

**SUMMARY OF TAGGING OPERATIONS IN THE INDIAN OCEAN
PILOT AND SMALL-SCALE TUNA TAGGING PROGRAMMES**

IOTC Secretariat

ABSTRACT

This document is a summary of the tagging operations included or associated to the IOTTP. This paper is presenting the number of fish released during these projects and the recoveries of tagged fish for each programme.

Pilot and small-scale tuna tagging programmes and other associated project handled

Since July 2004, 9 tuna tagging projects were undertaken or begun in the Indian Ocean. 7 of these projects (3 pilot projects and 4 small-scales) were related to the IOTTP and 2 are independents but associated projects (table 1).

7 projects were undertaken in the Western Part of the Indian Ocean to assess growth parameters, movement, exploitation rate and interaction between the fisheries. 5 of these were funded by the DG Fish of the European Union. Moreover, 2 projects were undertaken in the Eastern part of the Indian Ocean by SEAFDEC and OFCF.

Table 1. Description of the projects related or associated to IOTTP undertaken or begun.

Projects	Type	Dates	Main goals	Gear
Evaluation des potentialités de marquage à Mayotte	Pilot project	May 2002	Assess the possibility of undertaking a pilot project around Mayotte (Comoros) to tag medium and large YFT	Handline / Troll-line / Longline
IOTC tuna tagging consultancy in Seychelles	Pilot project	October 2002 March 2003	Test the possibility of tagging in the Seychelles waters using small longliners as platforms and using several fishing techniques	Handline / Troll-line / Longline
IOTC tuna tagging consultancy in the Sultanate of Oman	Pilot project	March 2003	Test the possibility of tagging the medium size YFT in the Omanese waters.	Handline
NRIFSF	Pilot project	January – March 2004	Tag 2000 tunas (600 YFT, 1200 SKJ, 200 BET) in the EIO	Troll-line / Pole and line / Rod and Reel / Longline
SEAFDEC	Small-scale project	November – December 2003	Tag 1000 tunas using a purse-seiner in the EIO	Purse-seine
Programme de marquage à petite échelle à Mayotte	Small-scale	March – June 2004	Tag 400 medium and large size YFT around Mayotte during the fishing season using the fishermen's boats	Handline / Troll-line
Small-scale project in the Republic of Maldives	Small-scale project	August 2004	Tag 5000 tunas around Maldives north atolls to analyse interactions	Pole and line

			with the PS fleet	
TAGFAD	Associated	October 2003	Tag with archival tags 200 tunas around drifting FADs to study the behaviour of tunas around floating objects	Troll-line
FADIO	Associated	2004 -2006	Tag with sonic and archival tags tunas around artificial drifting and anchored FADs to study the behaviour of tunas around floating objects	Troll-line

Tag releases results

Tableau 2 : Summary of the releases made by the different projects undertaken under or associated to the IOTTP.

Project	Species	Release of tagged fish	Recovery of tagged fish	Reporting rate
Mayotte Pilot	YFT	15	3	20%
	SKJ	3	0	0
	BET	1	0	0
	Subtotal	19	3	15,78%
Seychelles	YFT	13	0	0%
	SKJ	1	0	0%
	BET	1	0	0%
	Subtotal	15	0	0%
Oman	YFT	0	0	0%
	SKJ	0	0	0%
	BET	0	0	0%
	Subtotal	0	0	0%
Japanese	YFT	20	0	0%
	SKJ	572	0	0%
	BET	23	0	0%
	Subtotal	593	0	0%
SEAFDEC	YFT	930	1	0,1%
	SKJ	70	0	0%
	BET	0	0	0%
	Subtotal	1000	0	0%
Mayotte Small-scale	YFT	101	22	21,78%
	SKJ	3	0	0%
	BET	0	0	0%
	Subtotal	104	22	21,15%
Maldives	YFT	13	0	0%
	SKJ	186	0	0%
	BET	0	0	0%
	Subtotal	186	0	0%
TAGFAD	YFT	48	1	2,08%
	SKJ	0	0	0%
	BET	18	0	0%
	Subtotal	66	1	1,15%
FADIO	YFT	11	0	0%
	SKJ	1	0	0%
	BET	2	0	0%
	Other	54	0	0%
	Subtotal	68	0	0%
TOTAL	YFT	1151	27	2,35%
	SKJ	836	0	0%
	BET	45	0	0%
	Other	54	0	0%
	TOTAL	2086	27	1,29%

