## **PACIFIC TUNA TAGGING PROJECT**

#### **CRUISE 4 SUMMARY REPORT**

20<sup>th</sup> February – 20<sup>th</sup> March 2008

#### INTRODUCTION

This report summarizes activities during a second 30 day tuna tagging charter in Solomon Islands, from full moon February 20<sup>th</sup> to March 20<sup>th</sup> 2008, as an extension of the Phase 1 PNG Tuna Tagging Project, and nominated Cruise 4 of the Pacific Tuna Tagging Project. The charter, again utilizing the Soltai No. 6, commenced and ended in Noro, with two brief port calls for fuelling and provisioning during that time. Fishing activity was more widely distributed throughout the Main Group Archipelago (MGA) than previously, with only minor activity in the main fishing area of the Slot, but successful visits to southern areas (Guadalcanal and Malaita) and areas west, north and east of the Slot.

### **GENERAL DESCRIPTION OF FISHING ACTIVITY**

Fishing was initially directed at north-east Ysabel, where spectacular fishing on anchored FADs was experienced for four days, involving mostly small fish with a preponderance of yellowfin, before relocating briefly to New Georgia Sound (the Slot). Good fishing around anchored FADs was enjoyed on the western side of the Slot before returning to Noro for the first of two port calls. The second cruise leg initially fished with good success south of Tetepare before moving to FADs off the weather coast of Guadalcanal, then school fish between southern Malaita and SE Guadalcanal. The weather coast FADs were revisited before returning to Noro. The final leg concentrated initially on the north-west (Ranongga/Vella Lavella/Mono), then down the east coast of Choiseul before returning to NE Ysabel, and a final day fishing west of Ranongga.

The track of the cruise, based on school and noon positions, is found below as **Figure 1** and a summary of general movements during the cruise and daily release numbers follows as **Table 1**.

Figure 1. Track during Cruise 15 20<sup>th</sup> February – 20<sup>th</sup> March 2008

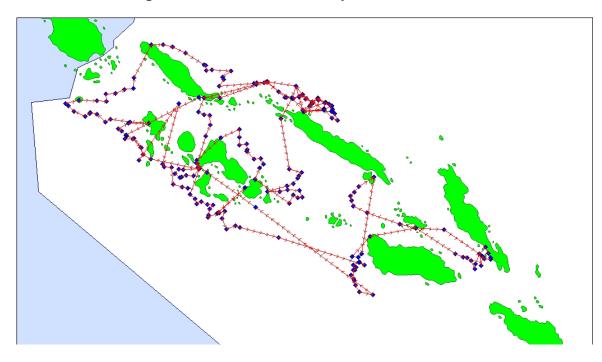


Table 1 Summary of cruise activity, with number of tagged fish released per day

Dates	Activity	Tag releases
February 20 <sup>th</sup>	Charter commences; commissioning vessel, baiting Munda,	n/a
February 21 <sup>st</sup>	Depart Noro for Choiseul, fish en route; baiting Ruruwai	4
February 22 <sup>nd</sup>	Fishing FADs NE Ysabel, baiting Rakata	1206
February 23 <sup>rd</sup>	Fishing FADs NE Ysabel, baiting Rakata	1796
February 24 <sup>th</sup>	Fishing FADs NE Ysabel, baiting Rakata	2366
February 25 <sup>™</sup>	Fishing FADs NE Ysabel, baiting Kolokofa	1154
February 26 <sup>th</sup>	Fishing across central Slot, baiting Mbili	823
February 27"	Fishing FADs off Gatokae, baiting Patutiva	777
February 28 <sup>th</sup>	Fishing FADs off New Georgia, steaming to Noro (9336)	1210
February 29 <sup>th</sup>	Refuel and provision Noro, baiting Munda	n/a
March 1 <sup>st</sup>	Personnel changes, fishing FADs west of Munda, baiting Munda	0
March 2 <sup>nd</sup>	Fishing FADs off Rendova, baiting Patutiva	488
March 3 <sup>rd</sup>	Fishing FADs south of Tetepare, steaming overnight	1325
March 4 <sup>th</sup>	Fishing FADs NW Guadalcanal, baiting Taroniara	717
March 5 <sup>th</sup>	Fishing SW Malaita, baiting Torahira	518
March 6 <sup>th</sup>	Fishing SW Malaita, baiting Taroniara	544
March 7 <sup>th</sup>	Fishing FADs E of Russell, baiting San Jorge; steaming overnight	218
March 8 <sup>th</sup>	Fishing FADs NW Guadalcanal, steaming overnight (4733)	923
March 9 <sup>th</sup>	Steaming to Noro (no fishing); stand down	n/a
March 10 <sup>th</sup>	Refuel and provision, Noro; personnel changes; baiting Munda	n/a
March 11 <sup>th</sup>	Fishing FADs west of Ranongga/Vella Lavella; baiting Vatoro	488
March 12 <sup>th</sup>	Fishing FADs towards Mono; baiting Mono	470
March 13 <sup>th</sup>	Fishing FADs south of Shortlands; steaming then baiting Chirovanga	0
March 14 <sup>th</sup>	Fishing eastern side Choiseul; baiting Suri	159
March 15 <sup>th</sup>	Fishing FADs towards Rakata; baiting Rakata	833
March 16 <sup>th</sup>	Fishing FADs east of Rakata; baiting Rakata	730
March 17 <sup>th</sup>	Fishing FADs north of Rakata; tied to FAD, jigging	183
March 18 <sup>th</sup>	Steaming towards S. Choiseul (no fishing); baiting Posarae/Ropa	7
March 19 <sup>th</sup>	Fishing FADs west of Ranongga, steam to Noro (2968)	98
March 20 <sup>th</sup>	Decommission vessel, charter concludes	17037

#### TAG RELEASES

Of the 30 days of charter, 24.5 days were spent fishing or baiting, with three days preparing and decommissioning the vessel, and 2.5 days in port for fuel, water, provisioning and personnel changes. Most days were productive for tuna fishing (1.5 zero catch days) with **17,025** fish tagged with **conventional tags**, at an average of 816 fish per fishing day, and **12 archival tags** deployed; on six days, over 1,000 fish were tagged, and on 14 days, over 500 fish were tagged and released, with a record number of releases (2366) in a single day achieved during the cruise.

Releases of **conventional** tags comprised 6,207 skipjack (36.4%), 10,431 yellowfin (61.3%) and 387 bigeye (2.3%). The "yellowfin plus bigeye" proportion of the catch, the highest recorded during the project at 63.6%, was largely the result of the excellent FAD fishing off NE Ysabel were yellowfin were often over 90% of the daily catch, though a relatively high % of small yellowifn was noted in most areas. Bigeye were encountered in good numbers in just one area (NE Ysabel), and were relatively rare in the catch elsewhere. The skipjack releases were approximately 50% school fish.

The Cruise 4 releases are listed by school/fishing station in **Table 3**.

**Figure 2** shows the wide distribution of the releases by 0.5 degree square, by species.

During the cruise, a high 89% of releases were made from FAD - associated schools, many off NE Ysabel but otherwise well distributed throughout the MGA.10.8% of releases were made from free schools, and very few from other school types

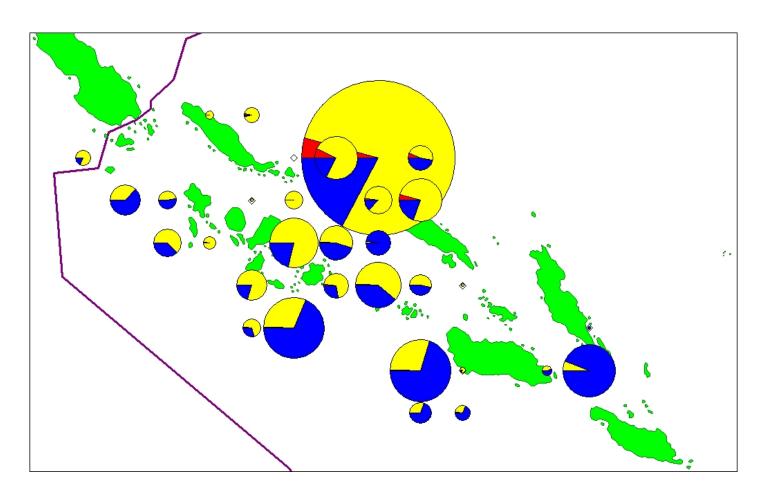
With a relatively high incidence of smaller fish, 44.6 % of releases of conventional tags were the smaller 11cm Z tags, with 76.5% (5820) of these yellowfin and 3.8 % (292) bigeye. 13cm P tag releases comprised roughly equal numbers of skipack and yellowfin. A cut-off lower size of 38cm for the larger P tags was generally enforced, though numbers of smaller fish, down to 35cm, were tagged with P tags in the latter stages of the cruise as Z tag supplies were exhausted. Skipjack smaller than 35cm were generally not tagged.

