

みなみまぐろ保存委員会

# CCSBT-ESC/0909/05

# Surface Fishery Tagging Program – an update

## 1. Introduction

The surface fishery tagging program was designed at the Tagging Program Workshop in October 2001. The program had the following features:-

- Tagging of 5,000-7,000 one year old SBT in Western Australia;
- Tagging of 8,000-10,000 two to four year old SBT in South Australia;
- Fish to be caught using pole and line techniques; and
- Five year timescale.

The tagging program commenced during the 2001/02 surface fishery season and finished in the 2006/07 season. Table 1 shows the number of SBT tagged in the surface fishery each season since commencement of the tagging program. The SBT tagged in 2007/08 were tagged as part of the operation of other projects.

Season	Western Australia	South Australia	Total
2001/02	2,855	464	3,319
2002/03	6,735	6,412	13,147
2003/04	5,269	5,009	10,278
2004/05	7,846	9,036	16,882
2005/06	10,231	9,884	20,115
2006/07	5,216	8,046	13,262
2007/08	82	0	82

**Table 1:** Number of SBT tagged in the surface fishery each season.

#### 2. Tag Recoveries

As at 27 July 2009, a total of 10,039 SBT had been reported as being recaptured from the surface fishery tagging program. As would be expected, most (8,852) of these fish were recovered from the sea cages in Port Lincoln tuna farms. 1,187 of these fish were recaptured from the wild, including 874 commercial fishing captures, 166 while conducting tagging in the surface fishery, 98 from amateur fishers and 49 from other sources including tags found on beaches.

Attachment A shows the straight line movement pattern for fish tagged in the surface fishery (Figure 1) and for fish tagged in the other SRP projects (Figure 2). From Figure 1, there is a noticeable increase in the number of surface fishery tagged SBT reaching New Zealand since the same time last year (see paper CCSBT-ESC/0809/07) in which only 1 SBT had approached the west coast of New Zealand. Two of the movements shown in Figure 1, with a north easterly direction to the western Pacific, are less certain than the other movements and were mentioned previously in paper CCSBT-ESC/0809/07. A new movement, heading

north to the Banda Sea is also uncertain due to conflicting measurement information received for that fish.

Summary information showing recaptures by source are shown in Attachment B.

Tag recovery activity in 2008/09 consists of the following elements:

- A private contractor at Port Lincoln acting on behalf of the CCSBT in promoting the return of tags; the collection of data on tag recapture details; and providing the information with the recovered tags to the Secretariat.
- Twenty days of observation on board freezer vessels by the above contractor to collect tags and tag recovery information. The observation period for 2008/09 had not commenced at the time of writing this report.
- A tag recovery mechanism with a Taiwanese representative in Mauritius visiting vessels, collecting tags and details, and providing rewards.
- An arrangement with an Indonesian representative for collecting tags and details at Benoa, and providing rewards within Indonesia.
- Member's fishing authorities promoting the tag recovery program in their fisheries
- Certain recreational game fishing associations within Australia publicising tag recovery by their members.
- Provision of rewards and feedback (usually in the form of recapture certificates that provides a history of the recaptured fish) to people who reported the capture of tagged fish.

## 3. The 2010 program

A draft budget for the 2010 tagging program is provided at Attachment C. The draft budget assumes continued efforts for tag recovery, but no tag deployment.

The budget also assumes that tag seeding of farms and freezer vessel observation will continue during 2010. However, a reduced number of tags is expected from the farms in 2010, and it is likely that less than 20 tags will be recovered through the freezer vessel observation in 2010. Therefore, the value of continuing the freezer vessel observation in 2010 should be considered.

**Prepared by the Secretariat** 

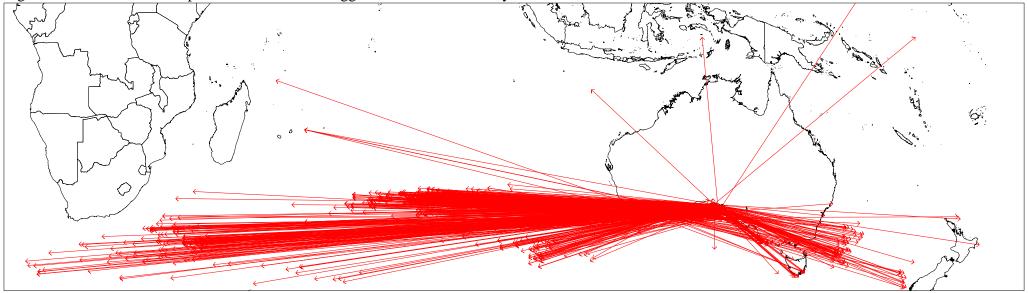
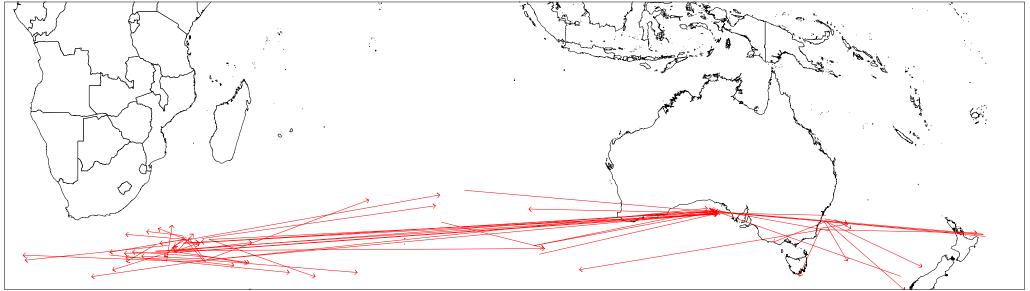


Figure 1: Movement of recaptured SBT that were tagged in the surface fishery.

