THE NORTHWEST ATLANTIC FISHERIES

ANNUAL MEETING - JUNE 1973
Nominal catch of squid in Canadian Atlantic waters
(Subareas 2-4) 1920 to 1968
by
M. C. Mercer

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## Introduction

The migratory ommastrephid squid Illex illecebrosus (LeSueur) has historically supported small summer and fall inshore fisheries at the northern end of its western Atlantic range, particularly at Newfoundland where recent annual landings have ranged from nil to 10,500 metric tons. The inshore fisheries are passive in that they are based on availability of squid to jigging devices (and to a much lesser extent, traps) in waters of less than about 20 m depth. However, in the past few years, large trawl fisheries for squid have developed in the ICNAF convention area. The 1971 ICNAF statistics for Subarea 3 show only 1 ton landed offshore (by Japan) with the remaining 1606 tons being Nfid. inshore landings. The situation is reversed in Subarea 4 where 7283 tons were landed offshore, mostly by the USSR, whereas inshore landings accounted for only 16 tons. In Subareas 3 and 4 I11ex 111 ecebrosus comprised the total catch as Loligo pealei does not range this far north (see Mercer, 1971). The landings of 11,368 and 10,842 tons in Subareas 5 and 6 respectively were mixed catches, nearly all trawled offshore and comprising mostly Loligo pealei taken in its wintering area; however an indeterminate part of this catch was Illex illecebrosus.

The following collation of Canadian catch statistics was abstracted completely from the monthly and annual "Fisheries Statistics of Canada" published by Statistics Canada (formerly Dominion Bureau of Statistics). Blank data fields in the area breakdowns indicate that no listings are given for squid in the "Fisheries Statistics". In such cases small squid landings are sometimes included under such headings as "Other Shellfish"; the total catches then obtained by adding across the columns are less than the listed total landings. Landings prior to 1938 are given in barrels; approximate conversion to pounds can be obtained by applying a factor of $200 \mathrm{lb} / \mathrm{barre}$.

## Newfoundland

A monthly breakdown is given for the period 1956-72 (Table 1) and an area breakdown for the period 1955-68 (Yable 2). Detailed statistics are unavailable for earlier years but Squires (1957) gives an account of relative annual abundance.

Nova Scotia

A breakdown by area for the period 1920-68 is given (Table 3).

## New Brunswick

Squid catch was listed as 0 in 1952. In 1955 landings of 1000 ib were given for Grand Manan Island (Bay of Fundy). In 1921-26 the only catches were listed as coming from Giloucester County (Districts 64-68), these being 20, 10, 5, 6, 5, 25 barrels respectively. For all other years 1920-72 no separate listings for squid were given.

## Prince Edward Island

The only listing for squid in 1920-72 was 500 lb taken in district 88 in 1946.


#### Abstract

Quebec

A breakdown by area for the period 1920-68 is given (Table 4).


## ICNAF Area

As no area breakdowns are available for Newfoundland prior to 1955 summaries are not given for 3K, 3L, 3P and 4R in the breakdown by years prior to this date (Table 5). Discrepancies between the total landings for the Canadian Atlantic and those obtained by adding division totals are caused by occasional lumping of squid under such headings as "Other Molluscs" in the area totals used to compile the table. The relation of the Statistical Districts to the ICNAF Divisions is indicated in Appendix I.

## References

Mercer, M. C. 1970. Sur la limite septentrionale du calmar Loligo pealei LeSueur. Naturaliste Can. 97: 823-824.

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## Nova Scotia

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## Prince Edward Island

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A breakdown by area for the period 1920-68 is given (Table 4).