### **Archival tag summary**

During Cruise 4, all of the available archival tags were released – 11 yellowfin 63-81cm with MK9 tags, and one bigeye (60cm) with the single LTD 2310 tag. Two of the releases were on free schools and the remainder on anchored FADs.

Figure 2. Distribution of releases by half degree square, by species, for Cruise 4 (20/02 to 19/03/2008)

Maximum circle size 7500 fish; blue = SJ, yellow = YF, red = BE



#### BAITING

Baiting was generally good and often exceptional during the cruise. Baiting was carried out on 23 nights, in 14 locations. On eight occasions, a single haul was sufficient to fill the tanks, with the surplus released, and on another four occasions, a single haul was used to top up existing supplies to fill tanks. The number of buckets actually loaded per night averaged in excess of 200 over the 23 nights of baiting on the cruise, but of course this considerably underestimates the actual average catch per night.

Anchovies (*Encrasicholina devisi, heterolobus*) were dominant in the catch at most locations, with the ocean anchovy (*E.punctifer*) dominating large catches at two locations (Rakata, Suri) this cruise. Sprats (*Spratelloides gracils, S. delicatulus, S.lewisi*), sardines (*Sardinella sirm, S. clupeoides*), fusiliers (*Gymnocaesio*, *Pterocaesio*) and herrings (*Herklotsichthys quadrimaculatus, Pellona ditchela*) were also important contributors.

On this cruise, Rakata, Munda and Patutiva were exceptional locations. Several currently unregistered locations (Taroniara, Tarohira, Chirovanga, Mono) were fished with mixed success. Predators, notably *Ulua mandibularis* and *Caranx tille*, disrupted baiting activity at several locations, whilst dolphins were interested bystanders at two locations.

The table below summarizes bait catches by location during Cruise 4.

Table 2. Summary of baitfishing activity during Cruise 4

Date	Location	Catch (bkts loaded, hauls)	Species
Feb 20 <sup>th</sup>	Lodumaha (Munda)	87 (4)	Anchovy (devisi), Pellona
Feb 21 <sup>st</sup>	Ruruwai (Choiseul)	85(2)	Anchovy (devisi)
Feb 22 <sup>nd</sup>	Rakata (Ysabel)	235 (3)	Anchovy (punctifer)
Feb 23 <sup>rd</sup>	Rakata	280 (3) +	Anchovy (punctifer)
Feb 24 <sup>th</sup>	Rakata	270 (1) +	Anchovy (punctifer)
Feb 25 <sup>th</sup>	Kolokofa (Ysabel)	177 (2) *	Sardines, anchovy
Feb 26 <sup>th</sup>	Mbili (Marovo)	150 (4)	Anchovy (het, devisi), sprats
Feb 27 <sup>th</sup>	Patutiva	296 (2) +	Anchovy (devisi, het), sprats
Feb 29 <sup>th</sup>	Munda	256 (1) +	Anchovy (devisi), Pellona, Hq
March 1 <sup>st</sup>	Munda	163 (1) *	Anchovy (devisi), Pellona, Hq
March 2 <sup>nd</sup>	Patutiva	270 (2) +	Anchovy (devisi, het)
March 4 <sup>th</sup>	Taroniara (Central)	263 (1) *	Anchovy (devisi), fusiliers (Gg)
March 5 <sup>th</sup>	Torahira (Malaita)	123 (2)	Sardine (As, Sb), anchovy
			(indicus, insularis; Tb)
March 6 <sup>th</sup>	Taroniara	263 (3)	Sardine, anchovy (d), Rk
March 7 <sup>th</sup>	San Jorge (Ysabel)	280 (1) +	Anchovy (devisi, het), fusiliers
March 10 <sup>th</sup>	Munda	300(1) +	Anchovy ( <i>d,h</i> ), sardine, Hq, Pell
March 11 <sup>th</sup>	Vatoro (Vella Lavella)	98 (4)	Anchovy
March 12 <sup>th</sup>	Mono	23 (3)	Sprats, fusiliers, cardinals
March 13 <sup>th</sup>	Chirovanga (Choiseul)	181(3)	Sprats, sardines
March 14 <sup>th</sup>	Suri	230 (1) *	Anchovy (punctifer)
March 15 <sup>th</sup>	Rakata (Ysabel)	124 (2)	Sardine
March 16 <sup>h</sup>	Rakata	31 (3)	Sprat
March 18 <sup>th</sup>	Posarae (Choiseul)	176 (2)	Anchovy (h), sprat (g)

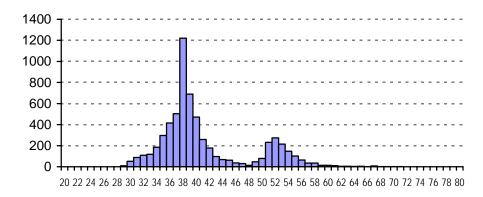
<sup>\*</sup> partial loading, to top up existing load; + catch in excess of capacity, surplus released

### SIZE DISTRIBUTION OF TAGGED FISH

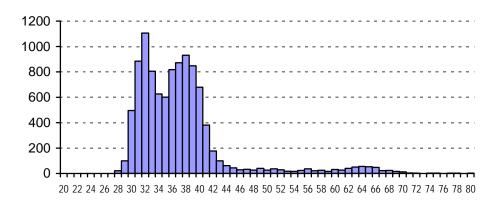
**Figure 3** shows the size distribution of fish tagged during the cruise. The skipjack size distribution shows two clear modes, at 38 and 52cm respectively. Many small skipjack (< 35cm) were not selected for tagging; most of the larger skipjack were from free schools. The yellowfin size distribution was polymodal, with primary modes at around 32 and 38cm, and a significant tail of larger sized fish. The good number of bigeye taken (386) was in the range 32 - 44cm.

Figure 3. Size distribution of fish tagged Cruise 4 (21/2 to 19/3/2008)

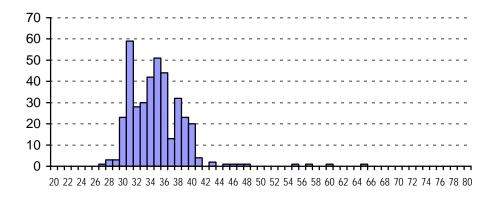
#### SKIPJACK n = 6206



#### YELLOWFIN n = 10425



### BIGEYE n = 387



A compilation of the daily log extracts, detailing daily activities, is provided as **Appendix 1**.

### **ACHIEVEMENTS**

The record number of fish tagged during the cruise – over 17,000 and nearly two thousand more than during any of the previous 7 monthly charter periods - was also notable for the very high percentage of yellowfin and bigeye in the catch – over 60%, bringing the overall project percentage of yellowfin and bigeye to 40%. The very large number of juvenile yellowfin tagged (~ 6000 with Z tags), mostly off NE Ysabel, was unique and will hopefully provide insights on recruitment to the domestic and other fisheries in the future. Significant numbers of larger (> 60cm) yellowfin – in excess of 300 – were caught but only a small number of archival tags was available for tagging these fish. A useful number of bigeye was tagged but interestingly, as on Cruise 3, in just the one area NE of Ysabel, where bigeye were also tagged 20 years before on the Te Tautai.

