



**SEYCHELLES FISHING AUTHORITY**

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SEYCHELLES TUNA BULLETIN

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Prepared By SEYCHELLES FISHING AUTHORITY

## SEYCHELLES FISHING AUTHORITY

The Seychelles Fishing Authority (SFA) was incorporated in August 1984 by the Seychelles Fishing Authority (Establishment) Act. This body was formed in view of the need to develop the fishing industry to its fullest potential. It is a parastatal organization with autonomous legal and financial status, supervised by a board of directors appointed by the President.

The Ministry of Agriculture and Fisheries is responsible for policy directives in fisheries related matters, and SFA is the executive arm of the government in all fisheries activities. Responsibilities include: assessment and management of the fishery resources, assist in conducting negotiations with foreign fishing fleets, coordination and support of fishing cooperatives and owner/operators, management of the fishing port, development of gear technology, and coordination of manpower training in the fishery sector. SFA is organized essentially into the Resource Management Division, the Research Division and the Fishing Port Division.

This volume on catch statistics of purse seiners and longliners fishing tuna in the Western Indian Ocean was compiled by the Research and Resource Management Divisions.



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SUMMARY: APRIL-JUNE 1989

The number of purse seiners active in the Western Indian Ocean during the second quarter of 1989, remained at 47 in April and May, dropping to 46 in June. This represents a significant increase in the number of vessels compared to same period last year, when an average of 38 vessels were in operation.

Fishing results obtained during the second quarter were mediocre compared to the exceptionally high catches made at the beginning of the year. Record catch rates averaging 26 mt/day during the first quarter dropped from 20 mt/day in April to a mere 9 mt/day in May. These results are however not unusual for this time of the year. Daily catch rates for the second quarter averaged 16 mt/day, reaching the same level as in 1987, whereas 18 mt/day was reported during the same period in 1988. The proportion of yellowfin in the catch remained low at 30% in April, 20% in May and recovering slightly in June (47%).

The fishing pattern was transitional during the second quarter as was the case last year. In the past vessels operated south of the Seychelles EEZ, in the Mozambique Channel during this period where excellent skipjack catches were made. This year only part of the fleet shifted south to the Mozambique Channel during April/May but later moved north, due to poor fishing results. This seasonal change in tuna availability was most probably due to changes in oceanographic conditions.

As determined from seiner logbooks received by the 30th of June 1989, the cumulative catch by purse seiners in the Western Indian Ocean for 1989, now stands at 99,945 tonnes.

## RESUME: AVRIL-JUIN 1989

Le nombre de senneurs en pêche dans l'Océan Indien occidental pendant le deuxième trimestre de 1989 est demeuré stable en avril et en mai avec 47 navires, diminuant à 46 en juin. Cela représente un accroissement important du nombre de navires par rapport à la même période de l'année précédente où une moyenne de 38 navires était en pêche.

Les pêches réalisées durant le deuxième trimestre furent médiocres comparées aux prises exceptionnellement élevées atteintes en début d'année. Les rendements records, atteignant en moyenne 26 MT/jour lors du premier trimestre, sont tombés de 20 MT/jour en avril à guère plus de 9 MT/jour en mai. Néanmoins, cette situation n'est pas anormale en cette période de l'année. Les prises moyennes journalières du trimestre sont de 16MT/jour, atteignant le même niveau qu'en 1987, alors qu'elles furent de 18MT/jour à la même période en 1988. La proportion d'albacore dans les captures est demeurée faible, 30% en avril, 20% en mai et en léger accroissement en juin (47%).

Au cours du second trimestre, les zones de pêche furent dispersées comme pour l'année dernière. Auparavant, à cette période de l'année, les navires opéraient au sud de la ZEE des Seychelles et dans le canal de Mozambique où étaient faites d'excellentes pêches de listao. Cette année, une partie seulement de la flottille s'est déplacée au sud vers le canal de Mozambique en avril/mai, mais plus tard ils se déplacèrent vers le nord en raison des mauvaises pêches. Ce changement saisonnier dans la présence des thons fut probablement la conséquence de changements des conditions océanographiques.

Selon les livres de bord des senneurs reçus au 30 juin 1989, le total des prises des senneurs dans l'Océan Indien occidental en 1989 atteint aujourd'hui 99 945 tonnes.

