

# Small Scale Tuna Tagging Project – Maldives 2007

## Project Final Report - October 2009

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### **Summary**

The tuna fishery industry of the Republic of Maldives has evolved from a traditional-subsistence based pole-and-line fishery to a fully fledged commercial enterprise involving both government and the private sector. It is of immense importance for the Maldivians that tuna fishery continue to remain productive in order to safeguard the current investments and protect the economy and livelihood of the Maldivians. In view of this the Government of Maldives is committed to carrying out tuna research to enhance rational management and sustainable utilization of the resource. Towards achieving this ultimate goal, Maldives has implemented three successful tagging programmes; one during 1991-1992, one during 1993-1995 and one during 2004. The fourth tagging programme which began 2007 in Maldives was to complement the Indian Ocean Tuna Tagging Programme. About 78 percent of the fish tagged and released during this programme were around anchored FADs off the coast of Maldives atolls. Fifteen pop-up satellite archival tags attached to large yellowfin tuna were released. By October 2009, 12.58 percent of the releases were recovered. Majority of the recoveries were from around the fish aggregating devices where tagging was carried out. But some tags have also been recovered by purse seiners operating in the east and west of Maldives while others by gill net fishermen from Sri Lanka. Tagging in Maldives is crucial to study to better understand the tuna fishery dynamics and help the IOTC secretariat to provide the critical information for the stock assessment work.

### **Introduction**

The Republic of Maldives is a small island nation with limited natural resources. Even though the tourism industry's contribution to GDP has been impressive, tuna fishing still considered to be the main economic activity in the country. The fishery is now considered semi-industrial but continues to be integrated with rural livelihoods and income. It has evolved from a traditional-subsistence based pole-and-line tuna fishery to a fully fledged commercial enterprise involving both Government and the private sector. It is of immense importance for the Maldivians that tuna fishery continue to remain productive in order to safeguard the current investments and protect the economy and livelihood of the Maldivians. Tuna fishing is one of the pillars of national economy; provides food, employment and contributes to

export earnings. Tunas are mobile and require international management. Tagging is the most cost-effective means to study tuna populations; their interactions between various fishery components, growth, and natural mortality that is required for stock assessment work.

In view of this vital importance of the tuna fishery to the country the Government of Maldives is committed to carrying out tuna research to improve understanding of tuna populations in the Indian Ocean and to enhance rational management and sustainable utilization of the resource. Towards achieving this ultimate goal, Maldives has implemented three successful tagging programmes; one during 1991/1992, one during 1993-1995 and one during 2004. The first two were stand alone small scale programmes that targeted surface swimming skipjack and yellowfin tuna. The 2004 programme was supposed to be in conjunction with Indian Ocean Tuna Commission (IOTC) Regional Tuna Tagging Project (RTTP) to study the interaction of the different fisheries in the Indian Ocean. This, the most important objective of this particular programme, could not be achieved since the main phase of the IOTC tagging was not started at the same time. Therefore, no simultaneous releases were made in thw Maldives. The main tag release period started slightly after the completion of the main RTTP releases.

The Indian Ocean Tuna Tagging Programme (IOTTP) once again provided the opportunity of releasing tagged fish from the Maldian fishery to complement main releases. The program was accepted by the relevant authorities and the Letter of Agreement was signed between the Food and Agriculture Organisation and Marine Research Centre (MRC) in April of 2007. The funding for this programme was provided by the Japanese government and executed by the IOTC. At the time of this writing tag recoveries are being mad and so a tag recovery anlysis has not been attempted. The Government is fully supportive of the IOTC work and has declared that its intention to become a full member soon.

## **Tagging**

To commence the tagging of tuna under this project a one day training activity for MRC staff was conducted on the 16<sup>th</sup> of August 2007. Ten members joined the trip where each member practiced tagging and recording skills. A total of 62 fish comprising of 41 skipjack and 21 yellowfin tuna (all below 65 cm fork length) were tagged and released on this trip. Three members formed a tagging team – one held the fish while the other placed the tag and the third person made the recordings on paper. The teams were later reduced to two members as a voice recorder was introduced to record the data.

For every tagged fish the following information was recorded.