As per directions, much greater spatial coverage was achieved on this cruise, with fish tagged in twenty nine 30 minute squares, and releases for the first time off Guadalcanal, Malaita, east Choiseul and near Mono

Tag returns of the smaller fish by the purse seine fleet will hopefully not be received in good numbers for some time - at the time of reporting (20<sup>th</sup> March), very few tags had been returned from the Cruise 4 releases other than the 10 or so recaptures on the Soltai 6.

The cruise was manned at most times by just 3 persons – 2 SPC and one observer – and this was generally sufficient, with no biological samples being taken, to stay ahead of what was a hectic game. This meant heavy reliance on the Chief Engineer as the third tagger, which worked well. The presence of the tried and true "usual suspects" contributed greatly to the success of the cruise, as did the dedication of the officers and crew of Soltai 6, and the support of SFPL and NFD. Solomon Islands fisheries observer John Agi, FFA's Ambrose Orinia'ha and Cynthia Wickham all made very useful contributions to the work of the cruise.

And a final farewell and heartfelt thanks to the officers and crew of the Soltai 6, who have served us magnificently during the 8 months of charter, through thick and thin, good times and bad.

TABLE 3. Tag releases (all tags) by school during Cruise 4

Project Papua New Guinea tagging project				Cr	uise	15 <b>To</b>	15	Vesse	el: SOLT	TAI 6				
Event	Tagged	d Sch							T		SHK			
no	sch no.	Date	Lat	Lon	type	Assoc.	Start	Stop	YFT	BET	SKJ	OTH	TOTAL	bite
1	1	21-Feb-2008	0744.258S	15723.150E	1	3	1327	1330	4	0	0	0	4	0
6	2	22-Feb-2008	0709.371S	15810.403E	1	3	0759	0821	83	1	11	0	95	1
7	3	22-Feb-2008	0716.980S	15820.105E	1	3	0950	1025	254	0	15	0	269	0
8	4	22-Feb-2008	0722.601S	15831.711E	1	3	1207	1255	410	0	47	0	457	1
9	5	22-Feb-2008	0721.344S	15837.256E	1	3	1339	1430	370	6	9	0	385	0
10	6	23-Feb-2008	0721.257S	15837.239E	1	3	0605	0700	654	11	17	0	682	2
11	7	23-Feb-2008	0719.156S	15840.253E	1	3	0727	0745	33	2	13	0	48	1
12	8	23-Feb-2008	0722.455S	15843.042E	1	3	0821	0845	92	3	9	0	104	1
13	9	23-Feb-2008	0725.328S	15848.371E	1	3	0932	1026	307	6	14	0	327	5
14	10	23-Feb-2008	0722.216S	15853.066E	1	3	1107	1147	356	9	57	0	422	0
15	11	23-Feb-2008	0725.761S	15859.370E	1	3	1307	1320	156	2	55	0	213	0
16	12	24-Feb-2008	0722.262S	15853.003E	1	3	0641	0728	416	50	93	0	559	3
17	13	24-Feb-2008	0725.940S	15859.046E	1	3	0823	0940	641	31	333	0	1005	9
18	14	24-Feb-2008	0726.998S	15902.020E	1	4	1031	1049	0	0	2	0	2	0
19	15	24-Feb-2008	0734.941S	15906.813E	1	3	1151	1244	453	28	116	0	597	7
20	16	24-Feb-2008	0740.411S	15909.326E	1	3	1326	1344	39	0	1	0	40	0
22	17	24-Feb-2008	0731.031S	15858.113E	1	3	1531	1544	159	0	4	0	163	2
23	18	25-Feb-2008	0732.487S	15858.048E	1	3	0617	0638	95	5	37	0	137	0
24	19	25-Feb-2008	0726.019S	15848.409E	1	3	0808	0839	241	15	54	0	310	0
25	20	25-Feb-2008	0719.544S	15839.590E	1	3	1019	1052	357	12	68	0	437	0
26	21	25-Feb-2008	0722.187S	15831.544E	1	3	1419	1432	242	15	13	0	270	1
27	22	26-Feb-2008	0820.787S	15829.243E	1	3	0625	0717	101	1	148	0	250	2
29	23	26-Feb-2008	0826.230S	15837.158E	3 3	2 1	0905	0912	3 2	0 0	3	0 0	6	0
30	24	26-Feb-2008	0828.331S	15835.897E			0948	1003		-	252	-	254	0
31 32	25 26	26-Feb-2008 27-Feb-2008	0832.782S 0837.611S	15832.289E 15827.722E	3 3	3 3	1047 0648	1117 0708	93 85	0 4	220 28	0 0	313 117	1 1
33	26 27	27-Feb-2008 27-Feb-2008	0838.454S	15837.376E	3	3	0817	0708	56	1	49	0	106	0
33 34	28	27-Feb-2008	0843.886S	15839.859E	3	3	1030	1120	318	2	49 9	0	329	0
35	29	27-Feb-2008	0844.365S	15836.106E	3	3	1155	1210	9	0	34	0	43	0
36	30	27-Feb-2008	0842.005S	15832.288E	1	3	1252	1259	20	0	1	0	43 21	0
37	31	27-Feb-2008	0848.836S	15829.038E	1	3	1333	1354	109	1	51	0	161	1
38	32	28-Feb-2008	0816.811S	15807.513E	i	3	0632	0655	14	Ó	12	0	26	Ö
39	33	28-Feb-2008	0812.200S	15805.305E	1	3	0740	0804	113	2	28	0	143	4
40	34	28-Feb-2008	0812.360S	15759.541E	1	3	0845	0934	405	0	143	0	548	5
41	35	28-Feb-2008	0806.097S	15753.513E	1	3	1040	1105	171	Õ	28	Ö	199	2
43	36	28-Feb-2008	0800.156S	15753.366E	1	3	1158	1225	45	Ö	14	Ö	59	0
44	37	28-Feb-2008	0800.820S	15747.497E	1	3	1305	1322	74	0	6	Ö	80	2
46	38	28-Feb-2008	0747.839S	15747.404E	1	3	1557	1615	154	Ö	1	0	155	0
53	39	02-Mar-2008	0845.406S	15710.360E	3	3	0702	0804	116	0	81	0	197	4
58	40	02-Mar-2008	0853.371S	15722.544E	1	3	1113	1126	26	1	2	0	29	1
59	41	02-Mar-2008	0900.459S	15721.229E	1	3	1214	1240	99	1	42	Ö	142	0
60	42	02-Mar-2008	0857.130S	15728.796E	3	3	1338	1402	119	0	1	0	120	4
61	43	03-Mar-2008	0856.934S	15729.494E	3	3	0620	0640	65	0	3	0	68	1
64	44	03-Mar-2008	0901.504S	15733.059E	3	3	0833	0854	46	1	18	0	65	0
65	45	03-Mar-2008	0910.182S	15736.847E	3	3	1023	1056	46	0	219	0	265	1