Figure 2: Movement of recaptured SBT that were tagged in the non-surface fishery component of the SRP tagging program



# Source of Recaptures for the SRP Tagging Projects (Includes all data received by the Secretariat as at 27 July 2009 - most of the 2008/09 recaptures have yet to be received)

(1) The season shown is the season starting in 1 December each year and ending at 30 November each year.

- (2) Project codes are: SRP\_SEED (tag seeding into farms), SRP\_TAG (surface fishery tagging project), SRP\_TAGA (Australian east coast tagging); SRP\_TAGJ (Japanese tagging in the Indian Ocean); and SRP\_TAGN (New Zealand tagging).
- (3) With the exception of the New Zealand charter fleet, the country/fishing entity listed below is the vessel flag unless the flag is not known, in which case the crew/finder's nationality is used.

		Farr			Farming	Commercial Capture Fisheries									
		Research	Recreational	on			Taiwan								Unknown
Project	Recapture	Fishing	Fishing	Beach			(via Mauritius			New					
Code	Season			Deach	Australia	Australia	agents)	(other)	Japan	Zealand	Korea	Indonesia	Philippines	Other	
SRP_SEED	2004	0	1	0	110	0	0	v	-	-	-		0	0	0
SRP_SEED	2005	0	2	0	126	0	0	0	-	, v	0	0	0	0	0
SRP_SEED	2006	0	4	0	67	0	0	v	-	, v	-	÷	0	1	0
SRP_SEED	2007	0	0	0	110	0	0		-	-	-	-	0	0	0
SRP_SEED	2008	0	0	0	169	0	0	0	0	0	0	0	0	0	0
SRP_TAG		0	0	0	0	0	4	0	0	0	0	0	0	0	0
SRP_TAG	2002	0	0	1	0	0	1	0	0	0	0	0	0	0	0
SRP_TAG	2003	13	5	5	388	3	13		.•		0	1	0	0	0
SRP_TAG	2004	7	5	7	1788	3	53		29		0	1	0	2	3
SRP_TAG	2005	51	11	9	1346	4	50			-	0	0	0	0	0
SRP_TAG	2006	57	36	10	2110	2	155				7	2	5	5	2
SRP_TAG	2007	38	25	5	1816	4	16		89	0	3	6	0	5	0
SRP_TAG	2008	3	11	7	1386	1	59	1	24			14	0	0	0
SRP_TAG	2009	0	5	0	0	0	0	0	3	10	1	3	0	0	0
SRP_TAGA	2002	0	0	0	0	0	0	0	1	0	0	0	0	0	0
SRP_TAGA	2003	0	0	1	0	0	0	0	0	1	0	0	0	0	0
SRP_TAGA	2004	0	0	0	0	0	0	0	1	1	0	0	0	0	0
SRP_TAGA	2005	0	0	0	0	0	0	0	2	0	0	0	0	0	0
SRP_TAGA	2006	0	1	0	1	0	0	0		0	0	0	0	0	0
SRP_TAGA	2007	0	0	0	0	0	0	0	1	1	0	0	0	0	0
SRP_TAGJ	2002	0	0	0	0	0	1	0	2	0	0	0	0	0	0
SRP_TAGJ	2003	0	0	0	3	0	0	0	-	-	0	0	0	0	0
SRP_TAGJ	2004	0	0	0	3	0	1	0	13	0	0	0	0	0	0
SRP_TAGJ	2005	0	0	0	5	0	0	0	11	0	0	0	0	0	0
SRP_TAGJ	2006	0	0	0	1	0	1	0	5	0	0	0	0	0	0
SRP_TAGJ	2007	0	0	0	3	0	0	0	3	0	0	0	0	0	0
SRP_TAGJ	2008	0	0	0	1	0	0	0	0	0	0	0	0	0	0
SRP_TAGN	2005	0	0	0	1	0	0	0	0	0	0	0	0	0	0
SRP_TAGN	2007	0	0	0	2	0	0	0	0	0	0	0	0	0	0
SRP_TAGN	2008	0	0	0	1	0	0	0	0	0	0	0	0	0	0

Notes:

#### CCSBT Tagging Program Draft Budget for 2010

This proposed budget assumes that no tagging will be conducted during 2010 and the budget is therefore only directed at continued recovery of tags.

Expenditure Type	Budget \$
<b>Coordination Expenses</b>	
Tag purchase	0
Tag rewards	$40,000^{1}$
Tag collection expenses	$5,450^2$
Tag collection on freezer boats	13,500
Miscellaneous	5,000 <sup>3</sup>
Tag Deployment Expenses	
Tag placement contract	0
Vessel charter	0
Total Expenditure	63,950

<sup>&</sup>lt;sup>1</sup> This estimate assumes that 2,000 tags will be returned in 2010 at a cost of \$20/tag. It assumes that non-farm recoveries and seeded tag recoveries will be similar to previously highest levels and that there will be 600 and 300 tags recovered from these sources respectively. It further assumes that approximately 725 tags will be recovered from farms (determined from analyses of tag returns as 0.5% and 2.5% of the tags inserted in the 2005/06 and 2006/07 seasons respectively). This is down to about 25% of the 2007 farm recovery level. The 2,000 tags include an allowance for 375 tags from 2009 being reported or having the rewards claimed in 2010. This lag often occurs for some of the farms.

 $<sup>^2</sup>$  The Secretariat contracts an agent at Port Lincoln to recover tags and provide recapture details. The agent also promotes tag recovery to industry. The budget assumes 725 tags will be returned through this mechanism and includes a \$500 increase in the annual fee (to \$4,000) and a 50c increase in the per tag fee (to \$2.00).

<sup>&</sup>lt;sup>3</sup> This includes provision for freight and mailing costs for reward materials and purchase of measuring boards etc.