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Table 1. Monthly breakdown of squid landings at Newfoundland 1956-72 ('000 lb). Where reported yearly totals do not agree with totals obtained by summing the reported monthly landings the latter totals are indicated in parentheses.

| Year | July | August | September | October | November | December | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1956 1957 | 1,565 836 | 6,088 | 5,882 | 3,197 | 104 | 0 | $\begin{gathered} 17,150 \\ (16,836) \end{gathered}$ |
| 1957 1958 | 836 | 2,893 | 853 | 1,062 | 153 | 9 | $\begin{gathered} 5,808 \\ (5,806) \end{gathered}$ |
| 1958 1959 | 128 | 725 | 420 | 246 | 66 | 0 | $\begin{gathered} 1,584 \\ (1,585) \end{gathered}$ |
| 1959 | 3 | 714 | 2,264 | 3,199 | 109 | 0 | 6,289 |
| 1960 | 9 900 | 2,820 | 3,453 | 4,358 | 630 | 0 | $\begin{gathered} 11,170 \\ (11,270) \end{gathered}$ |
| 1961 | 900 | 6,681 | 5,399 | 5,557 | 1,240 | 0 | 19,777 |
| 1962 | 10 | 257 | 548 | 229 | 18 | 0 | 1,062 |
| 1963 | 0 | 941 | 1,609 | 1,568 | 854 | 0 | 4,972 |
| 1964 | 847 | 11,446 | 5,300 | 4,565 | 768 | 75 | 22,926 |
| 1965 | 731 | 5,421 | 4,623 | 5,656 | 768 | 0.3 | 17,199 |
| 1966 | 110 | 2,722 | 4,054 | 4,075 | 106 | 1 | 11,068 |
| 1967 | 543 | 4,164 | 1,877 | 6,113 | 2,526 | 0 | 15,222 |
| 1968 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| 1969 | 0 | 9 | 37 | 2 | 0 | 0 | 48 |
| 1970 | 0 | 5 | 92 | 56 | 13 | 0 | 166 |
| 1971 | 357 | 1,635 | 3,057 | 439 | 51 | 0 | 5,539 |
| 1972 | 0 | 12 | 32 | 1 | 0 | 0 | 45 |

Table 2. Breakdown of squid landings at Newfoundland 1955-68 ('000 1b) by statistical areas as delineated in Fig. 1.

| Year | A | B | C | D | E | F | G | H | I | J | K | L | M | $N$ | 0 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1955 | 504 | 545 | 1,163 | 1,889 | 6,080 | 2,201 | 512 | 648 | 781 | 701 | 0 | 100 | 150 | 201 | 0 | 15,475 |
| 1956 | 267 | 1 | 2,107 | 1,956 | 9,141 | 2,957 | 0 | 667 | 5 | 49 | 0 | 0 | 0 | 0 | 0 | 17,150 |
| 1957 | 153 | 689 | 653 | 1,011 | 2,012 | 965 | 26 | 211 | 0 | 17 | 0 | 46 | 25 | 0 | 0 | 5,808 |
| 1958 | 24 | 4 | 297 | 325 | 472 | 144 | 2 | 298 | 15 | 3 | 0 | 0 | 0 | 0 | 0 | 1,584 |
| 1959 | 365 | 408 | 1,181 | 2,621 | 506 | 653 | 8 | 246 | 70 | 231 | 0 | 0 |  | 0 | 0 | 6,289 |
| 1960 | 614 | 800 | 2,033 | 2,406 | 3,418 | 1,025 | 53 | 550 | 139 | 132 | 0 | 0 | 0 | 0 | 0 | 11,170 |
| 1961 | 504 | 1,259 | 2,031 | 2,715 | 8,147 | 3,378 | 129 | 815 | 161 | 631 | 3 | 4 | 1 | 0 | 0 | 19,778 |
| 1962 | 46 | 74 | 37 | 299 | 51 | 157 | 11 | 569 | 53 | 14 |  | 1 | 0 | 0 | 0 | 1,063 |
| 1963 | 121 | 158 | 517 | 1,806 | 842 | 301 | 31 | 700 | 48 | 448 | 0 | 0 | 0 | 0 | 0 | 4,972 |
| 1964 | 446 | 812 | 4,537 | 3,293 | 9,213 | 2,047 | 20 | 1,168 | 464 | 928 | 0 | 0 | 0 | 0 | 0 | 22,928 |
| 1965 | 523 | 842 | 2,513 | 2,179 | 7,965 | 977 | 13 | 1,625 | 119 | 443 | 0 | 0 | 0 | 0 |  | 17,199 |
| 1966 | 645 | 1,400 | 2,031 | 1,194 | 3,476 | 670 | 137 | 1,165 | 63 | 279 | 0 | 0 | 0 | 0 | 0 | 11,060 |
| 1967 | 573 | 654 | 2,509 | 3,236 | 6,329 | 253 | 108 | 1,139 | 24 | 397 | 0 | 0 | 0 | 0 | 0 | 15,222 |
| 1968 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | , 2 |

