

## STATUS ON TROPICAL TUNAS FAD FISHERIES DATA SUBMISSIONS BY CPCs IN 2022

(Prepared by the Secretariat)

Following the recommendations from the Commission and the PA1 regarding Tropical Tunas FAD fisheries data submissions by CPCs as indicated in Rec. 21-01, the Secretariat is presenting a summary of the current (as of 7 October 2022) status of data submissions.

Total catches (including dead discards) of tropical tunas species (BET, YFT and SKJ) by CPCs are submitted with the Task 1 Nominal Catch (ST02-T1 NC) and are available in the PLE-105/2022 and SCRS Report. In addition to the nominal catch, it is required to submit catch and fishing effort information Task 2 CE (ST03-CE). In the case of tropical tuna fisheries it is required that catch-effort data be submitted in monthly and 1°x1° lat-lon degree resolution for purse seine fishing operations (Rec. 21-01) and monthly and 5x5 lat-lon degree resolution for longline fishing operations. In addition, Rec. 21-01 (para 37, and 38) requires additional data submissions for purse seine (including supply vessels) and baitboat fishing operations on FOB/FADs including the number of FADs deployed, visits on any FAD, and loss of any FAD, data that should be submitted with the ST08-FadsDep and ST-07 TropSupVes eforms specifically, Rec 21-01 para 39 item vi indicates: “*purse seine and baitboat catches, efforts and number of sets (for purse seines) by fishing model (floating-object associates schools and free schools fisheries) in line with Task 2 data requirements (i.e. per 1x1 statistical rectangles and per month)*”. Finally, the Commission also requested that the SCRS inform the Commission about the maximum number of FAD sets with should be established per vessel or per CPC, for which it was requested that CPCs submitted the required historical FAD set data by 31 July 2022 (Rec. 21-01 para 31).

**Table 1** shows a list of the data submissions of Task 2 CE (ST03 form) by CPCs in 2022 registered by the Secretariat. Of a total of 69 fleets, 60 provided ST03 CE information for the 2021 fishing calendar year (in some indicating no catch-fishing effort (i.e., no data)). Of these, 22 fleets submitted also the ST08-FadsDep indicating in some cases no fisheries with FADs (i.e., no data) and the year period for which FADs deployment information was provided. As Task 2 CE included all ICCAT species, columns 5 (TROP (ST03)) and 6 (PS (ST03)) indicate whether the CPC reported catches of Tropical tuna species, as was the case for 30 fleets (either BET, YFT, and/or SKJ) and whether the catch of tropical tuna species was from purse seine operations, as indicated by 13 fleets (PS gear). In 2022, only 1 CPC provided FAD historical data (2016-2021) through the ST08-FadsDep form.

**Table 2** shows a summary of the bigeye tuna (BET) catches (t) as reported by CPCs by Fleet type and main fishing gear since 2010, in the case of purse seine, catches are split between fishing mode FAD and Free School (FSC). The Fleet type is the classification of CPCs as adopted by PA1 during 2022 intersessional meetings. **Table 3** summarizes the available data on fishing effort (Task 2 CE) at the Secretariat for the purse seine (PS) fishing gear 2010-2021. Information is provided by Flag, fleet code, fishing mode (FAD and FSC) (rows), and year (columns). The values indicate the total catch of tropical tunas (YFT, BET, SKJ, others TT) (t). The columns (Eff1 and Eff2 type) indicate the type of fishing effort unit reported by each Flag for a given year, CPCs that have reported fishing effort in the units of the number of purse seine sets (num sets) are highlighted in light blue. This fishing effort associated with their corresponding catch for each species would allow the SCRS to address the Commission’s request contained in Rec. 19-02 para 31. However, most of the Task 2 CE data for tropical tunas purse seine fisheries contains fishing effort in terms of fishing hours (Fish hours), or time at sea (Hours sea, days fishing). Only two Flags have a catch-effort with the number of sets for the 2010 – 2021 period. In response to the Commission and Panel 1 request, other CPCs have submitted historical FAD data (**Table 4**), however, this data ONLY reported fishing effort and NOT the catch associated with these effort units. Unfortunately, the Secretariat can NOT replace the corresponding Task 2 CE data, as there is a missing catch and there is not an appropriate indication on how to estimate or recalculate catches for each tropical tuna species with the updated fishing effort provided.

The Secretariat would like to remind CPCs that updates to historical FAD data with units of fishing effort in the number of sets should be submitted through the ST-03 CE e-form including the complete catch information and in the degree of Spatio-temporal resolution approved by the Commission, e.g., monthly with 1°x1° lat-lon square.

