
Xiao-jie Dai, Liu-xiong Xu and Li-ming Song
Shanghai Fisheries University, Shanghai 200090, China
Introduction

• Longline fishing gear is the only fishing method that China used operating in the Eastern Pacific Ocean (EPO). China longline fishery targeted on bigeye tuna in the high seas of tropical EPO. Although limited bigeye tuna are caught by Chinese tuna fleet, detailed fishery information and biological information from the catch should be investigated. The information will facilitate the pelagic fish stock assessment in the EPO. Based on the idea, China conducted observer program in the 2006.
Survey Date and Areas

• Feb 11, 2006 ~ December 12, 2006.
• total 223 sets(fishing days) in the Eastern Pacific Ocean(EPO) and total hooks amounted to 588250. Average hook per set(day) is 2638.
• EPO (N05~S07°, W 134° ~W173°) (Fig. 1).
Fishing gear
• Main line is consisted of nylon monofilaments. Branch lines per basket is between 17-18. The length of float line is between 40m to 50m. The length of branch line is 46m and interval length between branch line is 45m
Catch species

- There are 36 species of fish in the observer survey (Tab.2). These species can be classified three types of catch:

  - First type of catch is **high economic value species** such as bigeye tuna, yellowfin tuna, swordfish, and striped marlin, which are sold to the Japan market for sashimi.

  - Second type of catch is **low economic value species** such as albacore, wahoo, blue marlin, black marlin, sailfish, shortbill spearfish, shortfin mako, etc., which are sold Fiji etc. for canned products.

  - The third type of catch is **discards species** such as most of sharks, rays, mantas, snake mackerels, sunfish etc.
• The survey total catch of is 1968591kg, which included bigeye tuna 104015kg (No. of fish 2748), yellowfin tuna 36020kg (No. of fish 1223), swordfish 10266kg (No. of fish 277), other species 46558kg.
The average weight of bigeye tuna (GG weight) is 37.85, which is slightly higher than that of 2003 observer survey (37.14 kg); and the average weight of yellowfin tuna (GG weight) is 29.45, which is slightly higher than that of 2003 observer survey (28.02 kg), and the average weight of swordfish (Dressed weight) is 37.06 kg. Nominal CPUE for bigeye tuna and yellowfin tuna are 4.671 per thousand hooks and 2.079 per thousand hooks respectively.
Catch of pelagic species in the 2006 unit: kilogram

<table>
<thead>
<tr>
<th></th>
<th>BET</th>
<th>YFT</th>
<th>SWO</th>
<th>OTH</th>
<th>Sharks</th>
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<td>W</td>
<td>104015</td>
<td>36020</td>
<td>10266</td>
<td>46558</td>
<td>/</td>
<td>196859</td>
</tr>
<tr>
<td>No.</td>
<td>2748</td>
<td>1223</td>
<td>277</td>
<td>/</td>
<td></td>
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</tbody>
</table>
Billfish Catch

• There are four billfish species including blue marlin, striped marlin, shortbill spearfish and sailfish.

• Blue  Striped  Shortbill  Sailfish(Kg)
• 9700  2800   800   100
## Shark Catch

- **Retained Shark**
  - Shortfin  Oceanic  Silky  Hammerhead  Total
  - 343  3752  2515  643  7253

- **Discard Shark**
  - Blue  Crocodile  Bigeye  Velvet dogfish
  - 6700  /  /  /
Sea Turtles:

There are four species sea turtle in the survey, observing 22 sea turtles appeared in the catch. The number of alive (slightly damaged), damaged (still alive) and dead turtles are 11, 7 and 4 respectively. All the sea turtles are returned to sea no matter dead or alive.
No sea turtle was caught in 2003
Marine Mammals

• A male pilot dolphin was caught at position of S03° 41', W141° 36', with the size 217cm in length, weight 200 kg. The dolphin was hooked in the dorsal fin and entanglement caused its death.