- Taggers' name
- Tag number
- Species name
- Fork length
- Condition of the fish
- Tag reliability



*Tagger using recorder during tagging*

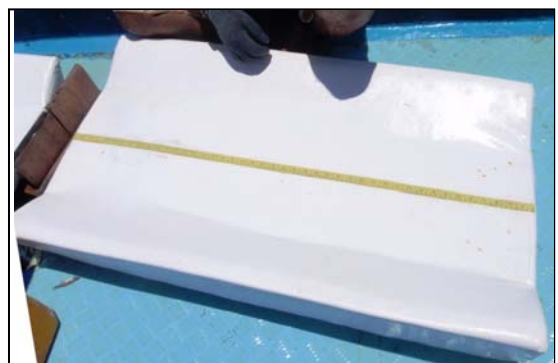
For every tagging operation the records made included:

- Date on which tagging was done
- GPS position of all the schools spotted
- Start and end time of the fishing operation/tagging operation
- Type of school
- Sea surface temperature
- Species and length of fish caught during the trip that were not tagged



*Tagging on traditional fishing vessels*

All measurements were taken on measuring boards with cushions on them. The measuring boards made from wood were fitted with a soft cushion bed on which a measuring tape was glued. This was to minimize the injuries to the fish from the hard wooden surface of the measuring board. The modified board with cushion bed gives a curved fork length unlike in a standard measuring board.

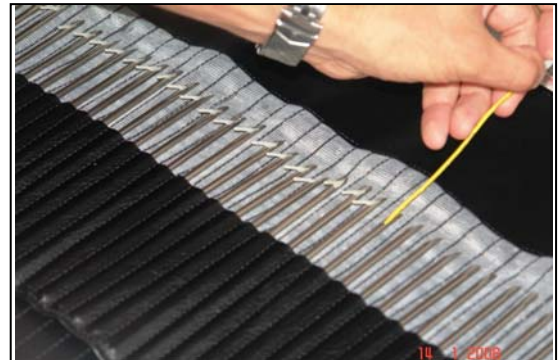


*Loading tags on to applicators*

To prepare the tags for the tagging operation tags were loaded into stainless steel applicators. Fifty of these applicators were loaded on to an apron with pockets. Once used the applicators were cleaned and boiled to sterilize. About 800 to 1200 tags were loaded before the tagging operation begins. This was to ensure that the tagging operation is not interrupted due to shortage of loaded tags.

For each tagging operation on Maldivian pole and line boats the following equipment/materials were used.

- Wooden measuring boards with soft cushioned beds attached with measuring tapes.
- Tags, applicators and aprons
- GPS, measuring tapes and thermometer
- Tape recorders, condoms and battery
- Cotton gloves and rain coats
- Rechargeable lamps and torch
- Camera, memory stick and battery charger
- Clipboards, pens, pencils, erasers, cutters and cello tape
- Icebox and cardboard boxes
- Tagging posters, recovery forms and tag release data entry forms
- T-shirts for tagging team members and banner indicating that MRC tagging team is working on the boat
- Liquid soap and washing powder
- First-aid box



*Tag loaded into applicators*



*Tag placed on fish*

Tagging was conducted on pole and line fishing vessels. At the start of the programme tagging operations were done from fishing vessels on opportunistic basis. Efforts were made to ensure the tag releases were made from the fishing vessels of the island in which tagging teams were operating. The island office helped the tagging team to choose the boats on which tagging would be conducted.

Three tagging team members worked on these pole and line boats. The team members sat on the deck at stern of the boat where angling was carried out by the fishermen. Depending on the size of the boat 5 to 12 anglers operate on the stern platform. Some fish caught by the anglers were gently laid on the measuring board for tagging. Tagging team members ensure that the fish selected for tagging did not fall on deck or hit the side of the boat. During tagging one member of the team gently holds the fish on the cushion bed while the

other insert the tag and records the data on the recorder. Tagger reads the tag number/s, species name, fork length of the fish, the condition of fish and the tag/s placed. The tape recorder was placed inside a condom and hanged from the neck of the tagger. Soon after tagging the fish was quickly released back into the water. On average tagging of each fish took about 10 to 15 seconds. The fishermen and the team members wore cotton gloves while handling the fish. The cushion bed was regularly washed with seawater to get rid of any blood and mucus from the fish.



*Tagged skipjack tuna*



*Taggers operating at the back of the vessel*



*Tagging on a modern pole and line vessel*

Once the fishing/tagging operation was complete for the day, tagging equipment was washed and cleaned. Used applicators were cleaned and boiled to sterilize; new tags were loaded and kept ready for the following day's operation. The data recorded on the recorder were transferred to paper. GPS positions of every school spotted during the day's fishing operation and the sea surface temperature were recorded. Taggers name, tag numbers,

species name and condition of fish and tag were written on paper. This data was later entered to the data base. Weather condition was also recorded.