**Table.** List of CPCs that have submitted to the Secretariat the statistical forms ST03 and ST08, by 7 October 2022.

| Status | CPC                      | ST03                | ST08                     | TROP (ST03)                                            | PS (ST03)                                           |
|--------|--------------------------|---------------------|--------------------------|--------------------------------------------------------|-----------------------------------------------------|
|        |                          | Report of Task 2 CE | Report of FAD deployment | Reports of Trop Tunas catch and effort (BET, SKJ, YFT) | Reports of Trop Tunas catch and effort with PS gear |
| CP     | Albania                  | 2020-2021           |                          |                                                        |                                                     |
| CP     | Algerie                  | 2021-2021           |                          |                                                        |                                                     |
| CP     | Barbados                 | 2021-2021           |                          | Yes                                                    |                                                     |
| CP     | Belize                   | 2021-2021           | 2021                     | Yes                                                    | Yes                                                 |
| CP     | Brazil                   | 2021-2021           |                          | Yes                                                    | Yes                                                 |
| CP     | Canada                   | 2021-2021           | 2021 (no data)           | Yes                                                    |                                                     |
| CP     | Cabo Verde               | 2021-2021           | 2021                     | Yes                                                    | Yes                                                 |
| CP     | China PR                 | 2021-2021           |                          | Yes                                                    |                                                     |
| CP     | Côte d'Ivoire            | 2021-2021           |                          | Yes                                                    |                                                     |
| CP     | Curaçao                  | 2021-2021           | 2021                     | Yes                                                    | Yes                                                 |
| CP     | Egypt                    | 2021-2021           |                          |                                                        |                                                     |
| CP     | El Salvador              | 2021-2021           | 2021                     | Yes                                                    | Yes                                                 |
| CP     | EU-Bulgaria              | 2021-2021           |                          |                                                        |                                                     |
| CP     | EU-Croatia               | 2021-2021           |                          |                                                        |                                                     |
| CP     | EU-Cyprus                | 2021-2021           |                          |                                                        |                                                     |
| CP     | EU-España                | 2021-2021           | 2021                     | Yes                                                    | Yes                                                 |
| CP     | EU-France                | 2021-2021           | 2021                     | Yes                                                    | Yes                                                 |
| CP     | EU-Greece                | 2021-2021           |                          |                                                        |                                                     |
| CP     | EU-Ireland               | 2021-2021           |                          |                                                        |                                                     |
| CP     | EU-Italy                 | 2021-2021           |                          |                                                        |                                                     |
| CP     | EU-Malta                 | 2021-2021           |                          |                                                        |                                                     |
| CP     | EU-Netherlands           | 2021-2021           |                          |                                                        |                                                     |
| CP     | EU-Portugal              | 2021-2021           |                          | Yes                                                    |                                                     |
| CP     | FR-St Pierre et Miquelon | 2021-2021 (no data) | 2021 (no data)           |                                                        |                                                     |
| CP     | Gabon                    | 2021-2021 (no data) |                          |                                                        |                                                     |
| CP     | Gambia                   |                     |                          |                                                        |                                                     |
| CP     | Ghana                    | 2021-2021           | 2021                     |                                                        |                                                     |
| CP     | Great Britain            | 2021-2021           | 2021                     |                                                        |                                                     |
| CP     | Grenada                  |                     |                          |                                                        |                                                     |
| CP     | Guatemala                | 2021-2021           | 2021                     | Yes                                                    | Yes                                                 |
| CP     | Guinea Bissau            |                     |                          |                                                        |                                                     |
| CP     | Guinea Ecuatorial        |                     |                          |                                                        |                                                     |
| CP     | Guinée Rep               | 2021-2021           | 2021                     | Yes                                                    | Yes                                                 |
| CP     | Honduras                 | 2021-2021 (no data) |                          |                                                        |                                                     |
| CP     | Iceland                  | 2021-2021           |                          |                                                        |                                                     |
| CP     | Japan                    | 2019-2021           |                          | Yes                                                    |                                                     |
| CP     | Korea Rep                | 2021-2021           |                          | Yes                                                    |                                                     |
| CP     | Liberia                  |                     |                          |                                                        |                                                     |

|     |                              |                        |                |     |     |
|-----|------------------------------|------------------------|----------------|-----|-----|
| CP  | Libya*                       | 2021-2021              |                |     |     |
| CP  | Maroc                        | 2021-2021              | 2021           | Yes | Yes |
| CP  | Mauritania                   |                        |                |     |     |
| CP  | Mexico                       | 1993-2021              | 2021           | Yes |     |
| CP  | Namibia                      | 2021-2021              |                | Yes |     |
| CP  | Nicaragua                    | 2021-2021<br>(no data) |                |     |     |
| CP  | Nigeria                      | 2021-2021<br>(no data) | 2021 (no data) |     |     |
| CP  | Norway                       | 2021-2021              |                |     |     |
| CP  | Panama*                      | 2020-2021              | 2021           | Yes | Yes |
| CP  | Philippines                  | 2015-2022<br>(no data) | 2021 (no data) |     |     |
| CP  | Russian Federation           | 2021-2021              |                | Yes |     |
| CP  | S Tom é Príncipe             |                        |                |     |     |
| CP  | Senegal                      | 2021-2021              | 2016-2021      | Yes | Yes |
| CP  | Sierra Leone                 |                        |                |     |     |
| CP  | South Africa                 | 2021-2021              |                | Yes |     |
| CP  | St Vincent and<br>Grenadines | 2021-2021              |                | Yes |     |
| CP  | Syria                        | 2021-2021<br>(no data) |                |     |     |
| CP  | Trinidad and Tobago          | 2021-2021              |                | Yes |     |
| CP  | Tunisie                      | 2021-2021              |                |     |     |
| CP  | Türkiye                      | 2021-2021              |                |     |     |
| CP  | UK-Bermuda                   | 2021-2021              | 2021 (no data) | Yes |     |
| CP  | UK-British Virgin<br>Islands | 2021-2021<br>(no data) | 2021 (no data) |     |     |
| CP  | UK-Sta Helena                | 2021-2021              | 2021           | Yes |     |
| CP  | UK-Turks and Caicos          | 2018-2022<br>(no data) | 2021           |     |     |
| CP  | USA                          | 1986-2009<br>2020-2021 |                | Yes |     |
| CP  | Uruguay                      |                        |                |     |     |
| CP  | Venezuela                    | 2021-2021              |                | Yes | Yes |
| NCC | Bolivia                      | 2021-2021<br>(no data) |                |     |     |
| NCC | Chinese Taipei               | 2020-2021              |                | Yes |     |
| NCC | Costa Rica                   | 2021-2021<br>(no data) |                |     |     |
| NCC | Suriname                     | 2019-2021              |                |     |     |

