State of California - The Resources Agency  
Department of Fish and Game  
Marine Resources Region  
Long Beach, California

CRUISE REPORT 72-KB-31  
BIG GAME FISH INVESTIGATIONS

Prepared by James E. Phelan

Vessel: R/V KELP BASS

Dates: December 12-21, 1972

Locality: The nearshore waters and islands off southern California and northern Baja California.

Purposes:
2. To gather samples of bonito, barracuda and white seabass for population analysis.
3. To tag and release jack mackerel *Trachurus symmetricus* taken incidentally.

Results:
A total of 191 bonito was tagged and released in Baja California waters between San Jose Pt. and Cape Colnett (Table 1, Figure 1). All were caught by trolling.

Some heads from representative size bonito were collected for otolith and vertebra examination.

No California barracuda or white seabass were encountered.

Small jack mackerel were observed under the night light at Santo Tomas. Two were tagged but both appeared to be in distress when returned to the water because of their small size relative to the size of the tag. For this reason no further jack mackerel were tagged.

Sea surface temperatures ranged from a low of 16.4°C (61.5°F) to a high of 18.1°C (64.6°F).


Personnel: Marco Mazarovich, Vessel Captain  
James E. Phelan, Biologist-in-charge  
Brian D. Quelvog, Biologist  
Jesus Camacho, Fishery Technician, I.N.P. MEXICO

MRR-LB/145  
1-10-73/cc
# TABLE I

Summary of Tagged Bonito Released during Cruise 72-KB-31

<table>
<thead>
<tr>
<th>Date</th>
<th>Release area</th>
<th>Number</th>
<th>Size Range cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 14</td>
<td>1</td>
<td>50</td>
<td>37-44</td>
</tr>
<tr>
<td>Dec. 14</td>
<td>2</td>
<td>13</td>
<td>57-74</td>
</tr>
<tr>
<td>Dec. 15</td>
<td>3</td>
<td>14</td>
<td>36-61</td>
</tr>
<tr>
<td>Dec. 16</td>
<td>3</td>
<td>11</td>
<td>40-58</td>
</tr>
<tr>
<td>Dec. 17</td>
<td>2</td>
<td>2</td>
<td>70,74</td>
</tr>
<tr>
<td>Dec. 18</td>
<td>2</td>
<td>87</td>
<td>55-74</td>
</tr>
<tr>
<td>Dec. 19</td>
<td>2</td>
<td>14</td>
<td>55-59</td>
</tr>
</tbody>
</table>