66	46	03-Mar-2008	0908.527S	15748.114E	1	3	1231	1352	303	3	621	0	927	9
67	47	04-Mar-2008	0939.781S	15931.379E	3	3	0615	0622	25	0	5	0	30	0
68	48	04-Mar-2008	0937.500S	15927.220E	2	3	0700	0735	26	0	244	Ö	270	2
	_								_	-		_	-	
70	49	04-Mar-2008	0932.834S	15921.528E	3	3	0845	0922	187	0	230	0	417	13
71	50	05-Mar-2008	0930.904S	16108.049E	3	1	1014	1028	4	0	71	0	75	1
72	51	05-Mar-2008	0939.947S	16108.905E	3	1	1035	1059	20	0	55	0	75	5
73	52	05-Mar-2008	0932.935S	16109.987E	3	1	1117	1122	1	0	42	0	43	0
74	53	05-Mar-2008	0934.597S	16111.694E	2	1	1157	1209	Ö	0	67	0	67	Ö
						-			-	-		-		
75	54	05-Mar-2008	0935.038S	16116.694E	2	1	1332	1354	0	0	245	0	245	9
77	55	05-Mar-2008	0929.992S	16114.831E	2	1	1447	1501	0	0	13	0	13	2
78	56	06-Mar-2008	0938.615S	16104.205E	2	1	0704	0719	20	0	203	0	223	1
79	57	06-Mar-2008	0943.044S	16103.466E	2	1	0753	0800	5	Ö	33	Ö	38	3
80	58	06-Mar-2008	0935.762S	16100.473E	2	1	0909	0922	10	0	237	0	247	3
						-			-	-	-	_		
81	59	06-Mar-2008	0933.606S	16056.931E	2	1	0954	0958	0	0	1	0	1	0
82	60	06-Mar-2008	0933.202S	16053.806E	2	1	1028	1107	16	0	19	0	35	2
83	61	07-Mar-2008	0856.687S	15933.900E	2	1	0933	0940	5	0	0	0	5	0
84	62	07-Mar-2008	0851.378S	15922.398E	3	2	1110	1126	1	0	0	0	1	0
85	63	07-Mar-2008	0842.910S	15919.752E	3	3	1228	1258	93	Ö	93	Ö	186	5
	64		0839.761S		2	3	1330	1357	21	0	4	0		0
86		07-Mar-2008		15923.399E						-	=	-	25	
87	65	07-Mar-2008	0835.239S	15926.798E	3	3	1438	1458	1	0	0	0	1	0
89	66	08-Mar-2008	0937.490S	15927.049E	3	3	0714	0724	0	0	1	0	1	0
90	67	08-Mar-2008	0939.489S	15922.225E	3	3	0805	0813	0	0	5	0	5	0
91	68	08-Mar-2008	0941.480S	15924.797E	5	1	0845	0850	0	0	31	0	31	1
92	69	08-Mar-2008	0943.865S	15923.655E	3	1	0905	0933	14	Ō	240	0	254	3
93	70	08-Mar-2008	0943.860S	15922.098E	3	3	0946	0955	1	0	9	0	10	0
	_				_					-	-	_		-
94	71	08-Mar-2008	0947.970S	15920.481E	3	1	1036	1049	30	2	60	0	92	6
96	72	08-Mar-2008	0956.364S	15924.119E	3	3	1206	1228	121	3	66	0	190	7
97	73	08-Mar-2008	1001.996S	15927.350E	3	3	1316	1335	64	0	147	0	211	5
98	74	08-Mar-2008	1004.156S	15938.825E	3	3	1506	1534	39	2	88	0	129	7
99	75	11-Mar-2008	0808.578S	15627.000E	3	3	0716	0749	143	1	122	0	266	4
100	76	11-Mar-2008	0803.131S	15625.569E	3	3	0835	0902	50	Ö	6	0	56	1
	-									-		-		
101	77	11-Mar-2008	0755.443S	15619.465E	3	3	1012	1047	1	0	51	0	52	0
102	78	11-Mar-2008	0753.566S	15613.655E	3	3	1134	1154	68	0	35	0	103	2
103	79	11-Mar-2008	0749.473S	15609.196E	3	2	1251	1255	0	0	1	0	1	0
105	80	11-Mar-2008	0742.915S	15615.174E	1	3	1428	1440	10	0	0	0	10	0
106	81	12-Mar-2008	0739.631S	15559.857E	1	3	0756	0804	40	0	9	0	49	0
107	82	12-Mar-2008	0741.838S	15555.624E	2	3	0839	0910	53	0	189	Ö	242	1
107	83	12-Mar-2008	0741.0303 0735.726S		1	3	1021	1030	29	0	5	0	34	Ó
				15548.740E	-	_	-		-	-	-	-	-	-
110	84	12-Mar-2008	0734.861S	15542.882E	2	1	1122	1127	13	0	21	0	34	0
112	85	12-Mar-2008	0728.492S	15524.726E	2	1	1532	1609	25	0	11	0	36	3
113	86	12-Mar-2008	0726.634S	15522.673E	3	3	1635	1704	65	0	10	0	75	0
119	87	14-Mar-2008	0640.206S	15651.785E	1	3	0703	0718	49	0	1	0	50	0
121	88	14-Mar-2008	0654.957S	15718.194E	1	3	1123	1154	100	3	5	0	108	2
124	89	14-Mar-2008	0700.155S	15740.572E	i	3	1524	1539	1	0	0	0	1	0
										-	-	_		-
127	90	15-Mar-2008	0709.887S	15801.711E	1	3	0616	0655	112	3	55	0	170	0
128	91	15-Mar-2008	0708.939S	15811.009E	3	3	0813	0855	45	43	39	0	127	2
131	92	15-Mar-2008	0722.604S	15832.115E	2	3	1238	1303	11	1	5	0	17	0
132	93	15-Mar-2008	0721.348S	15837.349E	1	3	1343	1418	54	27	40	0	121	1
133	94	15-Mar-2008	0719.679S	15839.957E	1	3	1443	1506	19	3	21	0	43	0
134	95	15-Mar-2008	0713.0738 0722.917S	15842.781E	2	3	1539	1623	127	14	49	0	190	2
												_		
135	96	15-Mar-2008	0725.968S	15848.634E	3	3	1705	1748	80	33	52	0	165	2
136	97	16-Mar-2008	0725.827S	15848.182E	3	3	0621	0642	119	3	7	0	129	0
137	98	16-Mar-2008	0722.584S	15853.065E	1	3	0725	0739	40	2	1	0	43	2

138	99	16-Mar-2008	0726.318S	15858.559E	1	3	0827	0857	190	10	79	0	279	6
139	100	16-Mar-2008	0732.425S	15857.842E	3	3	0941	1000	16	0	1	0	17	0
140	101	16-Mar-2008	0728.690S	15903.475E	1	3	1052	1123	101	15	42	0	158	3
141	102	16-Mar-2008	0728.671S	15904.697E	2	1	1131	1138	8	0	66	0	74	0
142	103	16-Mar-2008	0733.018S	15904.917E	3	1	1209	1217	0	0	4	0	4	0
143	104	16-Mar-2008	0733.376S	15903.928E	1	3	1239	1245	13	0	13	0	26	0
144	105	17-Mar-2008	0721.919S	15831.482E	1	3	0754	0811	1	0	10	0	11	0
145	106	17-Mar-2008	0721.368S	15837.094E	1	3	0904	0934	98	9	65	0	172	0
146	107	18-Mar-2008	0709.504S	15807.803E	1	3	0200	0630	7	0	0	0	7	0
148	108	19-Mar-2008	0755.991S	15618.864E	1	3	0736	0740	1	0	0	0	1	0
149	109	19-Mar-2008	0802.916S	15625.363E	1	3	0845	0900	9	0	0	0	9	0
150	110	19-Mar-2008	0808.560S	15626.964E	1	3	0938	0952	3	0	0	0	3	0
151	111	19-Mar-2008	0813.142S	15623.812E	1	3	1028	1049	8	0	1	0	9	0
152	112	19-Mar-2008	0816.774S	15643.456E	1	3	1312	1354	74	1	0	0	75	0
154	113	19-Mar-2008	0819.424S	15650.760E	1	3	1506	1516	1	0	0	0	1	0
							<b>CRUISE 15 TOTALS</b>		10442	388	6207	0	17037	177

#### **APPENDIX 1**

#### **DAILY LOG EXTRACTS**

# February 20<sup>th</sup>

Alongside at Noro, with ship nearly ready; shopping by Cruise Leader and preparations for departure by crew; discussions with SFPL management re arrangements for Soltai 105 trial and charter. 1700 hrs departed from Noro. Crew joined by a new Captain (Ben Analau), a SI observer (John Agi), with Cynthia Wickham to join tomorrow. Headed for Munda to bait. No breeze worth mentioning at baitground, water calm with good cloud cover overhead. Light boat deployed. Cruise Leader stayed behind to do some final arrangements for the charter and check fishing condition with NFD captains. First net hauled at 2030hrs for 58 buckets of mostly anchovy and Pellona. Second net on light boat attempted with moon slightly visible from clearing cloud cover, with a good northerly breeze; hauled at 2110 hrs for 15 buckets of the same. 2130hrs relocated and set out the lights for early morning attempt. Third set hauled at 0405 hrs under bright moonlight. Bait disturbed by dolphins. 12 buckets of mainly anchovy. Fourth net hauled on light boat at 0450 hrs, for 2 buckets; anchor up 0520 hrs and headed for Noro.

