



CCSBT-ESC/0809/07

**Surface Fishery Tagging Program (ESC agenda item 13.4)**  
**表層漁業標識放流計画(ESC 議題項目 13.4)**

**1. Introduction**

序文

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

表層漁業標識放流計画は、2001年10月の標識放流ワークショップにおいて設計されたものである。計画は、次のような特徴を有するものであった。

- 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.
- 西オーストラリアで5,000-7,000尾のSBT1歳魚を標識放流。
- 南オーストラリアで8,000-10,000尾のSBT2-4歳魚を標識放流。
- 魚は一本釣りによって漁獲される。
- 5カ年計画。

The tagging program commenced during the 2001/02 surface fishery season and tagging continued each season (December to April) until the review of the tagging program by the Extended Scientific Committee (ESC) in September 2007.

標識放流計画は、表層漁業の2001/02漁期に開始され、2007年9月の拡大科学委員会(ESC)による標識放流計画のレビューまでの各漁期(12月から4月)まで継続した。

At its review, the ESC expressed concern that the requirement for the voluntary return of tags was restricting the value that could be obtained from the program and recommended that tag deployments not occur during the 2007/08 season and instead work would focus on methods of tagging that do not require voluntary reporting. Consequently, the tagging program did not proceed in 2007/08. 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.

そのレビューにおいて、ESCは、標識の自発的返却の要件が計画から得られる価値を制限しているという懸念を表明、2007/08漁期における標識放流を行わないかわりに自発的報告を必要としない標識放流手法に重点的に取り組むことを勧告した。従って、標識放流計画は、2007/08漁期において継続されなかった。表1は、標識放流計画の開始以降、各漁期に表層漁業において標識放流されたSBTの尾数を示したものである。2007/08に標識放流されたSBTは、他のプロジェクトの一環として行われたものである。

表 1: 標識放流尾数

漁期	西オーストラリア	南オーストラリア	合計
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

The 2007 ESC meeting endorsed continued efforts to increase tag recovery rates and estimate tag reporting rates, including tag seeding experiments in the Australian surface fishery. A total budget of \$110,000 was agreed 2007/08 for coordination expenses, which included provision of rewards and freezer vessel observation.

2007年のESC会合は、オーストラリアの表層漁業における標識埋め込み実験を含め、標識回収率の向上及び報告率を推定する作業を継続することを是認した。総予算110,000ドルが、報奨品の提供及び冷凍船のオブザーベーションを含む、2007/08漁期の調整費用として合意された。

## 2. Tag Recoveries

### 標識回収

As at 21 July 2008, a total of 8,519 SBT had been reported as being recaptured from the surface fishery tagging program. As would be expected, most (7,446) of these fish were recovered from the sea cages in Port Lincoln tuna farms. One thousand and seventy three of these fish were recaptured from the wild, including 766 commercial fishing captures, 169 while conducting tagging in the surface fishery, 91 from amateur fishers and 47 from other sources including tags found on beaches.

2008年7月21日現在、合計8,519尾の標識魚が表層放流計画で再捕されている。予測通り、ほとんど(7,446尾)の標識魚はポートリンカーンのまぐろ蓄養いけすで再捕されたものである。1,073尾が天然で再捕されており、これらは商業漁業からの766尾、表層漁業標識放流実施時の169尾、遊漁からの91尾及び海浜で見つかったものを含むその他からの47尾からなっている。

Attachment A shows the straight line movement pattern for fish tagged in the surface fishery and for fish tagged in the other SRP projects. Two of the movements shown in Figure 1, with a north easterly direction to the western Pacific, are less certain than the other movements shown in this figure as these two fish were small (22-25kg) and were reported from a cannery instead of from the capture vessel.