Table 3. Area breakdown of squid landings at Nova Scotia $1920-68$ ('000 lb $1938-68$ and barrels 1920-37) by statistical areas as

Table 3. Cont'd.

Table 4. Breakdown for squid landings at Quebec $1920-68$ ('000 $1 \mathrm{~b} 1938-68$ and barrels 1920-37) by statistical areas as
delineated in Fig. 3. When listed totals do not coincide with landings obtained by totalling the landings by area the


Table 5. Breakdown of squid landings by ICNAF Divisions 1920-68 ('000 lb except prior to 1938 when landings are given in barrels). Where reported yearly totals for the Canadian Atlantic do not agree with totals obtained by summing the division totals the latter are indicated in parentheses.

| $\text { Year }{ }^{\text {Div. }}$ | 3K | 3L | 3P | 4R | 4S | $4 T$ | 4 Vn | 4W | 4X | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1920 |  |  |  |  | 119 | 3,265 | 7 | 1,486 | 73 |  |
| 1921 |  |  |  |  | 5 | 8,031 | 9 | 4,171 | 106 |  |
| 1922 |  |  |  |  | 70 | 5,196 | 34 | 1,206 | 165 |  |
| 1923 |  |  |  |  | 32 | 3,227 | 85 | 5,090 | 46 |  |
| 1924 |  |  |  |  | 162 | 1,843 | 67 | 1,659 | 49 |  |
| 1925 |  |  |  |  | 109 | 4,549 | 402 | 6,096 | 1,383 |  |
| 1926 |  |  |  |  | 640 | 8,667 | 855 | 4,160 | 7,609 |  |
| 1927 |  |  |  |  | 410 | 1,570 | 72 | 867 | 257 |  |
| 1928 |  |  |  |  | 621 | 2,207 | 27 | 1,063 | . 655 |  |
| 1929 |  |  |  |  | 28 | 3,296 | 555 | 1,178 | 240 |  |
| 1930 |  |  |  |  | 7 | 1,636 | 0 | 4,900 | 29 |  |
| 1931 |  |  |  |  | 8 | 1,252 | 420 | 23 | 10 |  |
| 1932 |  |  |  |  | 16 | 748 | 32 | 315 | 190 |  |
| 1933 |  |  |  |  | 7 | 411 | 0 | 2,922 | 80 |  |
| 1934 |  |  |  |  | 10 | 472 | 0 | 203 | 2 |  |
| 1935 |  |  |  |  | 9 | 1,357 | 51 | 2,221 | 80 |  |
| 1936 |  |  |  |  | 7 | 1,453 | 40 | 3,169 | 210 |  |
| 1937 |  |  |  |  | 12 | 85 | 0 | 462 | 95 |  |
| 1938 |  |  |  |  | 18 | 89 | 5 | 127 | 9 |  |
| 1939 |  |  |  |  | 0 | 60 | 6 | 320 | 0 |  |
| 1940 |  |  |  |  | 0.4 | 119 | 79 | 338 | 0 |  |
| 1941 |  |  |  |  | 0 | . 53 | 0 | 460 | 0 |  |
| 1942 |  |  |  |  | 0 | - 39 | 0 | 22 | 0 |  |
| 1943 |  |  |  |  | 0 | 3 | 0 | 11 | 2 |  |
| 1944 |  |  |  |  | 0 | 12 | 0 | 58 | 12 |  |
| 1945 |  |  |  |  | 0 | 107 | 0 | 45 | 0 |  |
| 1946 |  |  |  |  | 0.4 | 161 | 226 | 372 | 110 |  |
| 1947 |  |  |  |  | - | 98 | 52 | 312 | - |  |