## SUMARIO: ABRIL - JUNIO 1.989

El número de cerqueros faenando en el Océano Indico Occidental durante el segundo trimestre de 1.989, siguiò siendo 47 en los meses de Abril y Mayo, bajando a 46 en el mes de Junio. Esto representa un significativo incremento en el número de barcos si lo comparamos con el mismo periodo del año anterior, cuando el promedio de pesqueros operando en la zona era 38.

Las capturas obtenidas durante este período, el segundo trimestre, fueron mediocres si las comparamos con las excepcionalmente altas de principios de año. El record de 26 Tons/día de promedio del primer trimestre bajó a 20 Tons/día en Abril y posteriormente en Mayo a tan sólo 9 Tons/día. Estos resultados, sin embargo, no debemos considerarlos inusuales para esta época del año. El promedio de capturas fué de 16 Tons/día, alcanzando el mismo nivel que en 1.987, mientras que en 1.988 el promedio para esta época del año fué de 18 Tons/día. La proporción de yellowfin (atún) en las capturas fué bajo, un 30% en Abril, un 20% en Mayo, recuperándose en el mes de Junio con un 47%.

El comportamiento de los pesqueros fué de transición en este segundo trimestre, al igual que el año anterior. En el pasado los barcos operaron al sur de la ZEE de Seychelles, en el canal de Mozambique durante este período donde se lograron buenas capturas de listado. Este año, tan sólo una parte de la flota se desplazó hacia el sur en el canal de Mozambique durante Abril-Mayo moviéndose posteriormente hacia el norte como consecuencia de los pobres resultados. Este cambio estacional en la capturabilidad del atún se debió probablemente a un cambio en las condiciones oceanográficas.

A partir de los Cuadernos de Bitácora recibidos hasta el 30 de Junio de 1.989 las capturas acumuladas por los cerqueros en el Océano Indico Occidental para 1.989 alcanzan las 99.945 Toneladas.

## PURSE SEINERS

Table 1 shows monthly catch and effort statistics from January 1988 to June 1989 for all purse seiners combined; Table 2 shows statistics for the French fleet and Table 3 presents statistics for Spanish vessels.

Total catch for each trip has been taken from records of transshipment whenever complete unloading occurred in the Seychelles; otherwise total catch has been estimated from logbooks containing daily catch statistics. The species composition has been estimated from logbooks. Since transshipment records and vessel logbooks both give unreliable estimates for the lesser-caught species, bigeye and albacore, these species are not reported separately, but are included in estimates of the total catch. Catches have been estimated in wet weight rather than dry weight.

In the statistical tables, "vessels covered" refer to those vessels for which a logbook has been received containing at least one day fishing during the month. In the tables, "days fished" refer to days spent at sea, less days drifting due to mechanical breakdown or other work stoppages; days spent drifting by flotsam while awaiting a set are included in "days fished". Historical data are periodically revised; statistics in the present volume supersede those published previously.

Past experience has shown that the tuna fishery is strongly seasonal. Catch rates are normally high at the beginning of the year with yellowfin being the predominant species in the catch, followed by poor fishing results during the second quarter. As from 1985 however, with the discovery of new fishing grounds in and around the Mozambique Channel where excellent catches of skipjack were taken, most fishing operations shifted south from April to June. Since last year, another seasonal change in fishing pattern was observed, as vessels initially moved south in April, but with unfavourable fishing conditions vessels soon moved back to the north. Unlike last year however, skipjack remained the predominantly caught species, at the expense of yellowfin.

Transshipment statistics are presented in Table 4. The data are taken from receipts of the stevedoring company (which are countersigned by representatives of the purse seiners and carrier vessels). Since the date of unloading is used, rather than the date fish were caught, the monthly totals in Table 4 will differ from those of Table 1.

Transshipment activity by purse seiners in Port Victoria remained high at the beginning of second quarter with 36 purse seiners unloading in April (compared to 14 vessels last year) as only few vessels transhipped in Antsiranana. This was followed by a drop to 15 vessels in May and 19 vessels in June, as expected, due to lesser fishing success. The total catch transhipped in Port Victoria up to June 1989, amounted to 111, 259 tonnes (42% yellowfin, 57% skipjack%, 1% bigeye). This represents a 49% increase over the volume transhipped during the same period last year.

