

INTER-AMERICAN TROPICAL TUNA COMMISSION  
COMISION INTERAMERICANA DEL ATUN TROPICAL

Internal Report - Informe Interino

No. 6

DISTRIBUTION OF CATCH, EFFORT AND CATCH PER UNIT  
OF EFFORT WITHIN GEOGRAPHICAL ZONES ADJACENT TO  
THE COASTLINE OF NATIONS AND ISLANDS BORDERING THE  
EASTERN PACIFIC OCEAN, 1959-1970.

DISTRIBUCION DE CAPTURA, ESFUERZO Y CAPTURA POR  
UNIDAD DE ESFUERZO DENTRO DE LAS ZONAS GEOGRAFI-  
CAS ADYACENTES AL LITORAL DE LAS NACIONES E ISLAS  
QUE BORDEAN EL OCEANO PACIFICO ORIENTAL  
1959-1970

by/por

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1971

## P R E F A C E

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These reports are not to be considered as publications. Because they are in some cases preliminary, and because they are subjected to less intensive editorial scrutiny than contributions to the Commission's Bulletin series, it is requested that they not be cited without permission from the Inter-American Tropical Tuna Commission.

## P R E F A C I O

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INTRODUCTION

The fishery for tuna in the eastern Pacific Ocean covers a rather extensive geographic area and is engaged in by nationals from a large number of countries. Considerable interest has been shown by the participating countries in the distribution of this catch, particularly that occurring within zones of 12 and 200 miles adjacent to the coastline of nations and islands bordering the area.

Because requests for such information have become increasingly frequent, the following internal report has been prepared for limited distribution.

SOURCE OF DATA

Data compiled from the logbook records of purse seiners and bait-boats are the principal source of information for this report. These data were used to calculate the fishing effort, catch and catch per day's fishing within zones and 12 and 200 miles adjacent to the coastline of nations and islands bordering the eastern Pacific Ocean, and within the area between 200 miles offshore and the western boundary of the Commission's Yellowfin Regulatory Area (CYRA).

The logbook records were tabulated according to the following categories: year, month, gear, Atlantic or Pacific Ocean, inside or outside the CYRA, non-regulated or regulated trip, 1-degree area, vessel size class, IATTC vessel number, and the fishing effort and catch of each tuna species within each of the first eight of these categories. Details of the fishing information were placed on

computer cards which then served as the fishing records. Information from the detail cards for purse seiners and baitboats during 1959-1970 were placed on magnetic tape, and the data were then processed for this report to show 1-degree area, month, size class, standardized fishing effort (i.e. purse seine size-class 3 units and baitboat size-class 4 units), catch (the amount of each species recorded as such, plus a prorated amount which accounts for unidentified species) and catch per unit of effort (c/e).

#### AREA OF ZONES WITHIN THE CYRA

The area of each of the three zones within the CYRA dealt with in this report was computed on the basis of the 1-degree areas used in the Commission's statistical system. It was first necessary to determine the number of 1-degree areas in each zone and to calculate the number of square nautical miles encompassed by each 1-degree area (Table 11). To determine the number of square nautical miles within each zone and the area within that portion of the three zones adjacent to each coastal state (Table 12), each 1-degree area was partitioned in accord with the percentage of the area that is ocean, the percentage that is within zones adjacent to one or more nations and the percentage that is within 12 and 200 miles of coastal states and islands of the CYRA.

The base line used to determine the 12- and 200-mile zones (see Fig. 1) and the median line between coastal states were constructed as described in "The Convention on the Territorial Sea and the Contiguous Zone" adopted by the United Nations Conference on the Law of the Sea, April 29, 1958 (U.N. Doc. A/CONF. 13/L.52).

#### PURSE-SEINE LOGGED EFFORT AND CATCH BY ZONES

The logged fishing results of each seiner, all flags, were summarized by computer to show for each 1-degree area, month and vessel size class, the standardized fishing effort, prorated catch of yellowfin and skipjack, and standardized catch per day's fishing of these two species. This information was then used to compute the fishing efforts

catch and catch per unit of effort by seiners during non-regulated trips within the three zones adjacent to each coastal state\* (i.e., within 12 miles, within 200 miles, and outside of 200 miles but within the CYRA) for the years 1959-1970 (Table 1). It is important to note that catches and fishing effort within each zone adjacent to a given country are a summary of the fishing results by all seiners of all flags which operated within that zone and which supplied logbook records to the Commission, i.e., they are not an estimate of the amount of tuna fishing effort and catch by the vessels under the flag of that country.

It should be noted in Table 1 that for the year 1959 the standard effort should total 4043.5 standard days rather than 3984.9, and the catch per standard day's fishing for the entire CYRA should be 6.97 and 2.30 tons for yellowfin and skipjack respectively. The slight error is due to the use of an incorrect efficiency factor for Class-4 vessels.

Table 2 shows logged fishing results of seiners during 1966-1970, combining data from regulated and non-regulated trips. Information on regulated trips was included to provide a more complete estimate of the catches of skipjack by seiners during years when yellowfin fishing was regulated.

Results of purse-seine fishing outside of the CYRA but east of 150°W are shown in Table 3. Only two seiners fished in this new area during 1968. However, during 1969, 39 seiners operated in this region and 46 seiners did so in 1970.

#### LOGGED EFFORT, CATCH AND CATCH RATE, BY ZONES AND BY VESSEL SIZE CLASS

Logged fishing effort, catch, and the calculated catch rates of yellowfin, skipjack, and the two species combined are summarized by zones and by vessel size classes of seiners in Table 4 and baitboats in Table 5, for the years 1962-1970. Beginning in 1966, the first year of yellowfin tuna regulations, the data include information from both regulated and non-regulated fishing trips.

\* The area assigned to France pertains to Clipperton Island.

#### ESTIMATED TOTAL ANNUAL CATCH, BY ZONES AND BY COUNTRY

Logbook records provide fishing details for a substantial portion of the tuna catch within the CYRA but do not include catches from seiners which do not give their fishing records to the Commission. These records also do not include catches by baitboats, longliners, canoes, bolicheras, and the catches of those seiners whose fishing records are unsuitable for tabulation. To provide an estimate of the total catch within each of the three zones dealt with in this study, the seiner logbook records were adjusted on the basis of the total annual catch by all flags and types of fishing vessels. Estimates of total catches of yellowfin and skipjack during 1961-1970 are shown in Tables 6, 7 and 8. Table 6 shows the data by 12-mile zones adjacent to each coastal state, Table 7 shows the data by 200-mile zones adjacent to each coastal state, and Table 8 summarizes the annual catches within the entire 12-mile zone, within the entire 200-mile zone, and within the entire area between 200 miles and the western boundary of the CYRA.

#### AVERAGE MONTHLY RATIOS OF CATCH PER UNIT OF EFFORT (c/e)

Monthly values shown in Tables 9 and 10 were computed by determining the ratio between the c/e by seiners fishing in that month and zone and the c/e by seiners fishing in the entire CYRA in that year, adding the ratios for the specific period of years detailed below, and dividing the sum of the ratios by the total number of years.

The average monthly ratios of the c/e for yellowfin taken by seiners fishing within specific (i.e., country) 200-mile zones are based on data from non-regulated trips during 1962-1970. The ratios for yellowfin taken outside 200 miles but within the CYRA are based on non-regulated seiner trips during 1964-1970. The ratios for yellowfin taken west of the CYRA but east of 150°W are based on seiner data from 1969-1970.

The average ratios for skipjack taken by seiners within specific 200-mile zones are based on non-regulated trips during 1962-1965, and on non-regulated plus regulated trips during 1966-1970. The ratios

for skipjack taken outside 200 miles but within the CYRA are based on non-regulated seiner trips during 1964-1965, and on non-regulated plus regulated trips during 1966-1970. The ratios for skipjack taken west of the CYRA but east of 150°W are based on seiner data from 1969-1970.

DISTRIBUCION DE CAPTURA, ESFUERZO Y CAPTURA POR UNIDAD  
DE ESFUERZO DENTRO DE LAS ZONAS GEOGRAFICAS ADYACENTES  
AL LITORAL DE LAS NACIONES E ISLAS QUE BORDEAN EL OCEANO  
PACIFICO ORIENTAL, 1959-1970.

INTRODUCCION

La pesca de atún en el Pacífico Oriental cubre una extensa área geográfica y se dedican a ella los pueblos de un gran número de naciones. Los países participantes han demostrado considerable interés en la distribución de esta captura, particularmente en la que ocurre dentro de las zonas de 12 y 200 millas adyacentes al litoral de las naciones e islas que bordean esa área.

En vista que los pedidos sobre esta información se han hecho más numerosos y frecuentes, se ha preparado, con una distribución limitada, el informe interno que a continuación se detalla.

FUENTES DE INFORMACION

Los datos recopilados de los libros de bitácora de los cerqueros y barcos de carnada constituyen la principal fuente de datos para este informe. Estos datos se utilizaron para calcular el esfuerzo de pesca, captura y captura por día de pesca dentro de las zonas de 12 y 200 millas adyacentes al litoral de las naciones e islas que bordean el Pacífico Oriental y dentro del área entre las 200 millas mar adentro y el límite occidental del ARCAA (Área Reglamentaria de la Comisión de atún aleta amarilla).

Los registros de los libros de bitácora se tabularon de acuerdo a las siguientes categorías: año, mes, artes de pesca, Océano Atlántico o Pacífico, dentro o fuera del ARCAA, viaje no reglamentado o reglamentado, área de 1 grado, clase de embarcación, número emitido por la CIAT para la embarcación, y el esfuerzo de pesca y captura para cada especie de atún dentro de cada una de las primeras ocho categorías indicadas anteriormente. Los detalles de la información de pesquería se colocaron en tarjetas para computador que luego sirvieron como registros de pesca. La información de las tarjetas para los cerqueros y barcos de carnada por el período 1959-1970

se inscribió en cinta magnética, y luego se procesó para este informe a fin de señalar el área de 1 grado, mes, clase, esfuerzo de pesca standardizado (es decir, unidades de cerqueros de la Clase 3 y unidades de barcos de carnada de la Clase 4), captura (la cantidad de cada especie registrada como tal, mas una cantidad prorrataeada que cubre las especies no identificadas) y la captura por unidad de esfuerzo (c/e).

#### AREA DE LAS ZONAS DENTRO DEL ARCAA

El área de cada una de estas tres zonas dentro del ARCAA, materia de este informe, fue computada sobre la base de las áreas de 1 grado usadas en el sistema estadístico de la Comisión. En primer lugar fue necesario determinar el número de áreas de 1 grado en cada zona y calcular el número de millas náuticas cuadradas abarcadas por cada área de 1 grado (Tabla 11). Para determinar el número de millas náuticas cuadradas dentro de cada zona y el área dentro de la porción de las tres zonas adyacente a cada país costanero (Tabla 12), se demarcó cada área de 1 grado de acuerdo al porcentaje del área que constituye océano, el porcentaje que está dentro de zonas adyacentes a una o más naciones y el porcentaje que está dentro de 12 y 200 millas de los países costaneros e islas del ARCAA.

La línea básica utilizada para determinar las zonas de 12 y 200 millas (ver Fig. 1) y la línea media entre los países costaneros se construyó según se indica en "La Convención sobre Mares Territoriales y Zonas Adyacentes" que fue adoptada por la Conferencia de las Naciones Unidas sobre la Ley del Mar, el 29 de Abril de 1958 (Doc.A/Conf.13/L.52 de las N.U.).

#### REGISTRO DE ESFUERZO Y CAPTURA POR ZONAS PARA BARCOS CERQUEROS

Los resultados de pesca registrados para cada cerquero, incluyendo todas las banderas, fueron resumidos por computador, para señalar para cada área de 1 grado, el mes y clase de embarcación, el esfuerzo standardizado de pesca, captura prorrataeada del atún aleta amarilla y barrilete, y la captura standardizada por día de pesca de estas dos especies. Esta información fue luego utilizada para computar el esfuerzo de pesca, la captura

y la captura por unidad de esfuerzo para los cerqueros durante los viajes no reglamentados dentro de las tres zonas adyacentes a cada uno de los países costaneros\* (es decir, dentro de las 12 millas, dentro de las 200 millas, y fuera de las 200 millas pero dentro del ARCAA) para los años 1959-1970 (Tabla 1). Es importante anotar que las capturas y esfuerzos de pesca dentro de cada zona adyacente a un determinado país son un sumario de los resultados de pesca de todos los cerqueros de todas las banderas que operaron dentro de aquella zona y que proporcionaron registros de sus libros de bitácora a la Comisión, y no constituyen un cálculo de la cantidad de esfuerzo de pesca y captura de atún de los barcos de la bandera de ese país.

En la Tabla 1 se debe señalar que para el año 1959 el esfuerzo standard debe ascender a un total de 4043.5 días standard en lugar de 3984.9, y la captura por día standard de pesca para toda el ARCAA debe ser 6.97 y 2.30 toneladas para el atún aleta amarilla y barrilete respectivamente. El ligero error se debe al uso de un factor de eficiencia incorrecto para las embarcaciones de la Clase 4.

La Tabla 2 indica los resultados de los registros de pesca de los cerqueros durante 1966-1970, combinando los datos de los viajes reglamentados y de los no reglamentados. La información sobre los viajes reglamentados se incluyó para proporcionar un cálculo más completo de las capturas del barrilete por los cerqueros durante los años en que la pesca del atún aleta amarilla estuvo regulada.

Los resultados de la pesca de cerqueros fuera del ARCAA pero al este de los 150°O se indican en la Tabla 3. Solamente dos cerqueros pescaron en esta nueva área durante 1968. Sin embargo, durante 1969, 39 cerqueros operaron en esta región y 46 cerqueros lo hicieron en 1970.

#### REGISTRO DE ESFUERZO, CAPTURA Y PROPORCIÓN DE CAPTURA, POR ZONAS Y POR CLASE DE EMBARCACIÓN

El registro para los años 1962-1970 del esfuerzo de pesca, captura y las proporciones calculadas de captura del atún aleta amarilla, barrilete y de las dos especies combinadas se resumen por zonas y por clase de embarcación,

\* El área asignada a Francia se refiere a la Isla Clipperton.

para los cerqueros, en la Tabla 4 y para los barcos de carnada en la Tabla 5. Desde 1966, el primer año de las regulaciones para el atún aleta amarilla, los datos incluyen información sobre los viajes de pesca regulados y no regulados.

#### CAPTURA TOTAL ANUAL ESTIMADA POR ZONAS Y POR PAÍS

Los registros de los libros de bitácora proporcionan detalles de pesca sobre una gran porción de la captura de atún dentro del ARCAA pero no incluyen las capturas de los cerqueros que no facilitan sus registros de pesca a la Comisión. Asimismo, estos registros no incluyen capturas efectuadas por barcos de carnada, palangreros, canoas, bolicheras y las capturas de aquellos cerqueros cuyos registros de pesca no son adecuados para la tabulación. A fin de proporcionar una estimación de la captura total dentro de cada una de las tres zonas materia de este estudio, los registros de los libros de bitácora de los cerqueros fueron arreglados sobre la base del total anual de captura de los barcos de todas las banderas y todos los tipos. En las Tablas 6, 7 y 8 se encuentran las estimaciones de las capturas totales de atún aleta amarilla y barrilete durante 1961-1970. La Tabla 6 indica los datos por zonas de 12 millas adyacentes a cada país costanero y la Tabla 8 es un resumen de las capturas anuales dentro de toda la zona de 12 millas, dentro de toda la zona de 200 millas y dentro de toda el área entre 200 millas y el límite occidental del ARCAA.

#### PROMEDIO MENSUAL DE PROPORCIONES DE CAPTURA POR UNIDAD DE ESFUERZO (c/e)

Se computaron los valores mensuales indicados en las Tablas 9 y 10 determinando la proporción entre la c/e por cerqueros que pescaron en ese mes y en esa zona y la c/e por cerqueros que pescaron en toda el ARCAA en ese año, añadiendo las proporciones para el período específico de años detallado a continuación, dividiendo luego la suma de las proporciones entre el número total de años.

El promedio mensual de proporciones de la c/e para atún aleta amarilla tomado por los cerqueros que pescaron dentro de zonas específicas de 200 millas (es decir, país) se basa en datos de viajes no regulados efectuados durante 1962-1970. Las proporciones para atún aleta amarilla tomado fuera de las 200

millas pero dentro del ARCAA se basan en viajes no regulados de cerqueros efectuados durante 1964-1970. Las proporciones para atún aleta amarilla tomado al oeste del ARCAA pero al este de los 150°O se basan en datos de cerqueros dentro del periodo 1969-1970.

El promedio de proporciones para barrilete tomado por cerqueros dentro de zonas específicas de 200 millas se basan en viajes no regulados efectuados durante 1962-1965, y en viajes no regulados y regulados efectuados durante 1966-1970. Las proporciones para barrilete tomado fuera de las 200 millas pero dentro del ARCAA se basan en viajes no regulados de cerqueros durante 1964-1965, y en viajes no regulados y regulados durante 1966-1970. Las proporciones para barrilete tomado al oeste del ARCAA pero al este de los 150°O se basan en datos de cerqueros para el periodo 1969-1970.

LIST OF ABBREVIATIONS USED IN TABLES

|           |   |                        |
|-----------|---|------------------------|
| C/S day   | = | catch per standard day |
| PR        | = | prorated               |
| SK        | = | skipjack               |
| Std. days | = | standard days          |
| YF        | = | yellowfin tuna         |

LISTA DE ABREVIATURAS USADAS EN LAS TABLAS

|           |   |                     |
|-----------|---|---------------------|
| AA        | = | atún aleta amarilla |
| BL        | = | barrilete           |
| Días std. | = | días standardizados |
| PR        | = | prorrteadas         |

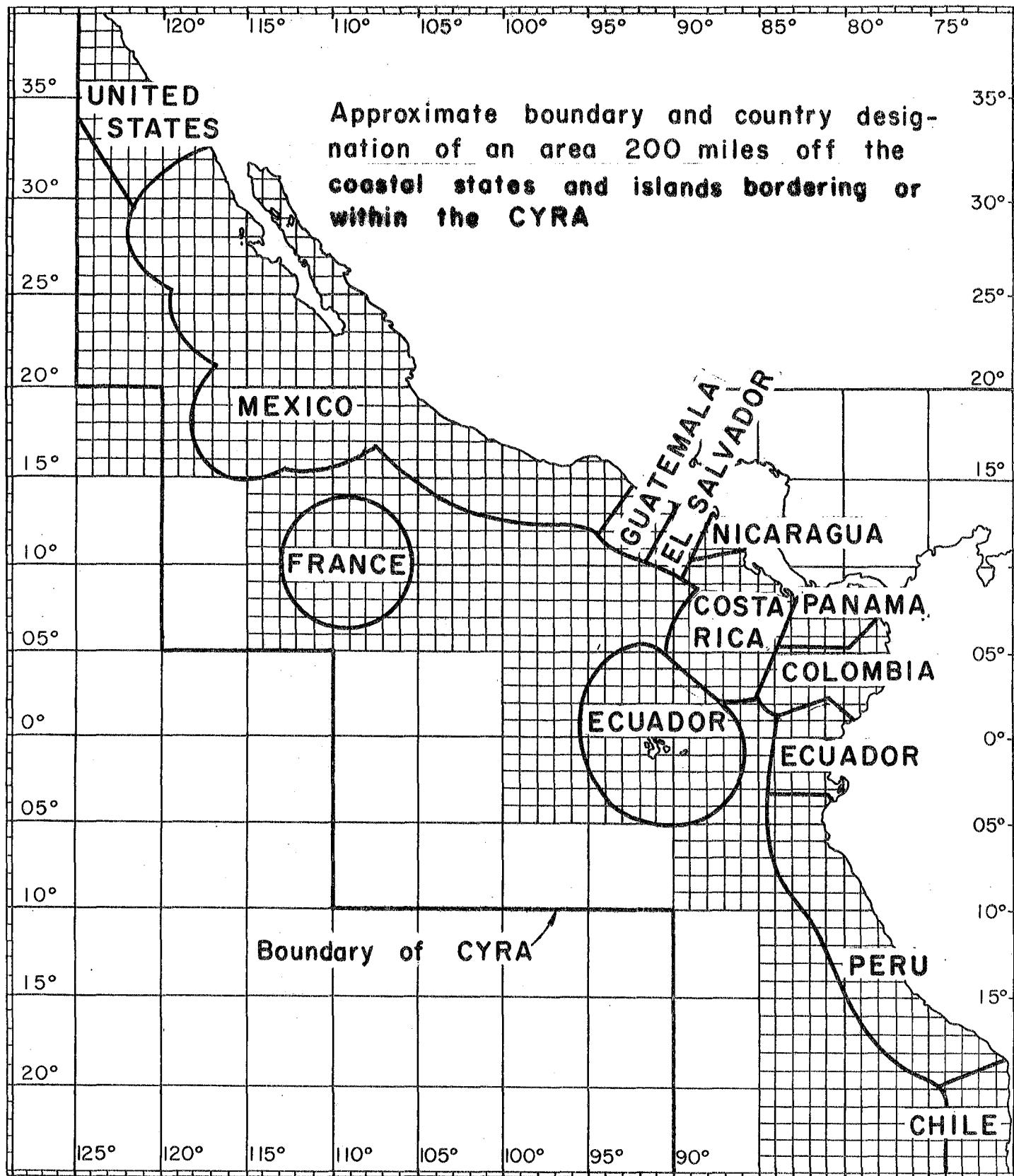


FIGURE I

TABLE 1. Annual logged tuna fishing effort, catch and catch rate by purse-seine vessels fishing within 12 and 200 mile zones off the shores of countries bordering the CYRA and around islands within the CYRA, and effort and catch outside 200 miles within the CYRA during non-regulated fishing trips, 1959-1970.