別紙Aは、表層漁業における標識魚及び他のSRPにおいて標識放流された魚の動きを直線で示したものである。図1に示された西太平洋の北西方向への2つの動きについて、これらの2尾が小型(22-25kg)でかつ漁獲した船からではなく缶詰工場から報告がなされたということで、本表に示されているその他の動きより確実性がおちる。

Summary information on tag releases and recaptures are set out in Attachment B. The information in Attachment B includes details of all CCSBT tags recaptured including those released in the surface fishery, releases in the various longline fisheries and some other minor releases. Attachment C provides additional details of recaptures by source.

標識放流及び再捕に関する情報の概要は別紙Bに示した。別紙Bには、表層漁業からの放流、様々なはえ縄からの放流及びその他小規模事業により放流されたCCSBT

標識の再捕に関する情報が含まれている。別紙 C に、ソースごとの再捕の詳細を示した。

Tag recovery activity in 2007/08 consists of the following elements:

2007/08 回収活動は、次の成分からなる。

- 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.  
ポートリンカーンの個人契約者が CCSBT に代わり、標識の返還の促進、再捕時のデータ収集及び事務局に対する収集した標識と情報の提供を行っている。
- Twenty days of observation on board freezer vessels by the above contractor to collect tags and tag recovery information. The observation period for 2007/08 had not commenced at the time of writing this report.  
標識及び標識回収情報の収集のため、前述の契約者による冷凍船上での 20 日間のオブザベーション。
- A tag recovery mechanism with a Taiwanese representative in Mauritius visiting vessels, collecting tags and details, and providing rewards.  
台湾のモーリシャス駐在官による、訪船、標識及び詳細の収集並びに報奨品の提供を内容とする標識回収メカニズム。
- An arrangement with an Indonesian representative for collecting tags and details at Benoa, and providing rewards within Indonesia.  
インドネシア担当官による、ベノアにおける標識及び詳細の収集並びにインドネシア国内における報奨品の提供を内容とする取極。
- Member's fishing authorities promoting the tag recovery program in their fisheries  
メンバー漁業管理当局による標識回収計画の奨励
- Certain recreational game fishing associations within Australia publicising tag recovery by their members.  
オーストラリア国内の一部の遊漁者団体による標識回収の広報。
- 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.  
標識魚の再捕を報告した者に対する報奨品及び情報提供(通常、再捕された魚の履歴を記載した再捕証明書)

### **3. The 2009 program**

#### **2009 年計画**

A draft budget for the 2009 tagging program is provided at Attachment D. The draft budget assumes continued efforts for tag recovery, but no tag deployment.

