



**SCIENTIFIC COMMITTEE  
ELEVENTH REGULAR SESSION**

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5-13 August 2015

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**ANNUAL REPORT TO THE COMMISSION  
PART 1: INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS**

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**WCPFC-SC11-AR/CCM-18  
Rev1 (4 August 2015)**

**PALAU**

# Annual Report to the Western and Central Fisheries Commission

## PART 1: INFORMATION ON FISHERIES, RESEARCH AND STATISTICS 2014, PALAU

Bureau of Oceanic Fishery Management  
Ministry of Natural Resources, Environment and Tourism

August 2015

|  |            |
|--|------------|
| Scientific Data was provided to the commission in accordance with the decision relating to the provision of scientific data to the Commission by 30 April 2014 | <b>YES</b> |
|--|------------|

## **Abstract**

**Title 27 of the Palau National Code is the primary fisheries legislation regulating harvest of tuna stocks and fishing vessels to fish in the fisheries in the waters of the Republic of Palau. Bureau of Oceanic Fishery Management is also responsible for research, fisheries statistics, and development of its own domestic tuna fishery. Palau is a shark sanctuary. Subsection 181 of RPPL 6-36 prohibit act to the use of any licensed foreign fishing vessel to fish, as that term is defined in 27PNC Chapter 12, for any shark, or any part of any such, or to remove the fins of or otherwise intentionally mutilate or injure any such shark. Tuna fishing in the Palau Exclusive Economic Zone is dominated by the locally based foreign longline fleet of Chinese Taipei and the offshore based longline and purse seine fleet of Japan.**

**Total provisional longline catch in 2014 in Palau waters was 4181mt. A total of one-hundred (100) vessels were active in the waters of Palau in 2014. Seventy-nine (79) longline vessels and twenty-one (21) were purse seiners.**

**Palau is currently implementing all latest versions of SPC's regional data forms. SPC TUFMAN Database System is fully utilized to streamline and collate all data. At the same time, ongoing work continues in linking TUFMAN (Tuna Fisheries Database Management System) with the PNA VDS which would allow accurate timely correlation of fishing effort in Palau EEZs. Further enhancement in this work is by the FFA VMS that provides an MCS component to fisheries management process.**

**Palau observers have been deployed on the locally based foreign fleet since the 1980's to conduct general observer duties, such as the collection of data on fishing gear and the size and species composition of catches. Because of a relatively small observer program in Palau, personnel training through regional programs are ongoing. At the moment Palau has one (1) permanent observer and three (3) seasonal observers. Dedicated fisheries port samplers are present at all times during offloading of longline vessels at respected port to collect data and information.**

**In addition to Fisheries Bilateral Agreement between Palau and the Japan Fishing Association, Locally Based Foreign Fleet of Chinese Taipei, US Multilateral Fisheries Treaty, and FSM Arrangement, Palau has agreement with Palau wholly owned fishing entity though at the moment does not have active fishing vessel.**

**In 2012 Palau passed into law an Open Ship Registry. This Open Ship Registry enable Palau to develop its' own domestic tuna fishery, but to date does not have fishing vessels (or vessels in support of fishing activities) currently registered.**

**Revenues derived from off-shore fishing, still is the second highest income generating mechanism for Palau besides tourism.**

## 1. Introductions

Title 27 of the Palau National Code is the primary fisheries legislation regulating harvest of highly migratory fish stocks, such as the valuable tuna stocks, and fishing vessels to fish in the waters of the Republic of Palau. Sub-sections 123 mandates the Bureau of Oceanic Fishery Management to adopt fisheries regulations for the management, exploitation and conservation of all living resources in the extended and exclusive fishery zone of the Republic, negotiate and conclude foreign fishing agreements, issue foreign fishing permits, and perform such other duties and functions as may be necessary to carry out the purposes of 27PNC. Republic of Palau Public Law No.6-36 amended Chapter 1 of Title 27 to prohibit foreign fishing vessels from fishing within a 50 nautical mile radius to the east of the reef entrance to Malakal Harbour. Subsection 181 of RPPL 6-36 prohibit act to the use of any licensed foreign fishing vessel to fish, as that term is defined in 27PNC Chapter 12, for any shark, or any part of any such, or to remove the fins of or otherwise intentionally mutilate or injure any such shark. This law is a basis for Palau's declaration of a Shark Sanctuary.

Bureau of Oceanic Fishery Management is also responsible for research, fisheries statistics, and development of its own domestic tuna fishery.