## Tag releases

After delays due to poor fishing throughout the country the first cruise was made on the 21<sup>st</sup> of October 2007. Two teams, one to Shaviyani Atoll Komandoo in the North and one to Gaaf Dhaal Thinadhoo in the South, were set out to join the pole and line fishermen in these two islands. The island office identified the boat on which the tagging operation would take place. Every fishing boat from the island was given equal opportunity to take part in the operation. Cash payments were made to the fishermen for each fish that was tagged and released. Maldivian Rufiyaa (MRf) 40.00 (US\$ 3.14) was paid to every fish tagged and released that had a fork length less than 60cm. Fish that had a fork length 60cm and above was paid MRf 60.00 (US\$ 4.7).

The teams set a target of around 2000 – 2500 tags to be released in 10 fishing trips. However, within the first few days of the trip, weather began deteriorating and fishing became poor. During this first release event only 6 trips were made in the north and 3 in the south.

Low fishing across the country delayed the second tagging operation as well. On the 13<sup>th</sup> of January 2008, a tagging team left to Shaviyani Atoll Komandoo. Mr. Julien Million from IOTC also accompanied this team. During this trip it was planned to release 4 pop-up satellite archival (PSAT) tags. However, only two were released. Since large yellowfin tuna fishing was very good during this time, two trips were specifically made to tag and release large yellowfin tunas. But in order to do so, the fishermen had to be paid MRf 28.00 (US\$ 2.20) per kilogram. Two more trips, on 18<sup>th</sup> and 24<sup>th</sup> February 2008 were made from Male'. A second cruise to the south (Kolamafushi) was made from 2<sup>nd</sup> to 14<sup>th</sup> of March 2008. Three staff members of MRC took part in this tagging trip. A fourth person was recruited from Kolamafushi so that tagging could be done by two teams. A summary of the releases and recaptures by tagging cruise are given in Table 1.

**Table 1: Release and Recovery and percentage recovery by tagging cruise (preliminary data). Note that Cruise 701,702,703,801,802 and 803 were on with fishermen on their vessels during regular fishing trips while the rest are from chartered vessels.**

**RELEASES**

Date	Cruise	SKJ	YFT	BET	UNC	Totals	# Days	Area
Aug 2007	701	41	21	-	-	62	1	Malé
Oct 2007	702	319	65	-	-	384	5	Sh. Komandoo
Oct 2007	703	119	110	-	-	229	2	GDh. Thinadhoo
Jan 2008	801	876	434	40	7	1,357	7	Sh. Komandoo
Feb 2008	802	32	86	-	1	119	2	Malé
Mar 2008	803	822	86	-	29	937	8	Ga. Kolamaafushi
Dec 2008	804	2,718	1,838	17	59	4,632	11	North
Feb 2009	901	529	175	69	4	777	10	Ga / GDh Atolls
Mar 2009	902	2,628	808	241	84	3,761	14	South
Apr 2009	903	3,719	264	96	88	4,167	13	Central

**RECOVERIES**

Date	Cruise	SKJ	YFT	BET	UNC	Totals
Aug 2007	701	2	-	-	-	2
Oct 2007	702	17	8	-	-	25
Oct 2007	703	17	2	1	-	20
Jan 2008	801	41	8	1	-	50
Feb 2008	802	8	4	-	-	12
Mar 2008	803	127	12	-	-	139
Dec 2008	804	411	73	1	-	485
Feb 2009	901	43	14	-	-	57
Mar 2009	902	415	71	-	1	487
Apr 2009	903	543	87	2	-	632

**RECOVERY PERCENT**

Date	Cruise	SKJ	YFT	BET
Aug 2007	701	4.9%	0.0%	
Oct 2007	702	5.3%	12.3%	
Oct 2007	703	14.3%	1.8%	
Jan 2008	801	4.7%	1.8%	2.5%
Feb 2008	802	25.0%	4.7%	
Mar 2008	803	15.5%	14.0%	
Dec 2008	804	15.1%	4.0%	5.9%
Feb 2009	901	8.1%	8.0%	0.0%
Mar 2009	902	15.8%	8.8%	0.0%
Apr 2009	903	14.6%	33.0%	2.1%

The Maldivian pole and line fishery has dramatically changed over the years. Along with the increase in size of the vessels, the pattern of operation and mentality of the fishermen has also changed very much, especially in the South of the country. In the previous tagging programs, fishermen were more than happy to accommodate tagging personnel and the tagging process itself. If the tuna were biting the hook more rapidly and the fish were in a feeding frenzy the fishermen usually were more interested in catching tuna than tagging.

During this time the fishermen hardly supply the taggers with any fish for tagging as all the anglers were busy trying to increase the days' catch so they get a better income by selling their catch.