TABLA 1. Registro anual del esfuerzo de pesca de los atunes, captura e índice de captura por barcos cercores que pescan en zonas a 12 y 200 millas fuera de las costas de países que limitan el ARCAA (área reglamentaria de la Comisión de atún aleta amarilla), y alrededor de las islas situadas dentro del ARCAA, y el esfuerzo y la captura fuera de las 200 millas pero dentro de los límites del ARCAA durante viajes de pesca no reglamentados, 1959-1970

| 1970 purse seine - non regulated trips - 1970 cercores - viajes no reglamentados |                     |                               |                       |                    |                    |                    |                    |                    |  |
|--|---------------------|-------------------------------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--|
| Country<br><u>País</u>   | Days<br><u>Días</u> | Std. days<br><u>Días std.</u> | PR-YF<br><u>PR-AA</u> | PR-YF/<br>std. day | PR-SJ/<br>std. day | PR<br><u>YF-SJ</u> | YF-SJ/<br>std. day | YF-SJ/<br>std. day |  |
|  |                     |                               |                       | PR-AA/<br>día std. |                    |                    |                    |                    |  |
| Catch and effort within 200 miles - Captura y esfuerzo en 200 millas             |                     |                               |                       |                    |                    |                    |                    |                    |  |
| Colombia   | 125.7               | 204.3                         | 767.56                | 3.76               | 26.60              | .13                | 794.16             | 3.89               |  |
| Costa Rica   | 646.2               | 1,035.5                       | 8,884.82              | 8.58               | 72.31              | .07                | 8,957.13           | 8.65               |  |
| Ecuador  | 483.9               | 654.6                         | 3,729.99              | 5.70               | 2,528.56           | 3.86               | 6,258.55           | 9.56               |  |
| Mexico   | 4,565.1             | 5,618.5                       | 46,893.02             | 8.35               | 3,685.33           | .66                | 50,578.34          | 9.00               |  |
| Panama   | 58.2                | 95.3                          | 374.45                | 3.93               | 0                  | 0                  | 374.45             | 3.93               |  |
| Peru   | 458.9               | 648.0                         | 4,953.74              | 7.64               | 2,464.83           | 3.80               | 7,418.57           | 11.45              |  |
| Nicaragua  | 11.0                | 17.9                          | 56.40                 | 3.16               | 15.00              | .84                | 71.40              | 4.00               |  |
| France   | 229.4               | 351.0                         | 2,354.30              | 6.71               | 326.70             | .93                | 2,681.00           | 7.64               |  |
| El Salvador  | 21.8                | 33.6                          | 250.70                | 7.47               | 0                  | 0                  | 250.70             | 7.47               |  |
| Guatemala  | 52.7                | 80.3                          | 382.95                | 4.77               | 6.00               | .07                | 388.95             | 4.84               |  |
| Total  | 6,653.0             | 8,739.0                       | 68,647.93             | 7.86               | 9,125.33           | 1.04               | 77,773.26          | 8.90               |  |
| Catch and effort within 12 miles - Captura y esfuerzo en 12 millas               |                     |                               |                       |                    |                    |                    |                    |                    |  |
| Colombia   | 14.6                | 23.8                          | 53.44                 | 2.24               | 2.50               | .10                | 55.94              | 2.35               |  |
| Costa Rica   | 16.9                | 27.4                          | 313.91                | 11.47              | 2.45               | .09                | 316.37             | 11.56              |  |
| Ecuador  | 72.1                | 89.5                          | 542.45                | 6.06               | 358.42             | 4.00               | 900.87             | 10.07              |  |
| Mexico   | 590.5               | 672.8                         | 5,584.95              | 8.30               | 789.42             | 1.17               | 6,374.36           | 9.47               |  |
| Panama   | 7.7                 | 12.8                          | 58.50                 | 4.59               | 0                  | 0                  | 58.50              | 4.59               |  |
| Peru   | 79.7                | 111.4                         | 883.59                | 7.93               | 477.96             | 4.29               | 1,361.55           | 12.23              |  |
| Nicaragua  | 1.1                 | 1.8                           | 6.21                  | 3.37               | 0                  | 0                  | 6.21               | 3.37               |  |
| France   | 9.8                 | 15.6                          | 82.50                 | 5.28               | 26.50              | 1.70               | 109.00             | 6.97               |  |
| El Salvador  | .3                  | .6                            | 0                     | 0                  | 0                  | 0                  | 0                  | 0                  |  |
| Guatemala  | .9                  | 1.4                           | 2.00                  | 1.45               | 0                  | 0                  | 2.00               | 1.45               |  |
| Total  | 793.7               | 957.1                         | 7,527.56              | 7.87               | 1,657.25           | 1.73               | 9,184.81           | 9.60               |  |

Table 1 (2)

| Country   | Days    | Std. days | PR-YF      | PR-YF/<br>std. day | PR-SJ     | PR-SJ/<br>std. day | PR.<br>YF-SJ | YF-SJ/<br>std. day |
|---|---------|-----------|------------|--------------------|-----------|--------------------|--------------|--------------------|
| Catch and effort outside 200 miles - Captura y esfuerzo fuera de las 200 millas |         |           |            |                    |           |                    |              |                    |
| 0 - 10 N Lat.   | 1,265.0 | 2,003.8   | 22,825.82  | 11.39              | 2,300.67  | 1.15               | 25,126.48    | 12.54              |
| 10 - 15 N Lat.  | 1,195.8 | 1,714.6   | 15,319.95  | 8.93               | 1,725.80  | 1.01               | 17,045.75    | 9.94               |
| N of 15 N Lat.  | 212.4   | 300.3     | 3,423.55   | 11.40              | 78.15     | .26                | 3,501.70     | 11.66              |
| S of equator  | 3.2     | 5.3       | .90        | .17                | .10       | .02                | 1.00         | .19                |
| Total   | 2,676.5 | 4,024.1   | 41,570.22  | 10.33              | 4,104.72  | 1.02               | 45,674.94    | 11.35              |
| Yearly totals   | 9,329.5 | 12,763.1  | 110,218.16 | 8.64               | 13,230.04 | 1.04               | 123,448.20   | 9.67               |

Table 1 (3)

1969 Purse seine - non regulated trips - 1969 cerqueros - viajes no reglamentados

| <u>Country</u>  | <u>Days</u> | <u>Std. days</u> | <u>PR-YF</u> | <u>PR-YF/<br/>std. day</u> | <u>PR-SJ</u> | <u>PR-SJ/<br/>std. day</u> | <u>PR<br/>YF-SJ</u> | <u>YF-SJ/<br/>std. day</u> |
|---|-------------|------------------|--------------|----------------------------|--------------|----------------------------|---------------------|----------------------------|
| Catch and effort within 200 miles - Captura y esfuerzo en 200 millas            |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 3.5         | 5.8              | 0            | 0                          | 0            | 0                          | 0                   | 0                          |
| Colombia  | 227.2       | 365.3            | 3,778.31     | 10.34                      | 105.00       | .29                        | 3,883.31            | 10.63                      |
| Costa Rica  | 598.8       | 933.3            | 8,117.69     | 8.70                       | 509.70       | .55                        | 8,627.39            | 9.24                       |
| Ecuador   | 445.2       | 635.1            | 2,129.71     | 3.35                       | 2,449.51     | 3.86                       | 4,579.22            | 7.21                       |
| Mexico  | 3,243.2     | 3,921.7          | 28,622.43    | 7.30                       | 1,411.36     | .36                        | 30,033.79           | 7.66                       |
| Panama  | 69.2        | 104.5            | 586.19       | 5.61                       | 8.60         | .08                        | 594.79              | 5.69                       |
| Peru  | 695.3       | 1,022.3          | 1,924.61     | 1.88                       | 5,031.52     | 4.92                       | 6,956.13            | 6.80                       |
| Nicaragua   | 45.4        | 65.8             | 266.62       | 4.05                       | 8.07         | .12                        | 274.70              | 4.17                       |
| France  | 319.5       | 487.0            | 5,771.19     | 11.85                      | 1,868.08     | 3.84                       | 7,639.27            | 15.69                      |
| El Salvador   | 45.7        | 66.9             | 439.28       | 6.57                       | 3.23         | .05                        | 442.50              | 6.61                       |
| Guatemala   | 366.4       | 532.9            | 5,683.97     | 10.67                      | 0            | 0                          | 5,683.97            | 10.67                      |
| Total   | 6,059.5     | 8,140.8          | 57,320.00    | 7.04                       | 11,395.08    | 1.40                       | 68,715.08           | 8.44                       |
| Catch and effort within 12 miles - Captura y esfuerzo en 12 millas              |             |                  |              |                            |              |                            |                     |                            |
| Chile   | .7          | 1.1              | 0            | 0                          | 0            | 0                          | 0                   | 0                          |
| Colombia  | 22.0        | 35.4             | 352.64       | 9.95                       | 14.25        | .40                        | 366.89              | 10.35                      |
| Costa Rica  | 6.9         | 10.5             | 38.19        | 3.65                       | 0            | 0                          | 38.19               | 3.65                       |
| Ecuador   | 69.6        | 99.4             | 246.97       | 2.49                       | 440.15       | 4.43                       | 687.11              | 6.91                       |
| Mexico  | 391.1       | 437.2            | 3,353.45     | 7.67                       | 493.00       | 1.13                       | 3,846.45            | 8.80                       |
| Panama  | 3.0         | 4.8              | 10.89        | 2.26                       | 0            | 0                          | 10.89               | 2.26                       |
| Peru  | 115.2       | 166.1            | 253.76       | 1.53                       | 692.24       | 4.17                       | 946.00              | 5.70                       |
| Nicaragua   | 3.5         | 5.4              | 5.26         | .97                        | 0            | 0                          | 5.26                | .97                        |
| France  | 4.8         | 7.8              | 47.52        | 6.07                       | 8.51         | 1.09                       | 56.03               | 7.15                       |
| El Salvador   | .7          | 1.0              | 1.56         | 1.50                       | 0            | 0                          | 1.56                | 1.50                       |
| Guatemala   | 6.4         | 8.8              | 16.40        | 1.85                       | 0            | 0                          | 16.40               | 1.85                       |
| Total   | 623.8       | 777.7            | 4,326.64     | 5.56                       | 1,648.15     | 2.12                       | 5,974.79            | 7.68                       |
| Catch and effort outside 200 miles - Captura y esfuerzo fuera de las 200 millas |             |                  |              |                            |              |                            |                     |                            |
| 0 - 10 N Lat.   | 1,238.2     | 1,907.6          | 27,057.73    | 14.18                      | 2,950.68     | 1.55                       | 30,008.41           | 15.73                      |
| 10 - 15 N Lat.  | 1,077.2     | 1,454.8          | 12,723.65    | 8.75                       | 1,391.95     | .96                        | 14,115.60           | 9.70                       |
| N of 15 N Lat.  | 124.3       | 161.9            | 900.49       | 5.56                       | 31.20        | .19                        | 931.69              | 5.76                       |
| S of equator  | 13.3        | 17.7             | .90          | .05                        | 94.82        | 5.36                       | 95.72               | 5.41                       |
| Total   | 2,453.0     | 3,541.9          | 40,682.77    | 11.49                      | 4,468.65     | 1.26                       | 45,151.42           | 12.75                      |
| Yearly totals   | 8,512.5     | 11,682.7         | 98,002.77    | 8.39                       | 15,863.73    | 1.36                       | 113,866.50          | 9.75                       |

Table 1 (4)

1968 Purse seine - non regulated trips - 1968 cerqueros - viajes no reglamentados

| <u>Country</u>  | <u>Days</u> | <u>Std. days</u> | <u>PR-YF</u> | <u>PR-YF/<br/>std. day</u> | <u>PR-SJ</u> | <u>PR-SJ/<br/>std. day</u> | <u>PR<br/>YF-SJ</u> | <u>YF-SJ/<br/>std. day</u> |
|---|-------------|------------------|--------------|----------------------------|--------------|----------------------------|---------------------|----------------------------|
| Catch and effort within 200 miles - Captura y esfuerzo en 200 millas            |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 1.6         | 2.4              | 0            | 0                          | 0            | 0                          | 0                   | 0                          |
| Colombia  | 101.7       | 141.6            | 326.42       | 2.30                       | 325.27       | 2.30                       | 651.69              | 4.60                       |
| Costa Rica  | 662.4       | 919.3            | 8,328.51     | 9.06                       | 5,004.54     | 5.44                       | 13,333.04           | 14.50                      |
| Ecuador   | 730.6       | 976.7            | 5,773.09     | 5.91                       | 7,081.21     | 7.25                       | 12,854.30           | 13.16                      |
| Mexico  | 4,746.3     | 5,291.0          | 36,456.84    | 6.89                       | 5,151.62     | .97                        | 41,608.46           | 7.86                       |
| Panama  | 48.5        | 67.1             | 69.79        | 1.04                       | 138.90       | 2.07                       | 208.68              | 3.11                       |
| Peru  | 505.0       | 665.8            | 3,342.14     | 5.02                       | 6,537.74     | 9.82                       | 9,879.88            | 14.84                      |
| United States   | 11.6        | 13.8             | 3.60         | .26                        | 0            | 0                          | 3.60                | .26                        |
| Nicaragua   | 145.7       | 202.6            | 1,795.50     | 8.86                       | 886.76       | 4.38                       | 2,682.26            | 13.24                      |
| France  | 6.2         | 6.4              | 73.90        | 11.61                      | 11.90        | 1.87                       | 85.80               | 13.48                      |
| El Salvador   | 611.5       | 782.9            | 9,063.52     | 11.58                      | 5,840.56     | 7.46                       | 14,904.08           | 19.04                      |
| Guatemala   | 594.0       | 803.0            | 10,388.02    | 12.94                      | 2,520.12     | 3.14                       | 12,908.14           | 16.08                      |
| Total   | 8,165.2     | 9,872.5          | 75,621.32    | 7.66                       | 33,498.61    | 3.39                       | 109,119.93          | 11.05                      |
| Catch and effort within 12 miles - Captura y esfuerzo en 12 millas              |             |                  |              |                            |              |                            |                     |                            |
| Chile   | .4          | .6               | 0            | 0                          | 0            | 0                          | 0                   | 0                          |
| Colombia  | 13.7        | 19.5             | 33.92        | 1.74                       | 110.70       | 5.68                       | 144.63              | 7.42                       |
| Costa Rica  | 15.7        | 21.9             | 125.22       | 5.72                       | 18.18        | .83                        | 143.41              | 6.55                       |
| Ecuador   | 132.6       | 174.7            | 908.17       | 5.20                       | 1,490.12     | 8.53                       | 2,398.28            | 13.73                      |
| Mexico  | 560.8       | 597.4            | 3,457.27     | 5.79                       | 466.03       | .78                        | 3,923.29            | 6.57                       |
| Panama  | 6.9         | 9.5              | 10.20        | 1.07                       | 1.31         | .14                        | 11.50               | 1.21                       |
| Peru  | 110.8       | 143.7            | 507.31       | 3.53                       | 1,582.49     | 11.02                      | 2,089.81            | 14.55                      |
| United States   | 2.4         | 2.7              | .72          | .27                        | 0            | 0                          | .72                 | .27                        |
| Nicaragua   | 7.4         | 10.5             | 105.88       | 10.06                      | 5.50         | .52                        | 111.38              | 10.58                      |
| El Salvador   | .6          | .9               | 3.60         | 4.23                       | 0            | 0                          | 3.60                | 4.23                       |
| Guatemala   | 4.4         | 5.8              | 24.61        | 4.21                       | 0            | 0                          | 24.61               | 4.21                       |
| Total   | 855.8       | 987.2            | 5,176.91     | 5.24                       | 3,674.32     | 3.72                       | 8,851.23            | 8.97                       |
| Catch and effort outside 200 miles - Captura y esfuerzo fuera de las 200 millas |             |                  |              |                            |              |                            |                     |                            |
| 0 - 10 N Lat.   | 414.6       | 579.2            | 9,008.12     | 15.55                      | 848.35       | 1.46                       | 9,856.46            | 17.02                      |
| 10 - 15 N Lat.  | 534.0       | 638.2            | 8,315.18     | 13.03                      | 897.59       | 1.41                       | 9,212.77            | 14.43                      |
| N of 15 N Lat.  | 87.3        | 97.1             | 1,297.88     | 13.36                      | 142.25       | 1.46                       | 1,440.13            | 14.83                      |
| S of equator  | .2          | .3               | .55          | 2.08                       | .24          | .91                        | .79                 | 2.99                       |
| Total   | 1,036.1     | 1,314.9          | 18,621.73    | 14.16                      | 1,888.43     | 1.44                       | 20,510.17           | 15.60                      |
| Yearly totals   | 9,201.3     | 11,187.4         | 94,243.06    | 8.42                       | 35,387.04    | 3.16                       | 129,630.10          | 11.59                      |

Table 1 (5)

## 1967 Purse seine - non regulated trips - 1967 cerqueros - viajes no reglamentados

| <u>Country</u>  | <u>Days</u> | <u>Std. days</u> | <u>PR-YF</u> | <u>PR-YF/<br/>std. day</u> | <u>PR-SJ</u> | <u>PR-SJ/<br/>std. day</u> | <u>PR<br/>YF-SJ</u> | <u>YF-SJ/<br/>std. day</u> |
|---|-------------|------------------|--------------|----------------------------|--------------|----------------------------|---------------------|----------------------------|
| Catch and effort within 200 miles - Captura y esfuerzo en 200 millas            |             |                  |              |                            |              |                            |                     |                            |
| Colombia  | 148.5       | 201.7            | 1,224.04     | 6.07                       | 288.30       | 1.43                       | 1,512.34            | 7.50                       |
| Costa Rica  | 367.0       | 462.6            | 3,470.87     | 7.50                       | 63.65        | .14                        | 3,534.52            | 7.64                       |
| Ecuador   | 1,160.4     | 1,600.5          | 4,820.95     | 3.01                       | 24,938.78    | 15.58                      | 29,759.73           | 18.59                      |
| Mexico  | 4,032.1     | 4,311.6          | 34,663.95    | 8.04                       | 9,190.78     | 2.13                       | 43,854.72           | 10.17                      |
| Panama  | 58.0        | 73.1             | 396.49       | 5.42                       | 107.45       | 1.47                       | 503.94              | 6.89                       |
| Peru  | 1,100.1     | 1,448.6          | 6,690.28     | 4.62                       | 28,283.78    | 19.52                      | 34,974.06           | 24.14                      |
| Nicaragua   | 40.2        | 52.6             | 147.00       | 2.79                       | 13.70        | .26                        | 160.70              | 3.05                       |
| France  | 8.0         | 8.3              | 93.50        | 11.22                      | 0            | 0                          | 93.50               | 11.22                      |
| El Salvador   | 100.2       | 125.4            | 1,343.63     | 10.71                      | 136.75       | 1.09                       | 1,480.38            | 11.80                      |
| Guatemala   | 354.8       | 421.7            | 4,291.89     | 10.18                      | 90.90        | .22                        | 4,382.79            | 10.39                      |
| Total   | 7,369.2     | 8,706.1          | 57,142.61    | 6.56                       | 63,114.08    | 7.25                       | 120,256.68          | 13.81                      |
| Catch and effort within 12 miles - Captura y esfuerzo en 12 millas              |             |                  |              |                            |              |                            |                     |                            |
| Colombia  | 21.3        | 28.7             | 149.91       | 5.22                       | 39.33        | 1.37                       | 189.24              | 6.58                       |
| Costa Rica  | 7.4         | 8.9              | 6.64         | .74                        | 1.92         | .22                        | 8.56                | .96                        |
| Ecuador   | 206.1       | 288.6            | 845.80       | 2.93                       | 4,204.99     | 14.57                      | 5,050.79            | 17.50                      |
| Mexico  | 492.6       | 522.4            | 5,506.51     | 10.54                      | 634.64       | 1.21                       | 6,141.15            | 11.76                      |
| Panama  | 4.0         | 4.6              | 21.71        | 4.67                       | 12.36        | 2.66                       | 34.07               | 7.34                       |
| Peru  | 171.1       | 208.5            | 1,304.44     | 6.26                       | 2,460.40     | 11.80                      | 3,764.84            | 18.06                      |
| Nicaragua   | 3.1         | 4.0              | 2.79         | .71                        | .76          | .19                        | 3.55                | .90                        |
| France  | 1.0         | 1.0              | .20          | .20                        | 0            | 0                          | .20                 | .20                        |
| El Salvador   | .5          | .6               | .25          | .43                        | 0            | 0                          | .25                 | .43                        |
| Guatemala   | 6.5         | 7.6              | 6.20         | .81                        | 0            | 0                          | 6.20                | .81                        |
| Total   | 913.7       | 1,074.9          | 7,844.45     | 7.30                       | 7,354.40     | 6.84                       | 15,198.85           | 14.14                      |
| Catch and effort outside 200 miles - Captura y esfuerzo fuera de las 200 millas |             |                  |              |                            |              |                            |                     |                            |
| 0 - 10 N Lat.   | 287.7       | 341.5            | 3,545.50     | 10.38                      | 16.00        | .05                        | 3,561.50            | 10.43                      |
| 10 - 15 N Lat.  | 776.7       | 855.8            | 8,213.95     | 9.60                       | 125.65       | .15                        | 8,339.61            | 9.74                       |
| N of 15 N Lat.  | 188.4       | 193.9            | 1,620.84     | 8.36                       | 48.85        | .25                        | 1,669.69            | 8.61                       |
| S of equator  | .5          | .7               | .08          | .12                        | 33.73        | 50.36                      | 33.81               | 50.48                      |
| Total   | 1,253.3     | 1,391.8          | 13,380.38    | 9.61                       | 224.23       | .16                        | 13,604.61           | 9.77                       |
| Yearly totals   | 8,622.5     | 10,097.9         | 70,522.99    | 6.98                       | 63,338.31    | 6.27                       | 133,861.30          | 13.26                      |

Table 1 (6)

1966 Purse seine - non regulated trips - 1966 cerqueros - viajes no reglamentados

| <u>Country</u>  | <u>Days</u> | <u>Std. days</u> | <u>PR-YF</u> | <u>PR-YF/<br/>std. day</u> | <u>PR-SJ</u> | <u>PR-SJ/<br/>std. day</u> | <u>PR<br/>YF-SJ</u> | <u>YF-SJ/<br/>std. day</u> |
|---|-------------|------------------|--------------|----------------------------|--------------|----------------------------|---------------------|----------------------------|
| Catch and effort within 200 miles - Captura y esfuerzo en 200 millas            |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 46.5        | 62.7             | 145.50       | 2.32                       | 27.30        | .44                        | 172.80              | 2.76                       |
| Colombia  | 429.5       | 520.5            | 1,495.49     | 2.87                       | 827.15       | 1.59                       | 2,322.64            | 4.46                       |
| Costa Rica  | 1,379.0     | 1,549.3          | 7,867.36     | 5.08                       | 972.91       | .63                        | 8,840.27            | 5.71                       |
| Ecuador   | 2,865.2     | 3,634.9          | 15,839.01    | 4.36                       | 18,835.38    | 5.18                       | 34,674.39           | 9.54                       |
| Mexico  | 3,655.3     | 3,776.4          | 12,866.17    | 3.41                       | 2,459.93     | .65                        | 15,326.10           | 4.06                       |
| Panama  | 234.5       | 296.3            | 1,107.53     | 3.74                       | 1,183.75     | 3.99                       | 2,291.28            | 7.73                       |
| Peru  | 2,121.3     | 2,712.2          | 11,799.28    | 4.35                       | 16,423.61    | 6.06                       | 28,222.89           | 10.41                      |
| United States   | 120.5       | 123.5            | 0            | 0                          | 248.68       | 2.01                       | 248.68              | 2.01                       |
| Nicaragua   | 117.5       | 132.2            | 308.50       | 2.33                       | 26.25        | .20                        | 334.75              | 2.53                       |
| France  | 12.1        | 15.4             | 30.30        | 1.97                       | .40          | .03                        | 30.70               | 2.00                       |
| El Salvador   | 425.7       | 478.2            | 3,266.89     | 6.83                       | 11.05        | .02                        | 3,277.94            | 6.85                       |
| Guatemala   | 419.1       | 465.1            | 2,154.88     | 4.63                       | 74.10        | .16                        | 2,228.98            | 4.79                       |
| Total   | 11,826.3    | 13,766.6         | 56,880.92    | 4.13                       | 41,090.51    | 2.98                       | 97,971.43           | 7.12                       |
| Catch and effort within 12 miles - Captura y esfuerzo en 12 millas              |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 9.0         | 12.1             | 35.75        | 2.95                       | 5.44         | .45                        | 41.18               | 3.40                       |
| Colombia  | 81.0        | 98.1             | 348.21       | 3.55                       | 289.95       | 2.95                       | 638.16              | 6.50                       |
| Costa Rica  | 45.3        | 50.1             | 163.68       | 3.27                       | 45.40        | .91                        | 209.08              | 4.17                       |
| Ecuador   | 550.7       | 695.5            | 2,798.58     | 4.02                       | 3,949.50     | 5.68                       | 6,748.08            | 9.70                       |
| Mexico  | 830.9       | 849.2            | 3,178.63     | 3.74                       | 664.49       | .78                        | 3,843.12            | 4.53                       |
| Panama  | 37.4        | 48.3             | 138.66       | 2.87                       | 248.55       | 5.14                       | 387.21              | 8.02                       |
| Peru  | 352.5       | 445.6            | 2,042.13     | 4.58                       | 2,765.08     | 6.21                       | 4,807.21            | 10.79                      |
| United States   | 29.9        | 30.6             | 0            | 0                          | 66.39        | 2.17                       | 66.39               | 2.17                       |
| Nicaragua   | 12.8        | 14.4             | 10.96        | .76                        | 2.33         | .16                        | 13.28               | .92                        |
| France  | 4.3         | 5.5              | 14.00        | 2.54                       | 0            | 0                          | 14.00               | 2.54                       |
| El Salvador   | 3.2         | 3.6              | 1.79         | .49                        | .12          | .03                        | 1.91                | .53                        |
| Guatemala   | 10.7        | 11.9             | 10.11        | .85                        | 3.20         | .27                        | 13.31               | 1.12                       |
| Total   | 1,967.5     | 2,265.0          | 8,742.49     | 3.86                       | 8,040.44     | 3.55                       | 16,782.93           | 7.41                       |
| Catch and effort outside 200 miles - Captura y esfuerzo fuera de las 200 millas |             |                  |              |                            |              |                            |                     |                            |
| 0 - 10 N Lat.   | 1,433.4     | 1,616.6          | 16,177.74    | 10.01                      | 37.96        | .02                        | 16,215.71           | 10.03                      |
| 10 - 15 N Lat.  | 422.7       | 456.6            | 3,680.79     | 8.06                       | 213.30       | .47                        | 3,894.09            | 8.53                       |
| N of 15 N Lat.  | 126.3       | 130.8            | 608.80       | 4.66                       | 195.22       | 1.49                       | 804.03              | 6.15                       |
| S of equator  | 13.6        | 14.2             | 53.00        | 3.72                       | 15.66        | 1.10                       | 68.66               | 4.82                       |
| Total   | 1,996.1     | 2,218.2          | 20,520.34    | 9.25                       | 462.15       | .21                        | 20,982.49           | 9.46                       |
| Yearly totals   | 13,822.4    | 15,984.8         | 77,401.26    | 4.84                       | 41,552.66    | 2.60                       | 118,953.92          | 7.44                       |