The number of purse seiners operating in the Western Indian Ocean from January 1987 to June 1989 is listed by country of registration in Table 5. The vessels active from July 1988 to June 1989 are listed in Table 6. During the second quarter of this year, the number of vessels initially remained at 47, dropping to 46 in June. During this period, two Spanish vessels went back to Spain for repairs whereas one Soviet seiner re-entered the fishery. This brings the number of purse seiners operating in June 1989 to 20 French, 18 Spanish, one Panamanian, three Mauritian and four Soviet.

## LONGLINERS

Table 7 gives the number of longliners licensed to fish in the Seychelles EEZ and transshipment activity from 1987 to 1989. In this volume, transshipment statistics for longliners have been revised with statistics gathered by the port authorities covering each longliner calling in the Seychelles. In the table, the row labelled "Total" refers to the number of vessel-months licensed and the number of calls for the year, whereas the row labelled "Vessels" refers to the number of vessels licensed or calling.

Seychelles Fishing Authority issues licenses to longliners on a monthly basis. Only South Korean longliners were licensed prior to 1987; Japanese longliners which though regularly transhipped in the Seychelles while in transit between Japan and the southern Indian Ocean, only began fishing operations in 1987. Since then, the number of licensed Japanese longliners has been on the increase, primarily as a result of an Agreement signed between Seychelles and Japanese Fishing Companies. This agreement, which is of one year duration, was renewed at the beginning of this year.

In the second quarter which usually corresponds to poor fishing conditions for longlining, only 11 vessels were licensed in April dropping to three in May. As from May, only S.Korean vessels were licensed, increasing to 23 longliners in June. Altogether, a total of 66 individual vessels were licensed in the first half of this year, totalling 103 vessels months. During the same period of last year, 77 individual vessels were licensed for a duration of 95 vessel months.

The cumulative transshipment for longliners (38 Korean, 19 Japanese and 4 Taiwanese) up to June 1989 amounts to 6,697 tonnes, comprising mostly of yellowfin, bigeye, marlin and shark. This represents an increase of 7% over transshipment figures for the first half of last year.



Table 1. Catch Statistics For Purse Seiners in the Western Indian Ocean.  
(Units: catch MT, percentage in brackets, catch rate MT/day)

| MONTH  | VESSELS ACTIVE | VESSELS COVERED | DAYS FISHED | CATCH RATE | YELLOWFIN   | SKIPJACK    | TOTAL  | DUAL TOTAL |
|--------|----------------|-----------------|-------------|------------|-------------|-------------|--------|------------|
| Jan/88 | 39             | 38              | 933         | 17.67      | 10860 (66)  | 5398 (33)   | 16487  | 16487      |
| Feb    | 37             | 35              | 776         | 17.94      | 10403 (75)  | 3367 (24)   | 13924  | 30412      |
| Mar    | 33             | 32              | 714         | 17.25      | 9250 (75)   | 2788 (23)   | 12319  | 42731      |
| Apr    | 38             | 38              | 867         | 15.44      | 6343 (47)   | 6954 (52)   | 13335  | 56116      |
| May    | 39             | 39              | 821         | 18.04      | 10851 (73)  | 3098 (26)   | 14908  | 70924      |
| Jun    | 38             | 38              | 746         | 21.93      | 10566 (65)  | 5461 (33)   | 16361  | 87285      |
| Jul    | 43             | 41              | 814         | 16.66      | 7117 (52)   | 6298 (46)   | 13562  | 100847     |
| Aug    | 44             | 40              | 1004        | 20.07      | 5083 (25)   | 14894 (74)  | 20149  | 120997     |
| Sep    | 46             | 40              | 829         | 30.88      | 4967 (19)   | 20127 (79)  | 25597  | 146593     |
| Oct    | 45             | 40              | 832         | 34.01      | 4532 (16)   | 23522 (83)  | 28298  | 174892     |
| Nov    | 48             | 44              | 869         | 20.67      | 8315 (46)   | 9330 (52)   | 17960  | 192852     |
| Dec    | 47             | 43              | 880         | 31.06      | 14510 (53)  | 12610 (46)  | 27334  | 220186     |
| Total  |                |                 | 10065       | 21.83      | 102795 (47) | 114647 (52) | 220186 |            |
| Jan/89 | 48             | 43              | 778         | 20.92      | 9449 (58)   | 6419 (39)   | 16277  | 16277      |
| Feb    | 48             | 43              | 979         | 21.36      | 9670 (46)   | 10888 (52)  | 20910  | 37187      |
| Mar    | 47             | 43              | 876         | 35.76      | 11396 (36)  | 19621 (63)  | 31329  | 68516      |
| Apr    | 47             | 40              | 727         | 20.55      | 4549 (30)   | 9932 (66)   | 14941  | 83457      |
| May    | 47             | 31              | 700         | 8.73       | 1199 (20)   | 8625 (79)   | 6114   | 89572      |
| Jun    | 46             | 27              | 572         | 18.14      | 4831 (47)   | 5449 (53)   | 10374  | 99945      |
| Total  |                |                 | 4632        | 21.58      | 41094 (41)  | 57135 (57)  | 99945  |            |