## 2. Fisheries Characteristics

Tuna fishing in the Palau Exclusive Economic Zone is dominated by the locally based foreign longline fleet from Chinese Taipei and the offshore based longline, pole and line, and purse seine fleet from Japan. Still, Chinese Taipei fleet has been and is still dominant. Table 1 shows the break-down of active vessels in Palau's EEZ by flag, by gear and by size category, 2011-2014.

*Table1. Number of foreign fishing vessels, by year, by flag, by gear and size category, active in the WCPFC Convention Area, for 2012 to 2014. Gross Registered Tonnes (GRT) is the unit for vessel size.*

| Year | Flag    | Gear          | No. of Vessels | 0-500 | 501-1000 | 1001-1500 | 1500+ |
|------|---------|---------------|----------------|-------|----------|-----------|-------|
| 2012 | Belize  | Longliner     | 2              | 2     | 0        | 0         | 0     |
|      | Japan   | Longliner     | 25             | 25    | 0        | 0         | 0     |
|      | Japan   | Pole and line | 1              | 1     | 0        | 0         | 0     |
|      | Japan   | Purse Seiner  | 36             | 1     | 0        | 31        | 4     |
|      | Taiwan  | Longliner     | 50             | 50    | 0        | 0         | 0     |
| 2013 | Belize  | Longliner     | 1              | 1     | 0        | 0         | 0     |
|      | Japan   | Longliner     | 28             | 28    | 0        | 0         | 0     |
|      | Japan   | Purse Seiner  | 5              | 5     | 0        | 0         | 0     |
|      | Taiwan  | Longliner     | 54             | 54    | 0        | 0         | 0     |
| 2014 | Belize  | Longliner     | 1              | 1     | 0        | 0         | 0     |
|      | Japan   | Longliner     | 28             | 28    | 0        | 0         | 0     |
|      | Japan   | Purse Seiner  | 21             | 21    | 0        | 0         | 0     |
|      | Taiwan  | Longliner     | 41             | 41    | 0        | 0         | 0     |
|      | Vanuatu | Longliner     | 1              | 1     | 0        | 0         | 0     |

## 2.1 Longline & Purse Seine Effort

Longline effort and catch are focused on the central-eastern area of Palau's EEZ.

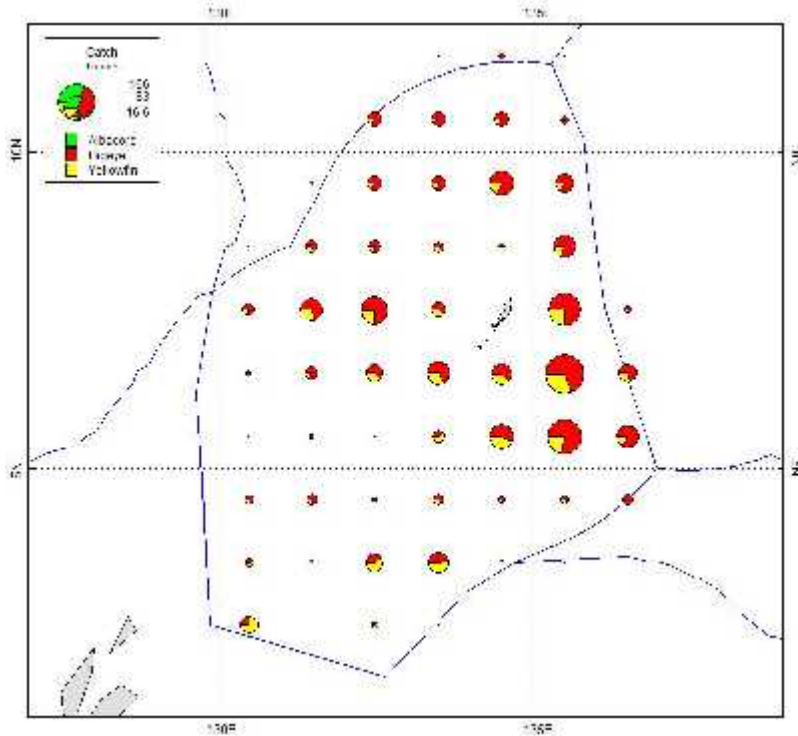


Figure1. Distribution of catch by species for, 2014

Purse Seine fishing in Palau EEZ has been concentrated on the areas of 3°N, the extreme south of the EEZ (Figure 2). The area of highest purse-seine effort does not overlap the areas of high longline effort (east of Koror, Figure1); suggesting the spatial interaction between the longline and purse seine fleets is relatively low.