2009 年標識放流計画の予算案は、別紙 D に示したとおりである。予算案では、標識回収に関する継続的な取組を前提としており、標識放流は実施しない。

**Prepared by the Secretariat**

**事務局作成文書**

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

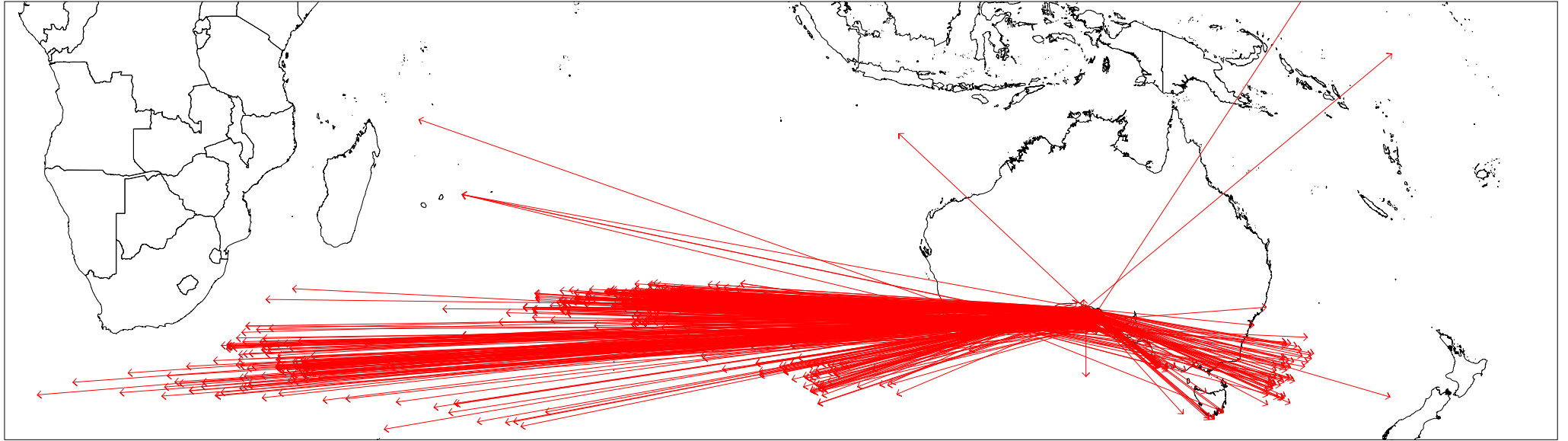
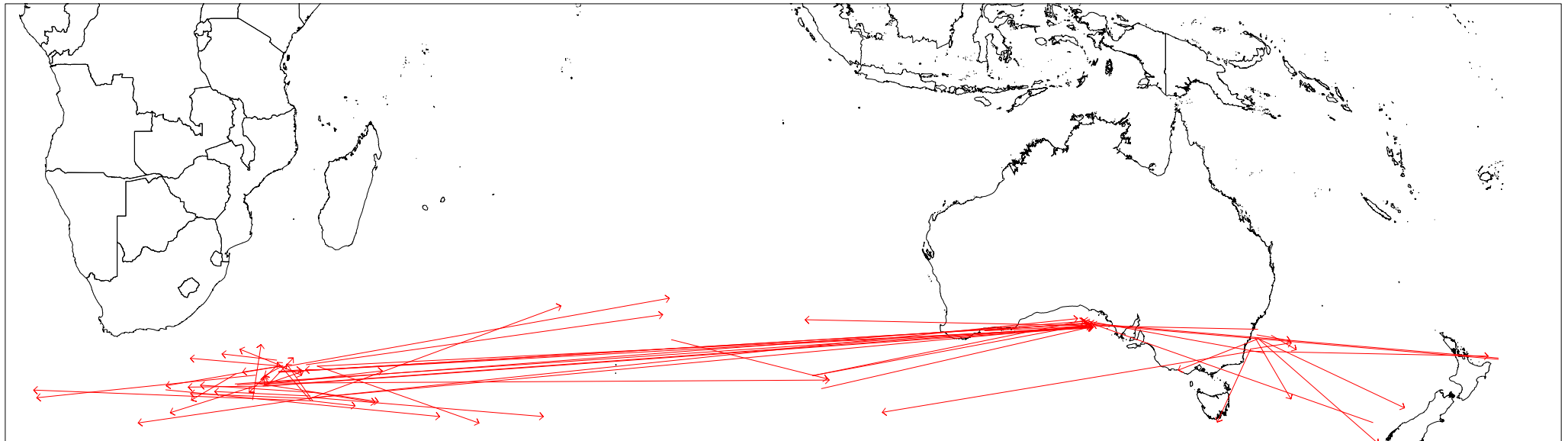


Figure 2: Movement of recaptured SBT that were tagged in the non-surface fishery component of the SRP tagging program



**Summary of the number of SBT recaptured for each month of tag releases in SRP tagging projects**  
*(Includes all data received by the Secretariat as at 21 July 2008 - most of the 2007/08 recaptures have yet to be received)*

Notes:

- (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 is tag seeding into farms, SRP\_TAG is the surface fishery tagging project, SRP\_TAGA is the Australian east coast tagging; SRP\_TAGJ is the Japanese tagging in the Indian Ocean; and SRP\_TAGN is New Zealand tagging.
- (3) The column "Farming Related Recaptures" refers to tag captures from the farm in the case of the SRP\_SEED project and the wild capture (before to going into the farm) for all other data.
- (4) Similar to "2" above, the data for the fishing seasons columns relate to the farm capture date for the SRP\_SEED project and the wild capture date (before to going into the farm) for all other data.