**Table 2. Catch Statistics For French Purse Seiners.**  
(Units: catch MT, percentage in brackets, catch rate MT/day)

| MONTH  | VESSELS ACTIVE | VESSELS COVERED | DAYS FISHED | CATCH RATE | YELLOWFIN  | SKIPJACK   | TOTAL  | CUMUL TOTAL |
|--------|----------------|-----------------|-------------|------------|------------|------------|--------|-------------|
| Jan/88 | 20             | 20              | 502         | 14.20      | 4137 (58)  | 2917 (41)  | 7128   | 7128        |
| Feb    | 20             | 20              | 465         | 15.87      | 5722 (78)  | 1539 (21)  | 7377   | 14505       |
| Mar    | 20             | 20              | 491         | 15.34      | 6268 (83)  | 1042 (14)  | 7534   | 22039       |
| Apr    | 20             | 20              | 494         | 15.28      | 5794 (77)  | 1664 (22)  | 7547   | 29586       |
| May    | 19             | 19              | 401         | 16.58      | 4632 (70)  | 2002 (30)  | 6649   | 36234       |
| Jun    | 17             | 17              | 322         | 18.53      | 4177 (70)  | 1602 (27)  | 5966   | 42200       |
| Jul    | 19             | 19              | 360         | 17.24      | 2651 (43)  | 3512 (57)  | 6206   | 48407       |
| Aug    | 19             | 19              | 459         | 17.76      | 1316 (16)  | 6783 (83)  | 8154   | 56560       |
| Sep    | 20             | 20              | 456         | 24.51      | 2872 (26)  | 8110 (73)  | 11178  | 67738       |
| Oct    | 20             | 20              | 431         | 29.67      | 2511 (20)  | 10263 (80) | 12788  | 80526       |
| Nov    | 20             | 20              | 417         | 20.05      | 4379 (52)  | 3943 (47)  | 8362   | 88889       |
| Dec    | 20             | 20              | 371         | 31.51      | 6189 (53)  | 5442 (47)  | 11691  | 100580      |
| Total  |                |                 | 5169        | 19.46      | 50649 (50) | 48820 (49) | 100580 |             |
| Jan/89 | 20             | 20              | 358         | 21.37      | 4790 (63)  | 2695 (35)  | 7651   | 7651        |
| Feb    | 20             | 20              | 451         | 17.54      | 5420 (69)  | 2374 (30)  | 7912   | 15564       |
| Mar    | 20             | 20              | 411         | 33.53      | 5581 (40)  | 7931 (58)  | 13781  | 29345       |
| Apr    | 20             | 18              | 306         | 15.61      | 1775 (37)  | 2925 (61)  | 4776   | 34121       |
| May    | 20             | 11              | 236         | 10.62      | 533 (22)   | 1922 (77)  | 2507   | 36627       |
| Jun    | 20             | 11              | 192         | 14.03      | 1249 (46)  | 1444 (54)  | 2693   | 39321       |
| Total  |                |                 | 1954        | 20.12      | 19369 (49) | 19292 (49) | 39321  |             |