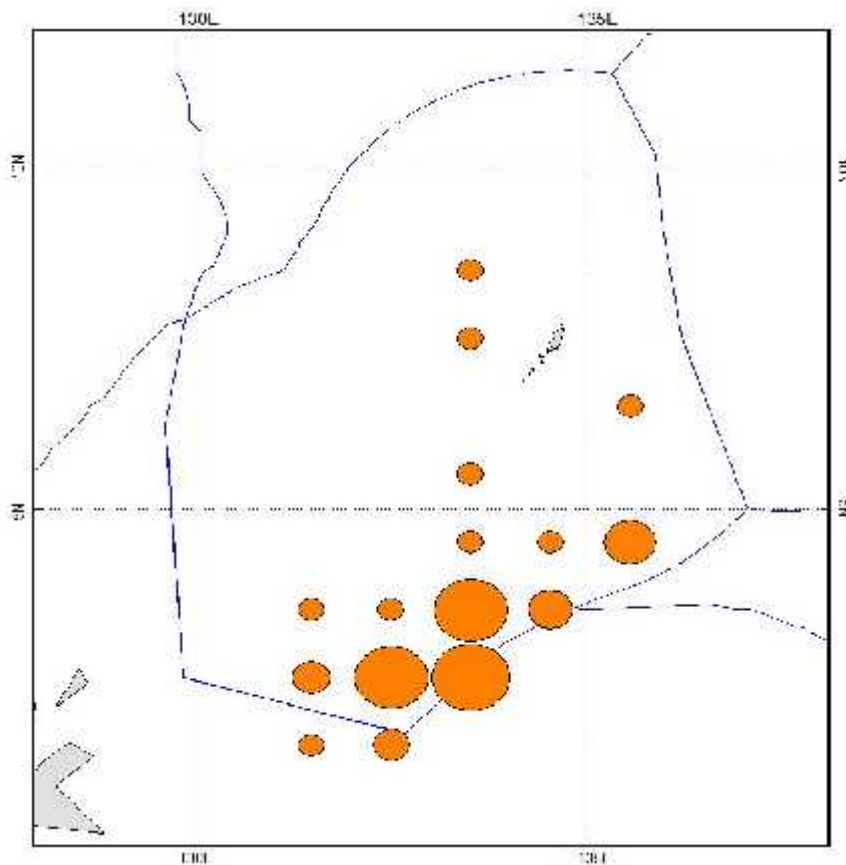


Figure2. Distribution of purse seine effort by days in the Palau EEZ, 2014

## 2.2 Longline Catch

The provisions of logsheets are requirements for all foreign fishing vessels licensed to fish in Palau's EEZ pursuant to the Access Agreements negotiated between the Government and the Fishing Companies. Logsheets and other reporting requirements are submitted to the Bureau of Oceanic Fishery Management by the fishing companies on a monthly basis. These reports once collected are then manually entered into the Bureaus' database to be analyzed.

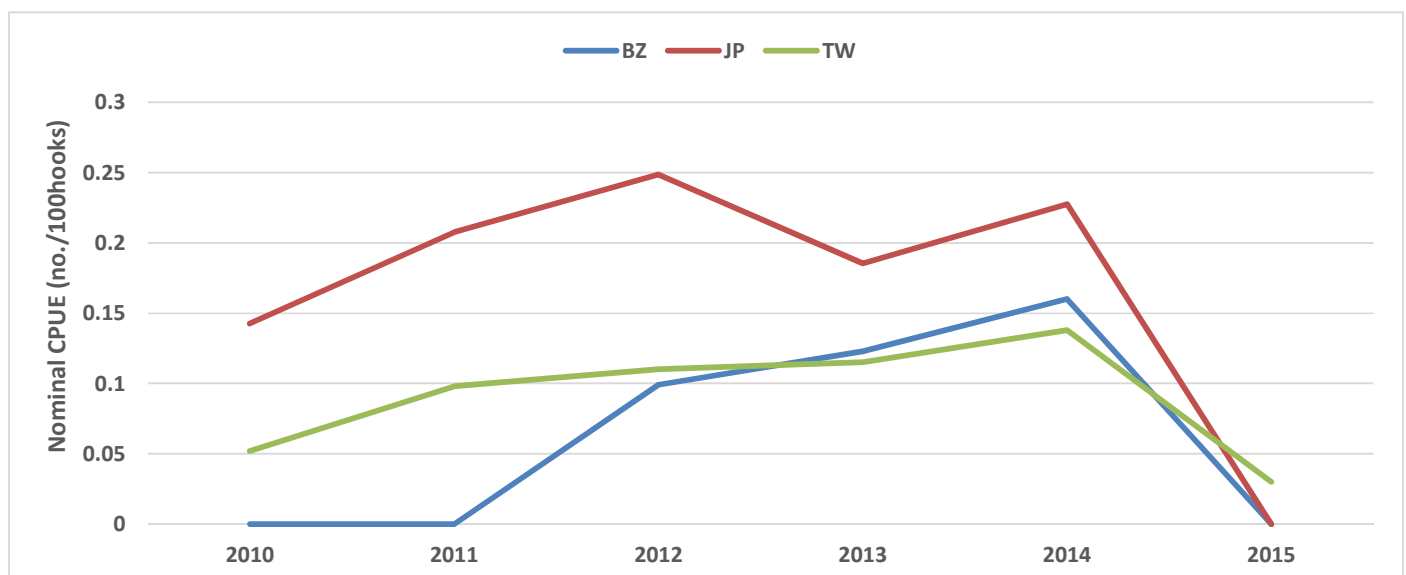
Even though catch for the last five years has been stable ever since its peak record of 5,000metric tonnes in 2006, a quite increase can be seen in 2014. Table 2 shows the annual catch estimates, 2010-2014.