Fishermen generally believe that releasing the tagged fish back into the school has a negative effect on the school. They believe tagging forces the fish in the tagging school of fish to dive deeper thus making it impossible for the fishermen to catch the fish by pole and line at the surface. Due to these factors the overall potential to tag and release fish, during fishing operations conducted by the fishermen, has significantly declined compared to the previous tagging operations in Maldives. A total of 3106 tags were released from 25 days of tagging.

Thus a new strategy was adopted following meeting held in Jakarta (May 2008) to review the small scale tagging activities. It was agreed that vessels may be chartered instead of making use of them on opportunistic basis. This way the fishermen would be catching fish only for tagging and would be fishing at the pace the taggers were able to tag. Another advantage with this method was that more taggers were able to work on the deck. This approach allowed four tagging teams (total of 8 members) to work simultaneously.

The first cruise on chartered boat was conducted in December 2008. To hire a fishing vessel, public announcements were made over the radio for interested parties to submit their bids. At least a minimum of three quotations has to be obtained before any vessel was chosen for the tagging operation. If only one party submits their quotations after repeated announcements then that vessel was awarded the contract too. The bids submitted were analysed by the bidding committee at MRC and the committee selects the vessel for the cruise.

When selecting fishing vessels for the tagging cruise the following factors were considered.

- Size of the fishing vessel
- Accommodation
- Fresh water shower
- Toilet facilities
- Area where the fishing vessel have been operating
- Cost of hire

Vessels longer than 80 feet were selected for the tagging operations as it was difficult to accommodate 8 tagging team members with the crew on smaller vessels. The bigger vessels have ample space on the deck for about four tagging teams to work simultaneously. During these tagging cruises the members of the tagging teams and the crew lived on the vessel.



The owner of the vessel provided all the facilities for the tagging team members and for the operation of the vessel. The chartered vessel was paid based on the number of fishing trips they were able to make. If for some reason the vessel was unable to go out for fishing they were not paid for that day. Most of the vessels did day trips and always returned to a safe harbor inside the atoll for the night and to catch bait fish. During the cruise the crew spends most of their time finding bait and fishing. Sometime the vessel does come into the island harbor to take supplies – water, fuel and food.

To join the crew on the chartered vessel MRC tagging team members travelled to Raa Atoll Meedhoo on a local transport boat. The weather was bad at the beginning of the trip thus the team had to stay on the island for three days unable to start the cruise. Once the weather improved the tagging cruise began but the fishing was very poor then. Fishermen spent several hours searching for tuna in the open sea but majority of the time they were not successful. As a result it was decided to look for fish near fish aggregating devices (FADs) deployed in the region. During this cruise tagged fish were released in the regions around the northern most 5 atolls of the Maldives – Haa Alif, Haa Dhaal, Shaviyani, Noonu and Raa atolls. The area covered included 5 degrees 40 minutes North to 7 degrees 20 minutes North. Three teams (3 taggers and 3 assistants) tagged simultaneously during this cruise. Although the boat was chartered for 14 days it was not possible to tag all 14 days during the set period due to bad weather and on one occasion the fishermen could not find live bait as the generator on the vessel broke.

The second tagging trip on the chartered vessel was conducted in February 2009. This tagging cruise was conducted from 10<sup>th</sup> to 19<sup>th</sup> February 2009. MRC tagging team was accompanied by Mr. Julien Million and Dr. Jean Pierre Hallier from IOTC. The trip was planned mainly for tagging pop-up tags on large yellowfins. A vessel that was equipped for catching tuna by both pole and line and hand lining was chartered especially for this trip. The tagging team members, with the two experts from IOTC travelled by air to Gaaf Dhaal Atoll to join the fishermen on the vessel. During this trip too, most of the conventional spaghetti tagging was carried out on tuna caught near fads. Fishing was poor even during this period thus the fishermen were forced to catch fish around the anchored FADs deployed in the region. The tagging concentrated around Gaaf Alif and Gaaf Dhaal atolls. A sling was especially designed for this trip. The frame of the sling was made from stainless steel and canvas was used to support the tuna. The sling was used for bringing in large yellowfin tuna on board for tagging and releasing them after planting the pop-up satellite archival tags. Initially there were some difficulties in using the sling since it was the first time the MRC staff and the fishermen ever used a sling for hauling tuna out of the water. Some smaller yellowfin tuna caught by hand lines were brought on board by holding them by the pectoral fin.