**Table 3. Catch Statistics For Spanish Purse Seiners, Including Txori Aundi.**  
(Units: catch MT, percentage in brackets, catch rate MT/day)

| MONTH  | VESSELS ACTIVE | VESSELS COVERED | DAYS FISHED | CATCH RATE | YELLOWFIN  | SKIPJACK   | TOTAL  | CUMUL TOTAL |
|--------|----------------|-----------------|-------------|------------|------------|------------|--------|-------------|
| Jan/88 | 12             | 12              | 307         | 28.73      | 6474 (73)  | 2219 (25)  | 8693   | 8693        |
| Feb    | 12             | 12              | 240         | 24.18      | 4173 (72)  | 1631 (28)  | 5804   | 14497       |
| Mar    | 10             | 10              | 209         | 21.59      | 2943 (65)  | 1527 (34)  | 4470   | 18967       |
| Apr    | 13             | 13              | 317         | 16.96      | 433 (8)    | 4944 (92)  | 5377   | 24344       |
| May    | 14             | 14              | 295         | 25.01      | 5873 (80)  | 1458 (20)  | 7331   | 31675       |
| Jun    | 15             | 15              | 310         | 31.05      | 6227 (65)  | 3251 (34)  | 9478   | 41153       |
| Jul    | 17             | 17              | 344         | 19.70      | 4366 (64)  | 2308 (34)  | 6674   | 47827       |
| Aug    | 17             | 17              | 436         | 26.29      | 3669 (32)  | 7729 (67)  | 11398  | 59225       |
| Sep    | 18             | 18              | 348         | 40.00      | 2027 (15)  | 11674 (84) | 13701  | 72926       |
| Oct    | 18             | 18              | 363         | 39.92      | 1959 (14)  | 12386 (65) | 14345  | 87271       |
| Nov    | 20             | 20              | 367         | 26.06      | 3914 (41)  | 5377 (56)  | 9291   | 96562       |
| Dec    | 20             | 20              | 452         | 33.69      | 8135 (53)  | 6950 (46)  | 15085  | 111647      |
| Total  |                |                 | 3998        | 28.33      | 50195 (44) | 61453 (54) | 111648 |             |
| Jan/89 | 21             | 21              | 375         | 22.32      | 4529 (54)  | 3611 (43)  | 8140   | 8140        |
| Feb    | 21             | 21              | 477         | 25.85      | 3733 (30)  | 8381 (68)  | 12114  | 20254       |
| Mar    | 21             | 21              | 435         | 40.32      | 5809 (33)  | 11608 (67) | 17417  | 37671       |
| Apr    | 20             | 19              | 379         | 26.82      | 2773 (27)  | 7007 (69)  | 9780   | 47451       |
| May    | 20             | 18              | 403         | 8.95       | 646 (18)   | 2903 (80)  | 3549   | 51000       |
| Jun    | 19             | 16              | 380         | 20.21      | 3582 (47)  | 4004 (52)  | 7586   | 58586       |
| Total  |                |                 | 2449        | 24.38      | 21072 (35) | 37594 (63) | 58666  |             |

Table 4. Transshipment Statistics. (Units: MT)

| MONTH  | PURSE<br>SEINERS | YELLOWFIN | SKIPJACK | BIGEYE | ALBACORE | TOTAL  | CUMUL<br>TOTAL |
|--------|------------------|-----------|----------|--------|----------|--------|----------------|
| Jan/88 | 25               | 7430      | 6405     | 372    | 3        | 14290  | 14290          |
| Feb    | 28               | 10197     | 4902     | 94     | 0        | 15193  | 29483          |
| Mar    | 26               | 11103     | 3578     | 302    | 7        | 14990  | 44473          |
| Apr    | 14               | 4561      | 1207     | 248    | 28       | 6044   | 50517          |
| May    | 22               | 9057      | 6202     | 68     | 42       | 15369  | 65886          |
| Jun    | 18               | 6966      | 2991     | 214    | 22       | 10193  | 76079          |
| Jul    | 24               | 11477     | 4053     | 243    | 349      | 16922  | 93001          |
| Aug    | 27               | 4391      | 7323     | 183    | 66       | 11963  | 104964         |
| Sep    | 36               | 5272      | 21275    | 273    | 0        | 26820  | 131784         |
| Oct    | 37               | 5823      | 19116    | 242    | 0        | 25183  | 156967         |
| Nov    | 35               | 5781      | 18508    | 229    | 0        | 22518  | 179485         |
| Dec    | 32               | 10708     | 9926     | 453    | 1        | 21088  | 200573         |
| Total  |                  | 90766     | 106368   | 2921   | 518      | 200573 |                |
| Jan/89 | 37               | 12566     | 12247    | 97     | 0        | 24910  | 24910          |
| Feb    | 33               | 11157     | 6481     | 204    | 13       | 17855  | 42765          |
| Mar    | 41               | 11946     | 18494    | 139    | 1        | 29630  | 72445          |
| Apr    | 36               | 7532      | 16348    | 578    | 0        | 24388  | 96753          |
| May    | 15               | 2025      | 5276     | 171    | 0        | 7472   | 104225         |
| Jun    | 19               | 2937      | 6095     | 2      | 0        | 9034   | 113259         |
| Total  |                  | 47313     | 64941    | 991    | 14       | 113259 |                |