\*Libya and Panama submitted Task 2 CE data after 7 October 2022.

**Table 2.** Total Task 1 nominal catch of bigeye tuna (BET) for the period 2010-2021 by CPC, gear type, and fishing mode. The second table shows the same information with a breakdown by party.

| BET catch t<br>Fleet Type | Fishing gear    | Year          |               |               |               |               |               |               |               |               |               |               |               |               |
|---------------------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                           |                 | 2010          | 2011          | 2012          | 2013          | 2014          | 2015          | 2016          | 2017          | 2018          | 2019          | 2020          | 2021          |               |
| <b>A</b>                  | Longline        | 39,206        | 34,761        |               |               |               |               |               |               |               |               |               |               |               |
|                           | Purse seine FAD | 13,101        | 11,869        | 32,606        | 29,524        | 33,169        | 35,443        | 31,010        | 29,813        | 27,763        | 27,492        | 23,525        | 15,579        |               |
|                           | Purse seine FSC | 3,499         | 2,873         | 12,211        | 10,367        | 10,981        | 12,274        | 13,729        | 12,289        | 10,253        | 8,225         | 6,708         | 7,048         |               |
|                           | Baitboat        | 6,731         | 11,725        | 3,159         | 2,237         | 2,673         |               | 1,950         | 2,956         | 1,367         | 2,094         | 4,962         | 1,464         | 761           |
|                           | Other surf.     | 286           | 237           | 9,431         | 8,114         | 8,075         |               | 7,147         | 5,985         | 7,950         | 7,557         | 6,931         | 6,025         | 5,550         |
|                           | <b>A Total</b>  |               | <b>62,823</b> | <b>61,465</b> | <b>57,436</b> | <b>50,307</b> | <b>54,923</b> | <b>56,934</b> | <b>54,147</b> | <b>51,821</b> | <b>47,889</b> | <b>47,661</b> | <b>37,852</b> | <b>29,120</b> |
| <b>B</b>                  | Longline        | 3,310         | 3,139         |               |               |               |               |               |               |               |               |               |               |               |
|                           | Purse seine FAD | 7,332         | 9,021         | 2,338         | 2,720         | 3,601         |               |               |               |               |               |               |               |               |
|                           | Purse seine FSC | 972           | 1,024         | 8,731         | 9,107         | 9,781         | 10,218        | 11,266        | 11,874        | 12,087        | 11,531        |               | 7,814         | 4,860         |
|                           | Bait boat       | 1,111         | 934           | 802           | 1,042         | 1,428         | 702           |               | 1,424         | 1,815         | 3,334         | 2,655         | 1,494         |               |
|                           | Other surf.     | 202           | 909           | 1,028         | 1,081         | 640           | 823           | 725           | 416           | 375           | 410           | 786           | 591           | 5,154         |
|                           | <b>B Total</b>  |               | <b>12,926</b> | <b>15,027</b> | <b>13,881</b> | <b>16,669</b> | <b>20,385</b> | <b>22,538</b> | <b>24,719</b> | <b>26,233</b> | <b>24,474</b> | <b>26,978</b> | <b>20,284</b> | <b>16,833</b> |
| <b>C</b>                  | Longline        | 0             |               |               | 1             |               |               | 17            | 24            | 38            | 28            | 11            | 11            |               |
|                           | Purse seine FAD | 324           | 257           |               |               | 0             |               | 503           | 993           | 546           | 669           | 891           | 868           | 6             |
|                           | Other surf.     | 0             | 0             |               |               |               |               |               | 14            | 28            | 16            | 22            | 18            |               |
|                           | <b>C Total</b>  | <b>324</b>    | <b>257</b>    | <b>0</b>      | <b>1</b>      | <b>0</b>      | <b>528</b>    | <b>1,030</b>  | <b>611</b>    | <b>713</b>    | <b>923</b>    | <b>898</b>    | <b>6</b>      |               |
| <b>Grand Total</b>        |                 | <b>76,074</b> | <b>76,749</b> | <b>71,317</b> | <b>66,977</b> | <b>75,308</b> | <b>80,000</b> | <b>79,897</b> | <b>78,665</b> | <b>73,077</b> | <b>75,563</b> | <b>59,033</b> | <b>45,959</b> |               |