Project Code	Release Area	Calendar Year of Release	Month of Release	Total Number of Fish Tagged	Total Number of Recaptures	Number of Recaptures in 2000/01	Number of Recaptures in 2001/02	Number of Recaptures in 2002/03	Number of Recaptures in 2003/04	Number of Recaptures in 2004/05	Number of Recaptures in 2005/06	Number of Recaptures in 2006/07	Number of Recaptures in 2007/08	Commercial Fishing Recaptures	Research Fishing Recaptures	Amateur Fishing Recaptures	Farming Related Recaptures	Other Recaptures
SRP_SEED	Area 03	2003	12	26	7	0	0	0	6	0	1	0	0	1	0	0	6	0
SRP_SEED	Area 03	2004	1	39	22	0	0	0	22	0	0	0	0	0	0	0	22	0
SRP_SEED	Area 03	2004	2	50	13	0	0	0	12	0	0	1	0	0	0	1	12	0
SRP_SEED	Area 03	2004	3	90	66	0	0	0	66	0	0	0	0	0	0	0	66	0
SRP_SEED	Area 03	2004	4	19	5	0	0	0	5	0	0	0	0	0	0	0	5	0
SRP_SEED	Area 03	2004	12	20	5	0	0	0	0	5	0	0	0	0	0	0	5	0
SRP_SEED	Area 03	2005	1	91	21	0	0	0	0	19	2	0	0	0	0	2	19	0
SRP_SEED	Area 03	2005	2	110	48	0	0	0	0	47	1	0	0	0	0	1	47	0
SRP_SEED	Area 03	2005	3	90	36	0	0	0	0	35	1	0	0	0	0	0	36	0
SRP_SEED	Area 03	2005	4	30	22	0	0	0	0	22	0	0	0	0	0	1	21	0
SRP_SEED	Area 03	2006	1	49	12	0	0	0	0	0	12	0	0	0	0	0	12	0
SRP_SEED	Area 03	2006	2	139	24	0	0	0	0	0	24	0	0	0	0	2	22	0
SRP_SEED	Area 03	2006	3	140	31	0	0	0	0	0	31	0	0	0	0	0	31	0
SRP_SEED	Area 03	2006	12	40	11	0	0	0	0	0	0	11	0	0	0	0	11	0
SRP_SEED	Area 03	2007	1	30	4	0	0	0	0	0	0	4	0	0	0	0	4	0
SRP_SEED	Area 03	2007	2	100	28	0	0	0	0	0	0	28	0	0	0	0	28	0
SRP_SEED	Area 03	2007	3	100	44	0	0	0	0	0	0	44	0	0	0	0	44	0
SRP_SEED	Area 03	2007	4	30	21	0	0	0	0	0	0	21	0	0	0	0	21	0
SRP_SEED	Area 03	2008	1	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SRP_SEED	Area 03	2008	2	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SRP_SEED	Area 03	2008	3	156	2	0	0	0	0	0	0	0	2	0	0	0	2	0
SRP_TAG	Area 02	2002	12	51	3	0	0	1	1	1	0	0	0	1	1	0	1	0
SRP_TAG	Area 02	2004	1	35	9	0	0	0	0	4	3	2	0	3	1	0	5	0
SRP_TAG	Area 02	2004	12	50	1	0	0	0	0	0	0	1	0	0	0	0	1	0
SRP_TAG	Area 02	2005	1	137	3	0	0	0	0	0	0	3	0	1	0	0	2	0
SRP_TAG	Area 02	2006	1	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SRP_TAG	Area 02	2006	12	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SRP_TAG	Area 02	2007	1	139	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SRP_TAG	Area 02	2008	1	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SRP_TAG	Area 03 (SA)	2002	4	464	93	0	0	12	66	10	3	2	0	15	2	0	75	1
SRP_TAG	Area 03 (SA)	2002	12	4284	795	0	0	365	327	77	24	2	0	54	2	4	731	4
SRP_TAG	Area 03 (SA)	2003	3	1928	576	0	0	6	451	97	19	3	0	44	0	1	529	2