Table 5. Purse Seiners Active in the Western Indian Ocean,  
By Country of Registration.

| MONTH  | FRANCE | SPAIN | IVORY |           | PANAMA | UNITED  |   | USSR | JAPAN | INDIA | TOTAL |
|--------|--------|-------|-------|-----------|--------|---------|---|------|-------|-------|-------|
|        |        |       | COAST | MAURITIUS |        | KINGDOM |   |      |       |       |       |
| Jan/67 | 19     | 12    | -     | 1         | 1      | -       | - | -    | -     | -     | 35    |
| Feb    | 19     | 12    | -     | 1         | 1      | -       | - | -    | -     | -     | 35    |
| Mar    | 19     | 12    | -     | 1         | 1      | -       | - | -    | -     | -     | 35    |
| Apr    | 16     | 12    | -     | 2         | 1      | -       | - | -    | -     | -     | 31    |
| May    | 15     | 11    | -     | 2         | 1      | -       | - | -    | -     | -     | 29    |
| Jun    | 17     | 10    | -     | 2         | 1      | -       | - | -    | -     | -     | 30    |
| Jul    | 17     | 10    | -     | 2         | 1      | -       | - | -    | -     | -     | 30    |
| Aug    | 18     | 12    | -     | 2         | 1      | -       | - | -    | -     | -     | 35    |
| Sep    | 20     | 14    | -     | 2         | 1      | -       | 1 | -    | -     | -     | 38    |
| Oct    | 20     | 14    | -     | 2         | 1      | -       | 4 | -    | -     | -     | 41    |
| Nov    | 20     | 14    | -     | 2         | 1      | -       | 4 | -    | -     | -     | 41    |
| Dec    | 20     | 13    | -     | 2         | 1      | -       | 4 | 1    | -     | -     | 41    |
| Jan/68 | 20     | 11    | -     | 2         | 1      | -       | 4 | 1    | -     | -     | 39    |
| Feb    | 20     | 11    | -     | 2         | 1      | -       | 2 | 1    | -     | -     | 37    |
| Mar    | 20     | 9     | -     | 2         | 1      | -       | - | 1    | -     | -     | 33    |
| Apr    | 20     | 12    | -     | 2         | 1      | -       | 2 | -    | 1     | -     | 38    |
| May    | 19     | 13    | -     | 2         | 1      | -       | 3 | -    | 1     | -     | 39    |
| Jun    | 17     | 14    | -     | 2         | 1      | -       | 3 | -    | 1     | -     | 38    |
| Jul    | 19     | 16    | -     | 3         | 1      | -       | 3 | 1    | -     | -     | 43    |
| Aug    | 19     | 16    | -     | 3         | 1      | -       | 3 | 1    | 1     | -     | 44    |
| Sep    | 20     | 17    | -     | 3         | 1      | -       | 3 | 1    | 1     | -     | 46    |
| Oct    | 20     | 17    | -     | 3         | 1      | -       | 3 | 1    | -     | -     | 45    |
| Nov    | 20     | 19    | -     | 3         | 1      | -       | 4 | 1    | -     | -     | 48    |
| Dec    | 20     | 19    | -     | 3         | 1      | -       | 3 | 1    | -     | -     | 47    |
| Jan/69 | 20     | 20    | -     | 3         | 1      | -       | 3 | 1    | -     | -     | 48    |
| Feb    | 20     | 20    | -     | 3         | 1      | -       | 3 | 1    | -     | -     | 48    |
| Mar    | 20     | 20    | -     | 3         | 1      | -       | 3 | -    | -     | -     | 47    |
| Apr    | 20     | 19    | -     | 3         | 1      | -       | 4 | -    | -     | -     | 47    |
| May    | 20     | 19    | -     | 3         | 1      | -       | 4 | -    | -     | -     | 47    |
| Jun    | 28     | 18    | -     | 3         | 1      | -       | 4 | -    | -     | -     | 46    |

Table 6. Purse Seiners Active In the Western Indian Ocean.