**Table2. Estimates of the catch by species for the locally based foreign longline fleet of Belize, Chinese Taipei and the off-shore based flee of Japan t in Palau waters, 2010-2014.**

| Flag           | Year | Catch (metric tonnes) |          |          | Total    |
|----------------|------|-----------------------|----------|----------|----------|
|                |      | Alb                   | Bet      | Yft      |          |
| Belize         | 2010 | 0.000                 | 0.000    | 0.000    | 0.000    |
|                | 2011 | 0.000                 | 0.000    | 0.000    | 0.000    |
|                | 2012 | 0.000                 | 4.453    | 0.302    | 4.755    |
|                | 2013 | 0.000                 | 217.000  | 20.028   | 237.028  |
|                | 2014 | 28.000                | 434.000  | 42.000   | 504.000  |
| Chinese Taipei | 2010 | 0.44                  | 400.027  | 1214.418 | 1614.885 |
|                | 2011 | 0.954                 | 776.067  | 726.230  | 1503.251 |
|                | 2012 | 0.413                 | 483.828  | 324.110  | 808.351  |
|                | 2013 | 0.000                 | 712.729  | 362.186  | 1074.915 |
|                | 2014 | 11.114                | 1640.922 | 834.000  | 2486.036 |
| Japan          | 2010 | 4.117                 | 496.857  | 244.521  | 745.495  |
|                | 2011 | 3.91                  | 698.185  | 242.749  | 944.844  |
|                | 2012 | 11.149                | 889.436  | 131.949  | 1032.534 |
|                | 2013 | 73.344                | 796.358  | 151.830  | 1021.532 |
|                | 2014 | 2.122                 | 919.932  | 269.596  | 1191.650 |
| Total          | 2010 | 4.557                 | 896.884  | 1458.939 | 2360.380 |
|                | 2011 | 4.864                 | 1474.252 | 968.979  | 2448.095 |
|                | 2012 | 11.562                | 1377.717 | 456.361  | 1845.640 |
|                | 2013 | 73.344                | 1726.087 | 534.044  | 2333.475 |
|                | 2014 | 41.236                | 2994.854 | 1145.596 | 4181.686 |

## 2.3 Catch Rates

The CPUE for the Japan off-shore fleet and the locally based foreign fleet of Chinese Taipei and Belize.