Table 1 (7)

1965 Purse seine-non regulated trips - 1965 cerqueros - viajes no reglamentados

| <u>Country</u>  | <u>Days</u> | <u>Std. days</u> | <u>PR-YF</u> | <u>PR-YF/<br/>std. day</u> | <u>PR-SJ</u> | <u>PR-SJ/<br/>std. day</u> | <u>PR<br/>YF-SJ</u> | <u>YF-SJ/<br/>std. day</u> |
|---|-------------|------------------|--------------|----------------------------|--------------|----------------------------|---------------------|----------------------------|
| Catch and effort within 200 miles - Captura y esfuerzo en 200 millas            |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 29.3        | 30.3             | 0            | 0                          | 72.20        | 2.38                       | 72.20               | 2.38                       |
| Colombia  | 301.7       | 388.4            | 693.20       | 1.78                       | 351.85       | .91                        | 1,045.06            | 2.69                       |
| Costa Rica  | 1,231.1     | 1,456.2          | 7,373.56     | 5.06                       | 1,653.55     | 1.14                       | 9,027.11            | 6.20                       |
| Ecuador   | 3,002.9     | 3,853.4          | 6,144.99     | 1.59                       | 29,116.45    | 7.56                       | 35,261.44           | 9.15                       |
| Mexico  | 7,418.6     | 7,955.1          | 28,727.90    | 3.61                       | 6,290.08     | .79                        | 35,017.98           | 4.40                       |
| Panama  | 147.7       | 177.1            | 523.09       | 2.95                       | 141.22       | .80                        | 664.31              | 3.75                       |
| Peru  | 1,791.1     | 2,291.7          | 4,691.31     | 2.05                       | 16,084.52    | 7.02                       | 20,775.83           | 9.07                       |
| United States   | 18.0        | 18.8             | 0            | 0                          | 20.25        | 1.08                       | 20.25               | 1.08                       |
| Nicaragua   | 250.8       | 289.5            | 685.51       | 2.37                       | 513.72       | 1.77                       | 1,199.22            | 4.14                       |
| France  | 10.5        | 12.5             | 7.00         | .56                        | 0            | 0                          | 7.00                | .56                        |
| El Salvador   | 506.0       | 588.3            | 3,474.43     | 5.91                       | 155.48       | .26                        | 3,629.90            | 6.17                       |
| Guatemala   | 626.2       | 729.2            | 4,614.07     | 6.33                       | 370.22       | .51                        | 4,984.29            | 6.84                       |
| Total   | 15,333.9    | 17,790.5         | 56,935.06    | 3.20                       | 54,769.54    | 3.08                       | 111,704.60          | 6.28                       |
| Catch and effort within 12 miles - Captura y esfuerzo en 12 millas              |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 6.4         | 6.5              | 0            | 0                          | 18.05        | 2.77                       | 18.05               | 2.77                       |
| Colombia  | 59.1        | 75.8             | 7.10         | .09                        | 72.89        | .96                        | 79.99               | 1.05                       |
| Costa Rica  | 66.8        | 77.0             | 170.57       | 2.22                       | 250.16       | 3.25                       | 420.73              | 5.47                       |
| Ecuador   | 636.2       | 817.4            | 1,041.73     | 1.27                       | 7,316.77     | 8.95                       | 8,358.50            | 10.23                      |
| Mexico  | 1,473.9     | 1,550.0          | 4,487.13     | 2.89                       | 2,331.90     | 1.50                       | 6,819.03            | 4.40                       |
| Panama  | 25.1        | 28.8             | 27.68        | .96                        | 12.37        | .43                        | 40.05               | 1.39                       |
| Peru  | 311.1       | 392.2            | 707.96       | 1.80                       | 2,337.42     | 5.96                       | 3,045.38            | 7.76                       |
| United States   | 5.6         | 5.8              | 0            | 0                          | 4.36         | .75                        | 4.36                | .75                        |
| Nicaragua   | 28.3        | 32.7             | 48.73        | 1.49                       | 86.80        | 2.65                       | 135.52              | 4.14                       |
| France  | 4.0         | 4.7              | 3.50         | .74                        | 0            | 0                          | 3.50                | .74                        |
| El Salvador   | 3.1         | 3.6              | 4.44         | 1.24                       | .27          | .03                        | 4.71                | 1.31                       |
| Guatemala   | 13.6        | 15.6             | 22.48        | 1.44                       | 1.22         | .03                        | 23.71               | 1.52                       |
| Total   | 2,633.2     | 3,010.3          | 6,521.32     | 2.17                       | 12,432.21    | 4.13                       | 18,953.53           | 6.30                       |
| Catch and effort outside 200 miles - Captura y esfuerzo fuera de las 200 millas |             |                  |              |                            |              |                            |                     |                            |
| 0 - 10 N Lat.   | 840.0       | 989.0            | 8,863.25     | 8.96                       | 100.60       | .10                        | 8,963.85            | 9.06                       |
| 10 - 15 N Lat.  | 797.3       | 873.0            | 6,152.98     | 7.05                       | 154.20       | .18                        | 6,307.17            | 7.23                       |
| N of 15 N Lat.  | 214.2       | 231.6            | 1,307.33     | 5.65                       | 239.44       | 1.03                       | 1,546.78            | 6.68                       |
| S of equator  | .3          | .4               | 0            | 0                          | 0            | 0                          | 0                   | 0                          |
| Total   | 1,851.8     | 2,093.9          | 16,323.57    | 7.80                       | 494.24       | .24                        | 16,817.80           | 8.03                       |
| Yearly totals   | 17,185.7    | 19,884.5         | 73,258.62    | 3.68                       | 55,263.78    | 2.78                       | 128,522.40          | 6.46                       |

Table 1 (8)

1964 Purse seine - non regulated trips - 1964 cerqueros - viajes no reglamentados

| <u>Country</u>  | <u>Days</u> | <u>Std. days</u> | <u>PR-YF</u> | <u>PR-YF/<br/>std. day</u> | <u>PR-SJ</u> | <u>PR-SJ/<br/>std. day</u> | <u>PR<br/>YF-SJ</u> | <u>YF-SJ/<br/>std. day</u> |
|---|-------------|------------------|--------------|----------------------------|--------------|----------------------------|---------------------|----------------------------|
| Catch and effort within 200 miles - Captura y esfuerzo en 200 millas            |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 107.3       | 110.9            | 618.45       | 5.58                       | 195.70       | 1.76                       | 814.15              | 7.34                       |
| Colombia  | 464.6       | 477.9            | 295.15       | .62                        | 1,944.33     | 4.07                       | 2,239.48            | 4.69                       |
| Costa Rica  | 817.1       | 878.4            | 2,651.48     | 3.02                       | 2,677.41     | 3.05                       | 5,328.89            | 6.07                       |
| Ecuador   | 1,707.8     | 1,754.2          | 8,265.22     | 4.71                       | 12,618.88    | 7.19                       | 20,884.10           | 11.90                      |
| Mexico  | 8,511.4     | 8,972.3          | 44,830.04    | 5.00                       | 9,992.05     | 1.11                       | 54,822.09           | 6.11                       |
| Panama  | 109.9       | 115.2            | 59.80        | .52                        | 60.71        | .53                        | 120.50              | 1.05                       |
| Peru  | 1,252.3     | 1,298.4          | 7,793.74     | 6.00                       | 10,539.26    | 8.12                       | 18,333.01           | 14.12                      |
| United States   | 38.0        | 40.0             | 0            | 0                          | 0            | 0                          | 0                   | 0                          |
| Nicaragua   | 496.4       | 538.9            | 1,530.30     | 2.84                       | 2,428.82     | 4.51                       | 3,959.13            | 7.35                       |
| France  | 42.7        | 44.8             | 152.70       | 3.40                       | 0            | 0                          | 152.70              | 3.40                       |
| El Salvador   | 567.0       | 607.5            | 4,548.86     | 7.49                       | 555.96       | .92                        | 5,104.81            | 8.40                       |
| Guatemala   | 309.2       | 333.1            | 1,971.10     | 5.92                       | 243.11       | .73                        | 2,214.21            | 6.65                       |
| Total   | 14,423.8    | 15,171.6         | 72,716.85    | 4.79                       | 41,256.23    | 2.72                       | 113,973.08          | 7.51                       |
| Catch and effort within 12 miles - captura y esfuerzo en 12 millas              |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 16.3        | 16.8             | 91.08        | 5.42                       | 33.96        | 2.02                       | 125.04              | 7.44                       |
| Colombia  | 114.1       | 118.3            | 80.27        | .68                        | 325.43       | 2.75                       | 405.71              | 3.43                       |
| Costa Rica  | 106.7       | 115.4            | 249.50       | 2.16                       | 420.25       | 3.64                       | 669.75              | 5.80                       |
| Ecuador   | 336.5       | 344.0            | 1,638.29     | 4.76                       | 2,049.73     | 5.96                       | 3,688.02            | 10.72                      |
| Mexico  | 1,125.1     | 1,174.8          | 3,738.78     | 3.18                       | 1,727.53     | 1.47                       | 5,466.32            | 4.65                       |
| Panama  | 27.1        | 28.7             | 7.86         | .27                        | 5.46         | .19                        | 13.33               | .46                        |
| Peru  | 197.3       | 205.2            | 1,261.64     | 6.15                       | 1,357.12     | 6.61                       | 2,618.76            | 12.76                      |
| United States   | 13.6        | 14.3             | 0            | 0                          | 0            | 0                          | 0                   | 0                          |
| Nicaragua   | 44.4        | 48.0             | 61.31        | 1.28                       | 221.71       | 4.62                       | 283.03              | 5.89                       |
| France  | 19.1        | 20.0             | 64.31        | 3.22                       | 0            | 0                          | 64.31               | 3.22                       |
| El Salvador   | 2.0         | 2.1              | 1.53         | .73                        | 2.93         | 1.40                       | 4.46                | 2.12                       |
| Guatemala   | 8.7         | 9.2              | 2.35         | .26                        | 0            | 0                          | 2.35                | .26                        |
| Total   | 2,010.8     | 2,096.7          | 7,196.92     | 3.43                       | 6,144.15     | 2.93                       | 13,341.06           | 6.36                       |
| Catch and effort outside 200 miles - Captura y esfuerzo fuera de las 200 millas |             |                  |              |                            |              |                            |                     |                            |
| 0 - 10 N Lat.   | 75.6        | 79.1             | 1,023.35     | 12.94                      | 10.30        | .13                        | 1,033.65            | 13.07                      |
| 10 - 15 N Lat.  | 558.9       | 599.6            | 4,712.40     | 7.86                       | 197.45       | .33                        | 4,909.84            | 8.19                       |
| N of 15 N Lat.  | 353.2       | 378.6            | 3,128.86     | 8.26                       | 1,219.42     | 3.22                       | 4,348.27            | 11.49                      |
| S of equator  | 1.4         | 1.5              | 1.79         | 1.23                       | 4.60         | 3.17                       | 6.39                | 4.40                       |
| Total   | 989.1       | 1,058.7          | 8,866.39     | 8.37                       | 1,431.77     | 1.35                       | 10,298.15           | 9.73                       |
| Yearly totals   | 15,412.9    | 16,230.4         | 81,583.25    | 5.03                       | 42,687.99    | 2.63                       | 124,271.24          | 7.65                       |

Table 1 (9)

1963 Purse seine - non regulated trips - 1963 cerqueros - viajes no reglamentados

| <u>Country</u>  | <u>Days</u> | <u>Std. days</u> | <u>PR-YF</u> | <u>PR-YF/<br/>std. day</u> | <u>PR-SJ</u> | <u>PR-SJ/<br/>std. day</u> | <u>PR<br/>YF-SJ</u> | <u>YF-SJ<br/>std. day</u> |
|---|-------------|------------------|--------------|----------------------------|--------------|----------------------------|---------------------|---------------------------|
| Catch and effort within 200 miles - Captura y esfuerzo en 200 millas            |             |                  |              |                            |              |                            |                     |                           |
| Chile   | 104.4       | 116.5            | 195.68       | 1.68                       | 728.97       | 6.25                       | 924.64              | 7.93                      |
| Colombia  | 1,251.1     | 1,362.0          | 1,471.53     | 1.08                       | 7,346.27     | 5.39                       | 8,817.80            | 6.47                      |
| Costa Rica  | 965.4       | 1,032.7          | 2,394.79     | 2.32                       | 3,315.22     | 3.21                       | 5,710.01            | 5.53                      |
| Ecuador   | 2,815.0     | 3,094.1          | 5,027.69     | 1.62                       | 29,098.78    | 9.40                       | 34,126.46           | 11.03                     |
| Mexico  | 6,615.8     | 6,857.9          | 27,768.30    | 4.05                       | 8,798.15     | 1.28                       | 36,566.45           | 5.33                      |
| Panama  | 235.3       | 252.2            | 274.10       | 1.09                       | 112.92       | .45                        | 387.02              | 1.53                      |
| Peru  | 1,656.2     | 1,807.6          | 4,368.15     | 2.42                       | 13,562.25    | 7.50                       | 17,930.41           | 9.92                      |
| United States   | 134.7       | 138.1            | 10.40        | .08                        | 241.95       | 1.75                       | 252.35              | 1.83                      |
| Nicaragua   | 926.8       | 987.2            | 1,015.78     | 1.03                       | 3,840.56     | 3.89                       | 4,856.34            | 4.92                      |
| France  | 24.0        | 25.5             | 17.00        | .67                        | 0            | 0                          | 17.00               | .67                       |
| El Salvador   | 557.4       | 587.4            | 3,705.71     | 6.31                       | 373.74       | .64                        | 4,079.45            | 6.95                      |
| Guatemala   | 482.1       | 506.2            | 2,307.09     | 4.56                       | 75.39        | .15                        | 2,382.48            | 4.71                      |
| Total   | 15,768.3    | 16,767.2         | 48,556.23    | 2.90                       | 67,494.19    | 4.03                       | 116,050.42          | 6.92                      |
| Catch and effort within 12 miles - captura y esfuerzo en 12 millas              |             |                  |              |                            |              |                            |                     |                           |
| Chile   | 11.5        | 13.0             | 46.34        | 3.56                       | 37.16        | 2.85                       | 83.50               | 6.41                      |
| Colombia  | 399.8       | 433.9            | 474.42       | 1.09                       | 2,388.83     | 5.51                       | 2,863.25            | 6.60                      |
| Costa Rica  | 156.4       | 167.0            | 317.12       | 1.90                       | 536.68       | 3.21                       | 853.81              | 5.11                      |
| Ecuador   | 701.8       | 773.8            | 1,144.47     | 1.48                       | 7,949.12     | 10.27                      | 9,093.59            | 11.75                     |
| Mexico  | 1,286.7     | 1,324.4          | 4,832.07     | 3.65                       | 1,598.68     | 1.21                       | 6,430.75            | 4.86                      |
| Panama  | 72.0        | 76.7             | 132.52       | 1.73                       | 55.31        | .72                        | 187.83              | 2.45                      |
| Peru  | 268.7       | 293.2            | 737.67       | 2.52                       | 1,875.06     | 6.40                       | 2,612.73            | 8.91                      |
| United States   | 49.4        | 50.6             | 5.02         | .10                        | 96.21        | 1.90                       | 101.22              | 2.00                      |
| Nicaragua   | 126.4       | 134.3            | 122.57       | .91                        | 583.97       | 4.35                       | 706.54              | 5.26                      |
| France  | 12.0        | 12.7             | 8.50         | .67                        | 0            | 0                          | 8.50                | .67                       |
| El Salvador   | 10.0        | 10.6             | 5.88         | .55                        | 23.78        | 2.24                       | 29.66               | 2.79                      |
| Guatemala   | 21.2        | 22.5             | 9.40         | .42                        | 0            | 0                          | 9.40                | .42                       |
| Total   | 3,115.8     | 3,312.8          | 7,836.00     | 2.37                       | 15,144.79    | 4.57                       | 22,980.79           | 6.94                      |
| Catch and effort outside 200 miles - Captura y esfuerzo fuera de las 200 millas |             |                  |              |                            |              |                            |                     |                           |
| 0 - 10 N Lat.   | 11.9        | 12.5             | 93.00        | 7.44                       | 0            | 0                          | 93.00               | 7.44                      |
| 10 - 15 N Lat.  | 133.8       | 139.8            | 1,162.57     | 8.32                       | 6.75         | .05                        | 1,169.32            | 8.37                      |
| N of 15 N Lat.  | 175.9       | 183.9            | 1,357.84     | 7.38                       | 897.66       | 4.88                       | 2,255.50            | 12.27                     |
| S of equator  | 1.0         | 1.1              | .30          | .27                        | 8.19         | 7.31                       | 8.49                | 7.58                      |
| Total   | 322.6       | 337.2            | 2,613.71     | 7.75                       | 912.60       | 2.71                       | 3,526.31            | 10.46                     |
| Yearly totals   | 16,090.9    | 17,104.5         | 51,169.94    | 2.99                       | 68,406.79    | 4.00                       | 119,576.73          | 6.99                      |

Table 1 (10)

## 1962 Purse seine - non regulated trips - 1962 cerqueros - viajes no reglamentados

| <u>Country</u>  | <u>Days</u> | <u>Std. days</u> | <u>PR-YF</u> | <u>PR-YF/<br/>std. day</u> | <u>PR-SJ</u> | <u>PR-SJ/<br/>std. day</u> | <u>PR<br/>YF-SJ</u> | <u>YF-SJ/<br/>std. day</u> |
|---|-------------|------------------|--------------|----------------------------|--------------|----------------------------|---------------------|----------------------------|
| Catch and effort within 200 miles - Captura y esfuerzo en 200 millas            |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 190.0       | 232.7            | 1,349.14     | 5.80                       | 129.24       | .56                        | 1,478.38            | 6.35                       |
| Colombia  | 1,401.8     | 1,701.7          | 7,442.41     | 4.37                       | 8,549.10     | 5.02                       | 15,991.50           | 9.48                       |
| Costa Rica  | 1,854.8     | 2,235.8          | 8,174.91     | 3.66                       | 4,841.27     | 2.17                       | 13,016.18           | 5.82                       |
| Ecuador   | 2,737.5     | 3,329.0          | 7,629.34     | 2.29                       | 22,911.11    | 6.88                       | 30,540.44           | 9.17                       |
| Mexico  | 5,768.6     | 6,580.7          | 20,051.85    | 3.05                       | 3,785.18     | .58                        | 23,837.03           | 3.62                       |
| Panama  | 438.0       | 522.5            | 985.51       | 1.89                       | 430.32       | .82                        | 1,415.82            | 2.71                       |
| Peru  | 1,162.6     | 1,418.0          | 3,455.48     | 2.44                       | 5,891.44     | 4.15                       | 9,346.92            | 6.59                       |
| United States   | 58.0        | 70.3             | 0            | 0                          | 0            | 0                          | 0                   | 0                          |
| Nicaragua   | 1,068.9     | 1,286.6          | 2,729.60     | 2.12                       | 4,079.78     | 3.17                       | 6,809.38            | 5.29                       |
| France  | 76.0        | 87.9             | 373.00       | 4.25                       | 0            | 0                          | 373.00              | 4.25                       |
| El Salvador   | 610.9       | 727.6            | 3,001.29     | 4.13                       | 419.89       | .58                        | 3,421.18            | 4.70                       |
| Guatemala   | 525.7       | 617.6            | 2,203.35     | 3.57                       | 259.71       | .42                        | 2,463.06            | 3.99                       |
| Total   | 15,892.8    | 18,810.4         | 57,395.86    | 3.05                       | 51,297.04    | 2.73                       | 108,692.89          | 5.78                       |
| Catch and effort within 12 miles - Captura y esfuerzo en 12 millas              |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 35.7        | 44.0             | 311.03       | 7.07                       | 17.07        | .39                        | 328.09              | 7.46                       |
| Colombia  | 415.9       | 503.1            | 2,453.72     | 4.88                       | 2,636.44     | 5.24                       | 5,090.16            | 10.12                      |
| Costa Rica  | 239.3       | 286.4            | 756.69       | 2.64                       | 745.05       | 2.60                       | 1,501.74            | 5.24                       |
| Ecuador   | 638.9       | 775.8            | 1,591.79     | 2.05                       | 5,986.17     | 7.72                       | 7,577.96            | 9.77                       |
| Mexico  | 936.1       | 1,036.2          | 4,199.02     | 4.05                       | 260.12       | .25                        | 4,459.14            | 4.30                       |
| Panama  | 95.7        | 113.1            | 180.30       | 1.59                       | 64.02        | .57                        | 244.32              | 2.16                       |
| Peru  | 240.6       | 293.8            | 788.56       | 2.68                       | 1,257.31     | 4.28                       | 2,045.87            | 6.96                       |
| United States   | 23.9        | 28.8             | 0            | 0                          | 0            | 0                          | 0                   | 0                          |
| Nicaragua   | 111.6       | 133.8            | 112.92       | .84                        | 673.96       | 5.04                       | 786.88              | 5.88                       |
| France  | 38.0        | 43.9             | 186.50       | 4.25                       | 0            | 0                          | 186.50              | 4.25                       |
| El Salvador   | 10.5        | 12.3             | 4.33         | .35                        | 16.53        | 1.34                       | 20.86               | 1.69                       |
| Guatemala   | 31.9        | 37.5             | 11.07        | .30                        | .42          | .01                        | 11.49               | .31                        |
| Total   | 2,818.2     | 3,308.6          | 10,595.93    | 3.20                       | 11,657.08    | 3.52                       | 22,253.01           | 6.73                       |
| Catch and effort outside 200 miles - Captura y esfuerzo fuera de las 200 millas |             |                  |              |                            |              |                            |                     |                            |
| 0 - 10 N Lat.   | 22.5        | 28.0             | 92.00        | 3.29                       | 10.00        | .36                        | 102.00              | 3.65                       |
| 10 - 15 N Lat.  | 68.3        | 81.2             | 319.33       | 3.93                       | 46.48        | .57                        | 365.81              | 4.50                       |
| N of 15 N Lat.  | 61.2        | 73.6             | 377.44       | 5.13                       | 353.01       | 4.80                       | 730.45              | 9.92                       |
| S of equator  | 1.0         | 1.1              | .58          | .52                        | .90          | .80                        | 1.48                | 1.32                       |
| Total   | 152.9       | 183.9            | 789.35       | 4.29                       | 410.39       | 2.23                       | 1,199.74            | 6.52                       |
| Yearly totals   | 16,045.7    | 18,994.3         | 58,185.21    | 3.06                       | 51,707.43    | 2.72                       | 109,892.64          | 5.79                       |