### February 21st

0630 hrs alongside at Noro; final preparations before departure at 0915 hrs, heading for south Choiseul and fishing FADs en route; good weather - four FADs checked but just 4 small YF from first of these; poor signs on all FADs; headed for Ruruwai, arriving 1720 hrs to collect 10 bamboos, as pre-arranged; after some considerable stuffing around, anchored 1900 hrs for baiting in 48m. First haul under clear sky 2030 hrs for 70 bkts, mostly devisi; second haul on light boat 2130 hrs, under partial cloud, for another 15 bkts only; up anchor 2200 hrs and opted to steam overnight to be through Manning Strait by morning, to fish NE Ysabel FADs and possibly free schools.

## February 22<sup>nd</sup>

Steaming overnight through Manning Strait without incident - near NFD 09 before dawn; seiner passing nearby; nothing on NFD 09, 18 missing, then fish on NFD 10 - small, as with next 3 FADs, with much SKJ < 30cm, RR, MT and AT - 95 tagged (83 YF); moderate bite on NFD 11, with 269 tagged (254 YF); good bite on NFD 216 (NFD 12 missing) for 457 (410 YF), and finally on UNK 1 with 385 (370 YF and 6 BE) - some larger fish on this FAD - 11 P tags used; fish kept biting but ran out of prepared tag blocks and probably misssed another 40 fish. A good day, with over 1200 tagged, even if quite small; good signs on last FAD so hopefully better tomorrow; headed for Rakata 1445 hrs with a few bkts of bait left, and anchored 1615 hrs in 41m; Solomon Pearl (Gabriel) in the area and may call tomorrow; moon rise at 1950 hrs, and little cloud, so early haul(s) expected. First haul 1950 hrs for a pleasing 195 bkts of excellent punctifer of good size, then off to dinghy for second haul at 2100 hrs - 8 bkts only under very bright moon.

## February 23rd

Third haul 0300 hrs (moon very bright but some cloud; solid trace on sounder at 20m) for 32 bkts, mostly punctifer; up anchor 0350 hrs and headed for NFD UNK 1, arriving 0515 hrs; long session of good biting on mostly small fish - 682 tagged (654 YF); UNK 3 just 48 fish (33 YF), NFD 13 104 fish (92 YF), NFD 14 327 fish (307 YF) and NFD 15 422 fish (356 YF); fish gradually getting bigger, especially on NFD 15, with YF to 80 cm and SJ to 70cm; NFD 106 missing, then 213 fish on NFD UNK 2 before bait ran out - this catch on just the chumming tanks, and the FAD with just a buoy, and no raft; headed back 1330 hrs and anchored by 1530 hrs. A very good day, with just under 1800 fish and 3,000 for the trip - YF and BE still an amazing 92% and fish size much improved; only brief sight of a seiner this morning; anchored in 41m of water in similar position to last night, but much more cloud. First haul 2000 hrs, with very good signs, but spoilt by masses of trevally - 53 bkts with much large Sardinella; steamed to dinghy (in 35m) for second haul at 2115 hrs - 132 bkts of mostly Sardinella - likely high mortality. Up anchor to move further inshore for shot at 0300 hrs.

## February 24th

Third shot 0300 hrs in light rain and total cloud; huge bait mass had gathered; after emptying tanks of previous large Sardinella and the net of trevally (Ulua), loaded 280 bkts of anchovy in (apparently) only fair condition - net had billowed badly with moderate current - but later survived well; cleared decks of the carnage, and departed 0440 hrs for NFD 015; arrived 0630 hrs and good bite immediately - 559 fish (416 YF and 50 BE) tagged in 50 minutes - good % of SJ and YF > 38cm; UNK 2 even better, with 1005 fish tagged in 70 minutes - 641 YF, 31 small BE and a good % of SJ, mostly > 35 cm; paused after this to load more tags - not surprising with over 1500 fish tagged before 1000 hrs; fishing on NFD 17 not possible due to presence of dolphins and pilot whales; NFD 21 with another good catch - 597, for 453 YF and 28 BE; easternmost FAD (22) produced just 40 fish, NFD 19 just a few mahi, but 163 fish tagged on NFD 07 with just a bit of bait left in the chumming tanks - 159 YF. Headed in with rising NW wind causing some uncertainty for tomorrow - anchored 1730 hrs and the mammoth task of data entry began. A record day, in fact, with 2366 for the day (previous best 2059 on cruise 13) - 72% YF and a pleasing 4% BE; first bonus in the bag, the traditional BBQ planned (Sunday) and first haul, under heavy cloud and possible rain, expected at about 2100 hrs. Excellent catch under difficult conditions, with wind gusting to 20 kts; boat bridled late in shot - catch over 500 bkts of splendid punctifer, of which 270 bkts loaded; light boat recalled and waited out the night, hoping for wind to drop. Quick tag inventory showed that around 3,700 Z tags left - about what we have used in the past 3 days !! Two plans for consideration tomorrow, depending on weather - a suivre.

### February 25th

Left Rakata 0345 hrs heading east for NFD 07, in rolling sea with moderate NW wind; fishing spoiled by pilot whales and dolphins - bigger fish biting well but went down first - 137 tagged (95 YF, 5 BE); NFD 16 missing; NFD 14 produced 310 fish (241 YF, 15 BE); checked 695m seamount for school fish but no signs; weather slowly ameliorating; next to UNK 3 - 437 tagged (357 YF, 12 BE) before calling a halt - ran out of Z tag blocks; then checked Dufour Ridge - rising to 7m, but no fish except ripplers of RR; paused to handline for half an hour - very little current but not too many bottom fish on top (probably too shallow); final stop on NFD 216, desperately seeking larger fish but not to be - 270 small fish tagged (246 YF, 15 BE) before calling a halt when in full cry; weather still unsettled (though much improved) so chose to head for Kolokofa via Kia Passage - also appears Kumboro (Choiseul) may notbe a good baiting ground (thigh good catches on Tautai); reached Kolokofa 1915 hrs and anchored 2000 hrs; still two good tanks of punctifer left, and should load up in one shot; 1154 tags for the day and 6526 for the trip (82% YF, 3% BE) but Z:P tag ratio 3:1. First haul 2230 hrs for 165 bkts of mostly sardines - quite different from last time. Second haul on light boat 2345 hrs for 12 bkts, mostly anchovy; wind shifting to NE.

### February 26<sup>th</sup>

Reached UNK 17 at 0430 hrs (blinker on) - drifted in sloppy seas until 0600 hrs; good fish signs but difficult conditions with wind and driving rain; 250 tagged, of good size - 148 SJ, 101 YF; success with baited hooks on larger YF; nothing on GLO 191 (unlike previous visit) then found an area of school fish to the south - two rippling schools fished, the first nominally with a log (6 fish only), then the second yielding 254 fish, all of them SKJ but two, and of 35-38cm size; with little bait left, good fishing on NFD 146, with rippler nearby - 313 fish (220 SJ, 90 YF) before running out of bait; also selected fish once small tags ran out and also lowered YF limit on one cradle to 37cm - the way to go tomorrow, since now less than 2,100 Z tags left! A good day despite bad weather early, with 823 fish and the 3rd bonus in the bag. Finished fishing 1115 hrs and anchored in Mbili lagoon by 1430 hrs. Afternoon catching up on various things, after first satphone contact with Noumea around noon. First set 2045 hrs, after good signs and good haul, for just 78 bkts of anchovy; light boat set 2145 hrs for 56 bkts - story is that Mbili bait "always very smart and hard to catch". Probably two more sets at 0300 hrs.