| Catch t        |                |                 | Year         |              |              |              |              |              |              |              |              |              |              |              |
|----------------|----------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Fleet Type     | Party Name     | Fishing gear    | 2010         | 2011         | 2012         | 2013         | 2014         | 2015         | 2016         | 2017         | 2018         | 2019         | 2020         | 2021         |
| A              | China PR.      | Longline        | 5489         | 3720         | 3231         | 2371         | 2232         | 4942         | 5852         | 5514         | 4823         | 5718         | 3614         | 1638         |
|                |                | Longline        | 13189        | 13732        | 10819        | 10316        | 13272        | 16453        | 13115        | 11845        | 11630        | 11288        | 9226         | 4093         |
|                | Chinese Taipei | Bait boat       | 5847         | 11214        | 9074         | 7654         | 7273         | 6565         | 5647         | 7636         | 7032         | 6743         | 5778         | 5548         |
|                |                | Longline        | 1278         | 973          | 726          | 966          | 1059         | 982          | 1115         | 1028         | 807          | 605          | 445          | 412          |
|                |                | Other surf.     | 286          | 237          | 29           | 64           | 25           | 120          | 468          | 402          | 223          | 51           | 130          | 182          |
|                | European Union | Purse seine FAD | 8084         | 8953         | 8387         | 8050         | 7673         | 7012         | 8881         | 8770         | 7142         | 5501         | 3800         | 5171         |
|                |                | Purse seine FSC | 3147         | 2760         | 2873         | 2051         | 2608         | 1876         | 2948         | 1362         | 2094         | 4957         | 1460         | 715          |
|                |                | Bait boat       | 883          | 511          | 358          | 460          | 802          | 582          | 338          | 314          | 525          | 188          | 248          | 2            |
|                | Ghana          | Other surf.     |              |              |              |              |              | 1            |              |              |              |              |              |              |
|                |                | Purse seine FAD | 5018         | 2916         | 3825         | 2317         | 3308         | 5262         | 4848         | 3519         | 3111         | 2724         | 2908         | 1877         |
|                |                | Purse seine FSC | 352          | 113          | 286          | 186          | 65           | 74           | 8            | 5            |              | 5            | 4            | 46           |
|                | Japan          | Longline        | 15205        | 12306        | 15390        | 13397        | 13603        | 12390        | 10365        | 10994        | 9881         | 9341         | 9653         | 8762         |
|                | Korea Rep.     | Longline        | 2646         | 2762         | 1908         | 1151         | 1039         | 677          | 562          | 432          | 623          | 540          | 587          | 674          |
|                |                | Purse seine FSC | 0            |              |              |              |              |              |              |              |              |              |              |              |
|                | Philippines    | Longline        | 1399         | 1267         | 532          | 1323         | 1964         |              |              |              |              |              |              |              |
| <b>A Total</b> |                |                 | <b>62823</b> | <b>61465</b> | <b>57436</b> | <b>50307</b> | <b>54923</b> | <b>56934</b> | <b>54147</b> | <b>51821</b> | <b>47889</b> | <b>47661</b> | <b>37852</b> | <b>29120</b> |
| B              | Barbados       | Longline        | 8            | 6            | 11           | 10           | 23           | 30           | 19           | 13           | 26           | 13           | 20           | 25           |
|                |                | Other surf.     | 4            | 2            | 4            | 1            | 3            | 0            | 1            | 3            | 3            | 1            | 0            | 0            |
|                | Belize         | Longline        | 48           | 556          | 12           | 103          | 163          | 224          | 474          | 595          | 353          | 321          | 152          | 127          |
|                |                | Purse seine FAD | 160          | 345          | 1246         | 915          | 962          | 1373         | 1048         | 941          | 1782         | 1986         | 598          | 337          |
|                |                | Purse seine FSC | 86           | 359          |              | 359          | 400          | 280          | 241          | 425          |              |              | 241          | 136          |
|                | Brazil         | Bait boat       | 97           | 174          | 401          | 235          | 159          | 178          | 2            | 1            | 100          | 57           | 197          | 231          |
|                |                | Longline        | 1055         | 1452         | 1165         | 1377         | 1966         | 2606         | 2322         | 2171         | 1595         | 1630         | 1705         | 1857         |
|                |                | Other surf.     | 22           | 210          | 555          | 2012         | 4332         | 4967         | 5336         | 5086         | 3401         | 4563         | 4251         | 4339         |
|                |                | Purse seine FSC |              | 5            |              |              |              |              |              |              |              |              | 132          | 72           |
|                | Canada         | Longline        | 97           | 121          | 155          | 190          | 186          | 249          | 166          | 208          | 233          | 193          | 95           | 247          |
| Other surf.    |                | 5               | 16           | 12           | 7            | 32           | 9            | 6            | 6            | 4            | 0            | 9            | 9            |              |