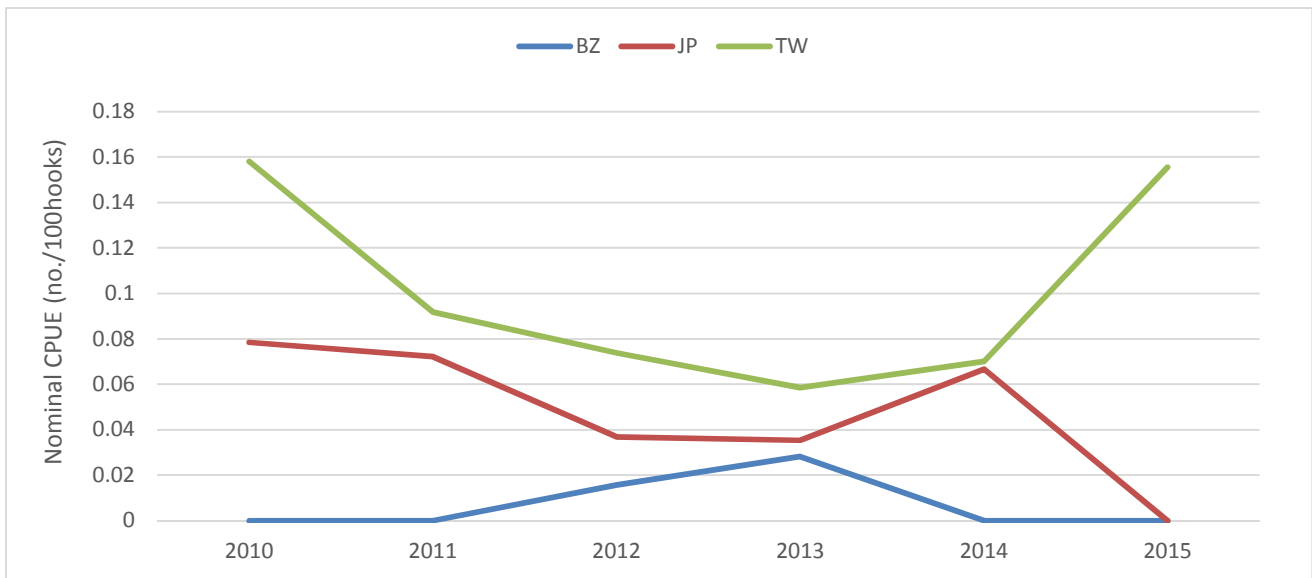


Figure3. Annual trends in nominal CPUE (number per hundred 100 hooks) for longline fleets operating in the Palau EEZ, 2010-2014 (Bigeye tuna CPUE – TOP; Yellowfin tuna CPUE – BOTTOM)

### 3. Conservation and Management Measures Reporting

Table5. Report on conservation and management measures, 2014

| CMM Reference                                      | Description                            | Response                          |
|--|--|-----------------------------------|
| CMM 05-03  | North Pacific Albacore                 | Not Applicable; No National Fleet |
| CMM-06-04  | SW Striped Marlin                      | Not Applicable; No National Fleet |
| CMM-07-04  | Seabirds interaction by National Fleet | Not Applicable; No National Fleet |
| CMM 09-03  | SW Sword Fish                          | Not Applicable; No National Fleet |
| CMM-09-06  | Transshipment                          | Not Applicable; No National Fleet |
| CMM 10-05  | South Pacific Albacore                 | Not Applicable; No National Fleet |
| CMM 10-07  | Sharks                                 | Not Applicable; No National Fleet |
| CMM 11-03  | Cetaceans                              | Not Applicable; No National Fleet |
| CMM 11-04  | Oceanic White-Tip Shark                | Not Applicable; No National Fleet |
| CMM-12-04  | Whale Shark                            | Not Applicable; No National Fleet |
| CMM-13-08  | Silky Sharks                           | Not Applicable; No National Fleet |
| Observer Coverage (WCPFC 11 decision-para 484 (b)) | Longline Observer Coverage_2014        | Not Applicable; No National Fleet |

### 4. Status of data collection systems

Palau at the moment is implementing all latest versions of SPC's regional data forms. SPC Tufman Database System is fully utilized to streamline and collate all data, while ongoing work continues in linking TUFMAN, Tuna Fisheries Database Management System, with the PNA VDS which would allow accurate timely correlation of fishing effort in Palau's EEZ. Further enhancement in this work is by the FFA VMS that provides an MCS component to fisheries management process.

Palau observer has been deployed on the locally based foreign fleet since the 80's with more general duties, such as the collection of data on fishing gear and the size and species composition of catches. Because of the small observer program in place, Palau continues to hire and train thru regional training more personnel. At the moment Palau has one (1) permanent observer and three (3) seasonal observers.

#### 4.1 Longline observed fate of the catch, 2000 – 2014.

The fate (in percentage of number of individuals) of observed catch caught by longliners operating in the EEZ, overall and by species for the years 2000 to 2014. The right bar graphs show the number of fish observed.