## February 27<sup>th</sup>

Third shot under bright moon 0300 hrs for just 6 bkts; final net on lightboat 0345 hrs for 10 bkts (total a meagre 150 bkts in 4 nets); left for NFD 144 0437 hrs, arriving 0640 hrs in fair weather; selection policy agreed, with Z tags running low ie tag SJ and YF with P tags down to 38cm (mostly), tag some YF with Z tags down to 35 cm (but no SJ), tag BE of any size. Moderate bite on 144 - 117 fish tagged (85 YF, 4 BE); slow bite then on 128, with size marginal - 58 YF; 125 with a large breezer nearby, as did most FADs fished today - good bite, with some large YF and SJ - 329 tagged (318 YF); 099 notable for the breezer of large SKJ - also smaller YF near FAD, but slow bite with too much bait being used - just 43 fish tagged (34 SKJ); UNK 17 provided only slow bite so halted fishing with bait running low; last FAD (098) yielded a good bite before bait ran out - 109 YF; finished fishing 1400 hrs and headed for Patutiva, with the plan to fish east of New Georgia, on way back to Noro tomorrow. A good day on a good area of fish, with 777 tagged (78% YF) and 4th bonus achieved, on just 150 bkts of bait; selection worked well, with just 250 Z tags used (< 33%). Anchored at the now familiar Patutiva 1900 hrs. First haul 2100 hrs for possibly 500 bkts plus - at least 10 canoes lined up like bears along a salmon river, and the usual dolphins circling outside: bait much disturbed and only 120 bkts loaded before letting the rest go: moved to light boat 2215 hrs to fill up - approx 300 bkts of which 176 loaded (296 bkts total). Stand down ready for 0330 hrs departure for fishing ground (FAD 059).

# February 28th

On NFD 59 at 0630 hrs (the most successful raft on previous cruise) - large area of good sized fish including large-medium YF but only slow biting - just 25 tagged (10 YF); NFD 060 at 0745 hrs - good sized fish but again slow biting, for 143 tagged (113 YF); NFD 060 turned it on for almost an hour, but very slow on stern - 546 (405 YF) tagged, but just 40 at stern; NFD 61 with various patches of fish around, but mostly small - 199 (171 YF) tagged; NFD UNK 4 with good size fish but again slow biting - 59 tagged; NFD 063 a slow bite and mostly small fish (80 tagged); finished bait well on NFD 64 but mostly YF < 38 cm; gotta be a good day with 1210 tagged, and high YF % maintained; headed for Noro 1615 hrs, arriving 2110 hrs; rapid dispersal of various crew, but only after bonus (first 2) paid; happy all around with first cruise - 9,000 in a week ain't all bad. CJW decamped and CL preparing for a busy day tomorrow (Friday 29th - Leap Year) ....

### February 29th

Early visit to market for vegetables (Friday usually a good day in Noro), then bank for cash float to pay bonuses 3,4 and 5; the usual shopping extravaganza in Noro (not). In Soltai office for email download and reply as possible, confirmation of DB visit, hopefully Thomas arrival, Z tag order, more money for Sols account, baiting possibilities in Malaita, Guadalcanal, Fauro etc (to follow up contacts with Asery and draft letters to resource owners), additional FAD positions from NFD, confirmation of Ambrose trip (arrive 9th March) and John Agi return (10th March), Bruno and Val to arrive Sunday 23rd March, 5hp o/board motor receipt etc. Water and fuel loaded without problem, but fish an issue (approx 2t) as too small for canney and not for sale in market eventually given away at the wharf in a feeding frenzy. Good meeting with Global Investment at their office (actually the house) with Kevin Wu - very helpful and have set up meeting with Brian on Monday to work through various issues with tag returns. Two vessels fishing, one tied up/broken down, plus 2 reefers and scout boat. All going to Fiji (part of Yuh Yow) for slipping in about 6 weeks. Various visitors onboard before finally getting away at 1710 hrs for baiting in Munda. First haul 2130 hrs, after good early signs, for probably 500 bkts or more of good anchovy - 256 loaded and rest let go; dolphins circling but no mamula in the net this time; early shower and good sleep, since late start tomorrow after meeting 0915 hrs flight with D. Burgess hopefully onboard.

## March 1st

Gentle start to the day, waiting for 0900 hrs flight; DB on time and even underway by 0930 hrs with Jimmy Crockett as observer as well; great weather but sadly fish not around - 6 FADs checked but none with any serious fish; NW wind and squalls came up at 1400 hrs but turned around and soon in lee; anchored off Munda 1615 hrs and took Brian, DB and Jimmy to Munda

for farewells (to BRK); collected TSU on time on HON flight and back to boat for him, for baiting and another great two weeks of his life. Good work by DB, with satphone now working, even if the cure was a little odd (send and receive with phone in hand, not in cradle); good work also on TagDager and all very happy with his work. Not quite so happy with skunk day (the smell hangs heavy in the air!) but a good time had by all anyway. Anchored in 29m - first net 2130 hrs for ~ 300 bkts, of which 163 loaded - full tanks; resolved to head south after today's disappointment and will be west of Rendova at dawn.

### March 2<sup>nd</sup>

Steamed towards NFD 035, west of Rendova, at 0230 hrs, arriving 0530 hrs but FAD missing; 037 at 0700 hrs - best FAD of the 8 visited during the day, with mix of sizes - YF and SJ both to 70cm; long bite, with much bait used on the larger fish - 197 tagged (161 YF); next four FADs all with breezers of RR but very little tuna, at least that would bite; sea very calm, if not oily - zero wind; 29 fish (26 YF) on UNK 30, 142 (99 YF) on UNK 30, well to the south, and finally 120 (119 YF) on UNK 31 before bait finished. Limited number of Z tags used (100). Total 488 for the day, 74% YF and with good numbers of larger fish, including 2 ATs released by Thomas - very welcome after yesterday's skunk. Made a start on collecting otoliths for DGI - noted that fish full of larval/juvenile anchovy, presumably punctifer. Headed towards Patutiva 1430 hrs, and anchored 1830 hrs in 31 m. Decided to half fill tanks in two hauls. First haul 2200 hrs for ~ 300 bkts (180 loaded) then second on light boat 2330 hrs for another 90 bkts - 270 total; the usual raft of canoes loaded up with bait and predators; rested until 0130 hrs then headed for same area as today (south of Tetepare).

## March 3<sup>rd</sup>

68 tagged (65 YF); another raft close by (UNK 32) but no fish; NFD 40 with huge area of very small RR < 30cm but no tuna signs; UNK 15 with a large area of small fish feeding on squid (from night) and juv anchovy - 65 tagged (46 YF); very calm/oily conditions continuing - good bite from mostly SJ on NFD 74 - repeated passes for 265 tagged - 219 SJ of reasonable size; at this stage, opted to finish middle tanks then keep two aft tanks for fishing tomorrow morning off NW Guadalcanal after steaming o'nite; seemed to be vindicated by next FAD (72) producing 952 fish in an extended bite on not much bait - majority SJ (621) but some good YF to 67cm; began steaming 1400 hrs for GX FADs - should be there around midnight, with plans to fish the morning then bait Tulagi area tomorrow night; lost a good marlin on the troll - hook straightened (no mean feat) and fish off when too rapid reverse; beautiful steaming conditions with no wind or swell and all islands clearly visible; a restful night with no baiting but may jig on first FAD if any signs. 1325 tagged for the day - 5th and 6th bonuses - with higher SJ % (65) and mostly good-sized fish. Two tanks of bait in excellent condition - the half load strategy seems to have worked well again, with good % of heterolobus in the bait. Steaming all night.