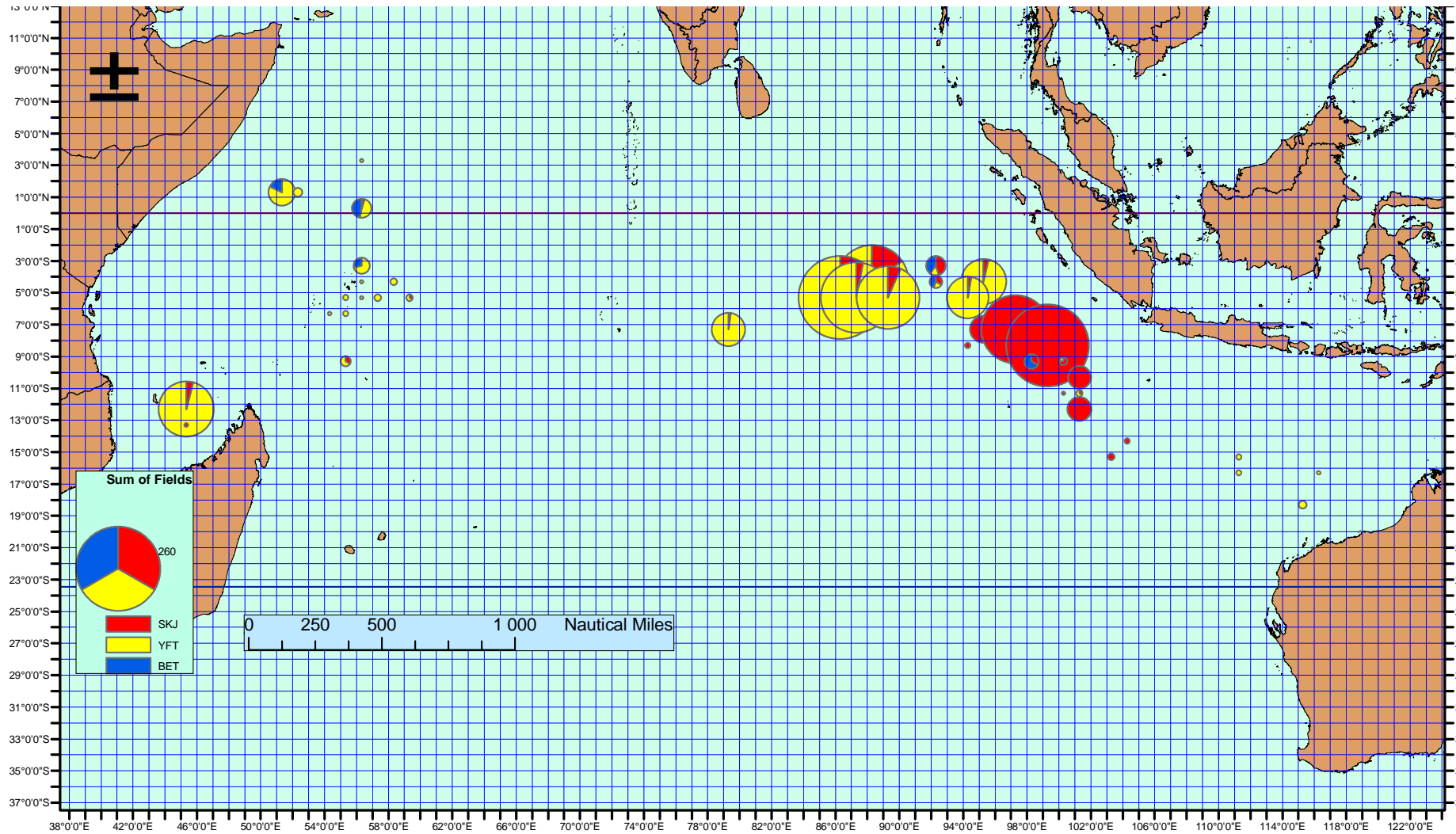


Figure 1 : Number of releases of tagged tunas by species and by 1° square.