*Sling*



*Lifting a yellowfin tuna using sling*



*Pop-up tagged tuna*



*Yellowfin tuna caught by handline*



*Lifting tuna on to the boat*

In March 2009 a second tagging trip was conducted to the same region. This trip was planned for releasing conventional tags in the southern tip of Maldives – especially in the southern most four atolls – from 1 degree 30 minutes North to 0 degree 60 minutes South. A 98 feet fiberglass pole and line vessel was used for this tagging cruise. Eight members – six MRC staff and two recruited – participated in this tagging cruise. Mr Aigi Asakawa participated in this tagging trip. During this 18 day cruise 3761 tagged tuna were released: 808 yellowfin tuna, 2628 skipjack tuna, 241 bigeye tuna and 84 unknown. The unknown were due to a problem with the recorder. Fishermen tried several times to look for free swimming schools of tuna. During many occasions the fishermen ventured out to more than 60 miles from the coastline looking for tuna. But as the fishing was poor during this period too tagging concentrated around fads deployed some 12 to 20 miles from the shore. The trips done during the cruise were mainly day trips. The fishermen ventured out looking for fish during the early part of the day and returned to sheltered inshore waters of the atoll basin later afternoon. They spent most of the night catching bait using powerful lights. This method of bait fishing has minimum impact on the coral reef as the fishermen do not drop their anchors on the reef and the nets do not touch the bottom of the shallow waters.

The third tagging cruise was conducted in April 2009. The area of tagging was between 1degree 30 minutes North and 4 degrees 20 minutes North. Another 100 feet fiberglass pole and line vessel was used for this tagging cruise too. The aim was to release as many conventional tags as possible in the central region of Maldives. Again the fishing was very poor during this period thus tagging was mainly carried out near anchored fads deployed off the coast of the atolls in the central region. During this cruise 4167 tagged tuna were released. This included 264 yellowfin tuna, 3719 skipjack tuna, 95 bigeye tuna and 88 unknown. Dr Tom Nishida participated in this tagging operation.

It is not always possible to depart on tagging cruises as planned due to various reasons. Some of the reasons include:

1. Unable to get people with relevant training to work as tagging team members
2. Unable to get a suitable fishing vessel
3. Weather deterioration
4. Poor fishing
5. Unable to get transport to travel to the location to get on the fishing vessel

During this tagging project a total of 16,445 tagged fish – 3887 yellowfin tuna, 11803 skipjack tuna, and 463 bigeye tuna – were released. Unknown included 292. About 78 percent of the fish tagged and released were around anchored FADs off the coast of Maldivian atolls. Since fishing was low during 2007, 2008 and first quarter of 2009 fishermen were unable to locate free swimming schools.

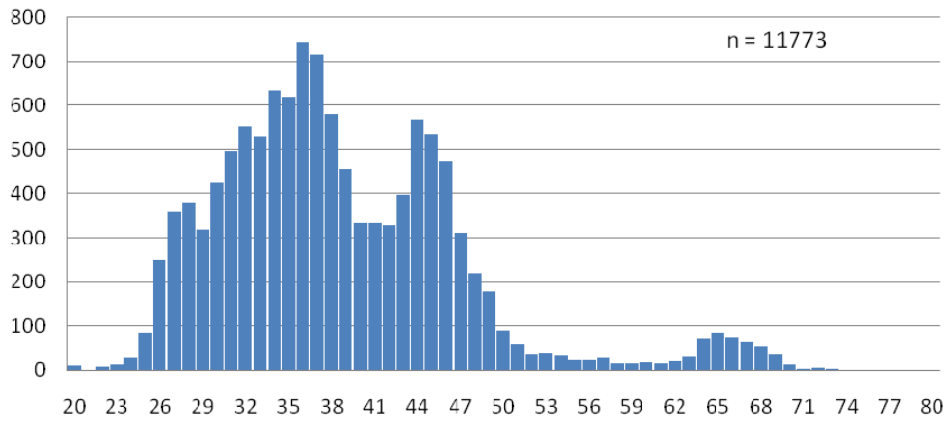
Table 2: Tag release by cruise and the amounts released around the FADs.

CRUISE	YFT	SKJ	BET	U	TOTAL	TAGGED AT	
						FAD	OTHER
701	21	41	0	0	62	63	0
702	65	319	0	2	386	105	281
703	110	119	0	1	230	230	0
801	434	876	40	22	1372	1330	42
802	86	32	0	1	119	119	0
803	86	822	0	29	937	698	239
804	1838	2718	17	59	4632	4566	66
901	175	529	69	6	779	757	22
902	808	2628	241	84	3761	1863	1898
903	264	3719	96	88	4167	3072	1095
<b>TOTAL</b>	<b>3887</b>	<b>11803</b>	<b>463</b>	<b>292</b>	<b>16445</b>	<b>12803</b>	<b>3643</b>