Table 1 (11)

1961 Purse seine - non regulated trips - 1961 cerqueros - viajes no reglamentados

| <u>Country</u>  | <u>days</u> | <u>std. days</u> | <u>PR-YF</u> | <u>PR-YF/<br/>std. day</u> | <u>PR-SJ</u> | <u>PR-SJ/<br/>std. day</u> | <u>PR<br/>YF-SJ</u> | <u>YF-SJ/<br/>std. day</u> |
|---|-------------|------------------|--------------|----------------------------|--------------|----------------------------|---------------------|----------------------------|
| Catch and effort within 200 miles - Captura y esfuerzo en 200 millas            |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 14.7        | 17.5             | 47.48        | 2.72                       | 216.27       | 12.38                      | 263.75              | 15.10                      |
| Colombia  | 208.0       | 276.1            | 337.20       | 1.22                       | 177.15       | .64                        | 514.35              | 1.86                       |
| Costa Rica  | 1,255.2     | 1,644.4          | 6,699.86     | 4.07                       | 2,936.53     | 1.79                       | 9,636.38            | 5.86                       |
| Ecuador   | 926.4       | 1,228.5          | 486.98       | .40                        | 12,504.19    | 10.18                      | 12,991.18           | 10.57                      |
| Mexico  | 8,211.5     | 9,484.7          | 47,380.44    | 5.00                       | 3,272.27     | .35                        | 50,652.71           | 5.34                       |
| Panama  | 287.3       | 383.7            | 1,853.38     | 4.83                       | 470.85       | 1.23                       | 2,324.22            | 6.06                       |
| Peru  | 270.8       | 356.4            | 533.52       | 1.50                       | 3,357.22     | 9.42                       | 3,890.74            | 10.92                      |
| United States   | 70.2        | 78.3             | 5.05         | .06                        | 9.75         | .12                        | 14.80               | .19                        |
| Nicaragua   | 1,088.3     | 1,414.1          | 5,442.48     | 3.85                       | 7,078.33     | 5.01                       | 12,520.81           | 8.85                       |
| France  | 43.0        | 50.0             | 445.00       | 8.89                       | 0            | 0                          | 445.00              | 8.89                       |
| El Salvador   | 1,079.7     | 1,391.7          | 8,824.30     | 6.34                       | 2,087.60     | 1.50                       | 10,911.91           | 7.84                       |
| Guatemala   | 1,570.7     | 1,960.1          | 15,315.68    | 7.81                       | 1,309.53     | .67                        | 16,625.21           | 8.48                       |
| Total   | 15,025.9    | 18,285.5         | 87,371.37    | 4.78                       | 33,419.69    | 1.83                       | 120,791.07          | 6.61                       |
| Catch and effort within 12 miles - Captura y esfuerzo en 12 millas              |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 2.6         | 3.1              | 11.87        | 3.77                       | 30.72        | 9.76                       | 42.59               | 13.53                      |
| Colombia  | 46.0        | 60.7             | 109.81       | 1.81                       | 35.37        | .58                        | 145.19              | 2.39                       |
| Costa Rica  | 170.0       | 221.9            | 661.71       | 2.98                       | 521.65       | 2.35                       | 1,183.36            | 5.33                       |
| Ecuador   | 225.4       | 299.3            | 94.63        | .32                        | 2,928.20     | 9.78                       | 3,022.83            | 10.10                      |
| Mexico  | 908.8       | 1,003.6          | 2,720.54     | 2.71                       | 563.61       | .56                        | 3,284.15            | 3.27                       |
| Panama  | 68.5        | 91.3             | 270.73       | 2.97                       | 167.62       | 1.84                       | 438.35              | 4.80                       |
| Peru  | 57.5        | 75.7             | 124.73       | 1.65                       | 702.63       | 9.28                       | 827.36              | 10.93                      |
| United States   | 28.0        | 31.3             | .38          | .01                        | .38          | .01                        | .75                 | .02                        |
| Nicaragua   | 118.0       | 153.4            | 482.89       | 3.15                       | 862.41       | 5.62                       | 1,345.30            | 8.77                       |
| France  | 21.5        | 25.0             | 222.50       | 8.89                       | 0            | 0                          | 222.50              | 8.89                       |
| El Salvador   | 17.9        | 23.5             | 64.23        | 2.74                       | 63.22        | 2.69                       | 127.46              | 5.43                       |
| Guatemala   | 54.0        | 67.3             | 311.25       | 4.62                       | 19.20        | .29                        | 330.45              | 4.91                       |
| Total   | 1,718.2     | 2,056.2          | 5,075.27     | 2.47                       | 5,895.02     | 2.87                       | 10,970.28           | 5.34                       |
| Catch and effort outside 200 miles - Captura y esfuerzo fuera de las 200 millas |             |                  |              |                            |              |                            |                     |                            |
| 0 - 10 N Lat.   | 97.2        | 125.4            | 1,483.30     | 11.83                      | 12.20        | .10                        | 1,495.50            | 11.93                      |
| 10 - 15 N Lat.  | 69.2        | 90.2             | 405.30       | 4.49                       | 18.31        | .20                        | 423.61              | 4.70                       |
| N of 15 N Lat.  | 10.0        | 11.9             | 57.75        | 4.85                       | 0            | 0                          | 57.75               | 4.85                       |
| S of equator  | .1          | .2               | 0            | 0                          | .03          | .16                        | .03                 | .16                        |
| Total   | 176.5       | 227.7            | 1,946.35     | 8.55                       | 30.54        | .13                        | 1,976.89            | 8.68                       |
| Yearly totals   | 15,202.4    | 18,513.2         | 89,317.72    | 4.82                       | 33,450.24    | 1.81                       | 122,767.96          | 6.63                       |

Table 1 (12)

1960 Purse seine - non regulated trips - 1960 cerqueros - viajes no reglamentados

| <u>Country</u>  | <u>Days</u> | <u>Std. days</u> | <u>PR-YF</u> | <u>PR-YF/<br/>std. day</u> | <u>PR-SJ</u> | <u>PR-SJ/<br/>std. day</u> | <u>PR<br/>YF-SJ</u> | <u>YF-SJ/<br/>std. day</u> |
|---|-------------|------------------|--------------|----------------------------|--------------|----------------------------|---------------------|----------------------------|
| Catch and effort within 200 miles - Captura y esfuerzo en 200 millas            |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 6.7         | 9.4              | 124.17       | 13.24                      | 56.73        | 6.05                       | 180.90              | 19.29                      |
| Colombia  | 4.4         | 5.9              | 24.70        | 4.18                       | 3.30         | .56                        | 28.00               | 4.74                       |
| Costa Rica  | 373.6       | 502.7            | 4,882.71     | 9.71                       | 128.18       | .25                        | 5,010.89            | 9.97                       |
| Ecuador   | 64.1        | 80.2             | 154.09       | 1.92                       | 1,959.76     | 24.45                      | 2,113.85            | 26.37                      |
| Mexico  | 6,681.3     | 7,584.7          | 57,118.50    | 7.53                       | 3,831.63     | .51                        | 60,950.13           | 8.04                       |
| Panama  | 40.7        | 54.6             | 426.06       | 7.80                       | 2.70         | .05                        | 428.76              | 7.85                       |
| Peru  | 62.1        | 76.6             | 488.60       | 6.38                       | 1,185.30     | 15.47                      | 1,673.90            | 21.85                      |
| United States   | 75.7        | 81.9             | 0            | 0                          | 0            | 0                          | 0                   | 0                          |
| Nicaragua   | 259.5       | 344.9            | 2,399.72     | 6.96                       | 462.53       | 1.34                       | 2,862.25            | 8.30                       |
| El Salvador   | 733.7       | 955.1            | 9,356.80     | 9.80                       | 745.37       | .78                        | 10,102.17           | 10.58                      |
| Guatemala   | 612.8       | 800.1            | 8,872.84     | 11.09                      | 463.21       | .58                        | 9,336.05            | 11.67                      |
| Total   | 8,914.7     | 10,496.2         | 83,848.18    | 7.99                       | 8,838.72     | .84                        | 92,686.90           | 8.83                       |
| Catch and effort within 12 miles - Captura y esfuerzo en 12 millas              |             |                  |              |                            |              |                            |                     |                            |
| Chile   | 1.5         | 2.1              | 30.54        | 14.68                      | 8.32         | 4.00                       | 38.86               | 18.68                      |
| Colombia  | .5          | .6               | 3.55         | 5.87                       | .82          | 1.36                       | 4.38                | 7.23                       |
| Costa Rica  | 48.4        | 65.2             | 617.19       | 9.47                       | 18.98        | .29                        | 636.17              | 9.76                       |
| Ecuador   | 18.0        | 22.4             | 36.55        | 1.63                       | 591.98       | 26.44                      | 628.53              | 28.08                      |
| Mexico  | 929.1       | 998.3            | 5,582.05     | 5.59                       | 339.49       | .34                        | 5,921.54            | 5.93                       |
| Panama  | 12.0        | 16.0             | 111.54       | 6.98                       | .68          | .04                        | 112.21              | 7.02                       |
| Peru  | 14.6        | 17.2             | 116.59       | 6.79                       | 286.28       | 16.68                      | 402.87              | 23.47                      |
| United States   | 27.9        | 29.8             | 0            | 0                          | 0            | 0                          | 0                   | 0                          |
| Nicaragua   | 14.2        | 19.3             | 78.13        | 4.05                       | 45.45        | 2.36                       | 123.58              | 6.41                       |
| El Salvador   | 12.1        | 16.1             | 145.49       | 9.03                       | 10.12        | .63                        | 155.61              | 9.66                       |
| Guatemala   | 52.6        | 68.8             | 578.51       | 8.41                       | 42.30        | .61                        | 620.81              | 9.02                       |
| Total   | 1,130.7     | 1,255.7          | 7,300.14     | 5.81                       | 1,344.43     | 1.07                       | 8,644.57            | 6.88                       |
| Catch and effort outside 200 miles - Captura y esfuerzo fuera de las 200 millas |             |                  |              |                            |              |                            |                     |                            |
| 0 - 10 N Lat.   | 2.5         | 3.1              | 119.50       | 38.93                      | 0            | 0                          | 119.50              | 38.93                      |
| 10 - 15 N Lat.  | 3.2         | 4.2              | 2.05         | .49                        | 0            | 0                          | 2.05                | .49                        |
| N of 15 N Lat.  | .2          | .2               | 0            | 0                          | 0            | 0                          | 0                   | 0                          |
| S of equator  | .1          | .1               | .23          | 3.83                       | .62          | 10.33                      | .85                 | 14.17                      |
| Total   | 5.9         | 7.5              | 121.78       | 16.13                      | .62          | .08                        | 122.40              | 16.21                      |
| Yearly totals   | 8,920.6     | 10,503.7         | 83,969.96    | 7.99                       | 8,839.34     | .84                        | 92,809.30           | 8.84                       |

Table 1 (13)

1959 Purse seine - non regulated trips - 1959 cerqueros - viajes no reglamentados

| <u>Country</u>  | <u>Days</u> | <u>Std. days</u> | <u>PR-YF</u> | <u>PR-YF<br/>std. day</u> | <u>PR-SJ</u> | <u>PR-SJ/<br/>std. day</u> | <u>PR<br/>YF-SJ</u> | <u>YF-SJ/<br/>std. day</u> |
|---|-------------|------------------|--------------|---------------------------|--------------|----------------------------|---------------------|----------------------------|
| Catch and effort within 200 miles - Captura y esfuerzo en 200 millas            |             |                  |              |                           |              |                            |                     |                            |
| Colombia  | 9.2         | 11.0             | 30.00        | 2.72                      | 0            | 0                          | 30.00               | 2.72                       |
| Costa Rica  | 112.4       | 140.5            | 1,395.13     | 9.93                      | 51.92        | .37                        | 1,447.05            | 10.30                      |
| Ecuador   | 85.0        | 103.3            | 222.92       | 2.16                      | 1,954.60     | 18.92                      | 2,177.52            | 21.08                      |
| Mexico  | 3,397.8     | 3,508.2          | 25,395.92    | 7.24                      | 5,584.28     | 1.59                       | 30,980.20           | 8.83                       |
| Panama  | 14.7        | 17.6             | 36.75        | 2.08                      | 1.90         | .11                        | 38.65               | 2.19                       |
| Peru  | 90.4        | 108.1            | 878.69       | 8.13                      | 1,656.79     | 15.32                      | 2,535.47            | 23.45                      |
| United States   | 56.0        | 56.6             | 0            | 0                         | 27.40        | .48                        | 27.40               | .48                        |
| Nicaragua   | 11.3        | 14.1             | 21.30        | 1.51                      | 5.00         | .35                        | 26.30               | 1.86                       |
| El Salvador   | 6.3         | 7.9              | 34.60        | 4.39                      | 0            | 0                          | 34.60               | 4.39                       |
| Guatemala   | 13.9        | 17.4             | 171.80       | 9.90                      | 4.00         | .23                        | 175.80              | 10.13                      |
| Total   | 3,796.9     | 3,984.8          | 28,187.11    | 7.07                      | 9,285.89     | 2.33                       | 37,473.00           | 9.40                       |
| Catch and effort within 12 miles - Captura y esfuerzo en 12 millas              |             |                  |              |                           |              |                            |                     |                            |
| Colombia  | 2.7         | 3.2              | 18.75        | 5.79                      | 0            | 0                          | 18.75               | 5.79                       |
| Costa Rica  | 19.3        | 24.3             | 167.31       | 6.90                      | 12.08        | .50                        | 179.39              | 7.39                       |
| Ecuador   | 21.5        | 26.7             | 37.12        | 1.39                      | 547.12       | 20.48                      | 584.24              | 21.87                      |
| Mexico  | 837.1       | 845.1            | 4,156.70     | 4.92                      | 1,718.62     | 2.03                       | 5,875.32            | 6.95                       |
| Panama  | 5.9         | 7.0              | 14.39        | 2.04                      | .47          | .07                        | 14.86               | 2.11                       |
| Peru  | 24.2        | 29.1             | 310.12       | 10.67                     | 406.76       | 14.00                      | 716.88              | 24.66                      |
| United States   | 30.4        | 31.0             | 0            | 0                         | 7.58         | .24                        | 7.58                | .24                        |
| Nicaragua   | 2.0         | 2.5              | 2.74         | 1.08                      | .45          | .18                        | 3.20                | 1.26                       |
| El Salvador   | .9          | 1.1              | 8.65         | 7.67                      | 0            | 0                          | 8.65                | 7.67                       |
| Guatemala   | 2.9         | 3.7              | 43.20        | 11.80                     | 2.00         | .55                        | 45.20               | 12.35                      |
| Total   | 946.9       | 973.8            | 4,758.99     | 4.89                      | 2,695.09     | 2.77                       | 7,454.08            | 7.65                       |
| Catch and effort outside 200 miles - Captura y esfuerzo fuera de las 200 millas |             |                  |              |                           |              |                            |                     |                            |
| S of equator  | .1          | .1               | 0            | 0                         | 2.50         | 19.23                      | 2.50                | 19.23                      |
| Total   | .1          | .1               | 0            | 0                         | 2.50         | 19.23                      | 2.50                | 19.23                      |
| Yearly totals   | 3,797.0     | 3,984.9*         | 28,187.11    | 7.07                      | 9,288.39     | 2.33                       | 37,475.50           | 9.40                       |

\* - Annual standard days should be 4043.5, see text for description of difference.

Los días standard anuales deben ser 4043.5, véase el texto para la explicación de la diferencia.

Standard days in Class III purse seine units, prorated catch and catch per standard day in short tons.

Días standard en unidades de la Clase III de cerqueros, la captura prorrataeada y la captura por día standard en toneladas cortas.

TABLE 2. Annual logged tuna fishing effort, catch and catch rate by purse-seine vessels fishing within 12 and 200 mile zones off the shores of countries bordering the CYRA and around Islands within the CYRA, and effort and catch outside 200 miles within the CYRA during non-regulated plus regulated fishing trips, 1966-1970.

TABLA 2. Registro anual del esfuerzo de pesca de los atunes, captura e índice de captura por barcos cerqueros que pescan en zonas de 12 y 200 millas fuera de las costas de países que limitan el ARCAA (Área Reglamentaria de la Comisión de Atún Aleta Amarilla), y alrededor de las islas situadas dentro del ARCAA, y el esfuerzo y la captura fuera de las 200 millas pero dentro de los límites del ARCAA durante viajes de pesca no reglamentados y viajes de pesca reglamentados, 1966-1970.

| 1970 purse seine - non regulated plus regulated trips |          |           |           | - 1970 cerqueros - viajes no reglamentados y reglamentados |           |  |  |
|---|----------|-----------|-----------|--|-----------|--|--|
| Country   | Days     | Std.days  | PR-YF     | PR-YF/<br>Std.day<br>PR-AA/<br>Día Std.                    | PR-SJ     | PR-SJ/<br>Std.day<br>PR-BLT/<br>Día Std. | PR<br>YF-SJ<br>PR<br>AA-BLT/<br>Día Std. |
| País  | Días     | Días Std. | PR-AA     | PR-BLT   |           |  |  |
| Catch and effort within 200 miles                     |          |           |           |  |           |  |  |
| Colombia  | 180.6    | 287.0     | 781.76    | 2.72   | 155.40    | .54                                      | 937.16                                   |
| Costa Rica  | 820.4    | 1,271.6   | 9,677.22  | 7.61   | 750.30    | .59                                      | 10,427.52                                |
| Ecuador   | 967.8    | 1,249.1   | 5,151.46  | 4.12   | 4,002.27  | 3.20                                     | 9,153.73                                 |
| Mexico  | 8,620.1  | 10,106.0  | 55,753.96 | 5.52   | 20,478.05 | 2.03                                     | 76,232.01                                |
| Panama  | 72.8     | 115.5     | 386.45    | 3.34   | 6.00      | .05                                      | 392.45                                   |
| Peru  | 811.9    | 1,056.8   | 6,650.24  | 6.29   | 3,832.25  | 3.63                                     | 10,482.49                                |
| United States   | 49.4     | 53.4      | 8.40      | .16  | 28.68     | .54                                      | 37.08                                    |
| Nicaragua   | 23.4     | 35.2      | 69.90     | 1.99   | 129.51    | 3.68                                     | 199.41                                   |
| France  | 232.8    | 354.9     | 2,354.30  | 6.63   | 326.70    | .92                                      | 2,681.00                                 |
| El Salvador   | 24.7     | 36.7      | 250.70    | 6.83   | 0         | 0  | 250.70                                   |
| Guatemala   | 74.5     | 104.1     | 500.49    | 4.81   | 6.00      | .06                                      | 506.49                                   |
| Total   | 11,878.4 | 14,670.4  | 81,584.89 | 5.56   | 29,715.16 | 2.03                                     | 111,300.05                               |
| Catch and effort within 12 miles                      |          |           |           |  |           |  |  |
| Colombia  | 20.0     | 30.9      | 53.44     | 1.73   | 2.50      | .08                                      | 55.94                                    |
| Costa Rica  | 40.4     | 56.7      | 485.79    | 8.56   | 43.08     | .76                                      | 528.87                                   |
| Ecuador   | 147.3    | 180.1     | 738.24    | 4.10   | 576.81    | 3.20                                     | 1,315.05                                 |
| Mexico  | 1,331.3  | 1,483.5   | 7,172.93  | 4.84   | 3,445.88  | 2.32                                     | 10,618.80                                |
| Panama  | 10.8     | 17.2      | 58.50     | 3.40   | 0         | 0  | 58.50                                    |
| Peru  | 142.2    | 183.7     | 1,169.89  | 6.37   | 730.55    | 3.98                                     | 1,900.44                                 |
| United States   | 15.5     | 16.6      | 3.33      | .20  | 16.90     | 1.02                                     | 20.23                                    |
| Nicaragua   | 2.8      | 4.3       | 8.23      | 1.91   | 17.18     | 3.99                                     | 25.41                                    |
| France  | 10.3     | 16.2      | 82.50     | 5.10   | 26.50     | 1.64                                     | 109.00                                   |
| El Salvador   | .4       | .7        | 0         | 0  | 0         | 0  | 0  |

TABLE 2 - (2)

| Country   | Days     | Std.days | PR-YF      | PR-YF/<br>Std.day | PR-SJ     | PR-SJ/<br>Std.day | PR<br>YF-SJ | YF-SJ/<br>Std.day |
|---|----------|----------|------------|-------------------|-----------|-------------------|-------------|-------------------|
| Guatemala   | 1.3      | 1.8      | 2.00       | 1.09              | 0         | 0                 | 2.00        | 1.09              |
| Total   | 1,722.4  | 1,991.7  | 9,774.85   | 4.91              | 4,859.39  | 2.44              | 14,634.24   | 7.35              |
| Catch and effort outside 200 miles - Captura y esfuerzo en zona fuera de 200 millas |          |          |            |                   |           |                   |             |                   |
| 0°-10°N Lat   | 1,287.5  | 2,038.8  | 22,826.52  | 11.20             | 2,300.67  | 1.13              | 25,127.18   | 12.32             |
| 10°-15°N Lat  | 1,207.6  | 1,730.3  | 15,329.93  | 8.86              | 1,725.80  | 1.00              | 17,055.73   | 9.86              |
| N of 15°N Lat   | 237.5    | 330.2    | 3,433.24   | 10.40             | 276.69    | .84               | 3,709.93    | 11.23             |
| S of Equator  | 9.5      | 14.2     | .90        | .06               | 1.10      | .08               | 2.00        | .14               |
| Total   | 2,742.1  | 4,113.5  | 41,590.60  | 10.11             | 4,304.25  | 1.05              | 45,894.85   | 11.16             |
| Yearly totals   | 14,620.5 | 18,783.9 | 123,175.49 | 6.56              | 34,019.41 | 1.81              | 157,194.90  | 8.37              |

1969 purse seine- non regulated plus regulated trips - 1969 cerqueros - viajes no reglamentados y reglamentados

| Catch and effort within 200 miles |          |          |           | Captura y esfuerzo en zona de 200 millas |           |      |            |       |
|-----------------------------------|----------|----------|-----------|--|-----------|------|------------|-------|
| Chile                             | 6.6      | 9.2      | 0         | 0  | 0         | 0    | 0          | 0     |
| Colombia                          | 360.4    | 567.4    | 3,965.61  | 6.99                                     | 1,792.30  | 3.16 | 5,757.90   | 10.15 |
| Costa Rica                        | 783.4    | 1,217.2  | 8,340.89  | 6.85                                     | 881.70    | .72  | 9,222.59   | 7.58  |
| Ecuador                           | 1,292.7  | 1,837.4  | 3,265.41  | 1.78                                     | 9,397.66  | 5.11 | 12,663.06  | 6.89  |
| Mexico                            | 5,914.6  | 7,388.2  | 35,413.42 | 4.79                                     | 7,643.77  | 1.03 | 43,057.19  | 5.83  |
| Panama                            | 101.2    | 153.6    | 613.99    | 4.00                                     | 8.60      | .06  | 622.59     | 4.05  |
| Peru                              | 1,567.0  | 2,238.8  | 3,106.89  | 1.39                                     | 12,833.40 | 5.73 | 15,940.29  | 7.12  |
| United States                     | 25.2     | 30.6     | 0         | 0  | 4.50      | .15  | 4.50       | .15   |
| Nicaragua                         | 67.8     | 98.4     | 266.62    | 2.71                                     | 8.07      | .08  | 274.70     | 2.79  |
| France                            | 333.9    | 510.4    | 5,771.19  | 11.31                                    | 1,868.08  | 3.66 | 7,639.27   | 14.97 |
| El Salvador                       | 75.0     | 111.0    | 441.28    | 3.98                                     | 4.93      | .04  | 446.20     | 4.02  |
| Guatemala                         | 401.1    | 584.5    | 5,705.47  | 9.76                                     | 0         | 0    | 5,705.47   | 9.76  |
| Total                             | 10,929.0 | 14,746.7 | 66,890.76 | 4.54                                     | 34,443.02 | 2.34 | 101,333.78 | 6.87  |