|                          |                 |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Cabo Verde</b>        | Other surf.     | 1    | 1    | 1    | 1    | 7    | 7    | 1    | 1    | 2    | 3    | 3    | 3    |
|                          | Purse seine FAD | 542  | 911  | 698  | 1218 | 2249 | 2832 | 1742 | 1082 | 951  | 607  | 378  | 58   |
|                          | Purse seine FSC | 113  | 165  | 36   | 159  | 112  | 89   | 57   | 62   | 518  | 313  | 249  | 110  |
| <b>Côte d'Ivoire</b>     | Longline        | 576  |      |      |      |      |      | 465  | 311  | 382  | 1826 | 127  | 39   |
|                          | Other surf.     |      | 2    | 0    | 54   | 3    | 12   | 79   | 928  | 2    | 509  | 13   | 20   |
|                          | Purse seine FAD |      | 47   | 601  | 627  | 438  |      |      |      |      |      |      |      |
| <b>Curaçao</b>           | Purse seine FAD | 2401 | 3255 | 2548 | 1659 | 2021 | 2399 | 3277 | 2523 | 2705 | 1477 | 1402 | 1716 |
|                          | Purse seine FSC | 346  | 232  | 402  | 340  | 336  | 174  | 322  | 321  | 825  | 1310 | 117  | 42   |
| <b>El Salvador</b>       | Purse seine FAD |      |      |      |      |      | 969  | 1302 | 1598 | 2081 | 1964 | 1404 | 1339 |
|                          | Purse seine FSC |      |      |      |      |      | 23   | 148  | 228  | 553  | 500  | 114  | 153  |
| <b>France (SMP)</b>      | Longline        | 2    |      |      | 0    | 0    |      |      |      |      |      |      |      |
| <b>Guatemala</b>         | Purse seine FAD | 784  | 210  | 173  | 137  | 804  | 317  | 922  | 1311 | 1173 | 1136 | 817  | 711  |
|                          | Purse seine FSC | 244  | 79   | 100  | 31   | 203  | 23   | 181  | 292  | 314  | 486  | 89   | 80   |
| <b>Guinea Ecuatorial</b> | Other surf.     |      |      |      | 3    | 10   | 17   | 4    | 11   | 7    | 8    | 6    | 6    |
|                          | Purse seine FAD |      | 58   |      |      |      |      |      |      |      |      |      |      |
| <b>Guinée Rep.</b>       | Purse seine FAD | 400  | 522  | 1804 | 1674 | 1091 |      |      |      |      |      |      |      |
|                          | Purse seine FSC | 2    | 2    |      |      | 21   |      |      |      |      |      |      |      |
| <b>Guyana</b>            | Longline        |      |      |      |      |      | 6    | 25   | 34   | 53   | 2    | 4    | 1    |
| <b>Liberia</b>           | Other surf.     |      |      |      |      |      |      | 27   | 98   | 1    | 3    | 0    | 0    |
|                          | Purse seine FAD |      |      |      |      |      |      |      |      |      |      | 222  | 28   |
| <b>Maroc</b>             | Longline        | 276  | 99   | 90   | 88   | 80   | 100  | 100  | 100  | 122  | 212  | 291  | 774  |
|                          | Other surf.     |      | 201  | 210  | 220  | 220  | 209  | 250  | 310  | 378  | 638  | 652  | 316  |
|                          | Purse seine FAD |      |      |      |      |      |      |      |      |      |      | 90   | 150  |
| <b>Mauritania</b>        | Longline        |      |      |      |      |      |      | 1    |      |      |      |      |      |
| <b>Mexico</b>            | Longline        | 3    | 1    | 1    | 2    | 1    | 2    | 2    | 3    | 3    | 3    | 3    | 3    |
| <b>Namibia</b>           | Bait boat       | 48   | 263  | 181  | 100  | 54   | 94   | 123  | 92   | 95   | 38   | 5    | 51   |
|                          | Longline        | 133  | 26   | 196  | 35   | 186  | 371  | 236  | 48   | 14   | 41   | 562  | 1134 |
| <b>Nigeria</b>           | Other surf.     | 3    | 1    | 0    |      |      |      |      |      |      |      |      |      |
| <b>NCPs</b>              | Longline        | 42   | 39   | 23   | 9    | 4    |      |      |      |      |      |      |      |