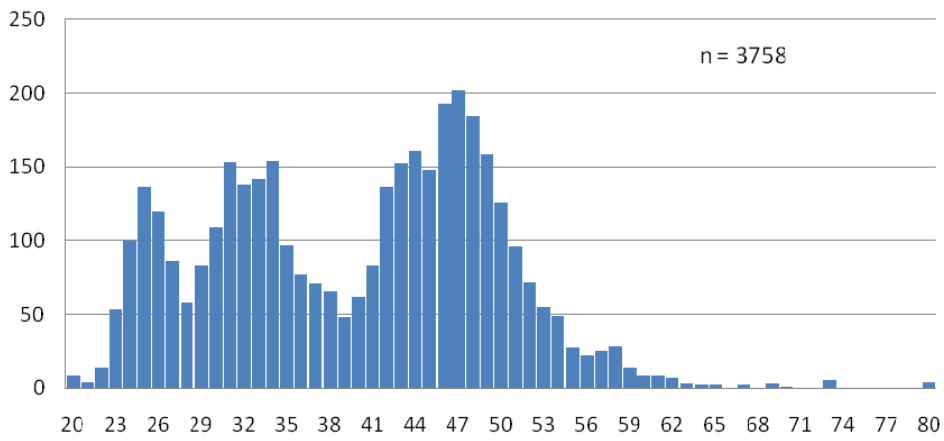
Most of the tagged fish were released in the north and in the south of Maldives. Fishing was really poor in the central parts of the country during the tagging period. Most fish tagged in the south of the Maldives were larger than those released in the other parts of Maldives. Some of the tagged fish had a fork length of 18cm (see Figure 1).

Fifteen pop-up satellite archival tags – two in the north and 13 in the south – attached to large yellowfin tuna were released. Seven of those tagged in the south in February 2009 popped up shortly after their release. One of the tuna attached with the pop-up archival tag were caught by the Maldivian fishermen and the archival tag was recovered and sent to IOTC.