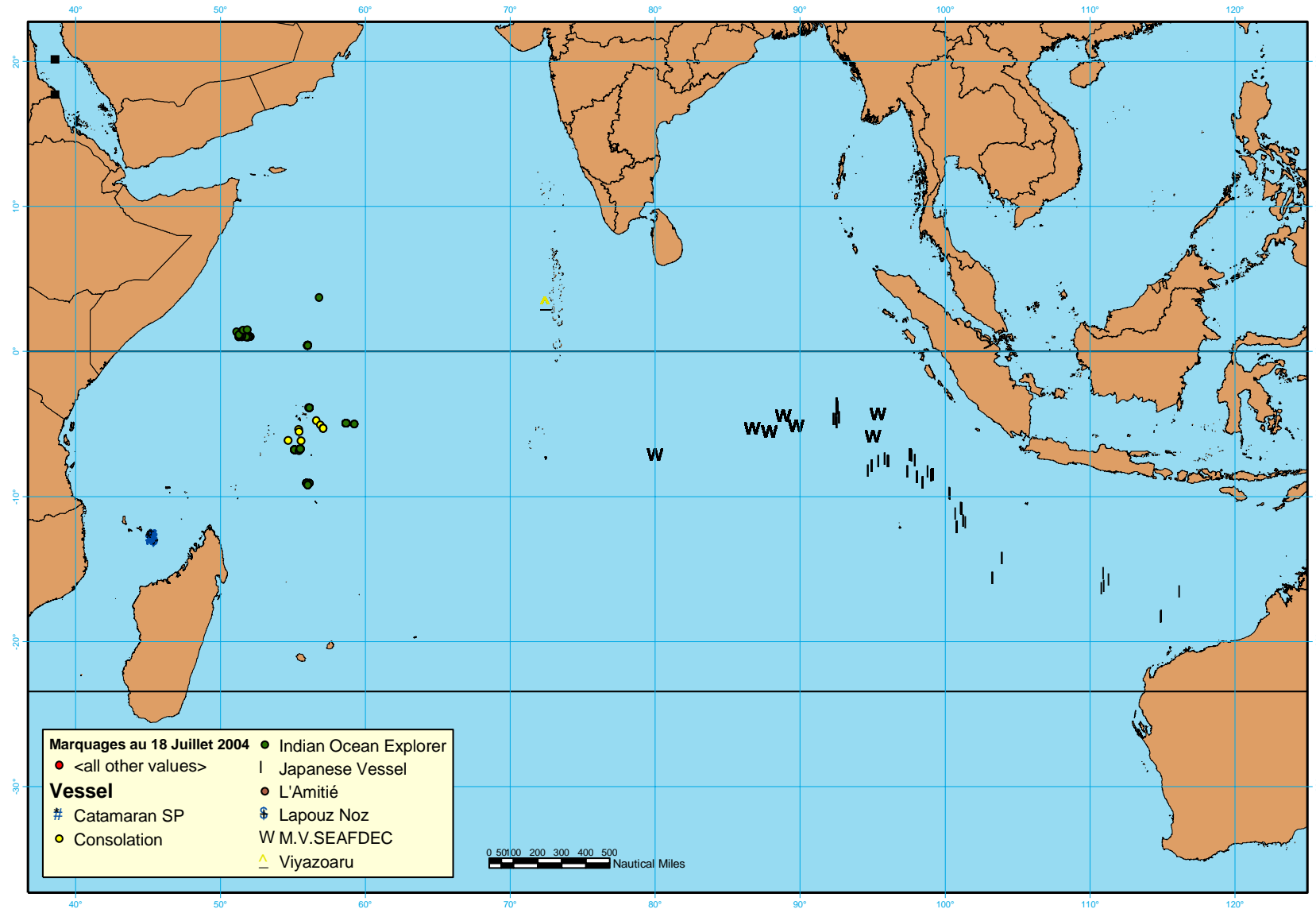


Figure 2 : Positions of the tunas released by the different vessels until 17/07/2004.

Mayotte small-scale project