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|                           |                 |              |              |              |              |              |              |              |              |              |              |              |              |
|---------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Panama</b>             | Longline        |              |              |              |              |              |              | 315          | 105          | 404          | 497          | 891          | 219          |
|                           | Purse seine FAD | 2924         | 3438         | 1506         | 2728         | 2033         | 1240         | 1720         | 1189         | 995          | 2555         | 905          | 5            |
|                           | Purse seine FSC | 161          | 94           | 230          | 125          | 308          | 49           | 302          | 371          | 669          |              | 278          |              |
| <b>S. Tomé e Príncipe</b> | Longline        |              |              |              |              |              |              |              |              |              |              |              | 12           |
|                           | Other surf.     | 6            |              |              |              |              |              |              |              |              |              |              |              |
|                           | Purse seine FAD | 91           | 100          | 103          | 107          | 110          | 633          | 421          | 393          | 2            | 6            | 11           |              |
| <b>Senegal</b>            | Baitboat        | 954          | 455          | 432          | 599          | 359          | 501          | 577          | 287          | 159          | 222          | 513          | 184          |
|                           | Longline        |              |              |              |              |              |              |              |              |              | 219          |              |              |
|                           | Other surf.     | 15           | 24           | 4            | 7            | 10           | 101          | 29           | 5            | 4            | 4            | 71           | 154          |
|                           | Purse seine FAD |              |              |              |              |              | 400          | 834          | 2677         | 2398         | 1788         | 1942         | 516          |
|                           | Purse seine FSC |              |              |              |              |              | 29           | 61           | 9            | 309          | 38           | 245          | 2            |
|                           | Baitboat        | 8            | 28           | 12           | 142          | 50           | 50           | 10           | 22           | 14           | 91           | 71           | 122          |
|                           | Longline        | 137          | 124          | 35           | 294          | 282          | 143          | 111          | 235          | 269          | 341          | 286          | 258          |
| <b>Other surf.</b>        | Other surf.     | 0            |              |              |              |              |              |              |              |              |              |              |              |
|                           | Longline        | 396          | 37           | 25           | 15           | 30           | 496          | 622          | 889          | 428          | 503          | 220          | 136          |
|                           | Other surf.     |              | 1            |              | 1            | 0            | 0            |              | 0            | 0            | 0            | 0            |              |
| <b>T&amp;T</b>            | Longline        | 40           | 33           | 33           | 37           | 59           | 77           | 37           | 25           | 17           | 13           | 10           | 9            |
|                           | Other surf.     |              |              | 0            |              |              |              |              |              |              |              |              |              |
| <b>UK</b>                 | Longline        | 0            | 0            | 0            | 4            | 9            | 0            |              |              |              | 0            | 1            | 2            |
|                           | Other surf.     | 11           | 190          | 51           | 19           | 10           | 44           | 77           | 70           | 45           | 4            | 0            | 0            |
| <b>US</b>                 | Longline        | 443          | 603          | 582          | 509          | 584          | 574          | 386          | 568          | 389          | 580          | 495          | 664          |
|                           | Other surf.     | 134          | 262          | 146          | 394          | 308          | 508          | 182          | 268          | 532          | 249          | 316          | 307          |
| <b>Uruguay</b>            | Longline        | 23           | 15           | 2            | 30           |              |              |              |              |              |              |              |              |
| <b>Venezuela</b>          | Baitboat        | 5            | 14           | 2            | 6            | 18           | 0            | 13           | 14           | 7            | 1            | 0            | 3            |
|                           | Longline        | 31           | 27           | 9            | 18           | 30           | 44           | 31           | 35           | 12           | 7            | 6            | 4            |
|                           | Purse seine FAD | 29           | 135          | 52           | 42           | 73           | 53           |              | 162          |              | 12           | 44           |              |
|                           | Purse seine FSC | 19           | 89           | 34           | 28           | 48           | 35           | 112          | 107          | 146          | 8            | 29           | 122          |
| <b>B Total</b>            |                 | <b>12926</b> | <b>15027</b> | <b>13881</b> | <b>16669</b> | <b>20385</b> | <b>22538</b> | <b>24719</b> | <b>26233</b> | <b>24474</b> | <b>26978</b> | <b>20284</b> | <b>16833</b> |
| <b>C</b>                  | <b>Angola</b>   |              |              |              |              |              |              |              | 3            |              |              |              |              |

|                                |                 |              |              |              |              |              |              |              |              |              |              |              |              |
|--------------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                | Other surf.     |              |              |              |              |              |              |              |              | 0            |              |              |              |
|                                | Purse seine FAD |              |              |              |              |              |              |              |              |              | 253          |              |              |
| <b>Costa Rica</b>              | Longline        |              |              | 1            | 0            | 1            | 1            | 4            | 4            | 1            | 0            | 6            |              |
| <b>Gambia</b>                  | Other surf.     |              |              |              |              |              |              |              |              |              | 0            |              |              |
| <b>Grenada</b>                 | Longline        |              |              |              |              | 16           | 23           | 31           | 24           | 10           | 11           |              |              |
|                                | Other surf.     |              |              |              |              | 2            | 0            | 3            | 3            | 9            | 0            |              |              |
| <b>Non-Contracting Parties</b> | Other surf.     | 0            | 0            | 0            | 0            | 6            | 13           | 25           | 13           | 13           | 18           |              |              |
|                                | Purse seine FAD | 324          | 257          |              |              | 503          | 993          | 546          | 669          | 637          | 868          |              |              |
| <b>UK</b>                      | Longline        | 0            |              |              |              |              |              |              |              |              |              |              |              |
|                                | Other surf.     |              |              |              |              |              |              | 0            |              |              |              |              |              |
| <b>C Total</b>                 |                 | <b>324</b>   | <b>257</b>   | <b>0</b>     | <b>1</b>     | <b>0</b>     | <b>528</b>   | <b>1030</b>  | <b>611</b>   | <b>713</b>   | <b>923</b>   | <b>898</b>   | <b>6</b>     |
| <b>Grand Total</b>             |                 | <b>76074</b> | <b>76749</b> | <b>71317</b> | <b>66977</b> | <b>75308</b> | <b>80000</b> | <b>79897</b> | <b>78665</b> | <b>73077</b> | <b>75563</b> | <b>59033</b> | <b>45959</b> |



**Table 3.** Summary of the current task 2 catch-effort (Task 2-CE) for tropical tunas fisheries with the purse seine gear (PS) by flag, fleet code and year. Columns Eff1 and Eff2 indicate the units of fishing effort provided in the Task 2-CE data; number of sets (num sets), fishing hours (Fish hours), hours at sea (Hours Sea), days fishing (D.FISH), or days at sea (D.AT SEA). Light-blue shaded cells highlighted the available Task 2-CE with fishing effort units in number of PS sets and their corresponding catch of tropical tuna species.