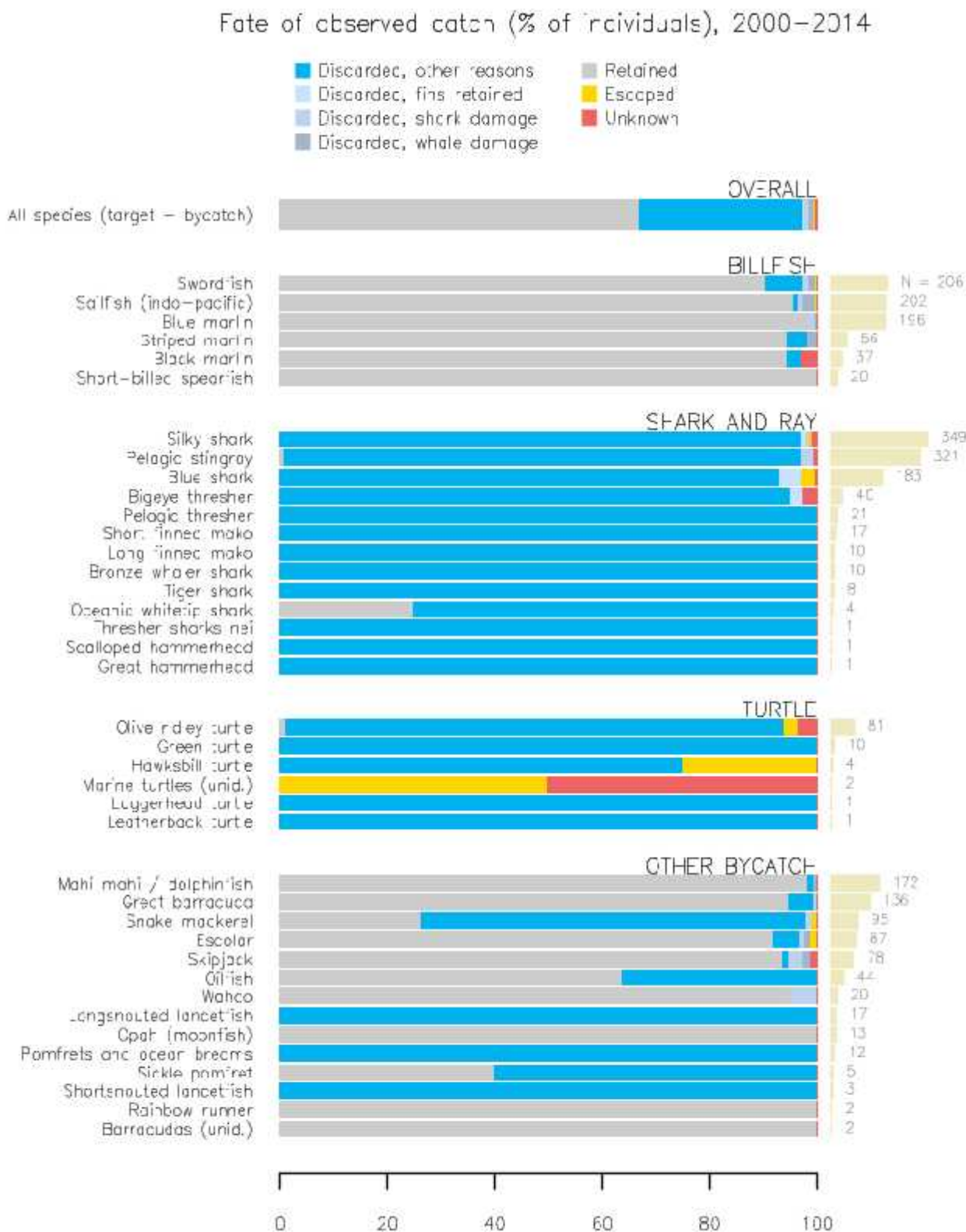


Figure 5. Observer fate of the catch for the Longline fishery in Palau\_2000-2014



## 4.2 Longline observed catch composition by species group for the longline fishery in Palau EEZ, 2000-2014

Overall composition (in percentage of number of individuals) by species group of observed catch recorded by observers for longliners operating in Palau EEZ for the years 2000 to 2014 (lower horizontal bar) and the five dominant species in each species group as a proportion of the number of individuals (upper vertical bars). Non-dominant species are grouped in the "Other" category for each species group.