SRP_TAG	Area 03 (SA)	2003	4	200	51	0	0	0	34	11	6	0	0	3	1	0	47	0
SRP_TAG	Area 03 (SA)	2003	12	4914	1260	0	0	0	347	554	271	85	3	98	8	2	1151	1
SRP_TAG	Area 03 (SA)	2004	4	80	23	0	0	0	0	16	6	1	0	3	0	0	20	0
SRP_TAG	Area 03 (SA)	2004	12	3394	870	0	0	0	0	125	523	219	3	50	27	6	787	0
SRP_TAG	Area 03 (SA)	2005	1	5642	1265	0	0	0	0	94	814	352	5	81	55	19	1108	2
SRP_TAG	Area 03 (SA)	2005	12	4385	597	0	0	0	0	0	232	361	4	22	8	6	560	1
SRP_TAG	Area 03 (SA)	2006	1	5495	531	0	0	0	0	0	104	422	5	44	9	13	463	2
SRP_TAG	Area 03 (SA)	2006	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SRP_TAG	Area 03 (SA)	2006	12	3322	106	0	0	0	0	0	0	98	8	4	16	12	74	0
SRP_TAG	Area 03 (SA)	2007	1	4724	91	0	0	0	0	0	0	83	8	10	7	14	58	2
SRP_TAG	Area 03 (WA)	2002	1	522	15	0	1	1	12	1	0	0	0	0	0	0	14	1
SRP_TAG	Area 03 (WA)	2002	2	1655	134	0	1	39	69	19	4	2	0	21	1	3	108	1
SRP_TAG	Area 03 (WA)	2002	3	678	29	0	0	2	25	1	1	0	0	1	1	0	27	0
SRP_TAG	Area 03 (WA)	2003	1	1760	435	0	0	7	277	110	35	5	1	63	4	1	366	1
SRP_TAG	Area 03 (WA)	2003	2	3310	444	0	0	10	277	111	39	5	2	61	7	0	375	1
SRP_TAG	Area 03 (WA)	2003	3	1614	89	0	0	2	48	27	10	2	0	9	0	0	78	2
SRP_TAG	Area 03 (WA)	2004	1	2386	325	0	0	0	3	138	118	65	1	46	3	1	273	2
SRP_TAG	Area 03 (WA)	2004	2	2848	382	0	0	0	11	157	164	49	1	75	4	2	294	7
SRP_TAG	Area 03 (WA)	2005	1	3703	162	0	0	0	0	6	61	93	2	21	1	1	134	5
SRP_TAG	Area 03 (WA)	2005	2	2794	78	0	0	0	0	2	25	51	0	9	1	0	63	5









**Surface Fishery Tagging Program  
Draft Budget for 2009**

This proposed budget assumes that no tagging will be conducted during 2009 and the budget is therefore only directed at continued recovery of tags.

<b>Expenditure Type</b>	<b>Budget \$</b>
<b>Coordination Expenses</b>	
Tag purchase	0
Tag rewards	60,000 <sup>1</sup>
Tag collection expenses	8,800 <sup>2</sup>
Tag collection on freezer boats	13,500
Miscellaneous	7,500 <sup>3</sup>
<b>Tag Deployment Expenses</b>	
Tag placement contract	0
Vessel charter	0
<b>Total Expenditure</b>	
	<b>89,800</b>

<sup>1</sup> This estimate assumes that 3,000 tags will be returned in 2009 at a cost of \$20/tag. It assumes that non-farm recoveries and seeded tag recoveries do not decline and that farm recoveries will be down to 60% of the 2007 level. The 3,000 tags includes an allowance for 550 tags from 2008 being reported or having the rewards claimed in 2009. 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 2,400 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>3</sup> This includes provision for freight and mailing costs for reward materials and purchase of measuring boards etc.