| SEINER              | FLAG      | GRT  | 1968 |     |     |     |     |     |     |     |     |     |     |     | 1969 |   |   |   |   |   |   |   |   |
|---------------------|-----------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|---|---|---|---|---|---|---|---|
|                     |           |      | JUL  | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN |      |   |   |   |   |   |   |   |   |
| DRENEC              | France    | 1200 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| TRESCAD             | "         | 1146 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| AYEL VIZ            | "         | 768  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| KERMADEC            | "         | 1146 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| CAP ST PAUL         | "         | 768  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| BOUGAINVILLE        | "         | 875  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| GLENAN              | "         | 929  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| RISPICO             | "         | 1146 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| ILE TRISTAN         | "         | 783  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| MAGELLAN            | "         | 851  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| ARMEN               | "         | 773  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| TREYIGNON II        | "         | 1146 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| GEVRED              | "         | 603  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| BAYOTA              | "         | "    | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| KERSUELEM           | "         | 1146 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| PRINCE DE JOINVILLE | "         | 851  | .    | (   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| CHRISTOPHE COLOMB   | "         | 851  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| KERSAINT            | "         | 1200 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| SANTA MARIA         | "         | 777  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| PENORIC             | "         | 1200 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| MAR DE SERGIO       | Spain     | 1829 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| ALACRAN             | "         | 1333 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| MONTFRISA SIETE     | "         | 1350 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| JUAN RAMON EGANA    | "         | 1536 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| IZARD               | "         | 1520 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| ALBACORA CATORCE    | "         | 1475 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| ALBACORA QUINCE     | "         | 1475 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| TXORI ZURI          | "         | 1333 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| ALBACORA ONCE       | "         | 1499 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| ATERPE ALAI         | "         | 988  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| ALBACORA DOCE       | "         | 1475 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| ALBACORA SEIS       | "         | 1345 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| PLAYA DE NOJA       | "         | 972  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| ALBACORA CUATRO     | "         | 1525 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| ALBACORA DIESESEIS  | "         | 1475 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| WARANCO/KAI ALAI    | "         | 1145 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| TXORI EDER          | "         | 833  | .    | .   | .   | (   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| ALAMADRADA          | "         | 1308 | .    | .   | .   | .   | .   | (   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| EUZKADI ALAI        | "         | 1365 | .    | .   | .   | .   | .   | (   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| TXORI URDIN         | "         | 833  | .    | .   | .   | .   | .   | (   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| TXORI ALNDI         | Panama    | 1370 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| LADY SUSHIL I       | Mauritius | 535  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| LADY SUSHIL II      | "         | 1039 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| EASTERN PACIFIC     | "         | 725  | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| IVAN BORZOV         | USSR      | 2635 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| TRIDAIMA            | "         | 2635 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| E. PREOBRAZHENSKIY  | "         | 2635 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| TIORA               | "         | 2634 | .    | .   | .   | (   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| KIPPON MARU         | Japan     | 1788 | (    | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |
| THEOS I             | India     | 1043 | .    | (   | —   | —   | —   | —   | —   | —   | —   | —   | —   | (   | —    | — | — | — | — | — | — | — | — |

Table 7. Longliner Activity in the Seychelles. (Units: MT)