| Catch Tropical Tunas (t) |             |             |            |           |           | Year  |        |        |        |        |        |        |        |        |        |        |        |        |  |
|--------------------------|-------------|-------------|------------|-----------|-----------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| Gear Code                | Flag        | Fleet Code  | Eff1 Type  | Eff2 Type | Fish Mode | 2010  | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   |        |  |
| PS                       | Belize      | BLZ-BZ-ETRO | Fish hours | Hours Sea | FAD       | 2,310 | 2,117  |        | 3,067  | 6,114  | 4,565  | 7,071  | 7,266  |        |        |        |        |        |  |
|                          |             |             |            |           | FSC       | 1,906 | 1,488  |        | 5,246  | 3,251  | 2,948  | 2,068  | 4,273  |        |        |        |        |        |  |
|                          |             |             | num sets   | D.FISH    | n/a       |       |        |        |        |        |        |        |        |        |        |        |        | 26,232 |  |
| Cape Verde               | CPV-CV-ETRO |             | Fish hours | Hours Sea | FAD       | 7,140 | 10,202 | 6,333  | 9,866  | 22,122 | 21,946 | 13,255 | 7,392  | 7,680  | 5,728  | 5,082  |        |        |  |
|                          |             |             |            |           | FSC       | 3,208 | 3,000  | 2,246  | 3,761  | 2,854  | 5,164  | 3,236  | 1,391  | 4,758  | 2,610  | 5,438  |        |        |  |
|                          |             |             | num sets   | (blank)   | FAD       |       |        |        |        |        |        |        |        |        |        |        |        | 1      |  |
|                          |             |             |            |           | FSC       |       |        |        |        |        |        |        |        |        |        |        |        | 1      |  |
| Côte d'Ivoire            | CIV-CI-ETRO |             | D.AT SEA   | (blank)   | FAD       |       |        | 288    |        |        |        |        |        |        |        |        |        |        |  |
|                          |             |             | Fish hours | Hours Sea | FAD       |       |        |        |        | 2,705  |        |        |        |        |        |        |        |        |  |
|                          |             |             |            |           | FSC       |       |        |        |        | 2      |        |        |        |        |        |        |        |        |  |
|                          |             |             | num sets   | D.AT SEA  | n/a       |       |        |        |        |        |        |        |        |        |        |        |        | 3,743  |  |
| Curaçao                  | CUW-CW-ETRO |             | Fish hours | Hours Sea | FAD       | 4,830 | 17,574 | 17,564 | 19,292 | 22,340 | 24,332 | 29,154 | 25,648 | 25,889 | 20,218 | 15,686 | 15,086 |        |  |
|                          |             |             |            |           | FSC       | 3,283 | 2,457  | 5,159  | 4,672  | 5,095  | 5,321  | 5,874  | 6,226  | 11,378 | 8,490  | 6,858  | 4,259  |        |  |
|                          |             |             | num sets   | (blank)   | FAD       |       |        |        |        |        |        |        |        |        |        |        |        | 17,451 |  |
|                          |             |             |            |           |           |       |        |        | 4,456  |        |        |        |        |        |        |        |        |        |  |
| El Salvador              | SLV-SV-ETRO |             | Fish hours | Hours Sea | FAD       |       |        |        |        |        | 7,865  | 23,556 | 17,451 | 20,065 | 20,771 | 19,513 | 13,237 |        |  |
|                          |             |             |            |           | FSC       |       |        |        |        |        |        | 519    | 2,542  | 6,300  | 6,418  | 3,469  | 6,654  | 4,944  |  |