### SKIPJACK - Releases



### YELLOWFIN - Releases



### BIGEYE - Releases

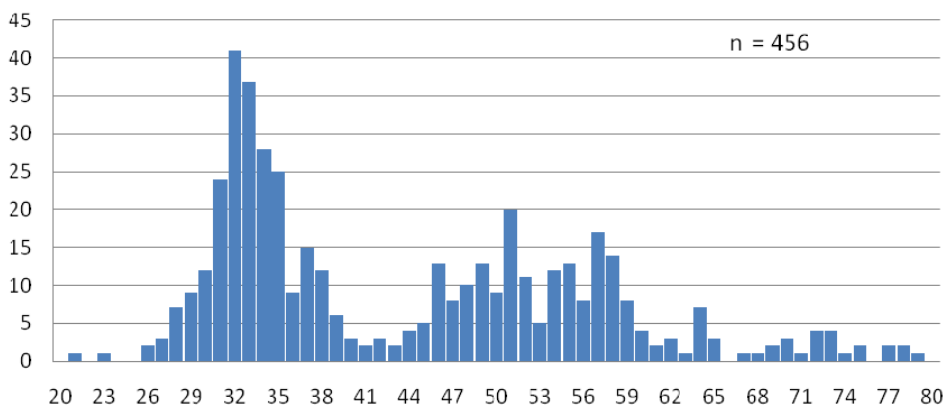


Figure 1: Size distributions of releases of three species

# ALL RELEASES

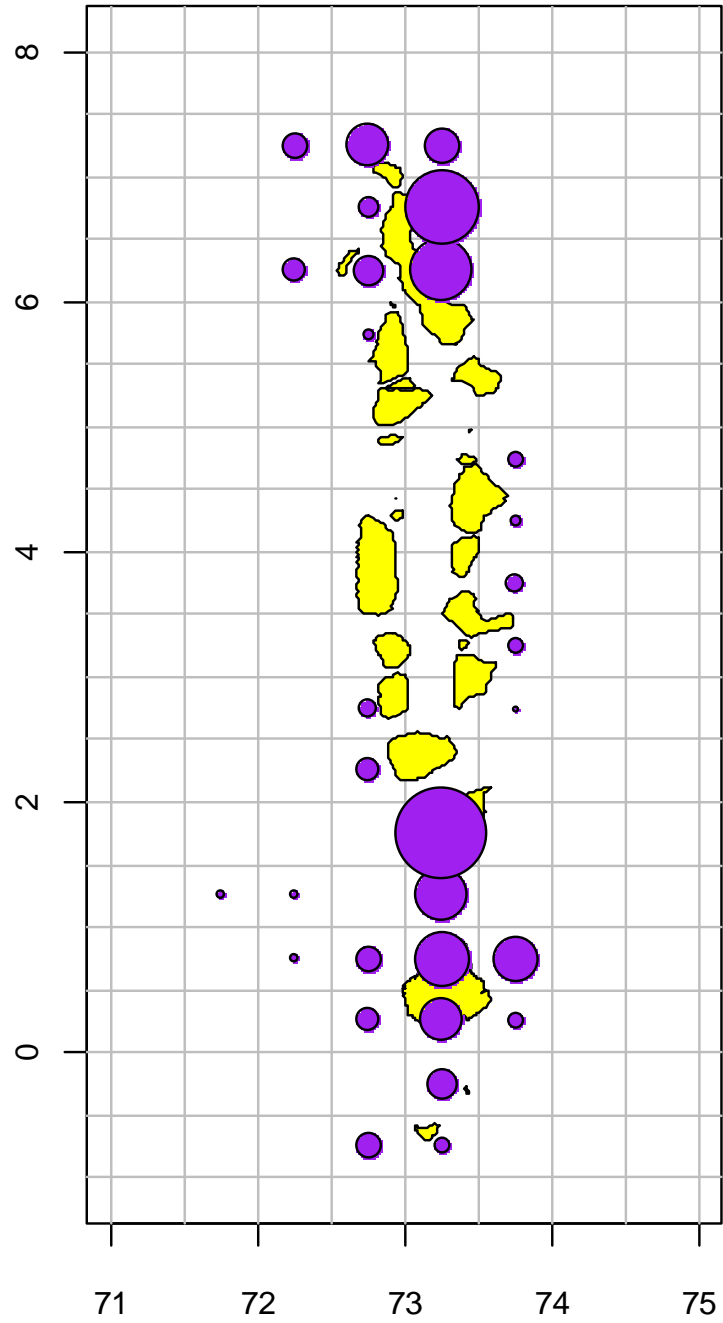


Figure 2: All releases aggregated by 0.5 x 0.5 degree squares

## Publicity and Rewards

By the time the Maldives program began, Indian Ocean wide, as well as local publicity of the programs were at a sufficient level. In Maldives posters, recovery information forms and measuring tapes were sent to all the inhabited islands and major fish purchasing and processing companies. Multiple interviews have also been given to local TV and radio along with several leading newspapers.

However, during the second cruise to Komandoo, it was discovered that quite a few number of fishermen had recovered tags and had not reported them to MRC. This was the island tagging was done a few months back. Therefore the reason for non-reporting could not be due to lack of publicity, at least on this island. Further inquiries revealed a number of reasons for not reporting. Main reason being the distance and route they have to take for them to collect the reward money from MRC. When they were told that they could send the tags via the island office, they were not ready to do so saying they did not trust the island office and its staff. They do not have the relationship and trust with the island office and so they would rather keep the tags unreported than to give them to the island office and try to collect the reward.

During conversation with the Island chief of Komandoo, it was proposed that the island office may be able to pay the reward to the fishermen from their money and later get reimbursement from MRC. Once followed up on this, the island chief said that it could not be arranged due to administrative difficulties. Therefore the idea was abandoned. Rather, it was sought to find a way where the collecting vessels and ports would pay the rewards and later get reimbursed from MRC. This option was discussed in meetings with heads of major fish purchasing companies and later confirmed in writing. Payment receipts, tag recovery forms, posters and measuring tapes were sent to the three major companies operating in the country who agreed on such an arrangement. The companies included Maldives Industrial Fisheries Company, Island Enterprises and Horizon Fisheries. The companies collected tags and recovery forms from the fishermen and forwarded them to MRC for reimbursement.

In contrast to the previous program, the reward money did not change for partial or full information. It was observed that lowering the reward for partial information of recovered tag was an incentive for the fishermen to send false data. Therefore, Maldivian Rufiyaa 150.00 (US \$ 11.70) was to remain for full or partial information. In the case of double tags, both tags were treated as two separate tags following advice from Mr. Julien Million. Two fishermen from Huvadhu atoll also won rewards from the IOTTP lottery held in 2008.

## Recoveries

The recoveries were reported by the fishermen directly to MRC or to the vessels operated by the commercial fisheries companies. Tag recovery forms are filled before rewarding the fishermen. The forms and tags from the companies were forwarded to MRC for reimbursement. According to some vessel captains working on the company vessels the fishermen sometimes bring only the tag thus they are unable to get complete and accurate information about the tagged fish. Sometimes fishermen attached the tags on other fish that were not the fish on which the original tag was placed.