Catch and effort within 12 miles - Captura y esfuerzo en zona de 12 millas

|               |       |       |          |      |          |      |          |       |
|---------------|-------|-------|----------|------|----------|------|----------|-------|
| Chile         | 1.4   | 1.9   | 0        | 0    | 0        | 0    | 0        | 0     |
| Colombia      | 49.0  | 73.8  | 397.79   | 5.39 | 439.35   | 5.96 | 837.14   | 11.35 |
| Costa Rica    | 14.5  | 21.1  | 43.19    | 2.05 | 0        | 0    | 43.19    | 2.05  |
| Ecuador       | 243.8 | 350.7 | 387.59   | 1.11 | 1,809.24 | 5.16 | 2,196.83 | 6.26  |
| Mexico        | 798.3 | 969.7 | 3,965.65 | 4.09 | 1,450.98 | 1.50 | 5,416.63 | 5.59  |
| Panama        | 5.1   | 8.3   | 10.89    | 1.32 | 0        | 0    | 10.89    | 1.32  |
| Peru          | 288.2 | 403.6 | 441.61   | 1.09 | 2,047.88 | 5.07 | 2,489.49 | 6.17  |
| United States | 4.8   | 5.8   | 0        | 0    | .45      | .08  | .45      | .08   |

TABLE 2 - (3)

| Country                            | Days     | Std.days | PR-YF      | PR-YF/<br>Std.day | PR-SJ  | PR-SJ/<br>Std.day | PR<br>YF-SJ | YF-SJ/<br>Std.day |
|------------------------------------|----------|----------|------------|-------------------|--|-------------------|-------------|-------------------|
| Nicaragua                          | 4.9      | 7.3      | 5.26       | .72               | 0  | 0                 | 5.26        | .72               |
| France                             | 4.8      | 7.8      | 47.52      | 6.06              | 8.51   | 1.09              | 56.03       | 7.14              |
| El Salvador                        | 1.2      | 1.7      | 1.56       | .89               | 0  | 0                 | 1.56        | .89               |
| Guatemala                          | 10.3     | 14.7     | 16.40      | 1.12              | 0  | 0                 | 16.40       | 1.12              |
| Total                              | 1,426.4  | 1,866.3  | 5,317.45   | 2.85              | 5,756.41                                       | 3.08              | 11,073.87   | 5.93              |
| Catch and effort outside 200 miles |          |          |            | -                 | Captura y esfuerzo en zona fuera de 200 millas |                   |             |                   |
| 0° - 10°N Lat                      | 1,355.3  | 2,095.6  | 27,177.53  | 12.97             | 3,152.18                                       | 1.50              | 30,329.71   | 14.47             |
| 10° - 15°N Lat                     | 1,113.9  | 1,514.2  | 12,795.15  | 8.45              | 1,392.25                                       | .92               | 14,187.40   | 9.37              |
| N of 15°N Lat                      | 155.8    | 206.8    | 1,004.49   | 4.86              | 388.70   | 1.88              | 1,393.19    | 6.74              |
| S of Equator                       | 45.0     | 58.0     | 220.97     | 3.81              | 237.84   | 4.10              | 458.81      | 7.91              |
| Total                              | 2,670.0  | 3,874.5  | 41,198.14  | 10.63             | 5,170.98                                       | 1.33              | 46,369.12   | 11.97             |
| Yearly totals                      | 13,599.0 | 18,621.2 | 108,088.90 | 5.80              | 39,614.00                                      | 2.13              | 147,702.90  | 7.93              |

1968 purse seine - non regulated plus regulated trips - 1969 cerqueros - viajes no reglamentados y reglamentados

| Catch and effort within 200 miles |          |          |           | Captura y esfuerzo en zona de 200 millas |           |      |            |       |
|-----------------------------------|----------|----------|-----------|--|-----------|------|------------|-------|
| Chile                             | 1.6      | 2.4      | 0         | 0  | 0         | 0    | 0          | 0     |
| Colombia                          | 270.2    | 381.3    | 360.27    | .94                                      | 877.64    | 2.30 | 1,237.91   | 3.25  |
| Costa Rica                        | 1,760.6  | 2,361.6  | 9,183.47  | 3.89                                     | 13,232.55 | 5.60 | 22,416.02  | 9.49  |
| Ecuador                           | 1,280.5  | 1,702.1  | 6,587.84  | 3.87                                     | 9,520.86  | 5.59 | 16,108.70  | 9.46  |
| Mexico                            | 5,365.3  | 6,031.8  | 38,401.44 | 6.37                                     | 6,915.48  | 1.15 | 45,316.92  | 7.51  |
| Panama                            | 163.2    | 228.8    | 131.73    | .58                                      | 847.88    | 3.71 | 979.61     | 4.28  |
| Peru                              | 923.5    | 1,241.9  | 3,581.19  | 2.88                                     | 10,424.24 | 8.39 | 14,005.43  | 11.28 |
| United States                     | 32.9     | 37.9     | 9.00      | .24                                      | 2.34      | .06  | 11.34      | .30   |
| Nicaragua                         | 228.5    | 314.0    | 1,904.14  | 6.06                                     | 1,158.87  | 3.69 | 3,063.00   | 9.75  |
| France                            | 7.1      | 7.7      | 73.90     | 9.61                                     | 11.90     | 1.55 | 85.80      | 11.16 |
| El Salvador                       | 745.7    | 954.2    | 9,261.52  | 9.71                                     | 6,474.07  | 6.79 | 15,735.59  | 16.49 |
| Guatemala                         | 627.5    | 845.7    | 10,396.55 | 12.29                                    | 2,595.01  | 3.07 | 12,991.56  | 15.36 |
| Total                             | 11,406.6 | 14,109.3 | 79,891.05 | 5.66                                     | 52,060.83 | 3.69 | 131,951.88 | 9.35  |

Catch and effort within 12 miles

| Catch and effort within 12 miles |       |       |          | Captura y esfuerzo en zona de 12 millas |          |      |          |       |
|----------------------------------|-------|-------|----------|---|----------|------|----------|-------|
| Chile                            | .4    | .6    | 0        | 0                                       | 0        | 0    | 0        | 0     |
| Colombia                         | 45.4  | 64.8  | 38.92    | .60                                     | 200.95   | 3.10 | 239.88   | 3.70  |
| Costa Rica                       | 25.5  | 34.8  | 125.96   | 3.62                                    | 28.55    | .82  | 154.51   | 4.44  |
| Ecuador                          | 222.7 | 291.7 | 1,084.25 | 3.72                                    | 1,870.46 | 6.41 | 2,954.71 | 10.13 |
| Mexico                           | 666.0 | 718.0 | 3,730.56 | 5.20                                    | 1,225.16 | 1.71 | 4,955.72 | 6.90  |

TABLE 2 - (4)

| Country       | Days    | Std.days | PR-YF    | PR-YF/<br>Std.day | PR-SJ    | PR-SJ/<br>Std.day | PR<br>YF-SJ | YF-SJ/<br>Std.day |
|---------------|---------|----------|----------|-------------------|----------|-------------------|-------------|-------------------|
| Panama        | 17.6    | 24.6     | 10.20    | .41               | 1.31     | .05               | 11.50       | .47               |
| Peru          | 162.7   | 212.6    | 549.05   | 2.58              | 1,869.04 | 8.79              | 2,418.09    | 11.38             |
| United States | 10.0    | 11.0     | 1.80     | .16               | 1.17     | .11               | 2.97        | .27               |
| Nicaragua     | 9.0     | 12.6     | 106.19   | 8.42              | 8.33     | .66               | 114.53      | 9.08              |
| El Salvador   | 1.4     | 1.8      | 3.60     | 2.02              | 0        | 0                 | 3.60        | 2.02              |
| Guatemala     | 8.1     | 10.3     | 24.61    | 2.39              | 0        | 0                 | 24.61       | 2.39              |
| Total         | 1,168.8 | 1,382.6  | 5,675.15 | 4.10              | 5,204.97 | 3.76              | 10,880.12   | 7.87              |

## Catch and effort outside 200 miles

## Captura y esfuerzo en zona fuera de 200 millas

|                |          |          |           |       |           |      |            |       |
|----------------|----------|----------|-----------|-------|-----------|------|------------|-------|
| 0° - 10°N Lat  | 552.5    | 767.3    | 9,254.19  | 12.06 | 2,203.52  | 2.87 | 11,457.71  | 14.93 |
| 10° - 15°N Lat | 537.6    | 643.4    | 8,321.49  | 12.93 | 941.09    | 1.46 | 9,262.59   | 14.40 |
| N of 15°N Lat  | 89.2     | 99.9     | 1,297.88  | 12.99 | 142.25    | 1.42 | 1,440.13   | 14.41 |
| S of Equator   | 8.3      | 11.4     | .55       | .05   | 34.74     | 3.06 | 35.29      | 3.10  |
| Total          | 1,187.7  | 1,521.9  | 18,874.11 | 12.40 | 3,321.61  | 2.18 | 22,195.72  | 14.58 |
| Yearly totals  | 12,594.3 | 15,631.2 | 98,765.16 | 6.32  | 55,382.44 | 3.54 | 154,147.60 | 9.86  |

1967 purse seine - non regulated plus regulated trips - 1967 cerqueros - viajes no reglamentados y reglamentados  
 Catch and effort within 200 miles - Capitura y esfuerzo en zona de 200 millas

|               |          |          |           |       |           |       |            |       |
|---------------|----------|----------|-----------|-------|-----------|-------|------------|-------|
| Colombia      | 225.3    | 318.7    | 1,247.04  | 3.91  | 540.55    | 1.70  | 1,787.59   | 5.61  |
| Costa Rica    | 400.4    | 512.3    | 3,500.87  | 6.83  | 183.65    | .36   | 3,684.52   | 7.19  |
| Ecuador       | 1,889.5  | 2,580.8  | 5,731.98  | 2.22  | 33,926.45 | 13.15 | 39,658.43  | 15.37 |
| Mexico        | 7,006.2  | 7,681.3  | 37,833.66 | 4.93  | 33,657.56 | 4.38  | 71,491.22  | 9.31  |
| Panama        | 89.0     | 119.6    | 441.49    | 3.69  | 223.70    | 1.87  | 665.19     | 5.56  |
| Peru          | 1,342.5  | 1,760.5  | 7,212.13  | 4.10  | 30,693.82 | 17.43 | 37,905.95  | 21.53 |
| United States | 46.0     | 54.4     | 0         | 0     | 10.20     | .19   | 10.20      | .19   |
| Nicaragua     | 48.2     | 64.3     | 147.00    | 2.29  | 13.70     | .21   | 160.70     | 2.50  |
| France        | 8.9      | 9.9      | 93.50     | 9.41  | 0         | 0     | 93.50      | 9.41  |
| El Salvador   | 105.3    | 133.0    | 1,343.63  | 10.10 | 136.75    | 1.03  | 1,480.38   | 11.13 |
| Guatemala     | 360.9    | 430.0    | 4,292.29  | 9.98  | 90.90     | .21   | 4,383.19   | 10.19 |
| Total         | 11,522.1 | 13,664.8 | 61,843.60 | 4.53  | 99,477.28 | 7.28  | 161,320.89 | 11.81 |

## Catch and effort within 12 miles

## Captura y esfuerzo en zona de 12 millas

|               |       |       |          |      |          |       |          |       |
|---------------|-------|-------|----------|------|----------|-------|----------|-------|
| Colombia      | 42.3  | 60.7  | 149.91   | 2.47 | 127.57   | 2.10  | 277.49   | 4.57  |
| Costa Rica    | 12.7  | 15.9  | 6.64     | .42  | 1.92     | .12   | 8.56     | .54   |
| Ecuador       | 403.1 | 550.2 | 1,020.64 | 1.86 | 6,978.25 | 12.68 | 7,998.89 | 14.54 |
| Mexico        | 794.6 | 870.0 | 5,610.40 | 6.45 | 1,907.12 | 2.19  | 7,517.53 | 8.64  |
| Panama        | 7.7   | 9.9   | 21.71    | 2.20 | 12.36    | 1.25  | 34.07    | 3.46  |
| Peru          | 216.3 | 264.7 | 1,389.63 | 5.25 | 2,904.86 | 10.97 | 4,294.49 | 16.22 |
| United States | 11.2  | 12.7  | 0        | 0    | 3.69     | .29   | 3.69     | .29   |

TABLE 2 - (5)

| Country                            | Days     | Std.days | PR-YF     | PR-YF/<br>Std.day | PR-SJ  | PR-SJ/<br>Std.day | PR<br>YF-SJ | YF-SJ/<br>Std.day |
|------------------------------------|----------|----------|-----------|-------------------|--|-------------------|-------------|-------------------|
| Nicaragua                          | 3.8      | 5.0      | 2.79      | .56               | .76  | .15               | 3.55        | .72               |
| France                             | 1.5      | 1.8      | .20       | .11               | 0  | 0                 | .20         | .11               |
| El Salvador                        | .6       | .8       | .25       | .32               | 0  | 0                 | .25         | .32               |
| Guatemala                          | 7.6      | 9.0      | 6.20      | .69               | 0  | 0                 | 6.20        | .69               |
| Total                              | 1,501.5  | 1,800.5  | 8,208.38  | 4.56              | 11,936.54                                      | 6.63              | 20,144.92   | 11.19             |
| Catch and effort outside 200 miles |          |          |           | -                 | Captura y esfuerzo en zona fuera de 200 millas |                   |             |                   |
| 0° - 10°N Lat                      | 289.8    | 344.9    | 3,545.50  | 10.28             | 16.00  | .05               | 3,561.50    | 10.33             |
| 10° - 15°N Lat                     | 777.4    | 856.8    | 8,213.95  | 9.59              | 125.65   | .15               | 8,339.61    | 9.73              |
| N of 15°N Lat                      | 194.4    | 202.4    | 1,620.84  | 8.01              | 62.85  | .31               | 1,683.69    | 8.32              |
| S of Equator                       | 23.9     | 33.5     | .08       | .00               | 69.43  | 2.07              | 69.51       | 2.08              |
| Total                              | 1,285.5  | 1,437.6  | 13,380.38 | 9.31              | 273.93   | .19               | 13,654.31   | 9.50              |
| Yearly totals                      | 12,807.6 | 15,102.4 | 75,223.98 | 4.98              | 99,751.22                                      | 6.60              | 174,975.20  | 11.59             |

1966 purse seine - non regulated plus regulated trips - 1966 cerqueros - viajes no reglamentados y reglamentados

| Catch and effort within 200 miles |          |          |           | Captura y esfuerzo en zona de 200 millas |           |      |            |
|-----------------------------------|----------|----------|-----------|--|-----------|------|------------|
| Chile                             | 46.5     | 62.7     | 145.50    | 2.32                                     | 27.30     | .44  | 172.80     |
| Colombia                          | 454.3    | 554.6    | 1,497.49  | 2.70                                     | 857.95    | 1.55 | 2,355.44   |
| Costa Rica                        | 1,389.8  | 1,561.5  | 7,867.36  | 5.04                                     | 973.21    | .62  | 8,840.57   |
| Ecuador                           | 3,068.7  | 3,887.7  | 16,069.68 | 4.13                                     | 19,515.61 | 5.02 | 35,585.29  |
| Mexico                            | 3,675.9  | 3,798.2  | 12,866.17 | 3.39                                     | 2,459.93  | .65  | 15,326.10  |
| Panama                            | 244.9    | 311.0    | 1,107.53  | 3.56                                     | 1,196.65  | 3.85 | 2,304.18   |
| Peru                              | 2,447.6  | 3,103.6  | 12,337.10 | 3.98                                     | 18,563.39 | 5.98 | 30,900.49  |
| United States                     | 120.5    | 123.5    | 0         | 0  | 248.68    | 2.01 | 248.68     |
| Nicaragua                         | 120.9    | 135.9    | 308.50    | 2.27                                     | 26.25     | .19  | 334.75     |
| France                            | 12.1     | 15.4     | 30.30     | 1.97                                     | .40       | .03  | 30.70      |
| El Salvador                       | 429.2    | 482.1    | 3,266.89  | 6.78                                     | 11.05     | .02  | 3,277.94   |
| Guatemala                         | 421.7    | 468.3    | 2,154.88  | 4.60                                     | 74.10     | .16  | 2,228.98   |
| Total                             | 12,432.2 | 14,504.6 | 57,651.52 | 3.97                                     | 43,954.51 | 3.03 | 101,605.93 |

Catch and effort within 12 miles - Captura y esfuerzo en zona de 12 millas

|            |       |       |          |      |          |      |          |      |
|------------|-------|-------|----------|------|----------|------|----------|------|
| Chile      | 9.0   | 12.1  | 35.75    | 2.95 | 5.44     | .45  | 41.18    | 3.40 |
| Colombia   | 83.5  | 101.6 | 348.71   | 3.43 | 297.65   | 2.93 | 646.36   | 6.36 |
| Costa Rica | 46.9  | 51.8  | 163.68   | 3.16 | 45.47    | .88  | 209.15   | 4.04 |
| Ecuador    | 585.0 | 738.9 | 2,823.60 | 3.82 | 4,029.62 | 5.45 | 6,853.22 | 9.27 |
| Mexico     | 832.9 | 851.4 | 3,178.63 | 3.73 | 664.49   | .78  | 3,843.12 | 4.51 |

TABLE 2 - (6)

| Country       | Days    | Std.days | PR-YF    | PR-YF/<br>Std.day | PR-SJ    | PR-SJ/<br>Std.day | PR<br>YF-SJ | YF-SJ/<br>Std.day |
|---------------|---------|----------|----------|-------------------|----------|-------------------|-------------|-------------------|
| Panama        | 41.0    | 53.3     | 138.66   | 2.60              | 251.78   | 4.72              | 390.43      | 7.32              |
| Peru          | 423.2   | 529.2    | 2,146.04 | 4.06              | 3,349.41 | 6.33              | 5,495.45    | 10.38             |
| United States | 29.9    | 30.6     | 0        | 0                 | 66.39    | 2.17              | 66.39       | 2.17              |
| Nicaragua     | 13.5    | 15.1     | 10.96    | .73               | 2.33     | .15               | 13.28       | .88               |
| France        | 4.3     | 5.5      | 14.00    | 2.54              | 0        | 0                 | 14.00       | 2.54              |
| El Salvador   | 3.4     | 3.9      | 1.79     | .46               | .12      | .03               | 1.91        | .50               |
| Guatemala     | 11.2    | 12.5     | 10.11    | .81               | 3.20     | .26               | 13.31       | 1.06              |
| Total         | 2,083.5 | 2,406.1  | 8,871.92 | 3.69              | 8,715.89 | 3.62              | 17,587.80   | 7.31              |

Catch and effort outside 200 miles

- Captura y esfuerzo en zona fuera de 200 millas

|                |          |          |           |       |           |      |            |       |
|----------------|----------|----------|-----------|-------|-----------|------|------------|-------|
| 0° - 10°N Lat  | 1,433.5  | 1,616.6  | 16,177.74 | 10.01 | 37.96     | .02  | 16,215.71  | 10.03 |
| 10° - 15°N Lat | 422.7    | 456.6    | 3,680.79  | 8.06  | 213.30    | .47  | 3,894.09   | 8.53  |
| N of 15°N Lat  | 126.3    | 130.8    | 608.80    | 4.66  | 195.22    | 1.49 | 804.03     | 6.15  |
| S of Equator   | 13.6     | 14.3     | 53.00     | 3.71  | 15.66     | 1.10 | 68.66      | 4.80  |
| Total          | 1,996.2  | 2,218.3  | 20,520.34 | 9.25  | 462.15    | .21  | 20,982.49  | 9.46  |
| Yearly totals  | 14,428.4 | 16,722.9 | 78,171.76 | 4.67  | 44,416.66 | 2.66 | 122,588.42 | 7.33  |

TABLE 3 - (1)

TABLE 3. Annual logged tuna fishing effort, catch and catch rate by purse-seine vessels fishing west of the CYRA but east of 150° W during 1969-1970.

TABLE 3. Registro anual del esfuerzo de pesca de los atunes, captura e índice de captura por barcos cercoeros que pescan al oeste del ARCAA (Área Reglamentaria de la Comisión de Atún Aleta Amarilla), pero al este de los 150° W durante 1969-1970.

| Yearly totals<br>Totales anuales | Days<br>Días | Std.days<br>Días Std. | PR-YF<br>PR-AA | PR-YF/<br>Std.day<br>PR-AA/<br>Día Std. | PR-SJ<br>PR-BLT/<br>PR-BLT | PR-SJ/<br>Std.day<br>PR-BLT/<br>Día Std. | PR<br>YF-SJ<br>PR<br>AA-BLT | YF-SJ/<br>Std.day<br>AA-BLT/<br>Día Std. |
|----------------------------------|--------------|-----------------------|----------------|---|----------------------------|--|-----------------------------|--|
| 1970                             | 2,685.0      | 4,248.9               | 27,759.03      | 6.53                                    | 6,197.77                   | 1.46                                     | 33,956.80                   | 7.99                                     |
| 1969                             | 1,038.5      | 1,658.1               | 18,946.55      | 11.43                                   | 1,054.15                   | .64                                      | 20,000.70                   | 12.06                                    |

Days = Number of days fishing by purse seine vessels.

Standard days = Number of days fishing in Purse Seine III standard units.

Prorated catch = Best estimate of species catch during days fishing in short tons.

Prorated catch rate = Prorated catch divided by standard days fishing in short tons per day.

TABLE 4. Annual logged purse seine fishing effort, catch and catch rates by vessel size-class and zones within the CYRA, 1962-1970.