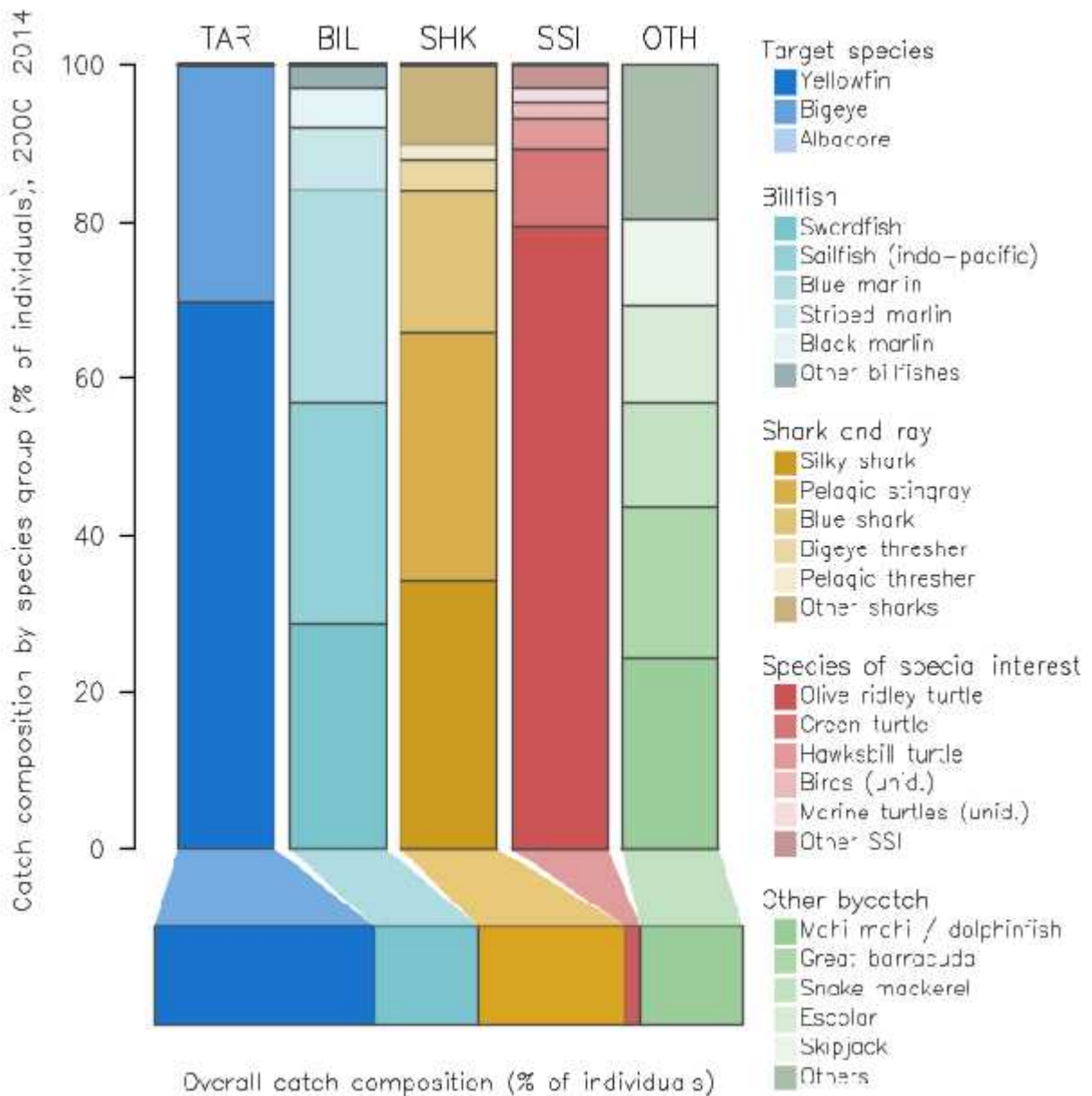
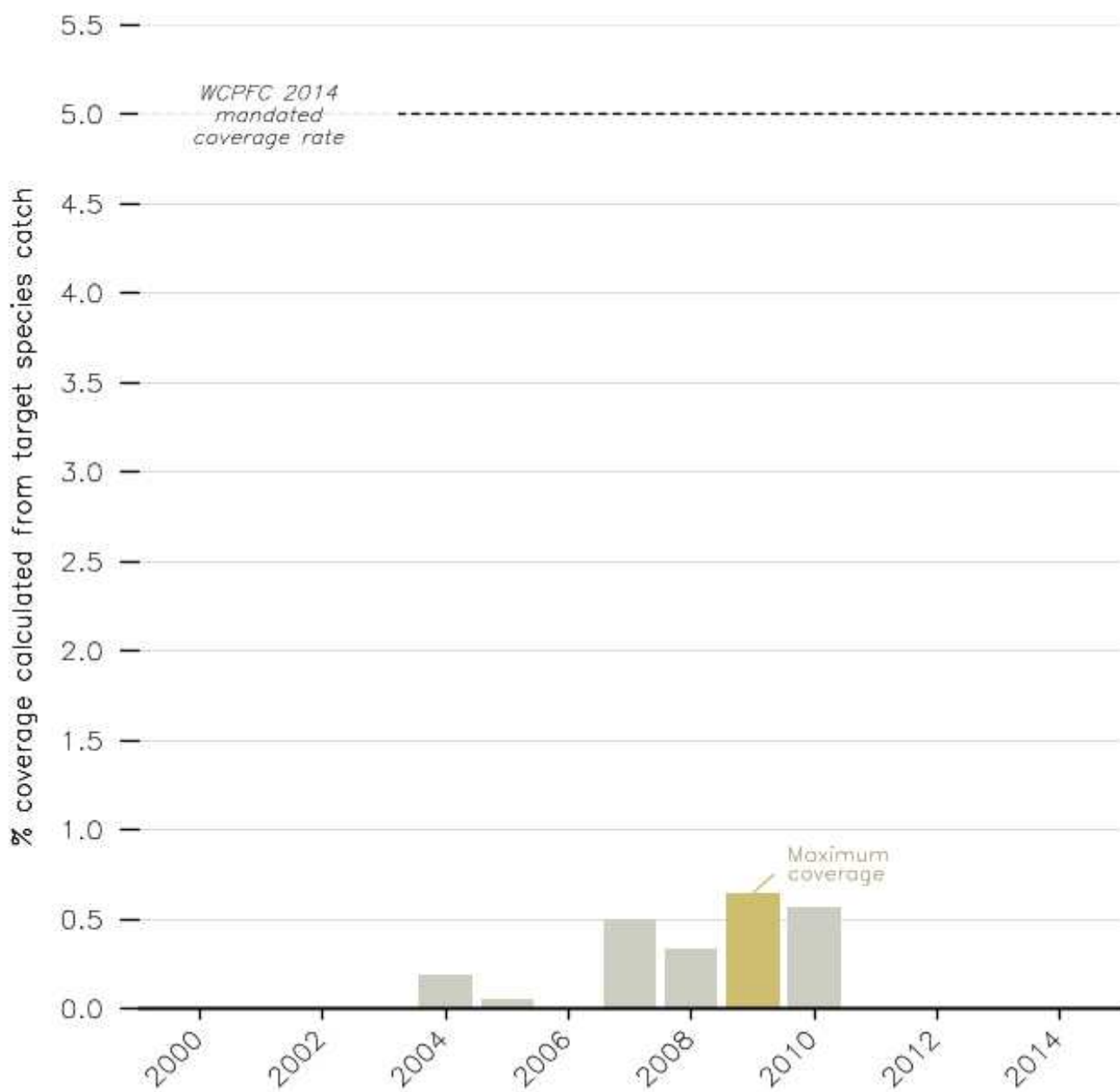