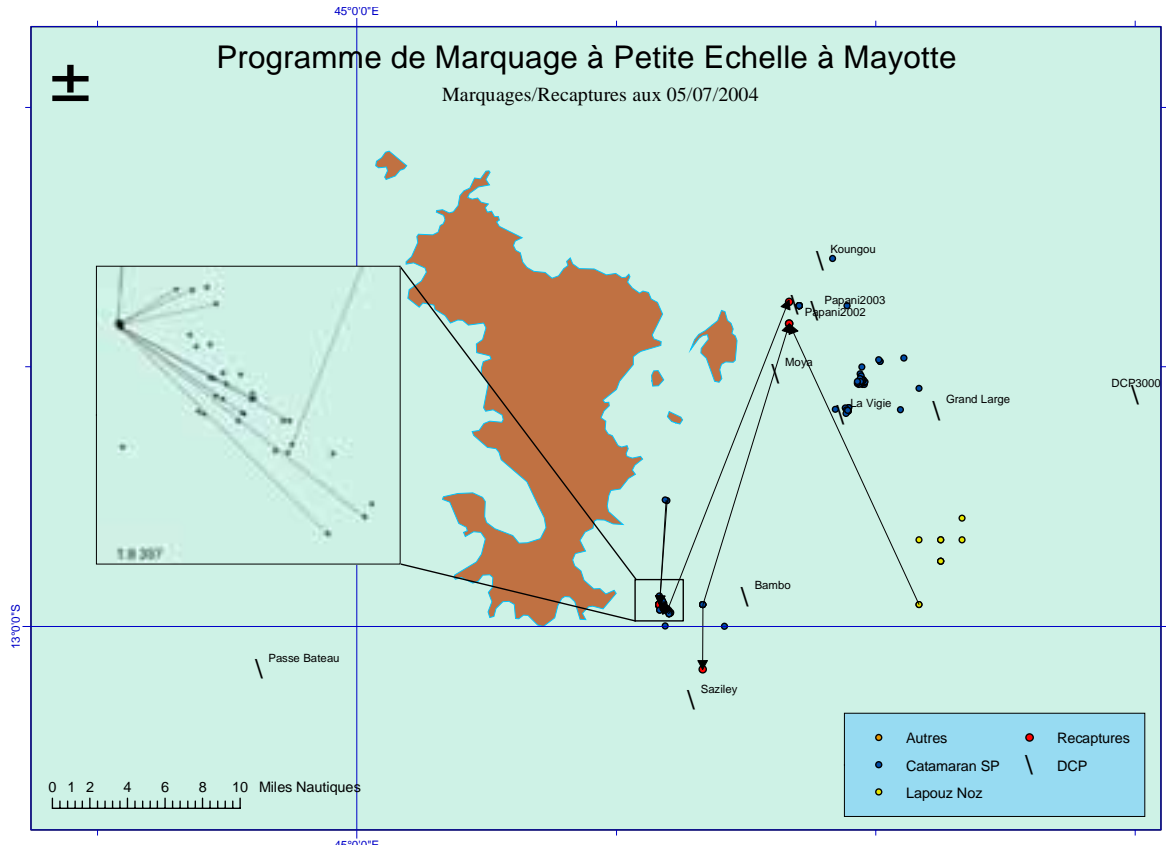


Figure 3 : Position of releases by vessels and recoveries of the pilot and small-scale tuna tagging projects in french waters of Mayotte.