#### March 4th

Arrived in vicinity of GX-6 0300 hrs - no signs on sounder so drifted till dawn; breezer appeared 0615 hrs - chummed and fished briefly but all small fish - 30 tagged, mostly small YF; two narrow canoes trolling but these soon headed off to next FAD (GX-5) where we met them again, plus a third; good bite depite their cowboy harassment whilst fishing - 270 tagged, mostly SJ (244) and mostly medium fish; posters and fish given to all vessels which operate from Honiara where they profit from the high fish prices (SBD 70 for medium fish), to balance high o/b fuel costs; no signs on GX-4 but good bite on GX-3 with bait running low - good mix of sizes with YF to 78cm and many SJ > 60cm; very few Z tags used - 417 tagged (187 YF) before bait ran out; a good day, at 713 fish plus 4 ATs, and closing on 12,000 for the trip. Headed for Floridas soon after 0900 hrs. Received news that Soltai 101 and 105 will start fishing next week. Uneventful steam to Floridas one tazar and one MT trolled; anchored Port Purvis (Taroniara) 1700 hrs in 50m. First haul 2100 hrs for 263 bkts of anchovy and fusiliers, with ~ 30 let go; will head out at 0200 hrs.

# March 5<sup>th</sup>

Up anchor 0200 hrs and headed through Sealark Channel to fish 10-12 nm offshore along the western side of south Malaita; started searching 0615 hrs for school fish - nothing seen for 4 hrs until after 1000 hrs; area of breezing schools possibly along a current line - four fished for not many tagged (260 - 235 SJ); slow biting and feeding on natural bait - mixed larval reef fish, crustaceans, squid etc; kept heading south but when nothing seen, turned back north for anchorage (Torahira); one good school encouraged to bite on the way back, for 245 fish (all SJ of around 3kgs), and another very close in to the beach /reef (< 0.5 nm) - 13, all SJ; bait finished at 1500 hrs; 518 fish for the day (only 25 YF) - not much for full bait tanks but a new area and all good sized free school SJ; headed into bait ground - Wakio the local had spoken to the chief by radio, after fax to John Bosco and an all clear for baiting tonight; an idyllic location inside an extended island barrier with a few narrow passages; anchored initially at 1645 hrs, in 25m. Some bait owners visited the vessel, talk story and accepted fish. Another claimant then emerged who would not allow baiting unless \$1000 paid; no choice but to move to near main pasage (Bosco area) - anchored around 2000 hrs in 43m; first net 2230 hrs, under full cloud and light drizzle, for a meagre 21 bkts; light boat not set after all the hassles.

## March 6th

Second haul 0400 hrs for 102 bkts of mostly medium size sardines and weak anchovy; up anchor and out 0515 hrs through main passage (9 24.2S 161 11.9E) - smallest bait catch for some time; headed towards Marau and found fish about half way across; just a few jumpers with a few birds in most cases but good bite from two schools (> 200 fish tagged from each) and contributions from three others; generally bit well on the less than ideal bait; several schools with larger YF and some success with baited jigs - 2 ATs; mostly SJ between 45 and 60cm, average ~ 52cm; 544 tagged for the day - 90% SJ with some mixed size YF; no Z tags used. In general, good value from the indifferent bait and got out of jail, after the events of the night before. Crew consensus not to bait at Marau, so headed back towards Floridas and will fish weather coast FADs from the NW side tomorrow (~ 9 hrs steam); anchored Taroniara 1720 hrs in 47m; hoping to fill up and head off by 2200 hrs; first net 2100 hrs for over 200 bkts, but much sardine - only 160 loaded, the rest discarded; second net on light boat 2200 hrs for 40 bkts, again much large sardine; relocated to same area baited two nights ago and will try again early AM since need strong bait for two day trip to Patutiva via weather coast FADs and those midway to S Tetepare.

#### March 7th

Third net 0300 hrs for 63 bkts of sardines and anchovy - 260 total but much of it larger sardines - OK for the short haul only. Have therefore opted to fish towards San Jorge today, bait there and try weather coast possibly tomorrow with better bait. Up anchor 0420 hrs and head past Savo towards FADs east of Russell; nothing seen until one free school at 0930hrs - just 5 fish tagged, all small YF; first FAD (214) with large area of small fish but not biting - one small YF tagged; clear that bait not much good, with large sardines and Rk; a reasonable bite on the next FAD for 186 fish (50:50 YF and SJ), then a handful on last two FADs; bait mercifully finished and headed for San Jorge at 1500 hrs; anchored 1650 hrs in 32m behind island, with the plan to fill up with good bait and head for NW Guadalcanal FADs overnight. Total 218 for the day, with 121 YF .. and passed the 13,000 mark. First haul 2100 hrs for around 500 bkts of good anchovy - 280 loaded and headed off 2200 hrs for weather coast.

### March 8th

Uneventful steam overnight to weather coast - near GX-4 at 0730 hrs; much bait died during night - overcrowding in net suspected; started fishing on GX-4 0630 hrs - small fish only; GX-5 0714 hrs - also large area of breezing small fish - most flicked off- one SJ tagged; general pattern for the day - very large breezers around FADs, as well as some free school breezers; 11 fishing stations (8 FADs) as working south along the line of G FADs; opted to spend all day in vicinity as bait had not done all that well; hard work to get fish to bite but 923 for the day - 70% SJ, mostly 38-40 cm, yellowfin of similar size (no ATs) and 8 BE; cruise total now over 14,000; finished bait

around 1530 hrs and headed for Noro, approx 24 hrs away. Good weather continues - light NE today - and should be a pleasant run in; all well and much deserved break tomorrow afternoon.

#### March 9th

Good speed during night - Hela Bar at 0800 hrs and alongside Noro 1410 hrs; uneventful passage - nothing trolled the whole way;

### March 10<sup>th</sup>

Market visit and shopping; pay crew bonus (5 bonuses); liaise with Noumea and clear correspondence; meeting with SFPL management re Soltai 105 trial period and longer term arrangements; visited Alfredo in his convalescence; departed Noro 1700 hrs for baiting at Munda - start of final leg of cruise 15. Anchored Munda in usual location - first haul 2115 hrs for around 500 bkts of good anchovy - 300 bkts loaded in good order, and stood down until 0100 hrs.

### March 11th

Steamed over night in good weather to be between Simbo and Ranongga, where often school fish are encountered, at 0600 hrs; drifted until 0630 hrs - considerable bait mortality overnight; first two FADs (56,55) with large breezers and mix of fish sizes - YF to 74cm, SJ to 65cm; 266 (143 YF, 1 BE) and 56 (50 YF) tagged respectively; FAD 54 at 1015 hrs produced 52 fish (51 SJ) and UNK8 103 fish (68 YF); just bits and pieces after that, with very little on rafts UNK7 and 53, as well as a log school which did not bite; checked two seamounts - neither with fish though one marlin seen; with little bait left, headed for Vatoro around 1600 hrs - 488 for the day - better than last year's visit to the same area, but disappointing with the large amount of fish seen; 56% YF for the day, including a good number of Z tags - approx 500 now left; anchored Vatoro in 37m 1745 hrs; one tazar trolled on the way in; first haul 2200 hrs for 50 bkts; second haul on light boat 2300 hrs for just 13 bkts - hard work; lights reset and will haul again at 0200 hrs.

## March 12<sup>th</sup>

Third net 0200 hrs for 14 bkts, final net on light boat 0300 hrs for 21 bkts, total 98 bkts in four hauls - not much but have to run with it; up anchor 0340 hrs and headed for NFD 050 ~ 35nm distant; reasonable bite on the first two FADs - 291 tagged, mostly SJ; considerable gap then to the TR FADs - harder work there, with 3 missing (out of 7), large breezers not biting and two with no fish; some fish tagged from two free schools but fast moving - one with larger SJ and YF (> 50cm); bait held up well - good heterolobus and T. baelama - and ended up with 470 for the day (55% SJ); passed the 15,000 mark for the cruise; steamed into Mono at 1800 hrs - after radio call with nursing station, went to Falamae wharf to give fish (heaps) and dialogue with chief, who accompanied us to bait ground - nice horseshoe-shaped bay in 35m, but may not be productive; anchored 1900 hrs. First haul after moonset 2330 hrs - lit up by sharp luminiscence (ghost shrimp - Lucifer ?) and 6 bkts of juv silver sprat (gracilis) - not unexpected.