| MONTH   | KOREAN VESSELS |      |           |              | JAPANESE VESSELS |      |           |              | TAIWANESE VESSELS |           |              | TOTAL TRANSHIPMENT |
|---------|----------------|------|-----------|--------------|------------------|------|-----------|--------------|-------------------|-----------|--------------|--------------------|
|         | LICENSED       | CALL | UNLOADING | TRANSHIPMENT | LICENSED         | CALL | UNLOADING | TRANSHIPMENT | CALL              | UNLOADING | TRANSHIPMENT |                    |
| Jan/87  | 23             | 6    | 6         | 718          |                  | 7    | 5         | 625          | -                 | -         | -            | 1343               |
| Feb     | 2              | 7    | 6         | 943          | 2                | 19   | 15        | 1531         | 2                 | 2         | 254          | 2728               |
| Mar     | 1              | 6    | 5         | 657          | 8                | 17   | 8         | 913          | 4                 | 2         | 130          | 1700               |
| Apr     |                | 4    | 3         | 283          | 4                | 16   | 10        | 805          | 3                 | 2         | 175          | 1263               |
| May     |                | 2    | -         | -            | 1                | 6    | 3         | 410          | 2                 | 2         | 310          | 720                |
| Jun     | 22             | 9    | 6         | 825          |                  | 7    | 4         | 466          | 1                 | 1         | 70           | 1361               |
| Jul     | 6              | 4    | 4         | 350          |                  | 3    | 1         | 30           | 2                 | 2         | 170          | 550                |
| Aug     | 46             | 7    | 4         | 299          | 1                | 3    | 2         | 107          | -                 | -         | -            | 406                |
| Sep     | 23             | 3    | 2         | 236          | 1                | 3    | 1         | 222          | -                 | -         | -            | 458                |
| Oct     | 30             | 10   | 9         | 1315         | 2                | 5    | 1         | 45           | -                 | -         | -            | 1360               |
| Nov     | 33             | 12   | 12        | 1720         | 2                | 2    | 1         | 80           | -                 | -         | -            | 1800               |
| Dec     | 15             | 1    | 1         | 160          | 3                | 5    | 3         | 250          | -                 | -         | -            | 410                |
| Total   | 201            | 71   | 58        | 7506         | 24               | 93   | 54        | 5484         | 14                | 11        | 1109         | 14099              |
| Vessels | 71             | 35   | 28        |              | 15               | 47   | 32        |              | 4                 | 4         |              |                    |
| Jan/88  | 36             | 8    | 8         | 1530         | 6                | 5    | 3         | 530          | -                 | -         | -            | 2040               |
| Feb     | 2              | 7    | 7         | 605          | 7                | 10   | 7         | 845          | -                 | -         | -            | 1550               |
| Mar     | -              | 2    | 1         | 115          | 7                | 7    | 4         | 250          | 2                 | 2         | 200          | 565                |
| Apr     | 11             | 6    | 6         | 530          | 5                | 14   | 6         | 523          | 1                 | 1         | 70           | 1123               |
| May     | -              | 5    | 3         | 440          | -                | 3    | 1         | 100          | 1                 | -         | -            | 540                |
| Jun     | 19             | 3    | 1         | 40           | 2                | 6    | 3         | 355          | -                 | -         | -            | 395                |
| Jul     | 12             | 5    | 4         | 725          | 6                | 4    | 3         | 254          | -                 | -         | -            | 979                |
| Aug     | 51             | 4    | 2         | 370          | -                | 4    | 3         | 138          | 3                 | 2         | 291          | 799                |
| Sep     | 25             | 9    | 5         | 800          | 2                | 1    | -         | -            | 1                 | -         | -            | 800                |
| Oct     | 12             | 14   | 11        | 1215         | 2                | 5    | 4         | 230          | 1                 | -         | -            | 1445               |
| Nov     | 25             | 10   | 9         | 1180         | 1                | 1    | -         | -            | -                 | -         | -            | 1180               |
| Dec     | 50             | 5    | 3         | 405          | 11               | 5    | 1         | 120          | -                 | -         | -            | 525                |
| Total   | 243            | 81   | 62        | 8411         | 49               | 64   | 34        | 3131         | 9                 | 5         | 561          | 12103              |
| Vessels | 127            | 59   | 47        |              | 40               | 36   | 19        |              | 7                 | 4         |              |                    |
| Jan/89  | 26             | 12   | 9         | 1070         | 8                | 7    | 6         | 398          | 3                 | 3         | 180          | 1648               |
| Feb     | 11             | 17   | 14        | 1594         | 7                | 12   | 9         | 902          | 2                 | -         | -            | 2496               |
| Mar     | 3              | 8    | 5         | 816          | 11               | 7    | 2         | 425          | 1                 | 1         | 70           | 1311               |
| Apr     | 2              | 8    | 5         | 650          | 9                | 4    | 2         | 152          | 1                 | -         | -            | 802                |
| May     | 3              | 10   | 3         | 320          | -                | 1    | 0         | 0            | 1                 | -         | -            | 320                |
| Jun     | 23             | 5    | 1         | 120          | -                | 2    | 0         | 0            | -                 | -         | -            | 120                |
| Total   | 68             | 63   | 38        | 4570         | 35               | 33   | 19        | 1877         | 7                 | 4         | 250          | 6697               |
| Vessels | 53             | 51   | 35        |              | 13               | 29   | 18        |              | 7                 | 4         |              |                    |