

Comisión Interamericana del Atún Tropical  
Inter-American Tropical Tuna Commission



Bycatch in the EPO – brief review

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# Main points

- **Observers in Class 6 PS**
  - 100% coverage since 1993; some data since 1986
- **Quality issues**
- **Observers in smaller seiners beginning**
- **EM in pilot studies**
- **Slowly improving longline coverage, with inconsistencies, and other problems to utilize - No solid estimates**
  - Logistic and economic obstacles. EM may be solution

# Bycatches in the PS fishery (class 6 vessels)

<b>Dolphin sets</b>	<b>Avg all years</b>	<b>1993</b>	<b>1994</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Silky shark	885	1,740	1,096	351	789	545
Oceanic whitetip	62	267	153	2	3	1
Scalloped hammerhead	7	0	9	9	6	4
Smooth hammerhead	6	0	1	9	5	8
Other/Unid HH shark	25	205	40	5	9	3
Other/Unid shark	448	462	378	108	105	70
<b>Total</b>	<b>1,434</b>	<b>2,674</b>	<b>1,677</b>	<b>485</b>	<b>917</b>	<b>630</b>
Giant manta	15	0	0	3	11	1
Spinetail manta	78	0	0	114	15	56
Chilean devil ray	30	0	0	25	11	2
Smoothtail manta	61	0	0	162	43	5
Munk's devil ray	16	0	0	84	10	12
Unid Manta/devil rays	342	482	355	225	372	166
<b>Total</b>	<b>542</b>	<b>482</b>	<b>355</b>	<b>613</b>	<b>462</b>	<b>242</b>

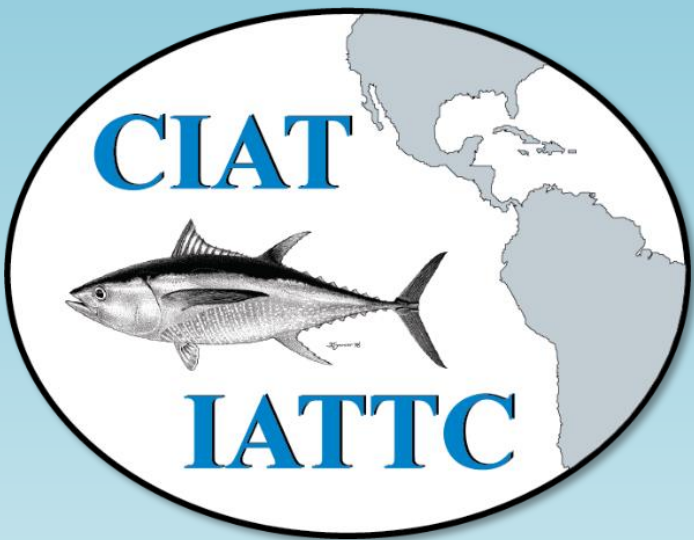
# Bycatches in the PS fishery (class 6 vessels)

<b>School sets</b>	<b>Avg all years</b>	<b>1993</b>	<b>1994</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Silky shark	2,142	11,448	7,745	375	564	321
Oceanic whitetip shark	122	597	283	13	5	0
Scalloped hammerhead	48	20	192	21	60	9
Smooth hammerhead	24	5	17	16	16	2
Other/Unid HH shark	87	406	391	19	22	2
Other/Unid shark	420	790	2,546	115	122	241
<b>Total</b>	<b>2,843</b>	<b>13,266</b>	<b>11,174</b>	<b>559</b>	<b>790</b>	<b>575</b>
Giant manta	105	0	0	67	53	7
Spinetail manta	84	0	0	25	26	48
Chilean devil ray	26	0	0	17	0	2
Smoothtail manta	255	0	3	26	51	29
Munk's devil ray	32	0	0	236	15	4
Unid Manta/devil rays	1,158	5,498	1,209	205	345	134
<b>Total</b>	<b>1,661</b>	<b>5,498</b>	<b>1,211</b>	<b>576</b>	<b>490</b>	<b>223</b>

# Bycatches in the PS fishery (class 6 vessels)

<b>Floating objects sets</b>	<b>Avg all years</b>	<b>1993</b>	<b>1994</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Silky shark	18,433	23,880	18,516	22,099	32,003	23,307
Oceanic whitetip shark	1,797	1,805	3,562	164	130	107
Scalloped hammerhead	262	12	5	239	186	175
Smooth hammerhead	257	0	12	358	171	180
Other/Unid HH shark	410	490	1,235	254	82	124
Other/Unid shark	2,361	6,743	4,131	2,650	3,624	1,905
<b>Total</b>	<b>23,520</b>	<b>32,929</b>	<b>27,461</b>	<b>25,764</b>	<b>36,196</b>	<b>25,798</b>
Giant manta	5	0	1	7	8	11
Spinetail manta	21	0	0	5	45	37
Chilean devil ray	5	0	0	13	10	8
Smoothtail manta	13	0	0	18	11	6
Munk's devil ray	4	0	0	2	8	22
Unid Manta/devil rays	80	285	50	51	168	151
<b>Total</b>	<b>127</b>	<b>285</b>	<b>51</b>	<b>96</b>	<b>250</b>	<b>234</b>
Mahi mahi	206,536	200,915	405,116	49,918	98,348	117,371
Wahoo	86,440	49,778	215,206	15,974	24,498	12,959
Rainbow runner	62,276	16,453	14,800	21,653	12,369	11,544
Yellowtail	21,462	4,592	8,430	10,755	10,588	24,819
Other large fish	4,135	7,811	1,742	931	597	747
<b>Total</b>	<b>380,849</b>	<b>279,549</b>	<b>645,294</b>	<b>99,231</b>	<b>146,399</b>	<b>167,440</b>





Questions