## March 13<sup>th</sup>

Second haul on light boat 0030 hrs without any real hope - 4 bkts, with more Lucifer; final haul at 0300 hrs for 14 bkts; up anchor and headed for Chirovanga, with limited fishing expected en route (much shallow water); arrived at TRX-2 0700 hrs - oily calm but no signs; no fish on next 4 rafts (1,3, 5 and 10) then headed for northern tip of Choiseul - no bait thrown in anger, and fishing abandoned 1100 hrs as coming into shallow water; four good wahoo hits at top of Choiseul, 2 landed plus one RR - the only fish for the day; anchored Chirovanga 1730 hrs in 32m, after preliminary discussion with baitground owners - not quite the right ones, so to be followed up by Capt and F/M; all successful but large crowd to view proceedings; bait slower to gather, and hauled just after midnight.

# March 14th

First haul 0015 hrs for 121 bkts of mixed bait (sprats, sardine, anchovy etc); second haul on light boat 0015 hrs for 36 bkts; final haul at boat 0330 hrs for 24 bkts, total 181 bkts - not too bad if fish can be found, and now aided by SST and ocean colour maps sent from Toulouse by WJH!

Up anchor 0420 hrs and headed for FAD (about 20 nm); low NNE swell; arrived in vicinity 0700 hrs - some medium YF jumping, but not biting; 50 small YF tagged before calling a halt; nothing on next raft (UNK 35) and 05 missing; UNK 36, near the apparent cold water spot, produced 108 fish (Z tags not used), then nothing on the next 3 FADs to the east; headed for Suri still searching - one flighty free school not caught, then a huge area of breezing small SJ (25-28 cm) - catchable but of little use; heading in over hsallow water 1730 hrs and anchored 1900 hrs in 36m; not a good day - just 159 tagged (150 YF, 3 BE, 6 SJ incl two of 67cm each); 2 tanks of bait left ~ 50 bkts; good signs from outset in a lovely sheltered bay but haul delayed due to moon and then broken lateral bamboo at bow.

## March 15<sup>th</sup>

Set 0030 hrs for large haul of punctifer - over-crowded in net but 230 bkts loaded; up anchor 0115 hrs and headed for NFD 09 north of Manning Strait; NE wind and driving rain for several hours, making fishing challenging; good bite on 09 - 170 tagged, with small YF, SJ and a few BE: NFD 10 with several large free schools more or less associated - almost boiling at times; many small fish and not biting well but 127 tagged including 43 bigeye up to 40cm - one the highest ratios encountered: several flighty free schools flirted with unsuccessfully, then NFD 216 at 1230 hrs just 17 fish - too many small fish; good afternoon fishing on successively UNK1, UNK3, 13 and 14 - all with some BE, and SJ and YF sorted from the predominantly smaller fish; soon learned that the associated breezers held the bigger fish; Z tags used just on bigeye; at 1750 hrs, opted to stop fishing and keep one full bait tank for tomorrow (bait was excellent today), and headed for Rakata; light boat and vessel anchored by 1930 hrs in 40m with still some fresh NE wind; a pretty good day, and clearly a 1500 plus day if Z tags had been available - most of the smaller fish in the area are now 33-36cm so ironically, may have been better to wait 2 weeks and tag them now - such is the benefit of hindsight. 833 for the day, with the highlight the 124 BE tagged - the highest on any day in the Solomons and indeed on the project. Two tags returns also but one dropped back over the side; the one confirmed return from adjacent FAD 2 weeks ago. Several others seen on small fish but inadvertently flicked off. Weather only gradually taking up and may head for Roncador tomorrow, via FADs 14 and 15, noted BE producers. First haul likely after midnight.

### March 16th

First haul 0200 hrs after not very good indications; 61 bkts of mostly medium sized sardine; second haul on lightboat 0315 hrs for 63 bkts, again mostly sardine; just three tanks so not enough to go to Roncador; will go out 0500 hrs and fish locally; arrived at NFD 14 0615 hrs - good start with 129 fish, and continued during the day, despite large bait (sardines); 6 FADs and two free schools visited/fished for for 727 conventional tags released (213 SJ, 485 YF and 29 BE) plus 2 Ats (one BE); most fish > 40cm but some judicious selection continuing; biting rarely fierce, except on one free school (SJ 52-57cm); 4 tag recaps during the day,all having grown a consistent 2 cm in the intervening 3 weeks; presumably same fish have stayed in the area and doing just fine; finished the 3 tanks of bait by 1300 hrs (good value) and headed for Rakata, anchoring 1630 hrs in 39m - same spot as good punctifer before; beautiful weather - no wind, splendid sunset; Roncador looks good for tomorrow if bait !!! First haul likely to be after midnight, on the new day - moonset around 0130 hrs.

## March 17<sup>th</sup>

First haul 0030 hrs under bright moon in cloudless sky for nice anchovy .. but just 4 bkts; reset lights in same spot and second haul 0230 hrs after moonset for 13 bkts; final haul on lightboat 0450 hrs for 14 bkts so 31 overall; will fish one raft (UNK 1 perhaps) then drift/seamount visit until tie up to NFD 10 for an evening of jigging. Arrived at raft 0800 hrs but alas, had gone to the wrong one - NFD 216 instead of UNK1; just a few small SJ (10, 1 YF) tagged before realizing mistake, then headed for UNK1; reasonable bite, as on previous visits, before the meagre bait ran out, with 173 tagged (98 YF, 9 BE, 65 SJ and one YF AT, the last); just 183 for the day, and would have made13th bonus, if not for the navigational misunderstanding; headed for Dufour Seamount, for some crew R & R, before heading to NFD 10 to tie up for the night and maybe jig

some BE; drifted nearby before tying up at 1830 hrs; excellent final BBQ with the crew - end of a great 8 months of work together with 90,000 fish tagged in 8 months; kinds words exchanged, then back to it; fish under boat but only small YF (~ 35cm) jigged before midnight, though several larger YF lost. Rested until the pre-dawn rising ...

### March 18<sup>th</sup>

Much better success jigging from 0200 hrs onwards, until dawn; many small YF (30?) caught but not tagged; 5 medium YF (72-87 cm) YF caught and released in good condition, several others lost, and two YF ~ 37cm tagged; no sign of any bigeye, save perhaps a gill arch retreived from the depths; one tag recapture (from 3 days before) as the first fish taken; a good night, with just 3 rods fishing; cast off from FAD 0645 hrs and headed for Ropa. Uneventful passage, except for one ~ 100 kg marlin lost at prop due to pilot error; several barracuda trolled through Manning Strait and several bite-offs; anchored Posarae 1445 hrs in 40m and sent light boat to Ropa; rain and heavy cloud, so hopefull of good baiting, despite moon phase; 61 fish needed for the next bonus, and 130 for the project total of 90,000. First haul early, under cloud, cunningly made at 1945 hrs for 164 bkts of good anchovyand sprats, then to light boat at 2100 hrs for only 12 bkts; opted, at encouragement of FM and Capt, to head for Ranongga FADs (72m) to be sure of achieving milestones - concern that still just small fish in the Slot; anchor up 2200 hrs and headed off on the long overnight steam, in calm seas and now clear skies.

### March 19<sup>th</sup>

Arrived west of Ranongga at FAD UNK8 0620 hrs - 2.8 nm SSW of previous position; no signs - RR and kawakawa only; similar on NFD 054, with RR, IB and one small YF tagged; current quite different from previous visit two weeks ago and fishing condition much changed, with no breezers on FADs; NFD 55 at 0830 hrs just a few small YF, and same at NFD 56 where also 5 small paddling canoes from Simbo, at least 9 miles away - pray no wind shift for the long haul home, Scraps on UNK37 to the south, nothing around Simbo, then fished towards Rendova (4 FADs and on free school) for just 85 more fish and finally conceding defeat at 1830 hrs - finishing not with a bang but a whimper; pleasnt run into Noro, and alongside 2145 hrs. Achieved the 17,000 fish but fell just short (32 fish) of the 90,000 for the project in total. End of a great month and probably the good times had on Soltai 6.

### March 20<sup>th</sup>

In port Noro. Sadly removing gear from Soltai 6 for last time, unloading fish, paying final bonuses, scoping the new vessel and beginning preparations for the two week trial trip on Soltai 105. Charter concludes and another era begins.