TABLA 4. Registro anual del esfuerzo de pesca de los barcos cerqueros, captura e índice de captura por clase de tamaño de los barcos y zonas en el ARCAA, 1962-1970

| Year        | Zone<br>(miles) | Size<br>class      | Days<br>fishing  | Standard<br>days fishing  | Yellowfin                 |             | Skipjack             |             | YF + SJ            |             |
|-------------|-----------------|--------------------|------------------|---------------------------|---------------------------|-------------|----------------------|-------------|--------------------|-------------|
|             | Año<br>(millas) | Clase de<br>tamaño | Días de<br>pesca | Días standard<br>de pesca | Aleta amarilla<br>captura | c/s por día | Barrilete<br>captura | c/s por día | AA + EL<br>captura | c/s por día |
| 1970        | 12              | 2                  | 26.8             | 21.2                      | 193.63                    | 9.13        | 122.76               | 5.79        | 316.39             | 14.92       |
|             |                 | 3                  | 474.7            | 474.7                     | 3,033.81                  | 6.39        | 1,155.68             | 2.43        | 4,189.48           | 8.82        |
|             |                 | 4                  | 493.2            | 527.7                     | 2,060.87                  | 3.91        | 1,037.68             | 1.97        | 3,098.54           | 5.87        |
|             |                 | 5                  | 489.4            | 572.6                     | 2,379.71                  | 4.16        | 1,975.29             | 3.45        | 4,355.00           | 7.61        |
|             |                 | 6                  | 238.2            | 395.5                     | 2,106.83                  | 5.33        | 568.00               | 1.44        | 2,674.84           | 6.76        |
|             |                 | total              | 1,722.4          | 1,991.7                   | 9,774.85                  | 4.91        | 4,859.39             | 2.44        | 14,634.24          | 7.35        |
|             | 200             | 2                  | 130.8            | 103.3                     | 762.56                    | 7.38        | 700.54               | 6.78        | 1,463.10           | 14.16       |
|             |                 | 3                  | 2,224.1          | 2,224.1                   | 10,844.70                 | 4.88        | 6,015.75             | 2.70        | 16,860.45          | 7.58        |
|             |                 | 4                  | 3,330.8          | 3,563.9                   | 16,121.56                 | 4.52        | 7,826.07             | 2.20        | 23,947.63          | 6.72        |
|             |                 | 5                  | 3,063.1          | 3,583.9                   | 16,462.26                 | 4.59        | 9,533.94             | 2.66        | 25,996.20          | 7.25        |
|             |                 | 6                  | 3,129.6          | 5,195.2                   | 37,393.80                 | 7.20        | 5,638.87             | 1.09        | 43,032.67          | 8.28        |
|             |                 | total              | 11,878.4         | 14,670.4                  | 81,584.89                 | 5.56        | 29,715.16            | 2.03        | 111,300.05         | 7.59        |
| outside 200 | 2               | 2                  | 0.2              | 0.2                       | 0                         | 0           | 0                    | 0           | 0                  | 0           |
|             |                 | 3                  | 86.9             | 86.9                      | 732.55                    | 8.43        | 21.00                | 0.24        | 753.55             | 8.67        |
|             |                 | 4                  | 216.2            | 231.4                     | 1,467.54                  | 6.34        | 173.22               | 0.75        | 1,640.76           | 7.09        |
|             |                 | 5                  | 516.9            | 604.7                     | 6,186.04                  | 10.23       | 759.46               | 1.26        | 6,945.50           | 11.49       |
|             |                 | 6                  | 1,921.9          | 3,190.3                   | 33,204.47                 | 10.41       | 3,350.56             | 1.05        | 36,555.03          | 11.46       |
|             |                 | total              | 2,742.1          | 4,113.5                   | 41,590.60                 | 10.11       | 4,304.25             | 1.05        | 45,894.85          | 11.16       |
|             | Annual total    |                    | 14,620.5         | 18,783.9                  | 123,175.49                | 6.56        | 34,019.41            | 1.81        | 157,194.90         | 8.37        |
| 1969        | 12              | 1                  | 0                | 0                         | 0                         | 0           | 0                    | 0           | 0                  | 0           |
|             |                 | 2                  | 6.6              | 5.2                       | 4.98                      | 0.96        | 18.41                | 3.53        | 23.39              | 4.50        |
|             |                 | 3                  | 343.9            | 343.9                     | 1,865.28                  | 5.42        | 545.87               | 1.59        | 2,411.16           | 7.01        |
|             |                 | 4                  | 377.2            | 414.9                     | 1,623.72                  | 3.91        | 1,084.59             | 2.61        | 2,708.31           | 6.53        |
|             |                 | 5                  | 359.9            | 539.8                     | 684.86                    | 1.27        | 1,512.59             | 2.80        | 2,197.45           | 4.07        |
|             |                 | 6                  | 338.9            | 562.5                     | 1,138.61                  | 2.02        | 2,594.95             | 4.61        | 3,733.56           | 6.64        |
|             | total           |                    | 1,426.4          | 1,866.3                   | 5,317.45                  | 2.85        | 5,756.41             | 3.08        | 11,073.87          | 5.93        |
| 200         | 2               | 1                  | 1.9              | 1.2                       | 6.00                      | 4.85        | 33.75                | 27.27       | 39.75              | 32.12       |
|             |                 | 2                  | 90.8             | 71.8                      | 54.50                     | 0.76        | 182.90               | 2.55        | 237.40             | 3.31        |
|             |                 | 3                  | 1,844.0          | 1,844.0                   | 10,435.28                 | 5.66        | 3,241.93             | 1.76        | 13,677.21          | 7.42        |
|             |                 | 4                  | 2,919.6          | 3,211.6                   | 15,885.27                 | 4.95        | 6,066.61             | 1.89        | 21,951.88          | 6.84        |
|             |                 | 5                  | 2,891.0          | 4,336.5                   | 14,388.18                 | 3.32        | 8,466.24             | 1.95        | 22,854.42          | 5.27        |
|             |                 | 6                  | 3,181.7          | 5,281.6                   | 26,121.52                 | 4.95        | 16,451.59            | 3.11        | 42,573.11          | 8.06        |
|             | total           |                    | 10,929.0         | 14,746.7                  | 66,890.76                 | 4.54        | 34,443.02            | 2.34        | 101,333.78         | 6.87        |

Table 4 (2)

| Year | Zone<br>(miles) | Size<br>class | Days<br>fishing | Standard<br>days fishing | Yellowfin<br>catch | c/s day | Skipjack<br>catch | c/s day | YF + SJ<br>catch | c/s day |
|------|-----------------|---------------|-----------------|--------------------------|--------------------|---------|-------------------|---------|------------------|---------|
| 1969 | outside<br>200  | 1             | 0.6             | 0.4                      | 2.00               | 4.85    | 11.25             | 27.27   | 13.25            | 32.12   |
|      |                 | 2             | 4.2             | 3.3                      | 0                  | 0       | 0                 | 0       | 0                | 0       |
|      |                 | 3             | 165.5           | 165.5                    | 1,299.24           | 7.85    | 103.65            | 0.63    | 1,402.89         | 8.48    |
|      |                 | 4             | 594.3           | 653.8                    | 5,320.47           | 8.14    | 961.05            | 1.47    | 6,281.52         | 9.61    |
|      |                 | 5             | 696.0           | 1,044.0                  | 8,482.27           | 8.12    | 1,039.01          | 1.00    | 9,521.28         | 9.12    |
|      |                 | 6             | 1,209.3         | 2,007.5                  | 26,094.17          | 13.00   | 3,056.01          | 1.52    | 29,150.18        | 14.52   |
|      |                 | total         | 2,670.0         | 3,874.5                  | 41,198.14          | 10.63   | 5,170.98          | 1.33    | 46,369.12        | 11.97   |
|      | Annual total    |               | 13,599.0        | 18,621.2                 | 108,088.90         | 5.80    | 39,614.00         | 2.13    | 147,702.90       | 7.93    |
| 1968 | 12              | 3             | 405.6           | 405.6                    | 2,562.49           | 6.32    | 478.84            | 1.18    | 3,041.33         | 7.50    |
|      |                 | 4             | 280.9           | 280.9                    | 1,230.98           | 4.38    | 1,225.13          | 4.36    | 2,456.11         | 8.74    |
|      |                 | 5             | 214.0           | 301.8                    | 739.31             | 2.45    | 1,063.25          | 3.52    | 1,802.56         | 5.97    |
|      |                 | 6             | 268.3           | 394.4                    | 1,142.37           | 2.90    | 2,437.75          | 6.18    | 3,580.12         | 9.08    |
|      |                 | total         | 1,168.8         | 1,382.6                  | 5,675.15           | 4.10    | 5,204.97          | 3.76    | 10,880.12        | 7.87    |
|      | 200             | 3             | 2,020.0         | 2,020.0                  | 11,789.90          | 5.84    | 3,345.78          | 1.66    | 15,135.68        | 7.49    |
|      |                 | 4             | 3,301.1         | 3,301.1                  | 18,600.21          | 5.63    | 10,631.77         | 3.22    | 29,231.98        | 8.86    |
|      |                 | 5             | 2,626.1         | 3,702.9                  | 18,673.17          | 5.04    | 10,229.25         | 2.76    | 28,902.42        | 7.81    |
|      |                 | 6             | 3,459.4         | 5,085.3                  | 30,827.77          | 6.06    | 27,854.02         | 5.48    | 58,681.79        | 11.54   |
|      |                 | total         | 11,406.6        | 14,109.3                 | 79,891.05          | 5.66    | 52,060.83         | 3.69    | 131,951.88       | 9.35    |
|      | outside<br>200  | 3             | 113.0           | 113.0                    | 1,699.30           | 15.03   | 50.02             | 0.44    | 1,749.32         | 15.48   |
|      |                 | 4             | 317.9           | 317.9                    | 3,829.44           | 12.05   | 377.18            | 1.19    | 4,206.62         | 13.23   |
|      |                 | 5             | 357.0           | 503.4                    | 6,057.12           | 12.03   | 1,282.36          | 2.55    | 7,339.48         | 14.58   |
|      |                 | 6             | 399.7           | 587.6                    | 7,288.26           | 12.40   | 1,612.05          | 2.74    | 8,900.31         | 15.15   |
|      |                 | total         | 1,187.7         | 1,521.9                  | 18,874.11          | 12.40   | 3,321.61          | 2.18    | 22,195.72        | 14.58   |
|      | Annual total    |               | 12,594.3        | 15,631.2                 | 98,765.16          | 6.32    | 55,382.44         | 3.54    | 154,147.60       | 9.86    |
| 1967 | 12              | 3             | 308.7           | 308.7                    | 1,946.50           | 6.31    | 804.04            | 2.60    | 2,750.54         | 8.91    |
|      |                 | 4             | 447.3           | 438.3                    | 2,673.09           | 6.10    | 2,396.39          | 5.47    | 5,069.48         | 11.57   |
|      |                 | 5             | 340.1           | 404.7                    | 2,313.87           | 5.72    | 2,489.73          | 6.15    | 4,803.60         | 11.87   |
|      |                 | 6             | 405.5           | 648.8                    | 1,274.93           | 1.97    | 6,246.38          | 9.63    | 7,521.31         | 11.60   |
|      |                 | total         | 1,501.5         | 1,800.5                  | 8,208.38           | 4.56    | 11,936.54         | 6.63    | 20,144.92        | 11.19   |
|      | 200             | 3             | 1,896.5         | 1,896.5                  | 11,600.59          | 6.12    | 6,900.71          | 3.64    | 18,501.30        | 9.76    |
|      |                 | 4             | 3,690.5         | 3,616.7                  | 18,087.66          | 5.00    | 23,495.62         | 6.50    | 41,583.28        | 11.50   |
|      |                 | 5             | 3,279.6         | 3,902.7                  | 20,055.60          | 5.14    | 22,538.40         | 5.78    | 42,594.00        | 10.91   |
|      |                 | 6             | 2,655.5         | 4,248.9                  | 12,099.75          | 2.85    | 46,542.55         | 10.95   | 58,642.30        | 13.80   |
|      |                 | total         | 11,522.1        | 13,664.8                 | 61,843.60          | 4.53    | 99,477.28         | 7.28    | 161,320.88       | 11.81   |

Table 4 (3)

| Year | Zone<br>(miles) | Size<br>class | Days<br>fishing | Standard<br>days fishing | Yellowfin<br>catch | c/s day | Skipjack<br>catch | c/s day | YF + SJ<br>catch | c/s day |
|------|-----------------|---------------|-----------------|--------------------------|--------------------|---------|-------------------|---------|------------------|---------|
| 1967 | outside<br>200  | 3             | 176.0           | 176.0                    | 1,589.45           | 9.03    | 50.55             | 0.29    | 1,640.00         | 9.32    |
|      |                 | 4             | 512.5           | 502.3                    | 4,599.93           | 9.16    | 81.48             | 0.16    | 4,681.41         | 9.32    |
|      |                 | 5             | 477.5           | 568.2                    | 5,778.75           | 10.17   | 60.65             | 0.11    | 5,839.40         | 10.28   |
|      |                 | 6             | 119.5           | 191.1                    | 1,412.25           | 7.39    | 81.25             | 0.43    | 1,493.50         | 7.81    |
|      |                 | total         | 1,285.5         | 1,437.6                  | 13,380.38          | 9.31    | 273.93            | 0.19    | 13,654.31        | 9.50    |
|      | Annual total    |               | 12,807.6        | 15,102.4                 | 75,223.98          | 4.98    | 99,751.22         | 6.60    | 174,975.20       | 11.59   |
| 1966 | 12              | 3             | 543.6           | 543.6                    | 2,128.24           | 3.92    | 520.62            | 0.96    | 2,648.86         | 4.88    |
|      |                 | 4             | 581.2           | 610.3                    | 2,158.38           | 3.54    | 1,669.23          | 2.74    | 3,827.61         | 6.28    |
|      |                 | 5             | 486.3           | 505.7                    | 2,220.25           | 4.39    | 2,219.53          | 4.39    | 4,439.78         | 8.78    |
|      |                 | 6             | 472.4           | 746.4                    | 2,365.04           | 3.17    | 4,306.51          | 5.77    | 6,671.55         | 8.94    |
|      |                 | total         | 2,083.5         | 2,406.1                  | 8,871.92           | 3.69    | 8,715.89          | 3.62    | 17,587.80        | 7.31    |
|      | 200             | 3             | 2,051.3         | 2,051.3                  | 8,024.62           | 3.91    | 2,550.87          | 1.24    | 10,575.49        | 5.16    |
|      |                 | 4             | 3,838.7         | 4,030.7                  | 15,378.23          | 3.82    | 8,619.08          | 2.14    | 23,997.31        | 5.95    |
|      |                 | 5             | 3,544.4         | 3,686.2                  | 16,498.57          | 4.48    | 11,835.86         | 3.21    | 28,334.43        | 7.69    |
|      |                 | 6             | 2,997.7         | 4,736.4                  | 17,749.99          | 3.75    | 20,948.70         | 4.42    | 38,698.69        | 8.17    |
|      |                 | total         | 12,432.2        | 14,504.6                 | 57,651.42          | 3.97    | 43,954.51         | 3.03    | 101,605.93       | 7.01    |
| 1965 | outside<br>200  | 3             | 156.7           | 156.7                    | 834.28             | 5.33    | 111.62            | 0.71    | 945.90           | 6.04    |
|      |                 | 4             | 655.4           | 688.1                    | 4,998.99           | 7.26    | 196.79            | 0.29    | 5,195.78         | 7.55    |
|      |                 | 5             | 921.1           | 958.0                    | 10,031.04          | 10.47   | 146.42            | 0.15    | 10,177.46        | 10.62   |
|      |                 | 6             | 263.0           | 415.5                    | 4,656.02           | 11.20   | 7.31              | 0.02    | 4,663.33         | 11.22   |
|      |                 | total         | 1,996.2         | 2,218.3                  | 20,520.34          | 9.25    | 462.15            | 0.21    | 20,982.49        | 9.46    |
|      | Annual total    |               | 14,428.4        | 16,722.9                 | 78,171.76          | 4.67    | 44,416.66         | 2.66    | 122,588.42       | 7.33    |
|      | 12              | 3             | 834.0           | 834.0                    | 2,273.62           | 2.73    | 1,523.75          | 1.83    | 3,797.37         | 4.56    |
|      |                 | 4             | 777.9           | 847.9                    | 1,979.02           | 2.33    | 2,659.77          | 3.14    | 4,638.79         | 5.47    |
|      |                 | 5             | 492.3           | 561.2                    | 1,373.96           | 2.45    | 2,655.51          | 4.73    | 4,029.47         | 7.18    |
|      |                 | 6             | 529.1           | 767.2                    | 894.72             | 1.17    | 5,593.19          | 7.29    | 6,487.91         | 8.46    |
|      |                 | total         | 2,633.2         | 3,010.3                  | 6,521.32           | 2.17    | 12,432.21         | 4.13    | 18,953.53        | 6.30    |
| 200  | 3               | 3             | 3,120.1         | 3,120.1                  | 9,883.76           | 3.17    | 4,344.16          | 1.39    | 14,227.92        | 4.56    |
|      |                 | 4             | 4,885.2         | 5,324.8                  | 17,234.76          | 3.24    | 11,862.31         | 2.23    | 29,097.07        | 5.46    |
|      |                 | 5             | 4,131.9         | 4,710.4                  | 19,409.33          | 4.12    | 12,477.48         | 2.65    | 31,886.81        | 6.77    |
|      |                 | 6             | 3,196.7         | 4,635.2                  | 10,407.21          | 2.25    | 26,085.59         | 5.63    | 36,492.79        | 7.87    |
|      | total           |               | 15,333.9        | 17,790.5                 | 56,935.06          | 3.20    | 54,769.54         | 3.08    | 111,704.60       | 6.28    |

Table 4 (4)

| Year | Zone<br>(miles) | Size<br>class | Days<br>fishing | Standard<br>days fishing | Yellowfin |         | Skipjack  |         | YF + SJ    |         |
|------|-----------------|---------------|-----------------|--------------------------|-----------|---------|-----------|---------|------------|---------|
|      |                 |               |                 |                          | Catch     | c/s day | Catch     | c/s day | Catch      | c/s day |
| 1965 | outside<br>200  | 3             | 238.9           | 238.9                    | 1,857.13  | 7.77    | 54.75     | 0.23    | 1,911.88   | 8.00    |
|      |                 | 4             | 724.5           | 789.8                    | 5,411.38  | 6.85    | 314.16    | 0.40    | 5,725.53   | 7.25    |
|      |                 | 5             | 719.1           | 819.8                    | 6,692.16  | 8.16    | 105.03    | 0.13    | 6,797.19   | 8.29    |
|      |                 | 6             | 169.3           | 245.5                    | 2,362.90  | 9.62    | 20.30     | 0.08    | 2,383.20   | 9.71    |
|      |                 | total         | 1,851.8         | 2,093.9                  | 16,323.57 | 7.80    | 494.24    | 0.24    | 16,817.80  | 8.03    |
|      | Annual total    |               | 17,185.7        | 19,884.5                 | 73,258.62 | 3.68    | 55,263.78 | 2.78    | 128,522.40 | 6.46    |
| 1964 | 12              | 3             | 544.2           | 544.2                    | 1,845.09  | 3.39    | 388.91    | 0.71    | 2,234.00   | 4.10    |
|      |                 | 4             | 541.3           | 563.0                    | 1,840.06  | 3.27    | 1,544.94  | 2.74    | 3,385.00   | 6.01    |
|      |                 | 5             | 459.7           | 528.7                    | 1,578.56  | 2.99    | 1,731.86  | 3.28    | 3,310.42   | 6.27    |
|      |                 | 6             | 465.6           | 460.9                    | 1,933.21  | 4.19    | 2,478.44  | 5.38    | 4,411.65   | 9.57    |
|      |                 | total         | 2,010.8         | 2,096.7                  | 7,196.92  | 3.43    | 6,144.15  | 2.93    | 13,341.06  | 6.36    |
|      | 200             | 3             | 2,762.4         | 2,762.4                  | 13,393.80 | 4.85    | 3,059.40  | 1.11    | 16,453.20  | 5.96    |
|      |                 | 4             | 4,676.1         | 4,863.2                  | 22,717.89 | 4.67    | 9,953.21  | 2.05    | 32,671.10  | 6.72    |
|      |                 | 5             | 3,941.7         | 4,533.0                  | 22,289.93 | 4.92    | 10,407.28 | 2.30    | 32,697.21  | 7.21    |
|      |                 | 6             | 3,043.5         | 3,013.0                  | 14,315.23 | 4.75    | 17,836.34 | 5.92    | 32,151.57  | 10.67   |
|      |                 | total         | 14,423.8        | 15,171.6                 | 72,716.85 | 4.79    | 41,256.23 | 2.72    | 113,973.08 | 7.51    |
|      | outside<br>200  | 3             | 121.6           | 121.6                    | 903.01    | 7.43    | 67.69     | 0.56    | 970.70     | 7.99    |
|      |                 | 4             | 406.0           | 422.2                    | 3,194.75  | 7.57    | 793.35    | 1.88    | 3,988.10   | 9.45    |
|      |                 | 5             | 362.3           | 416.7                    | 3,661.50  | 8.79    | 414.43    | 0.99    | 4,075.93   | 9.78    |
|      |                 | 6             | 99.3            | 98.3                     | 1,107.13  | 11.26   | 156.30    | 1.59    | 1,263.43   | 12.85   |
|      |                 | total         | 989.1           | 1,058.7                  | 8,866.39  | 8.37    | 1,431.77  | 1.35    | 10,298.16  | 9.73    |
|      | Annual total    |               | 15,412.9        | 16,230.4                 | 81,583.25 | 5.03    | 42,687.99 | 2.63    | 124,271.24 | 7.66    |
| 1963 | 12              | 3             | 892.1           | 892.1                    | 2,676.01  | 3.00    | 1,611.22  | 1.81    | 4,287.23   | 4.81    |
|      |                 | 4             | 739.7           | 769.2                    | 1,382.55  | 1.80    | 3,502.46  | 4.55    | 4,884.71   | 6.35    |
|      |                 | 5             | 920.0           | 1,002.8                  | 2,654.11  | 2.65    | 4,250.94  | 4.25    | 6,915.05   | 6.90    |
|      |                 | 6             | 564.1           | 648.7                    | 1,123.64  | 1.73    | 5,770.17  | 8.90    | 6,893.81   | 10.63   |
|      |                 | total         | 3,115.8         | 3,312.8                  | 7,836.00  | 2.37    | 15,144.79 | 4.57    | 22,980.79  | 6.94    |
|      | 200             | 3             | 3,598.7         | 3,598.7                  | 12,839.88 | 3.57    | 6,417.58  | 1.78    | 19,257.46  | 5.35    |
|      |                 | 4             | 4,790.5         | 4,982.1                  | 15,121.91 | 3.04    | 16,900.58 | 3.39    | 32,022.50  | 6.43    |
|      |                 | 5             | 4,991.7         | 5,440.9                  | 16,423.40 | 3.02    | 21,366.38 | 3.93    | 37,789.78  | 6.95    |
|      |                 | 6             | 2,387.4         | 2,745.5                  | 4,171.03  | 1.52    | 22,809.65 | 8.31    | 26,980.68  | 9.83    |
|      |                 | total         | 15,768.3        | 16,767.2                 | 48,556.23 | 2.90    | 67,494.19 | 4.03    | 116,050.42 | 6.92    |

Table 4 (5)

| Year         | Zone<br>(miles) | Size<br>class | Days<br>fishing | Standard<br>days fishing | Yellowfin |         | Skipjack  |         | YF + SJ    |         |
|--------------|-----------------|---------------|-----------------|--------------------------|-----------|---------|-----------|---------|------------|---------|
|              |                 |               |                 |                          | catch     | c/s day | catch     | c/s day | catch      | c/s day |
| 1963         | outside<br>200  | 3             | 65.5            | 65.5                     | 306.50    | 4.68    | 160.00    | 2.44    | 466.50     | 7.12    |
|              |                 | 4             | 177.6           | 184.7                    | 1,331.97  | 7.21    | 406.70    | 2.20    | 1,738.67   | 9.41    |
|              |                 | 5             | 72.9            | 79.5                     | 956.94    | 12.04   | 148.58    | 1.87    | 1,105.52   | 13.91   |
|              |                 | 6             | 6.6             | 7.6                      | 18.30     | 2.41    | 197.32    | 26.04   | 215.62     | 28.45   |
|              |                 | total         | 322.6           | 337.2                    | 2,613.71  | 7.75    | 912.60    | 2.71    | 3,526.31   | 10.46   |
|              | Annual total    |               | 16,090.9        | 17,104.5                 | 51,169.94 | 2.99    | 68,406.79 | 4.00    | 119,576.73 | 6.99    |
| 1962         | 12              | 2             | 6.4             | 3.3                      | 1.25      | 0.38    | 0         | 0       | 1.25       | 0.38    |
|              |                 | 3             | 823.5           | 823.5                    | 2,522.03  | 3.06    | 1,243.96  | 1.51    | 3,765.99   | 4.57    |
|              |                 | 4             | 893.9           | 1,126.3                  | 3,444.66  | 3.06    | 3,781.25  | 3.36    | 7,225.91   | 6.42    |
|              |                 | 5             | 713.8           | 906.5                    | 3,109.35  | 3.43    | 3,749.06  | 4.14    | 6,858.41   | 7.57    |
|              |                 | 6             | 380.5           | 449.0                    | 1,518.64  | 3.38    | 2,882.81  | 6.42    | 4,401.45   | 9.80    |
|              |                 | total         | 2,818.2         | 3,308.6                  | 10,595.93 | 3.20    | 11,657.08 | 3.52    | 22,253.01  | 6.73    |
|              | 200             | 2             | 30.6            | 15.6                     | 5.00      | 0.32    | 0         | 0       | 5.00       | 0.32    |
|              |                 | 3             | 4,175.2         | 4,175.2                  | 13,722.12 | 3.29    | 5,741.25  | 1.38    | 19,463.38  | 4.66    |
|              |                 | 4             | 5,728.8         | 7,218.3                  | 21,161.92 | 2.93    | 17,221.45 | 2.39    | 38,383.37  | 5.32    |
|              |                 | 5             | 4,118.7         | 5,230.8                  | 16,127.90 | 3.08    | 16,031.55 | 3.06    | 32,159.45  | 6.15    |
|              |                 | 6             | 18,393.3        | 2,170.4                  | 6,378.92  | 2.94    | 12,302.78 | 5.67    | 18,681.70  | 8.61    |
|              | total           |               | 15,892.8        | 18,810.4                 | 57,395.86 | 3.05    | 51,297.04 | 2.73    | 108,692.89 | 5.78    |
| outside      | 2               | 0.6           | 0.3             | 0                        | 0         | 0       | 0         | 0       | 0          | 0       |
|              | 200             | 3             | 31.4            | 31.4                     | 135.74    | 4.32    | 58.98     | 1.88    | 194.72     | 6.20    |
|              |                 | 4             | 79.7            | 100.5                    | 412.97    | 4.11    | 255.80    | 2.55    | 668.77     | 6.66    |
|              |                 | 5             | 34.6            | 43.9                     | 233.64    | 5.32    | 95.61     | 2.18    | 329.25     | 7.50    |
|              |                 | 6             | 6.7             | 7.9                      | 7.00      | 0.89    | 0         | 0       | 7.00       | 0.89    |
|              | total           |               | 152.9           | 183.9                    | 789.35    | 4.29    | 410.39    | 2.23    | 1,199.74   | 6.52    |
| Annual total |                 |               | 16,045.7        | 18,994.3                 | 58,185.21 | 3.06    | 51,707.43 | 2.72    | 109,892.64 | 5.79    |

TABLE 5 - (1)

TABLE 5. Annual logged baitboat fishing effort, catch and catch rates by vessel size-class and zones within the CYRA, 1962-1970.