Seychelles pilot-project

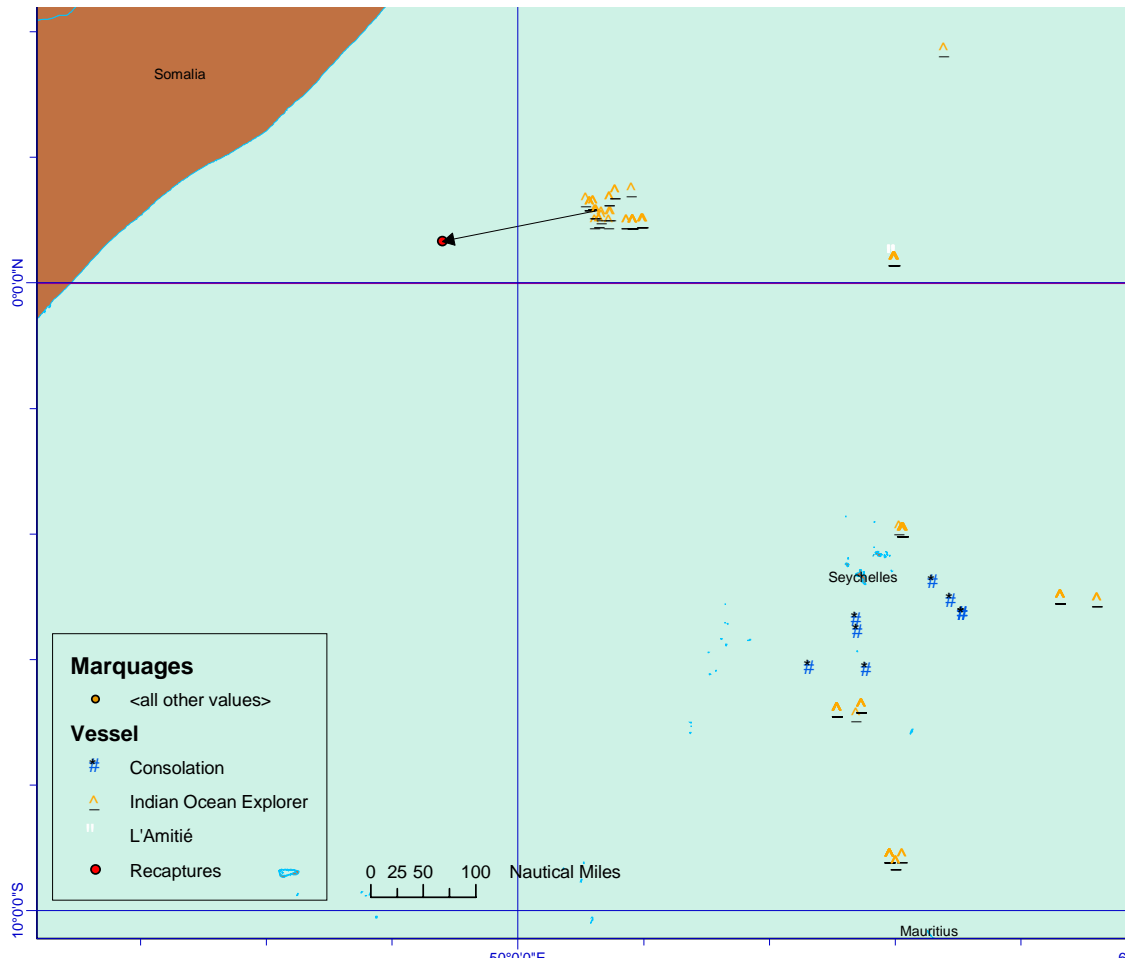


Figure 4 : Positions of the releases and recaptures during the Seychelles pilot-projects and the TAGFAD/FADIO associated projects.