|            |                |            |           |     |        |        |        |        |        |        |        |        |        |        |        |       |       |
|------------|----------------|------------|-----------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| Ghana      | GHA-GH-ETRO-A  | num sets   | succ sets | FAD | 28,668 | 22,850 | 23,142 | 16,321 | 15,386 | 20,432 | 19,255 | 17,429 | 27,551 | 37,148 | 38,413 |       |       |
|            |                |            |           | FSC | 3,665  | 2,298  | 2,910  | 1,496  | 1,151  | 222    | 404    | 105    | 99     | 209    | 76     |       |       |
|            |                |            |           | n/a |        |        | 18     |        |        |        |        |        |        |        | 9      |       |       |
|            | GHA-GH-ETRO-P  | num sets   | succ sets | FAD | 885    | 1,758  | 24,755 | 28,579 | 36,658 | 46,209 | 39,506 | 49,101 | 52,158 | 42,168 | 38,171 |       |       |
|            |                |            |           | FSC | 50     | 3      | 1,511  | 2,368  | 3,103  | 1,487  | 613    | 85     | 65     | 170    | 282    |       |       |
|            |                |            |           |     |        |        |        |        |        |        |        |        |        |        |        |       |       |
| Guatemala  | GTM-GT-ETRO    | Fish hours | Hours Sea | FAD | 3,911  | 3,198  | 4,871  | 5,447  | 6,296  | 10,463 | 8,393  | 11,417 | 10,580 | 9,341  | 7,951  | 7,094 |       |
|            |                |            |           | FSC | 2,805  | 2,376  | 2,771  | 3,259  | 3,665  | 1,702  | 3,022  | 3,869  | 2,504  | 3,246  | 2,252  | 1,722 |       |
| NEI (ETRO) | NEI.001        | Fish hours | Hours Sea | FAD | 348    |        |        |        |        |        |        |        |        |        |        |       |       |
|            |                |            |           | FSC | 40     |        |        |        |        |        |        |        |        |        |        |       |       |
| Panama     | PAN-PA-ETRO    | Fish hours | Hours Sea | FAD | 13,927 | 19,212 | 13,215 | 18,051 | 18,783 | 11,257 | 16,258 | 11,854 | 9,541  |        | 10,079 |       |       |
|            |                |            |           | FSC | 3,432  | 1,456  | 4,885  | 3,687  | 3,858  | 2,377  | 3,029  | 5,196  | 5,993  |        | 8,334  |       |       |
|            |                | succ sets  | (blank)   | FAD |        |        |        |        |        |        |        |        |        |        |        |       | 1,146 |
| Senegal    | SEN-SN-ETRO    | Fish hours | Hours Sea | FAD |        |        |        |        |        | 4,568  | 19,830 | 27,616 | 30,131 | 36,899 | 28,399 |       |       |
|            |                |            |           | FSC |        |        |        |        |        | 897    | 2,058  | 1,086  | 4,439  | 2,793  | 4,576  |       |       |
| EU-España  | EU.ESP-ES-ETRO | Fish hours | Hours Sea | FAD | 42,801 | 44,117 | 56,534 | 63,033 | 52,545 | 48,642 | 52,831 | 59,572 | 41,980 | 43,963 | 33,183 |       |       |
|            |                |            |           | FSC | 22,440 | 12,992 | 17,519 | 12,737 | 9,666  | 17,654 | 16,715 | 6,501  | 14,077 | 13,872 | 14,967 |       |       |
|            |                | num sets   | (blank)   | FAD |        |        |        |        |        |        |        |        |        |        |        |       | 44    |
|            |                |            |           | FSC |        |        |        |        |        |        |        |        |        |        |        |       |       |
| Guinée Rep | GIN-GN-ETRO    | Fish hours | Hours Sea | FAD |        |        | 12,883 | 9,415  | 6,680  |        |        |        |        |        |        |       |       |
|            |                |            |           | FSC |        |        |        |        | 764    |        |        |        |        |        |        |       |       |
|            |                | D.FISH     | (blank)   | FAD |        |        |        |        |        |        |        |        |        |        |        |       | 1,364 |

| EU-France    | EU.FRA-<br>FR-ETRO | Fish<br>hours | num<br>sets | FAD |                |                |                |                |                |                |                |                |                |                |                |                |
|--------------|--------------------|---------------|-------------|-----|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|              |                    |               |             |     | 15,932         | 13,305         | 16,677         | 16,989         | 20,998         | 23,222         | 21,905         | 21,702         | 24,307         | 23,391         | 15,281         | 21,089         |
|              |                    |               |             | FSC | 21,433         | 23,685         | 17,323         | 22,356         | 22,055         | 19,805         | 26,774         | 24,028         | 26,908         | 19,086         | 15,029         | 10,204         |
| <b>TOTAL</b> |                    |               |             |     | <b>193,012</b> | <b>184,088</b> | <b>235,059</b> | <b>253,385</b> | <b>266,093</b> | <b>281,596</b> | <b>317,347</b> | <b>315,509</b> | <b>326,518</b> | <b>293,582</b> | <b>276,223</b> | <b>123,880</b> |

**Table 4.** Summary of Flag CPCs that have provided historical FAD data in terms of PS fishing effort as number of sets (num sets) or number of successful sets (succ sets) by year, but that have not included the associated tropical tunas catches. This information was also reported by EU-España for the period 1991-2012 (submitted in a different format that requires further analyses).

| Fishing Effort |             |             |             | Year        |             |             |             |             |             |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Fleet Code     | Effort Type | School Type | Priority ID | 2016        | 2017        | 2018        | 2019        | 2020        | 2021        |
| CUW-CW-ETRO    | num sets    | FAD         | 1           | 1848        | 2160        | 2002        | 1410        | 1240        | 616         |
|                | succ sets   | FAD         | 2           | 1828        | 2134        | 1998        | 1408        | 1238        | 615         |
| GTM-GT-ETRO    | num sets    | FAD         | 1           |             | 120         | 380         | 426         | 338         | 260         |
|                | succ sets   | FAD         | 2           |             | 119         | 380         | 426         | 337         | 260         |
| PAN-PA-ETRO    | num sets    | FAD         | 1           | 521         | 473         | 385         | 476         | 377         |             |
|                | succ sets   | FAD         | 2           | 509         | 459         | 383         | 476         | 377         |             |
| SLV-SV-ETRO    | num sets    | FAD         | 1           | 949         | 857         | 929         | 996         | 706         | 539         |
|                | succ sets   | FAD         | 2           | 873         | 796         | 905         | 965         | 679         | 520         |
| <b>Total</b>   |             |             |             | <b>6528</b> | <b>7118</b> | <b>7362</b> | <b>6583</b> | <b>5292</b> | <b>2810</b> |