TABLA 5. Registro anual del esfuerzo de pesca de los clipers, captura e índice de captura por clase de tamaño de los barcos y zonas en el ARCAA, 1962-1970.

| Year<br>Año    | Zone<br>(miles)<br>Zona<br>(millas) | Size<br>class<br>Clase de<br>tamaño | Days<br>Fishing<br>Días de<br>Pesca | Standard<br>days<br>Días<br>Standard | Yellowfin     |                           |                    | Skipjack           |                               |                  | YF + SJ            |  |
|----------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|---------------|---------------------------|--------------------|--------------------|-------------------------------|------------------|--------------------|--|
|                |                                     |                                     |                                     |                                      | Catch<br>Atún | C/S.Day<br>Aleta Amarilla | Captura<br>C/S.Día | Catch<br>Barrilete | C/S.Day<br>Captura<br>C/S.Día | Catch<br>AA + BL | Captura<br>C/S.Día |  |
| 1970           | 12                                  | 1                                   | 67.0                                | 21.4                                 | 42.56         | 1.99                      | 90.79              | 4.24               | 133.35                        | 6.22             |                    |  |
|                |                                     | 2                                   | 152.5                               | 70.1                                 | 175.71        | 2.51                      | 233.78             | 3.33               | 409.49                        | 5.84             |                    |  |
|                |                                     | 3                                   | 192.4                               | 155.8                                | 491.97        | 3.16                      | 348.51             | 2.24               | 840.48                        | 5.39             |                    |  |
|                |                                     | 4                                   | 148.0                               | 148.0                                | 477.73        | 3.23                      | 421.64             | 2.85               | 899.38                        | 6.08             |                    |  |
|                |                                     | 5                                   | 24.8                                | 29.3                                 | 180.98        | 6.18                      | 23.40              | 0.80               | 204.38                        | 6.98             |                    |  |
|                |                                     | Total                               | 584.6                               | 424.7                                | 1,368.96      | 3.22                      | 1,118.13           | 2.63               | 2,487.08                      | 5.86             |                    |  |
| 200            | 200                                 | 1                                   | 737.0                               | 235.8                                | 628.39        | 2.66                      | 893.51             | 3.79               | 1,521.90                      | 6.45             |                    |  |
|                |                                     | 2                                   | 722.0                               | 332.1                                | 805.91        | 2.43                      | 1,722.89           | 5.19               | 2,528.80                      | 7.61             |                    |  |
|                |                                     | 3                                   | 699.0                               | 566.2                                | 1,366.36      | 2.41                      | 2,392.69           | 4.23               | 3,759.05                      | 6.64             |                    |  |
|                |                                     | 4                                   | 362.5                               | 362.5                                | 1,091.00      | 3.01                      | 1,500.75           | 4.14               | 2,591.75                      | 7.15             |                    |  |
|                |                                     | 5                                   | 89.0                                | 105.0                                | 565.20        | 5.38                      | 143.50             | 1.37               | 708.70                        | 6.75             |                    |  |
|                |                                     | Total                               | 2,609.4                             | 1,601.6                              | 4,456.87      | 2.78                      | 6,653.33           | 4.15               | 11,110.20                     | 6.94             |                    |  |
| Outside<br>200 | 200                                 | 1                                   | 2.0                                 | 0.6                                  | 4.64          | 7.25                      | 0.36               | 0.56               | 5.00                          | 7.81             |                    |  |
|                |                                     | 2                                   | 0                                   |                                      |               |                           |                    |                    |                               |                  |                    |  |
|                |                                     | 3                                   | 19.5                                | 15.8                                 | 128.00        | 8.10                      | 11.75              | 0.74               | 139.75                        | 8.85             |                    |  |
|                |                                     | 4                                   | 19.0                                | 19.0                                 | 111.47        | 5.85                      | 14.28              | 0.75               | 125.75                        | 6.60             |                    |  |
|                |                                     | 5                                   | 0.5                                 | 0.6                                  | 0             | 0                         | 0                  | 0                  | 0                             | 0                |                    |  |
|                |                                     | Total                               | 41.0                                | 36.1                                 | 244.11        | 6.77                      | 26.39              | 0.73               | 270.50                        | 7.50             |                    |  |
| Annual total   |                                     |                                     | 2,650.5                             | 1,637.7                              | 4,700.98      | 2.87                      | 6,679.72           | 4.08               | 11,380.70                     | 6.95             |                    |  |

TABLE 5 - (2)

| Year           | Zone<br>(miles) | Size<br>Class | Days<br>Fishing | Standard<br>Days | Yellowfin |         | Skipjack |         | YF + SJ  |         |
|----------------|-----------------|---------------|-----------------|------------------|-----------|---------|----------|---------|----------|---------|
|                |                 |               |                 |                  | Catch     | C/S.Day | Catch    | C/S.Day | Catch    | C/S.Day |
| 1969           | 12              | 1             | 36.3            | 11.6             | 66.26     | 5.71    | 4.07     | 0.35    | 70.32    | 6.06    |
|                |                 | 2             | 93.3            | 42.9             | 241.16    | 5.62    | 37.04    | 0.86    | 278.20   | 6.48    |
|                |                 | 3             | 172.1           | 139.4            | 769.67    | 5.52    | 96.47    | 0.69    | 866.14   | 6.21    |
|                |                 | 4             | 120.7           | 120.7            | 311.68    | 2.58    | 433.73   | 3.59    | 745.41   | 6.18    |
|                |                 | 5             | 5.7             | 6.7              | 29.95     | 4.45    | 4.95     | 0.74    | 34.90    | 5.20    |
|                | Total           |               | 428.1           | 321.4            | 1,418.72  | 4.41    | 576.26   | 1.79    | 1,994.98 | 6.21    |
| 200            | 1               | 1             | 344.0           | 110.1            | 986.78    | 8.96    | 231.42   | 2.10    | 1,218.20 | 11.07   |
|                |                 | 2             | 417.0           | 191.8            | 1,913.61  | 9.98    | 584.74   | 3.05    | 2,498.35 | 13.02   |
|                |                 | 3             | 567.8           | 460.0            | 2,293.25  | 4.99    | 1,170.95 | 2.55    | 3,464.20 | 7.53    |
|                |                 | 4             | 320.7           | 320.7            | 1,082.30  | 3.37    | 833.65   | 2.60    | 1,915.95 | 5.97    |
|                |                 | 5             | 38.0            | 44.8             | 132.70    | 2.96    | 107.80   | 2.40    | 240.50   | 5.36    |
|                | Total           |               | 1,687.6         | 1,127.4          | 6,408.63  | 5.68    | 2,928.57 | 2.60    | 9,337.20 | 8.28    |
| Outside<br>200 | 1               | 1             | 0               | 0                | 0         | 0       | 0        | 0       | 0        | 0       |
|                |                 | 2             | 3.2             | 1.4              | 25.25     | 18.30   | 0        | 0       | 25.25    | 18.30   |
|                |                 | 3             | 7.2             | 5.8              | 81.50     | 14.07   | 6.00     | 1.04    | 87.50    | 15.11   |
|                |                 | 4             | 16.3            | 16.3             | 276.50    | 17.02   | 11.25    | 0.69    | 287.75   | 17.71   |
|                |                 | 5             | 0               | 0                | 0         | 0       | 0        | 0       | 0        | 0       |
|                | Total           |               | 26.4            | 23.4             | 383.25    | 16.36   | 17.25    | 0.74    | 400.50   | 17.10   |
| Annual total   |                 |               | 1,714.0         | 1,150.9          | 6,791.88  | 5.90    | 2,945.82 | 2.56    | 9,737.70 | 8.46    |
| 1968           | 12              | 1             | 76.0            | 24.3             | 57.52     | 2.37    | 24.60    | 1.01    | 82.12    | 3.38    |
|                |                 | 2             | 173.0           | 79.6             | 259.69    | 3.26    | 115.73   | 1.45    | 375.43   | 4.72    |
|                |                 | 3             | 333.0           | 269.7            | 964.84    | 3.58    | 260.02   | 0.96    | 1,224.87 | 4.54    |
|                |                 | 4             | 119.8           | 119.8            | 459.55    | 3.84    | 184.98   | 1.54    | 644.53   | 5.38    |
|                |                 | 5             | 50.4            | 59.5             | 206.40    | 3.47    | 187.75   | 3.16    | 394.14   | 6.62    |
|                | Total           |               | 752.2           | 552.9            | 1,948.01  | 3.52    | 773.09   | 1.40    | 2,721.10 | 4.92    |
| 200            | 1               | 1             | 549.5           | 175.8            | 332.15    | 1.89    | 391.95   | 2.23    | 724.10   | 4.12    |
|                |                 | 2             | 539.5           | 248.2            | 614.28    | 2.48    | 570.92   | 2.30    | 1,185.20 | 4.78    |
|                |                 | 3             | 813.5           | 658.9            | 1,724.80  | 2.62    | 982.95   | 1.49    | 2,707.75 | 4.11    |
|                |                 | 4             | 369.2           | 369.2            | 1,025.35  | 2.78    | 929.20   | 2.52    | 1,954.55 | 5.29    |
|                |                 | 5             | 181.4           | 214.1            | 626.10    | 2.92    | 716.70   | 3.35    | 1,342.80 | 6.27    |
|                | Total           |               | 2,453.1         | 1,666.2          | 4,322.69  | 2.59    | 3,591.71 | 2.16    | 7,914.40 | 4.75    |

TABLE 5 - (3)

| Year    | Zone<br>(miles) | Size<br>Class | Days<br>Fishing | Standard<br>Days | Yellowfin |         | Skipjack |         | YF + SJ   |         |
|---------|-----------------|---------------|-----------------|------------------|-----------|---------|----------|---------|-----------|---------|
|         |                 |               |                 |                  | Catch     | C/S.Day | Catch    | C/S.Day | Catch     | C/S.Day |
| 1968    | Outside<br>200  | 1             | 0               | 0                | 0         | 0       | 0        | 0       | 0         | 0       |
|         |                 | 2             | 1.5             | 0.7              | 0         | 0       | 0        | 0       | 0         | 0       |
|         |                 | 3             | 4.5             | 3.6              | 9.50      | 2.61    | 0.75     | 0.21    | 10.25     | 2.81    |
|         |                 | 4             | 10.3            | 10.3             | 56.95     | 5.53    | 59.30    | 5.76    | 116.25    | 11.29   |
|         |                 | 5             | 0.1             | 0.1              | 0         | 0       | 0        | 0       | 0         | 0       |
|         | Total           |               | 16.4            | 14.8             | 66.45     | 4.50    | 60.05    | 4.07    | 126.50    | 8.57    |
|         | Annual total    |               | 2,469.5         | 1,681.0          | 4,389.14  | 2.61    | 3,651.76 | 2.17    | 8,040.90  | 4.78    |
| 1967    | 12              | 1             | 79.6            | 25.5             | 50.73     | 1.99    | 52.76    | 2.07    | 103.49    | 4.06    |
|         |                 | 2             | 58.4            | 26.9             | 79.72     | 2.97    | 125.31   | 4.66    | 205.03    | 7.63    |
|         |                 | 3             | 326.1           | 264.2            | 647.43    | 2.45    | 1,000.04 | 3.79    | 1,647.47  | 6.24    |
|         |                 | 4             | 76.5            | 76.5             | 299.65    | 3.92    | 507.40   | 6.63    | 807.05    | 10.55   |
|         |                 | 5             | 55.6            | 65.6             | 272.85    | 4.16    | 53.28    | 0.81    | 326.14    | 4.97    |
|         | Total           |               | 596.2           | 458.6            | 1,350.37  | 2.94    | 1,738.79 | 3.79    | 3,089.16  | 6.74    |
|         | Annual total    |               | 567.0           | 181.4            | 322.34    | 1.78    | 516.76   | 2.85    | 839.10    | 4.62    |
| 200     | 200             | 1             | 260.0           | 119.6            | 307.05    | 2.57    | 603.65   | 5.05    | 910.70    | 7.61    |
|         |                 | 2             | 725.1           | 587.3            | 1,546.20  | 2.63    | 2,645.40 | 4.50    | 4,191.60  | 7.14    |
|         |                 | 3             | 234.3           | 234.3            | 1,114.95  | 4.76    | 1,385.50 | 5.91    | 2,500.45  | 10.67   |
|         |                 | 4             | 192.5           | 227.1            | 595.30    | 2.62    | 768.50   | 3.38    | 1,363.80  | 6.00    |
|         |                 | 5             | 1,979.0         | 1,349.9          | 3,885.84  | 2.88    | 5,919.81 | 4.39    | 9,805.65  | 7.26    |
|         | Total           |               | 0               | 0                | 0         | 0       | 0        | 0       | 0         | 0       |
|         | Annual total    |               | 17.4            | 14.1             | 80.50     | 5.71    | 23.50    | 1.67    | 104.00    | 7.38    |
| Outside | 200             | 4             | 19.1            | 19.1             | 83.15     | 4.34    | 29.00    | 1.51    | 112.15    | 5.86    |
|         |                 | 5             | 0               | 0                | 0         | 0       | 0        | 0       | 0         | 0       |
|         |                 | Total         | 36.5            | 33.2             | 163.65    | 4.92    | 52.50    | 1.58    | 216.15    | 6.50    |
|         |                 | Annual total  | 2,015.5         | 1,383.1          | 4,049.49  | 2.93    | 5,972.31 | 4.32    | 10,021.80 | 7.25    |

TABLE 5 - (4)

| Year | Zone<br>(miles) | Size<br>Class | Days<br>Fishing | Standard<br>Days | Yellowfin |          | Skipjack |           | YF + SJ<br>Catch C/S.Day |         |
|------|-----------------|---------------|-----------------|------------------|-----------|----------|----------|-----------|--------------------------|---------|
|      |                 |               |                 |                  | Catch     | C/S.Day  | Catch    | C/S.Day   | Catch                    | C/S.Day |
| 1966 | 12              | 1             | 57.6            | 18.4             | 61.97     | 3.36     | 45.67    | 2.48      | 107.64                   | 5.85    |
|      |                 | 2             | 68.9            | 31.7             | 85.86     | 2.71     | 56.56    | 1.78      | 142.43                   | 4.49    |
|      |                 | 3             | 301.2           | 244.0            | 697.25    | 2.86     | 360.56   | 1.48      | 1,057.81                 | 4.34    |
|      |                 | 4             | 130.2           | 130.2            | 643.12    | 4.94     | 189.78   | 1.46      | 832.89                   | 6.40    |
|      |                 | 5             | 46.8            | 55.2             | 181.80    | 3.29     | 67.10    | 1.22      | 248.89                   | 4.51    |
|      | 200             | Total         | 604.7           | 479.5            | 1,670.00  | 3.48     | 719.68   | 1.50      | 2,389.67                 | 4.98    |
|      |                 | 1             | 475.0           | 152.0            | 496.95    | 3.27     | 487.75   | 3.21      | 984.70                   | 6.48    |
| 1965 | 200             | 2             | 447.5           | 205.9            | 461.70    | 2.24     | 695.40   | 3.38      | 1,157.10                 | 5.62    |
|      |                 | 3             | 1,016.0         | 823.0            | 2,004.01  | 2.44     | 2,553.09 | 3.10      | 4,557.10                 | 5.54    |
|      |                 | 4             | 395.2           | 395.2            | 1,742.21  | 4.41     | 850.54   | 2.15      | 2,592.75                 | 6.56    |
|      |                 | 5             | 248.5           | 293.2            | 836.20    | 2.85     | 914.30   | 3.12      | 1,750.50                 | 5.97    |
|      |                 | Total         | 2,582.2         | 1,869.3          | 5,541.07  | 2.96     | 5,501.08 | 2.94      | 11,042.15                | 5.91    |
|      | Outside         | 1             | 0               | 0                | 0         | 0        | 0        | 0         | 0                        | 0       |
|      |                 | 2             | 0               | 0                | 0         | 0        | 0        | 0         | 0                        | 0       |
| 1965 | 200             | 3             | 18.5            | 15.0             | 74.50     | 4.97     | 37.00    | 2.47      | 111.50                   | 7.44    |
|      |                 | 4             | 9.8             | 9.8              | 51.15     | 5.23     | 34.70    | 3.55      | 85.85                    | 8.78    |
|      |                 | 5             | 0               | 0                | 0         | 0        | 0        | 0         | 0                        | 0       |
|      |                 | Total         | 28.3            | 24.8             | 125.65    | 5.07     | 71.70    | 2.90      | 197.35                   | 7.97    |
|      |                 | Annual total  | 2,610.5         | 1,894.0          | 5,666.72  | 2.99     | 5,572.78 | 2.94      | 11,239.50                | 5.93    |
|      | 12              | 1             | 147.3           | 47.1             | 81.23     | 1.72     | 224.02   | 4.75      | 305.24                   | 6.48    |
|      |                 | 2             | 115.1           | 53.0             | 119.08    | 2.25     | 205.26   | 3.88      | 324.34                   | 6.12    |
| 1965 | 200             | 3             | 515.4           | 417.4            | 1,129.75  | 2.71     | 1,072.13 | 2.57      | 2,201.88                 | 5.28    |
|      |                 | 4             | 146.9           | 146.9            | 744.06    | 5.07     | 539.92   | 3.68      | 1,283.98                 | 8.74    |
|      |                 | 5             | 57.7            | 68.1             | 188.47    | 2.77     | 316.78   | 4.65      | 505.25                   | 7.42    |
|      |                 | Total         | 982.4           | 732.5            | 2,262.58  | 3.09     | 2,358.11 | 3.22      | 4,620.69                 | 6.31    |
|      |                 | 1             | 704.5           | 225.4            | 637.46    | 2.83     | 998.74   | 4.43      | 1,636.20                 | 7.26    |
|      |                 | 2             | 428.0           | 196.9            | 594.31    | 3.02     | 710.59   | 3.61      | 1,304.90                 | 6.63    |
|      |                 | 3             | 1,378.6         | 1,116.7          | 4,357.23  | 3.90     | 2,808.27 | 2.51      | 7,165.50                 | 6.42    |
| 1965 | 200             | 4             | 304.5           | 304.5            | 1,429.10  | 4.69     | 1,401.15 | 4.60      | 2,830.25                 | 9.29    |
|      |                 | 5             | 129.0           | 152.2            | 348.50    | 2.29     | 925.50   | 6.08      | 1,274.00                 | 8.37    |
|      |                 | Total         | 2,944.6         | 1,995.7          | 7,366.60  | 3.69     | 6,844.25 | 3.43      | 14,210.85                | 7.12    |
|      |                 | 1             | 0               | 0                | 0         | 0        | 0        | 0         | 0                        | 0       |
|      |                 | 2             | 0               | 0                | 0         | 0        | 0        | 0         | 0                        | 0       |
|      | Outside         | 3             | 16.4            | 13.3             | 62.50     | 4.70     | 12.50    | 0.94      | 75.00                    | 5.65    |
|      |                 | 4             | 3.0             | 3.0              | 49.50     | 16.50    | 45.25    | 15.08     | 94.75                    | 31.58   |
| 1965 | 200             | 5             | 0               | 0                | 0         | 0        | 0        | 0         | 0                        | 0       |
|      |                 | Total         | 19.4            | 16.3             | 112.00    | 6.88     | 57.75    | 3.55      | 169.75                   | 10.42   |
|      | Annual total    | 2,964.0       | 2,012.0         | 7,478.60         | 3.72      | 6,902.00 | 3.43     | 14,380.60 | 7.15                     |         |

TABLE 5 - (5)

| year           | Zone<br>(miles) | Size<br>Class | Days<br>Fishing | Standard<br>Days | Yellowfin |         | Skipjack |         | YF + SJ   |         |
|----------------|-----------------|---------------|-----------------|------------------|-----------|---------|----------|---------|-----------|---------|
|                |                 |               |                 |                  | Catch     | C/S.Day | Catch    | C/S.Day | Catch     | C/S.Day |
| 1964           | 12              | 1             | 20.2            | 6.5              | 8.83      | 1.37    | 18.22    | 2.82    | 27.04     | 4.19    |
|                |                 | 2             | 43.6            | 20.1             | 87.21     | 4.34    | 83.46    | 4.16    | 170.66    | 8.50    |
|                |                 | 3             | 452.8           | 366.7            | 1,459.28  | 3.98    | 1,172.97 | 3.20    | 2,632.24  | 7.18    |
|                |                 | 4             | 118.9           | 118.9            | 606.73    | 5.10    | 221.18   | 1.86    | 827.91    | 6.96    |
|                |                 | 5             | 22.1            | 26.1             | 159.40    | 6.10    | 244.20   | 9.34    | 403.60    | 15.46   |
|                | Total           |               | 657.7           | 538.3            | 2,321.44  | 4.31    | 1,740.02 | 3.23    | 4,061.46  | 7.54    |
| 200            | 12              | 1             | 305.0           | 97.6             | 183.29    | 1.88    | 377.81   | 3.87    | 561.10    | 5.75    |
|                |                 | 2             | 206.0           | 94.8             | 279.14    | 2.95    | 336.96   | 3.56    | 616.10    | 6.50    |
|                |                 | 3             | 918.8           | 744.3            | 2,370.03  | 3.18    | 2,339.52 | 3.14    | 4,709.55  | 6.33    |
|                |                 | 4             | 225.0           | 225.0            | 917.60    | 4.08    | 682.50   | 3.03    | 1,600.10  | 7.11    |
|                |                 | 5             | 67.5            | 79.6             | 454.50    | 5.71    | 627.50   | 7.88    | 1,082.00  | 13.58   |
|                | Total           |               | 1,722.3         | 1,241.3          | 4,204.56  | 3.39    | 4,364.29 | 3.52    | 8,568.85  | 6.90    |
| Outside<br>200 | 12              | 1             | 0               | 0                | 0         | 0       | 0        | 0       | 0         | 0       |
|                |                 | 2             | 0               | 0                | 0         | 0       | 0        | 0       | 0         | 0       |
|                |                 | 3             | 6.2             | 5.0              | 30.10     | 6.04    | 35.65    | 7.16    | 65.75     | 13.20   |
|                |                 | 4             | 7.0             | 7.0              | 35.00     | 5.00    | 157.50   | 22.50   | 192.50    | 27.50   |
|                |                 | 5             | 0.5             | 0.6              | 0.50      | 0.85    | 0.50     | 0.85    | 1.00      | 1.69    |
|                | Total           |               | 13.6            | 12.6             | 65.60     | 5.22    | 193.65   | 15.40   | 259.25    | 20.62   |
|                | Annual total    |               | 1,736.0         | 1,253.9          | 4,270.16  | 3.41    | 4,557.94 | 3.64    | 8,828.10  | 7.04    |
| 1963           | 12              | 1             | 87.2            | 27.9             | 27.80     | 1.00    | 179.95   | 6.45    | 207.75    | 7.45    |
|                |                 | 2             | 47.9            | 22.0             | 92.84     | 4.21    | 53.50    | 2.43    | 146.33    | 6.65    |
|                |                 | 3             | 315.7           | 255.7            | 1,279.29  | 5.00    | 1,172.48 | 4.59    | 2,451.76  | 9.59    |
|                |                 | 4             | 108.2           | 108.2            | 1,013.05  | 9.36    | 470.14   | 4.35    | 1,483.19  | 13.71   |
|                |                 | Total         | 559.0           | 413.8            | 2,412.99  | 5.83    | 1,876.06 | 4.53    | 4,289.04  | 10.36   |
|                | 200             | 1             | 442.0           | 141.4            | 525.61    | 3.72    | 592.89   | 4.19    | 1,118.50  | 7.91    |
|                |                 | 2             | 227.0           | 104.4            | 436.99    | 4.18    | 343.41   | 3.29    | 780.40    | 7.47    |
|                |                 | 3             | 1,292.5         | 1,047.0          | 4,040.53  | 3.86    | 3,656.60 | 3.49    | 7,697.13  | 7.35    |
|                |                 | 4             | 348.0           | 348.0            | 2,498.90  | 7.18    | 1,140.10 | 3.28    | 3,639.00  | 10.46   |
|                |                 | Total         | 2,309.5         | 1,640.8          | 7,502.03  | 4.57    | 5,733.00 | 3.49    | 13,235.03 | 8.07    |
| Outside<br>200 | 12              | 1             | 0               | 0                | 0         | 0       | 0        | 0       | 0         | 0       |
|                |                 | 2             | 0               | 0                | 0         | 0       | 0        | 0       | 0         | 0       |
|                |                 | 3             | 8.4             | 6.8              | 49.72     | 7.26    | 97.25    | 14.21   | 146.97    | 21.47   |
|                |                 | 4             | 0               | 0                | 0         | 0       | 0        | 0       | 0         | 0       |
|                | Total           |               | 8.4             | 6.8              | 49.72     | 7.26    | 97.25    | 14.21   | 146.97    | 21.47   |
|                | Annual total    |               | 2,318.0         | 1,647.7          | 7,551.75  | 4.58    | 5,830.25 | 3.54    | 13,382.00 | 8.12    |