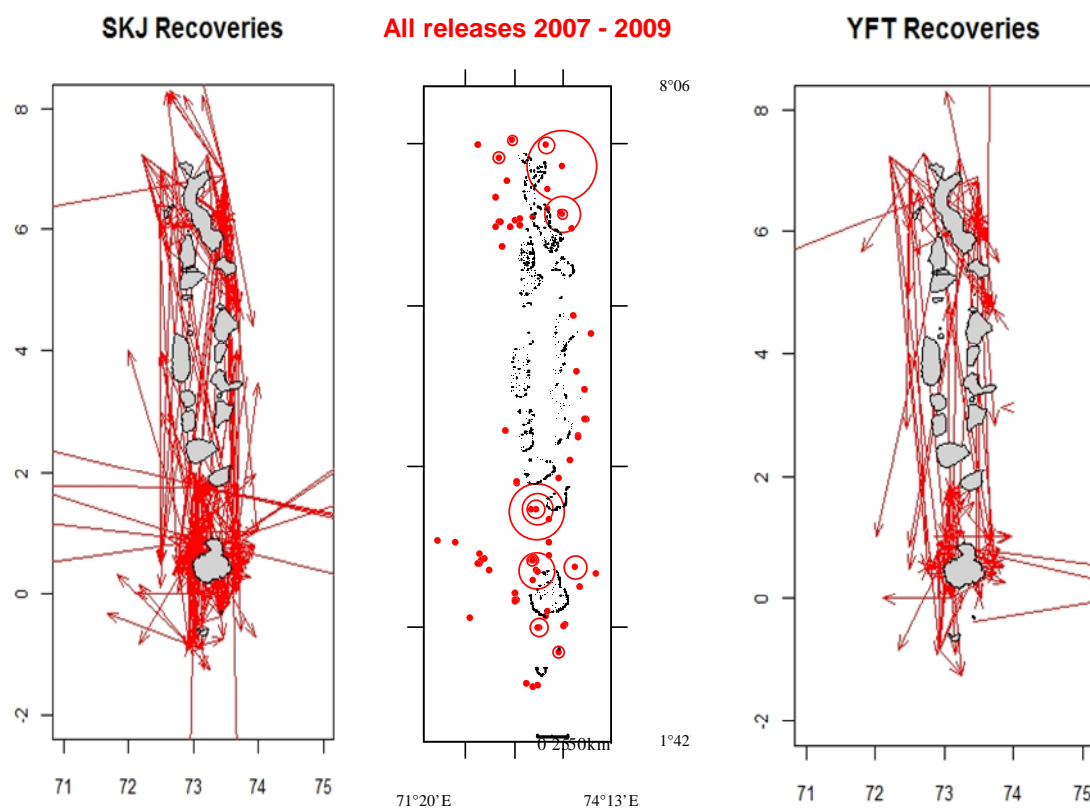


Figure 3: Aggregated recoveries of skipjack and yellowfin tuna with the release locations in the middle panel.

Since most of the tags were released at FADs the tags were very quickly recovered. Some tags were recovered on the same day the fish was tagged and released. Majority of the recoveries were made 4 to 5 days after release. But some tagged fish were caught 254 days after its release. By October 2009, 12.87% of the tags released were recovered. Some of these tags were recovered by purse seiners operating in the west and east of Maldives. Few tags were also recovered by gillnet fishermen of Sri Lanka.

A total of 2069 tags were recovered by October 2009. This included 1575 skipjack, 404 yellowfin and 60 bigeye tuna. 55% of the fish released at the FADs were caught near the same FAD or very close to the same FAD where they were released. Some tuna were caught



around the same FAD after 20 days of release. Few tuna tagged around these same FADs were also caught by purse seiners far away from Maldives.

## Issues

1. Initial training trip for the taggers were delayed due to poor fishing throughout the country. This delayed the initiation of tagging in Maldives.
2. Lack of trained MRC staff. People with little or no experience have to be hired from outside. Do not know how to handle fish and unable to cope with rough weather.
3. Lack of cooperation from the fishermen. Improvements in socio-economic conditions and have made it difficult to get fishermen's cooperation.
4. Fishermen's negative attitude towards tagging.
5. When there is plenty of tuna and tuna go into a "feeding frenzy" the fishermen tend to forget the purpose of the trip and go into an "angling frenzy".
6. Tag data not accurately reported buy the fishermen.
7. Untrained staff on company vessels (collector vessels), canneries and freezing plants filling the tag recovery data forms.
8. Reluctance by fishermen to venture out far from shore looking for tuna.
9. Difficult to hire boats at a reasonable price for tagging when the fishing is good.
10. The companies do not sent the forms regularly to MRC. They keep the recovery forms till they have a large quantity (about 100 to 200 forms) and then send them to MRC. When the forms arrive all together on a later date it is very difficult to correct or get from the fishermen any missing or incorrect information found on the recovery forms.

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