Figure 6. Longline observed overall catch composition by species group, 2000-2014. Source: observer

**4.3 Annual longline observation coverage rate for the fleets operating in the EEZ. Data may be incomplete for the most recent years. The year with the highest observer's coverage is highlighted in the yellow color.**



**Figure7. Annual longline observation coverage rate for the fleets operating in the EEZ. Sources: observer data and best annual catch estimates.**

#### 4.4 Port Sampling Program

Dedicated personnel of fisheries port samplers are present at all times during offloading at fisheries port to collect data and information. Table 4, shows number of fish sampled, 2001-2014.

*Table4. Port sampling summary – number of fish sampled by year*

| Year | FISH SAMPLED |        |        |       |        |
|------|--------------|--------|--------|-------|--------|
|      | ALB          | BET    | YFT    | OTHER | TOTAL  |
| 2001 | 17           | 18,525 | 35,104 | 4,307 | 57,953 |
| 2002 | 4            | 9,586  | 24,327 | 2,160 | 36,077 |
| 2003 | 3            | 10,738 | 34,789 | 1,018 | 46,548 |
| 2004 | 55           | 12,003 | 50,577 | 948   | 63,583 |
| 2005 | 31           | 24,126 | 44,603 | 1,208 | 69,968 |
| 2006 | 27           | 43,539 | 48,510 | 1,877 | 93,953 |
| 2007 | 9            | 25,839 | 50,845 | 310   | 77,003 |
| 2008 | 23           | 25,223 | 21,610 | 231   | 47,087 |
| 2009 | 133          | 6,522  | 8,643  | 463   | 15,761 |
| 2010 | 5            | 7,872  | 35,448 | 66    | 43,391 |
| 2011 | 1            | 13,929 | 23,590 | 30    | 37,550 |
| 2012 | 0            | 18,467 | 23,067 | 0     | 41,534 |
| 2013 | 1            | 23,232 | 19,542 | 381   | 43,156 |
| 2014 | 1            | 21,311 | 16,928 | 26    | 38,266 |

#### 5. Future Developments

In addition to the Fishing Agreements between Palau and the Japan Fishing Association, Locally Based Foreign Fleet of Chinese Taipei, US Multilateral Fisheries Treaties, and FSM Arrangement Palau now has an agreement with a Palau wholly owned fishing entity though at the moment does not have active fishing vessel.

In 2012, Palau passed into law an Open Ship Registry. This Open Ship Registry enable Palau to develop its' own domestic tuna fishery, but to date does not have fishing vessels (or vessels in support of fishing activities) currently registered.

Revenues derived from off-shore fishery, is the second generating revenue for Palau.