TABLE 5 - (6)

| Year           | Zone<br>(miles) | Size<br>Class | Days<br>Fishing | Standard<br>Days | Yellowfin |         | Skipjack |         | YF + SJ   |         |
|----------------|-----------------|---------------|-----------------|------------------|-----------|---------|----------|---------|-----------|---------|
|                |                 |               |                 |                  | Catch     | C/S.Day | Catch    | C/S.Day | Catch     | C/S.Day |
| 1962           | 12              | 1             | 42.8            | 13.7             | 36.59     | 2.67    | 18.06    | 1.32    | 54.65     | 3.99    |
|                |                 | 2             | 55.3            | 25.4             | 155.54    | 6.12    | 32.59    | 1.28    | 188.13    | 7.40    |
|                |                 | 3             | 544.6           | 441.1            | 1,091.70  | 2.47    | 674.57   | 1.53    | 1,766.28  | 4.00    |
|                |                 | 4             | 81.7            | 81.7             | 313.92    | 3.84    | 71.47    | 0.87    | 385.41    | 4.72    |
|                |                 | 5             | 117.6           | 138.8            | 421.42    | 3.04    | 321.69   | 2.32    | 743.10    | 5.35    |
|                | Total           |               | 842.0           | 700.8            | 2,019.17  | 2.88    | 1,118.38 | 1.60    | 3,137.55  | 4.48    |
| 200            | 200             | 1             | 307.0           | 98.2             | 295.08    | 3.00    | 321.12   | 3.27    | 616.20    | 6.27    |
|                |                 | 2             | 305.5           | 140.5            | 723.03    | 5.15    | 400.17   | 2.85    | 1,123.20  | 7.99    |
|                |                 | 3             | 1,628.2         | 1,318.8          | 5,646.08  | 4.28    | 2,353.82 | 1.78    | 7,999.90  | 6.07    |
|                |                 | 4             | 432.5           | 432.5            | 1,823.45  | 4.22    | 507.65   | 1.17    | 2,331.10  | 5.39    |
|                |                 | 5             | 750.9           | 886.1            | 1,984.21  | 2.24    | 3,559.21 | 4.02    | 5,543.42  | 6.26    |
|                | Total           |               | 3,424.1         | 2,876.2          | 10,471.86 | 3.64    | 7,141.96 | 2.48    | 17,613.82 | 6.12    |
| Outside<br>200 | 200             | 1             | 0               | 0                | 0         | 0       | 0        | 0       | 0         | 0       |
|                |                 | 2             | 0               | 0                | 0         | 0       | 0        | 0       | 0         | 0       |
|                |                 | 3             | 24.3            | 19.7             | 155.85    | 7.92    | 56.25    | 2.86    | 212.10    | 10.78   |
|                |                 | 4             | 0               | 0                | 0         | 0       | 0        | 0       | 0         | 0       |
|                |                 | 5             | 3.1             | 3.7              | 10.77     | 2.95    | 27.50    | 7.52    | 38.28     | 10.46   |
|                | Total           |               | 27.4            | 23.4             | 166.62    | 7.13    | 83.75    | 3.59    | 250.37    | 10.72   |
| Annual total   |                 |               | 3,451.5         | 2,899.5          | 10,638.49 | 3.67    | 7,225.71 | 2.49    | 17,864.20 | 6.16    |

TABLE 6 - Estimated total annual catch (short tons) of yellowfin and skipjack captured during 1961-1970 by vessels (all flags) fishing within 12 miles of the coasts and islands shown in Figure 1.

TABLA 6 - Captura anual total estimada (toneladas cortas) de atún aleta amarilla y barrilete, capturado durante 1961-1970 por embarcaciones (de todas las banderas) que pescan a 12 millas de las costas e islas indicadas en la Figura 1.

TABLE 7 - Estimated total annual catch (short tons) of yellowfin and skipjack captured during 1961-1970 by vessels (all flags) fishing within 200 miles of the coasts and islands shown in Figure 1.

TABLA 7 - Captura anual total estimada (toneladas cortas) de atún aleta amarilla y barbilete capturado durante 1961-1970 por embarcaciones (de todas las banderas) que pescan a 200 millas de las costas e islas indicadas en la Figura 1.

TABLE 8 - Estimated total annual catch (short tons) of yellowfin and skipjack captured during 1961-1970 by vessels (all flags) fishing (1) within 12 miles of the coasts and islands shown in Figure 1, (2) within 200 miles of the same, (3) beyond 200 miles of the same but within the CYRA, and (4) within the entire CYRA.

TABLA 8 - Captura anual total estimada (toneladas cortas) de atún aleta amarilla y barbilete capturado durante 1961-1970 por embarcaciones (de todas las banderas) que pescan (1) a 12 millas de las costas e islas indicadas en la Figura 1, (2) a 200 millas de las mismas, (3) fuera de las 200 millas de las mismas, pero dentro del ARCAA (Área Reglamentaria de la Comisión de Atún Aleta Amarilla); dentro de la totalidad del ARCAA.

|             | 1961    | 1962   | 1963    | 1964    | 1965                | 1966   | 1967    | 1968    | 1969    | 1970    |
|-------------|---------|--------|---------|---------|---------------------|--------|---------|---------|---------|---------|
| Yellowfin   |         |        |         |         | Atún Aleta Amarilla |        |         |         |         |         |
| within 12   |         |        |         |         |                     |        |         |         |         |         |
| miles       | 6,883   | 16,240 | 11,302  | 9,458   | 8,191               | 10,468 | 10,016  | 7,073   | 6,476   | 10,273  |
| within 200  |         |        |         |         |                     |        |         |         |         |         |
| miles       | 112,654 | 85,988 | 69,219  | 91,472  | 70,671              | 67,710 | 71,326  | 93,590  | 79,689  | 96,881  |
| outside 200 |         |        |         |         |                     |        |         |         |         |         |
| miles, but  |         |        |         |         |                     |        |         |         |         |         |
| within CYRA | 2,463   | 1,063  | 3,455   | 10,469  | 19,372              | 23,447 | 15,323  | 21,023  | 46,823  | 45,821  |
| Entire CYRA | 115,117 | 87,051 | 72,674  | 101,941 | 90,043              | 91,157 | 86,649  | 114,613 | 126,512 | 142,702 |
| Skipjack    |         |        |         |         | Barbilete           |        |         |         |         |         |
| within 12   |         |        |         |         |                     |        |         |         |         |         |
| miles       | 14,521  | 18,038 | 23,897  | 9,596   | 19,781              | 13,251 | 17,707  | 8,919   | 11,771  | 7,909   |
| within 200  |         |        |         |         |                     |        |         |         |         |         |
| miles       | 74,807  | 77,511 | 104,940 | 63,598  | 85,539              | 65,979 | 132,183 | 73,963  | 58,355  | 49,864  |
| outside 200 |         |        |         |         |                     |        |         |         |         |         |
| miles, but  |         |        |         |         |                     |        |         |         |         |         |
| within CYRA | 44      | 483    | 1,102   | 1,715   | 583                 | 547    | 305     | 3,721   | 5,837   | 5,552   |
| Entire CYRA | 74,851  | 77,994 | 106,042 | 65,313  | 86,122              | 66,526 | 132,488 | 77,684  | 64,192  | 55,416  |

TABLE 9 - Average ratios (see text for years included in ratios) computed by comparing the monthly catch per unit of effort for yellowfin caught by seiners fishing in (1) specific 200 mi. zones, (2) the area outside of 200 mi. but within the CYRA, and (3) the area outside the CYRA but east of 150°W, with the annual catch per unit of effort for yellowfin caught by seiners fishing in the entire CYRA.

TABLA 9 - Promedio de proporciones (ver el texto de los años incluidos en las proporciones) computadas comparando la captura mensual por unidad de esfuerzo para el atún aleta amarilla capturado por cercoberos cuyas actividades pesqueras se realicen en (1) zonas específicas de 200 millas, (2) el área fuera de 200 millas pero dentro del ARCAA, y (3) el área fuera del ARCAA pero al este de 150°O, con la captura anual por unidad de esfuerzo para el atún aleta amarilla capturado por cercoberos cuyas actividades pesqueras se realicen en toda el ARCAA.

| Country<br>País                       | Month - Mes |      |      |      |      |      |      |      |      |      |      |      | 12 mo.<br>average* |
|---------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
|                                       | 01          | 02   | 03   | 04   | 05   | 06   | 07   | 08   | 09   | 10   | 11   | 12   |                    |
| Chile                                 | 0.40        | 0.63 | 0.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.31 | 0.15               |
| Colombia                              | 0.49        | 0.69 | 0.83 | 0.61 | 0.41 | 0.06 | 0.03 | 0.06 | 0.05 | 0.20 | 0.14 | 0.19 | 0.31               |
| Costa Rica                            | 0.70        | 0.98 | 1.08 | 1.25 | 1.03 | 0.59 | 0.71 | 1.02 | 0.36 | 0.50 | 0.84 | 0.68 | 0.81               |
| Ecuador                               | 0.80        | 0.77 | 1.70 | 1.02 | 0.30 | 0.37 | 0.50 | 0.32 | 0.39 | 0.49 | 0.35 | 0.76 | 0.65               |
| Mexico                                | 1.00        | 1.01 | 1.07 | 1.30 | 1.33 | 0.86 | 0.80 | 0.72 | 0.59 | 0.49 | 0.73 | 1.10 | 0.92               |
| Panama                                | 0.37        | 0.44 | 0.32 | 0.94 | 0.21 | 0.00 | 0.00 | 0.06 | 0.14 | 0.27 | 0.34 | 0.18 | 0.29               |
| Peru                                  | 0.95        | 0.62 | 1.25 | 0.97 | 0.42 | 0.50 | 0.67 | 0.40 | 0.43 | 0.57 | 0.40 | 0.64 | 0.65               |
| U.S.A.                                | 0.00        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.01 | 0.00 | 0.00 | 0.01               |
| Nicaragua                             | 0.11        | 0.20 | 0.12 | 0.27 | 0.72 | 0.13 | 0.14 | 0.30 | 0.18 | 0.44 | 1.24 | 0.15 | 0.33               |
| France (Clip-<br>erton Is.)           | 1.24        | 1.50 | 1.08 | 0.92 | -    | -    | -    | -    | -    | 1.82 | 0.42 | 0.06 | 1.01               |
| El Salvador                           | 0.69        | 1.06 | 0.85 | 1.48 | 1.09 | 0.75 | 0.69 | 0.19 | 0.23 | 0.78 | 1.42 | 0.81 | 0.84               |
| Guatemala                             | 0.72        | 1.34 | 1.14 | 1.06 | 0.85 | 1.16 | 0.86 | 0.48 | 0.29 | 0.46 | 0.82 | 0.50 | 0.81               |
| Outside 200'<br>within CYRA           | 1.06        | 1.21 | 1.82 | 1.84 | 1.68 | 1.31 | 1.80 | 1.75 | 0.92 | 1.52 | 1.47 | 1.22 | 1.47               |
| Outside CYRA<br>E of 150°W            | -           | -    | -    | 0.45 | 2.62 | 1.30 | 1.80 | 1.48 | 0.95 | 0.76 | 0.82 | 0.98 | 1.24               |
| Monthly Aver-<br>age within<br>CYRA * | 0.66        | 0.80 | 0.90 | 0.90 | 0.67 | 0.48 | 0.52 | 0.44 | 0.30 | 0.58 | 0.64 | 0.51 | 0.63               |

\* Average does not include months with no calculated ratio.

\* Promedio no incluye los meses sin proporciones calculadas.

TABLE 10 - Average ratios (see text for years included in ratios) computed by comparing the monthly catch per unit of effort for skipjack caught by seiners fishing in (1) specific 200 mi. zones, (2) the area outside of 200 mi. but within the CYRA, and (3) the area outside the CYRA but east of 150°W, with the annual catch per unit of effort for skipjack caught by seiners fishing in the entire CYRA.

TABLA 10 - Promedio de proporciones (ver el texto de los años incluidos en las proporciones) computadas comparando la captura mensual por unidad de esfuerzo para el barrilete capturado por cerqueros cuyas actividades pesqueras se realicen en (1) zonas específicas de 200 millas, (2) el área fuera de 200 millas pero dentro del ARCAA, y (3) el área fuera del ARCAA pero al este de 150°O, con la captura anual por unidad de esfuerzo para el barrilete capturado por cerqueros cuyas actividades pesqueras se realicen en toda el ARCAA.

| Country<br>País                       | Month - Mes |      |      |      |      |      |      |      |      |      |      |      | 12 mo.<br>average* |
|---------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
|                                       | 01          | 02   | 03   | 04   | 05   | 06   | 07   | 08   | 09   | 10   | 11   | 12   |                    |
| Chile                                 | 0.11        | 0.50 | 0.31 | 0.00 | 0.00 | 0.00 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.12               |
| Colombia                              | 0.78        | 0.33 | 0.13 | 0.43 | 2.08 | 0.61 | 0.25 | 0.23 | 0.36 | 0.84 | 0.43 | 0.46 | 0.58               |
| Costa Rica                            | 0.25        | 0.39 | 0.28 | 0.67 | 0.59 | 0.66 | 0.41 | 0.16 | 0.44 | 0.55 | 0.60 | 0.23 | 0.44               |
| Ecuador                               | 1.37        | 2.10 | 2.47 | 1.71 | 3.22 | 3.25 | 2.49 | 2.08 | 1.44 | 1.08 | 1.09 | 1.41 | 1.98               |
| Mexico                                | 0.30        | 0.08 | 0.20 | 0.24 | 0.55 | 0.29 | 0.52 | 0.65 | 0.98 | 1.20 | 0.76 | 0.38 | 0.51               |
| Panama                                | 0.17        | 0.12 | 0.73 | 0.12 | 0.76 | 0.14 | 0.01 | 0.13 | 0.47 | 0.40 | 0.09 | 0.24 | 0.28               |
| Peru                                  | 1.53        | 1.92 | 2.24 | 2.04 | 2.52 | 3.73 | 2.26 | 1.76 | 1.67 | 0.79 | 1.50 | 1.61 | 1.96               |
| U.S.A.                                | 0.00        | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.33 | 0.12 | 0.00 | 0.00 | 0.04               |
| Nicaragua                             | 0.29        | 0.05 | 0.55 | 0.82 | 0.66 | 0.46 | 0.28 | 0.55 | 0.56 | 0.71 | 0.80 | 0.02 | 0.48               |
| France (Clip-<br>perton Is.)          | 0.71        | 2.41 | 1.20 | 1.06 | -    | -    | -    | -    | -    | 0.00 | 0.00 | 0.00 | 0.77               |
| El Salvador                           | 0.00        | 0.11 | 0.30 | 0.37 | 0.62 | 0.18 | 0.35 | 0.12 | 0.27 | 0.46 | 0.13 | 0.00 | 0.24               |
| Guatemala                             | 0.01        | 0.05 | 0.06 | 0.04 | 0.51 | 0.25 | 0.16 | 0.04 | 0.21 | 0.32 | 0.03 | 0.00 | 0.14               |
| Outside 200'<br>within CYRA           | 0.24        | 0.16 | 0.44 | 0.23 | 0.31 | 0.44 | 0.42 | 0.24 | 0.50 | 1.51 | 0.21 | 0.26 | 0.41               |
| Outside CYRA<br>E of 150°W            | -           | -    | -    | 0.14 | 1.97 | 1.27 | 0.40 | 0.63 | 0.50 | 0.52 | 0.33 | 0.64 | 0.71               |
| Monthly Aver-<br>age within<br>CYRA * | 0.44        | 0.63 | 0.68 | 0.59 | 0.98 | 0.83 | 0.64 | 0.50 | 0.60 | 0.61 | 0.43 | 0.35 | 0.61               |

\* Average does not include months with no calculated ratio.

\* Promedio no incluye los meses sin proporciones calculadas.

TABLE 11.- Number of square nautical miles in one degree areas, arranged by one degree of latitude north or south of the Equator, used to determine area with CYRA.

TABLA 11.- Número de millas náuticas cuadradas en áreas de un grado, clasificadas por un grado de latitud norte o sur del Ecuador, utilizadas para determinar el área dentro del ARCAA (Área Reglamentaria de la Comisión de Atún Aleta Amarilla).

| Mid-point<br>of 1° area<br>Punto medio<br>de Área de 1° | Number of square<br>nautical miles<br>Número de millas<br>náuticas cuadradas |
|---|--|
| 0.5   | 3,590.86   |
| 1.5   | 3,589.77   |
| 2.5   | 3,587.58   |
| 3.5   | 3,584.30   |
| 4.5   | 3,579.93   |
| 5.5   | 3,574.47   |
| 6.5   | 3,567.93   |
| 7.5   | 3,560.29   |
| 8.5   | 3,551.57   |
| 9.5   | 3,541.77   |
| 10.5  | 3,530.89   |
| 11.5  | 3,518.94   |
| 12.5  | 3,505.91   |
| 13.5  | 3,491.82   |
| 14.5  | 3,476.66   |
| 15.5  | 3,460.45   |
| 16.5  | 3,443.18   |
| 17.5  | 3,424.86   |
| 18.5  | 3,405.50   |
| 19.5  | 3,385.10   |
| 20.5  | 3,363.67   |
| 21.5  | 3,341.22   |
| 22.5  | 3,317.75   |
| 23.5  | 3,293.27   |
| 24.5  | 3,267.79   |
| 25.5  | 3,241.31   |
| 26.5  | 3,213.85   |
| 27.5  | 3,185.41   |
| 28.5  | 3,155.99   |
| 29.5  | 3,125.62   |
| 30.5  | 3,094.29   |
| 31.5  | 3,062.03   |
| 32.5  | 3,028.83   |
| 33.5  | 2,994.70   |
| 34.5  | 2,959.67   |
| 35.5  | 2,923.73   |
| 36.5  | 2,886.91   |
| 37.5  | 2,849.20   |
| 38.5  | 2,810.63   |
| 39.5  | 2,771.20   |

TABLE 12 - Area within CYRA zones.

TABLA 12 - Area dentro de las zonas del ARCAA.

| Country                      | Number and percent of square nautical miles within: |            |           |       | % of CYRA within 200 mi. |            |
|------------------------------|---|------------|-----------|-------|--------------------------|------------|
|                              | 12 mi.  | 12-200 mi. | 200 mi.   |       |                          |            |
| Chile                        | 8,765   | 6.0        | 220,538   | 11.2  | 229,303                  | 10.8 4.6   |
| Colombia                     | 8,385   | 5.6        | 90,201    | 4.6   | 98,586                   | 4.7 2.0    |
| Costa Rica                   | 6,651   | 4.5        | 151,232   | 7.7   | 157,883                  | 7.5 3.1    |
| Ecuador                      | 17,623  | 11.9       | 295,744   | 15.0  | 313,367                  | 14.8 6.3   |
| Mexico                       | 58,802  | 39.6       | 654,952   | 33.3  | 713,754                  | 33.8 14.2  |
| Panama                       | 10,900  | 7.3        | 38,128    | 2.0   | 49,028                   | 2.3 1.0    |
| Peru                         | 18,621  | 12.5       | 227,601   | 11.6  | 246,222                  | 11.6 4.9   |
| U. S. A.                     | 10,322  | 7.0        | 94,555    | 4.8   | 104,877                  | 5.0 2.1    |
| Nicaragua                    | 2,822   | 1.9        | 14,437    | 0.7   | 17,259                   | 0.8 0.3    |
| France (Clip-<br>perdon Is.) | 706   | 0.5        | 124,161   | 6.3   | 124,867                  | 5.9 2.5    |
| El Salvador                  | 2,556   | 1.7        | 22,293    | 1.2   | 24,849                   | 1.2 0.5    |
| Guatemala                    | 2,232   | 1.5        | 31,604    | 1.6   | 33,836                   | 1.6 0.7    |
| TOTALS                       | 148,385   | 100.0      | 1,965,446 | 100.0 | 2,113,831                | 100.0 42.2 |

% of CYRA inside 200 mi. 42.2  
% of CYRA outside 200 mi. 57.8  
% of CYRA within 12-200 mi. 39.2  
% of CYRA within 12 mi. 3.0

Area outside of 200 miles but within CYRA

| Degrees of Latitude | Number of Square Miles | % outside 200 miles |
|---------------------|------------------------|---------------------|
| 0° - 4° N           | 293,275                | 10.1                |
| 5° - 9° N           | 482,995                | 16.6                |
| 10° - 14° N         | 332,590                | 11.5                |
| 15° - 19° N         | 67,032                 | 2.3                 |
| 20° - 24° N         | 113,819                | 3.9                 |
| 25° - 29° N         | 55,785                 | 1.9                 |
| 30° - 34° N         | 19,454                 | 0.7                 |
| 35° - 39° N         | 0                      | 0.0                 |
| 0° - 4° S           | 329,585                | 11.4                |
| 5° - 9° S           | 546,186                | 15.7                |
| 10° - 14° S         | 155,324                | 5.4                 |
| 15° - 19° S         | 207,612                | 7.2                 |
| 20° - 24° S         | 231,355                | 8.0                 |
| 25° - 29° S         | 153,800                | 5.3                 |
| TOTAL               | 2,898,812              | 100.0               |
| TOTAL WITHIN CYRA   | = 5,012,643            |                     |