Publicity and communication

Publicity and communication campaigns were implemented in several countries of the Indian Ocean in relation to the tagging projects handled. The publicity posters for the IOTTP was translated by the national correspondent in English; French, Spanish, Divehi, Persian, Indonesian, Chinese... and more will be translated to reach all the people who handled with tropical tunas of the Indian Ocean.

The first goal of the publicity campaign was to reach the fishermen and the stevedores who unload the fish from the purse-seiners and the refers. The first stage of the tag seeding experiment show us that we have to improve our communication on the final destination of the fish as the 5 tags put on the wells of a Spanish purse-seiner were not recovered during the transshipment in Victoria. Contacts were taken with the French company SOVETCO which is in charge of the sales of the tuna fished by the French purse-seiner. Sovetco accept to add to the list of documents sent to its clients (canneries in Indian Ocean, Africa, Europe, Thaïlande), a letter from IOTC and a publicity poster. We tried to contact directly some canneries in the Indian Ocean (Madagascar, Mauritius).

Contacts will be taken with the Spanish canneries through the ANFACO (...), and through the boat owners Opagac and Anabac to ask for their cooperation to the IOTTP. Moreover, canneries of Thaïlande will be contacted to make them aware of the programme and of the necessity of reporting any tag recovered.

Posters were printed in Indonesia in several languages for the Purse seine fleet in Seychelles, the stevedores of Port Victoria and the IOT cannery. Moreover, posters were or will be send to Maldives, Antsiranana (Madagascar), Mauritius...

The *new* unloading port Mombasa will also be a target of the publicity campaigns as a lot of transshipment occur over there this year.

Recoveries

For all the projects, 26 recoveries were reported to IOTC (3 during the Mayotte pilot project, 1 during TAGFAD and 22 during the small-scale project in Mayotte). For 5 fish, information was incomplete and for 2 of them, no information was provided. To increase the recovery and reporting rates, publicity campaign have to be maintained and stressed during the all project and countries of the Indian Ocean have to be encourage to tag tunas in such small-scale projects.

Tableau 3 : Recoveries reported of tagged fish until 15/07/2004 .

Tag number	Project	Species	Days of liberty	Growth (cm)	Approximate distance(nm) release vs. recapture
AA00118	Mayotte pilot	YFT	13	4	13,5
AA00122	Mayotte pilot	YFT	7	-3	3
AA00126	Mayotte pilot	YFT	5	1	14
AA17405	TAGFAD	YFT	24	1	152
AA00559	Mayotte small-scale	YFT	29	NC	NC
AA00600	Mayotte small-scale	YFT	40	-3	<1
AA00560	Mayotte small-scale	YFT	32	1	5
AA00564	Mayotte small-scale	YFT	37	2	<1
AA00565	Mayotte small-scale	YFT	13	6	<1
AA00566	Mayotte small-scale	YFT	29	NC	
AA00567	Mayotte small-scale	YFT	36	6	<1
AA00569	Mayotte small-scale	YFT	26	NC	
AA00571	Mayotte small-scale	YFT	38	3	<1
AA00573	Mayotte small-scale	YFT	14	11	<1
AA00574	Mayotte small-scale	YFT	34	8	<1
AA00577	Mayotte small-scale	YFT	6	4	<1
AA00578	Mayotte small-scale	YFT	14	10	<1
AA00579	Mayotte small-scale	YFT	11	26	<1
AA00580	Mayotte small-scale	YFT	26	NC	
AA00583	Mayotte small-scale	YFT	27	NC	<1
AA00584	Mayotte small-scale	YFT	11	3	<1
AA00585	Mayotte small-scale	YFT	34	10	<1
AA00586	Mayotte small-scale	YFT	44	3	<1
AA00598	Mayotte small-scale	YFT	6	0	<1
AA00599	Mayotte small-scale	YFT	8	2	<1
AA00605	Mayotte small-scale	YFT	22	4	<1