| 1948 |  |  |  |  | - | 8 | 6 | 76 | - |  |
| 1949 |  |  |  |  | - | 0 | 0 | 29 | - |  |
| 1950 |  |  |  |  | - | 59 | 60 | 188 | - |  |
| 1951 |  |  |  |  | - | 27 | 42 | 55 | - |  |
| 1952 |  |  |  |  | j | 5 | 165 | 20 | 22 |  |
| 1953 |  |  |  |  | 1 | 20 | 39 | 46 | 7 |  |
| 1954 |  |  |  |  | 1 | 52 | 148 | 53 | 0 |  |
| 1955 | 1,049 | 11,845 | 2,130 | 451 | 2 | 42 | 58 | 26 | 15 | 15,673(15,618) |
| 1956 | 268 | 16,161 | 721 | 0 | 2 | 79 | 662 | 246 | 4 | 18,203(18,143) |
| 1957 | 847 | 4,641 | 228 | 71 | 2 | 53 | 182 | 363 | 68 | $6,487(6,455)$ |
| 1958 | 28 | 1,240 | 316 | 0 | 3 | 4 | 2 | 174 | 2 | 1,769 |
| 1959 | 773 | 4,969 | 547 | 0 | 0 | 17 | 18 | 533 | 1 | 6,858 |
| 1960 | 1,414 | 8,935 | 821 | 0 | 4 | 7 | 19 | 23 | 0 | 11,260(11,223) |
| 1961 | 1,763 | 16,400 | 1,607 | 8 | 0 | 7 | 28 | 64 | 3 | 19,884(19,880) |
| 1962 | 120 | 305 | 636 | 2 | 0 | 53 | 32 | 353 | 147 | 1,648 |
| 1963 | 279 | 3,497 | 1,196 | 0 | 0 | 7 | 3 | 210 | 24 | 5,216 |
| 1964 | 1,258 | 19,110 | 2,560 | 0 | 0 | 9 | 275 | 473 | 5 | 23,755(23,690) |
| 1965 | 1,365 | 13,647 | 2,187 | 0 | 0 | 1 | 3 | 355 | 13 | 17,578(17,571) |
| 1966 | 2,045 | 7,508 | 1,507 | 0 | 0 | 2 | 120 | 100 | 2 | 11,287(11,284) |
| 1967 | 1,227 | 12,435 | 1,560 | 0 | 0 | 29 | 12 | 212 | 2 | 15,478(15,477) |
| 1968 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 4 | 26 (18) |



Fig. 1. Newfoundland sea fisheries statistical areas.


Fig. 2. Maritime sea fisheries districts.


Fig. 3. Quebec sea fisheries districts.

## Appendix I

## ICNAF Divisions

3K

3L

3P

4R

4S
$4 T$

4 Vn

4W

4X

## Statistical Districts

Nfid. Districts $A$ and $B$ (including section 1 of $A$ which actually in 4R. Landings here are approximately nil.)

Nfld. Districts C, D, E, F, G

Nfld. Districts $H, I, J$ (and section 50 of $K$ which actually in 4R)

Nfld. Districts K, L, M, N

Quebec Districts 18* (part), 19-25

Maritimes Districts 2, 3, 11-13, 43b, 45, 46, 63-68, 70, $73,75-78,80$ ( 80 a ) , 82, 83, 85-88

Quebec Districts 1-17, 18* (part), 26-28
Maritimes Districts 1, 4, 6, 7

Maritimes Districts 8, 9, 14-21

Maritimes Districts 22, 23, 25-28, 30-34, 36-40, 42, 43a, 44, 48-53, 55-61, 79, 80b
*Quebec statistical area 18 is partly in Division 4 S and partly in 4 T ; landings have been assigned on a 50: 50 basis.

