## REGIONAL TUNA TAGGING PROJECT - PHASE 1 PNG

MONTHLY TAGGING SUMMARY - SEPTEMBER 2007


## TAG RELEASES

No field work has been undertaken since May 2007, therefore the numbers of releases remain unchanged since the previous report (Table 1).

Table 1. Tag releases, August 2006 -May 2007.

|  | Skipjack | Yellowfin | Bigeye | Total |
| :--- | :--- | :--- | :--- | :--- |
| Conventional tags | 40338 | 20300 | 633 | 61271 |
| Archival tags | 2 | 233 | 48 | 283 |
| Sonic tags | 69 | 135 | 18 | 222 |
| Total | $\mathbf{4 0 4 0 9}$ | $\mathbf{2 0 6 5 1}$ | $\mathbf{6 9 1}$ | $\mathbf{6 1 7 5 1}$ |

## TAG RECOVERIES

September was another busy month for tag returns (Figure 1), with 535 conventional tag returns, 2 archival tags and 1 sonic tag. This brings the total number of tag returns to 6,269 , with an overall recovery rate of $10.2 \%$ (Table 2) for conventional tags, $11.3 \%$ for archival tags (Table 3) and $7.7 \%$ for sonic tags (Table 4).

Table 2. Conventional tag recoveries, as at 30 September 2007.

|  | Skipjack | Yellowfin | Bigeye | Total |
| :--- | :--- | :--- | :--- | :--- |
| September 1st - 30th recoveries | 314 | 210 | 11 | 535 |
| Total to September 30th | $3723(9.2 \%)$ | $2344(11.3 \%)$ | $202(29.2 \%)$ | $6269(10.2 \%)$ |

Note : numbers include returns that were double tagged with conventional and electronic tags.

Tag reporting arrangements were considerably enhanced in the Philippines (General Santos City and Zamboanga) and in Indonesia (Bitung, Sorong, Jayapura, Ternate and Kendari) with the appointment of Tag Recovery officers in these locations.

Table 3. Archival tag recoveries, as at 30 September 2007.

|  | Skipjack | Yellowfin | Bigeye | Total |
| :--- | :--- | :--- | :--- | :--- |
| September 1st - 30th recoveries | - | 2 | - | 2 |
| Total to September 30th | $1(50 \%)$ | $21(9 \%)$ | $10(20.8 \%)$ | $32(11.3 \%)$ |

Table 4. Sonic tag recoveries, as at 30 September 2007.

|  | Skipjack | Yellowfin | Bigeye | Total |
| :--- | :--- | :--- | :--- | :--- |
| September 1st - 30th recoveries | - | 1 | - | 1 |
| Total to September 30th | $2(2.9 \%)$ | $8(5.9 \%)$ | $7(38.9 \%)$ | $17(7.7 \%)$ |



Figure 1. Number of tag returns by month.

The September recoveries were dominated by a large delivery of tags from the RD fishing company in PNG, Frabelle in PNG and our recovery contact in Thailand (Table 5).

## NATIONAL TAG LOTTERIES

We are planning to conduct a number of national lotteries for tag returns in the near future. Further information and local publicity regarding these events will be made available through the local tag recovery contacts.

Table 5. Number of tag recoveries by source (location found).

| Tag return source | September returns | Total returns |
| :--- | :---: | :---: |
| American Samoa | 5 | 10 |
| China | 0 | 1 |
| FSM | 0 | 1 |
| IATTC | 0 | 50 |
| Indonesia | 0 | 34 |
| IOTC | 2 | 2 |
| Japan | 0 | 171 |
| Korea | 0 | 71 |
| Other | 43 | 5 |
| Philippines (direct) | 0 | 98 |
| Philippines (Frabelle) | 120 | 162 |
| PNG (Frabelle) | 0 | 352 |
| PNG (NFA) | 17 | 87 |
| PNG (other) | 170 | 45 |
| PNG (RD) | 37 | 4625 |
| PNG (SSTC) | 25 | 60 |
| Solomon Islands (Soltai) | 0 | 72 |
| Tagging vessel | 116 | 22 |
| Thailand | 535 | 401 |
| TOTAL |  | 6269 |
|  | 0 |  |

Overall, tag recoveries continue to be dominated by PNG flagged or affiliated vessels fishing primarily in the Bismarck Sea, where most of the tagged tuna were released (Table 5). However, significant recaptures of tagged tuna continue to be made by all of the major purse seine fleets (Japan, Korea, Taiwan, Vanuatu).

Table 6. Number of tag recoveries by vessel flag.

| Flags | September 2007 returns | Total returns |
| :--- | :---: | :---: |
| Non identified | 18 | 203 |
| China | 9 | 19 |
| FSM | 0 | 3 |
| Indonesia | 0 | 35 |
| Japan | 4 | 181 |
| Kiribati | 0 | 5 |
| Korea | 7 | 110 |
| Marshall Islands | 1 | 4 |
| New Zealand | 1 | 2 |
| PNG | 241 | 4969 |
| Philippines | 179 | 479 |
| Solomon Islands | 26 | 83 |
| Taiwan | 44 | 136 |
| United States | 0 | 4 |
| Vanuatu | 5 | 35 |
| Palau | 0 | 1 |
| TOTAL | 535 | 6269 |

## TAGGED FISH MOVEMENTS

Updated graphics showing the movements of tagged tuna are shown below in figures 2-4. Skipjack continue to show the greatest mobility, followed by yellwfin and bigeye tuna.


Figure 2. Displacements of tagged SKIPJACK > 300 nmi .


Figure 3. Displacements of tagged YELLOWFIN > 200 nmi.


Figure 4. Displacements of tagged BIGEYE > 100 nmi .

