no sightings so headed south 0800 hrs towards 1375m plateau NE of Nissan; nothing until 1100 hrs when good running school 30nm NNE of Nissan; 481 tagged in a prolonged chase, all SJ; started to see fish near plateau 1330 hrs but nothing chummable; chased several running schools but did not manage to stop them; passed between Nissan and Pinipel ..spectacular blowholes and fierce current; anchored inside idyllic Nissan 1740 hrs .. might be one of the best kept secrets of PNG, with lagoon almost completely enclosed, over 50m depth in middle and good facilities; first net due 2000 hrs, after good signs immediately; need to fill two tanks and top up others; looked like anchovy on the sounder and bugger me, so it was .. this in a small offshore atoll; 300 bkts of large (5-6cm) gold anchovy; 170 bkts loaded and will head out 0200 hrs.

### **3<sup>rd</sup> July**

Up anchor 0200 hrs and outside pass, headed for 785m seamount to the ESE; jumpers spotted astern on dawn by Captain - turned for good quick bite - 392 tagged by 0615 hrs 4nm west of seamount; nothing as running east towards Carteret, except large pod of dolphins (several hundred) 1015 hrs; several small schools south of Carteret - 20 SJ tagged from one of them, then headed straight for TAO buoy without searching, to reach before dark; will start using Z tags for SJ < 45cm, as only ~ 1200 P tags left; no signs on arrival at buoy, then some very small fish up-current; all tags packed away when FM notes arrival of larger fish and fishing resumes after sunset, with lights on; 88 tagged in total (50 YF, 8 BE) and gave heart for tomorrow morning; 510 for the day and first bonus achieved; cruise 3 total 7658; steamed upwind and drifted overnight

### **4<sup>th</sup> July**

Start engine 0430 hrs and steam to TAO buoy; started fishing in half dark with lights on; larger fish bit for 30 minutes then moved away from buoy; good bite for 50 minutes - 541 tagged (168 YF, 21 BE) of two sizes, as last night; larger fish jumping away from buoy afterwards but did not bite; heading towards FAD 8326, ~ 40nm away, one of only two left; nice wahoo trolled 0820 hrs; SE at 15-20 kts making conditions challenging; in 8326 location 1115 hrs but seems to have gone

missing since April; then vessel turned more favourably and headed for 8259 20nm away; wind gradually moderating; crossed nice current 5 nm short of FAD position, with canoe, oil drum and log, and fish thereabouts; 214 tagged in several passes, all SJ; RD FAD 8259 in place, the last of its tribe, but no appendages and no signs underneath; fish in the area but no good school until just 2.5nm off Cape Averdy (Tinputz) - 372 tagged in very hectic burst, all SJ; one more school to finish bait, with 79 tagged before bait ran out; 1206 for the day - 168 YF and 21 bigeye; a useful and varied day; in Buka Passage 1930 hrs - will drop Kevin Anana for the night, bait at Taiof, then return in the morning to main wharf to take balance of water, provision and clear in; anchored 2045 hrs in 34m off Taiof Island in the usual spot.

### **5<sup>th</sup> July**

First net 0015 hrs for just 87 bkts - current distorted net; second on light boat 0115 hrs for just 8 bkts and about 30 small tazar (60cm); a rare third shot (for this location) 0345 hrs for 77 bkts, 172 total; up anchor 0545 hrs and alongside main wharf 0630 hrs; little action in town until 0830 hrs; provisions, customs clearance, crew shopping but no water - truck finally arrived at noon just as casting off; probably enough water to last until Noro; minor dramas with crew marginally late; several hours steam to yesterday's good fishing inshore off Cape Laverdy, but only scattered birds today; moved further offshore (~ 15 nm); fished 4 schools, all with good sharp bite, between 1530 and 1800 hrs before bait ran out; 3 pure SJ, one with some YF and high incidence of shark bite; steamed in to bait again, anchoring off Taiof in 35m at 2100 hrs; total 900 for the day (21 YF), over 9700 for the cruise and 37,003 for the project; anchored at Taiof further seaward - bait slow to gather, with first haul after midnight.

### **6<sup>th</sup> July**

First net 0100 hrs after signs mostly in upper layers - two manta rays removed during crowding, 134 mixed bkts loaded - Hq, sprats, fusiliers (Gg), sardines, priests; second set 0200 hrs on light boat, for a meagre 17 bkts; third set 0415 hrs for 33 bkts, total 184 bkts; up anchor 0500 hrs and headed west to fish other side of Buka; bad call as immediately heading into stiff SW wind and swell; turned towards Cape Hanpan (north tip Buka) with following sea; started to see birds 1100 hrs but wind gusting 25-30 kts and hard to fish; 8 SJ from one school; rounded Cape Hanpan 1330 hrs just after trolling a 20 kgs bull mahi; some shelter but still strong wind and barely fishable; four schools 5-10 nm offshore - 108 (all SJ) and 145 (4 YF) from two of them; headed for home 1700 hrs and inside passage 1840 hrs; 261 for the day - a miracle really - and over 10,000 for the cruise, but 240 short of the 4th bonus; anchored 1830 hrs closer to Taiof, to get some shelter; great SoO result even if no ABC coverage .. merde.

### **7<sup>th</sup> July**

First net 0100 hrs for 137 bkts of good bait - fusiliers, Hq, sprats; second set 0145 hrs for 37 bkts - current distorted net; also ~ 6 tazar in net, so bait did not settle; ~ 175 bkts loaded and close to 270 onboard so called it quits; into Buka 0600 hrs to anchor outside PA area, wait for BRK arrival and see how wind goes; quick provisioning, successful pick-up, then away by 0940 hrs; sea vastly different from yesterday - light wind, almost calm sea; first school 1100 hrs - lazy bite for 84 fish; second school chummed with lot of bait expended before deciding to drift until 1330 hrs at least - oily calm now; fish all around the boat while drifting; started searching 1330 hrs, with SE 10-15 kts off squalls - steadily got stronger, with fishing and searching very difficult; 3 schools fished, but almost impossible; 48 tagged from one school before darkness closed and sanity prevailed; worse was to come with generator failure due to filter blockage - tank sediment stirred up in rough sea; drifted for 7 hours whilst everything sorted; all bait died; finally started main engine early next day (0100 hrs); just 134 for the day and lucky to get that; strong wind warning current for all PNG waters but hope for better tomorrow.

### **8<sup>th</sup> July**

Started for bait ground (Taiof) 0100 hrs, anchored 0350 hrs in 32m; lights out for just 1.5 hrs - hauled 0415 (could have left until 0445 hrs with cloud) for a good result of 74 bkts; up anchor and straight to fishing ground - wind seems to have eased considerably and come around to NE; first school in rain but little wind - 817 tagged (51 YF) over the course of an hour's good biting until

bait ran out with fish still all around the boat; finished 0810 hrs and headed for Buka; alongside Nukumanu wharf 1030 hrs; quick tour in town and meeting with Andy Richards before heading to bait ground 1330 hrs; quiet afternoon for a change and preparing for a good night's baiting; a day of highs and lows - 817 tagged, 10977 for the cruise and 38,213 for the project; first net 2115 hrs (moon set now 2350 hrs); 115 bkts of good gold anchovy and fusiliers, with some priests;

### **9<sup>th</sup> July**

Second set on lightboat 0030 hrs for 37 bkts; third at the vessel for 26 bkts and final on light boat for 14 bkts, total 192 bkts - enough for day trip only, not TAO buoy; up anchor up 0530 hrs and headed out (once more with feeling ) into moderate SE wind; nothing seen all morning where previously abundant fish; two running schools 1130 and 1230 hrs - 9 fish from first; neither really paused; two more schools chased before paydirt on two schools in same area between 1430 and 1530 hrs for 398 total, all SJ; with perseverance by FM, another 386 from two late afternoon schools before bait ran out; fishing not easy - schools mostly sparse and not biting as before - hard work; all up, well pleased with the 847 for the day; 5th bonus dans la poche, over 8,000 since leaving Kavieng 11 days ago, and just 940 short of the 40,000 now; will probably stay at anchorage tomorrow AM, start preparing for the Noro return, and go out in afternoon; after clearance Monday, will go to TAO 5S (if enough bait) and steam direct to Noro from there Tuesday morning - ~ 200nm, so comfortable; just waiting for kick-off now Reds/Crusaders final - should be a cracker in front of 52,500 at Suncorp .. and it was, with a good hard win by Reds

### **10<sup>th</sup> July**

First net 0130 hrs for 60 bkts of fusiliers, Hq and priests; second haul on lightboat 0215 hrs - 31 bkts; final haul at vessel 0430 hrs for another 30 bkts, total 121 bkts; stayed at anchor all morning, making preparations for the return to Noro and for the clearance; up anchor 1200 hrs and headed back to area north of Cape Averdy; wind 10-15 kts by 1400 hrs but no swell; small flighty schools only and only one chummed at 1715 hrs, producing 100 fish of smaller size (43-47cm) than previously in this area; an unexpectedly poor day but some bait left for the TAO 5S journey tomorrow; moon very bright and with no cloud, bait will be hard won tonight; anchored 2145 hrs;

### **11<sup>th</sup> July**

First net 0230 for 60 bkts after moonset 0140 hrs and not god signs; second net 0430 hrs after one hour wait for last net of the year; despite main bamboo breaking on last set of the cruise, a respectable 60 bkts loaded, for total est. 160 bkts with carry-overs; up anchor 0630 hrs after ritual cleansing of evil spirits from vessel - after invocation, all crew plunged ensemble and swam from bow to stern; 7 kawakawa poled soon after with dead bait, a good omen; alongside 0730 hrs for clearance, water and banking; bank down - technical issues, but easy clearance and got some water; out with all crew present and accounted by 1315 hrs and so it was farewell to PNG land (PNG sea tomorrow); free schools 20-30nm off passage but not fished; continued towards TAO 5S, making only about 8 kts with head current and slowed vessel slightly

### **12<sup>th</sup> July**

Arriving in vicinity of TAO buoy after midnight and drifting until 0400 hrs; good signs at 0500 hrs and began throwing bait soon after; bite started 0515 hrs with deck lights on to read tag numbers; good steady bite for over two hours with various size fish; just when all seemed ended, FM found some more fish lurking on the wrong side (down current) of the buoy and another 300 or so tagged; bait finally ran out, with 1468 tagged - 525 YF, 89 BE; 9 tag returns, with 8 of these releases at TAO buoy on 3-4 July; at over 40,000 for the PNGTP, 13,000 for the cruise, and 7 bonuses on this stanza, smiles all round as headed for home with mission accomplished; rolling sea made the task of inventory and packing just a bit more of a final challenge; crossed into PNG waters 1700 hrs and suddenly it was 1800 hrs; rolling passage overnight but spirits high.

### **13<sup>th</sup> July**

Anchored in stream 0730 hrs awaiting clearance, and alongside 0900 hrs; charter officially concludes, with traditional farewell party later in the evening.