| United States Department of the Interior, J. A. Krug, Secretary |
| :---: |
| Fish and Wildlife Service, Albert M. Day, Director |
| Fishery Leaflet 287 |

PER CAPITA CONSUMPTION OF FTSH ONLY 13.3 POUNDS (1935) I/ By Fred F. Johnson
Formerly Assistant Chief, Branch of Commeroial Fisheries
Our annual consumption of edible fish and shellfish, as prepared for market including that caught and consumed direct by the fishermen, amounts to about $1,645,000,000$ pounds or a per capita consumption of 13.3 pounds. This is based upon domestic production and foreign trade data for the year 1931 when the most recent detailed survey of the production of fresh and processed fishery products was made. This places the per capita consumption on a weekly basis at about one-fourth of one pound. When compared with foreign consumption of fish and shellfish, our own consumption in certain sea coast cities and the consumption of meats, our average seafood figure seems very low.

It will be observed from the table presented herewith that only four species or groups of species contribute more than half a pound to the per capita consumption. Among these, salmon leads with 2.738 pounds. Following in order are the group consisting of cod, haddock, hake, pollock, and cusk with 1.509 pounds; sardines, 0.689 pounds; and oysters, 0.557 pounds. Among those contributing 0.25 pounds ( 4 ounces) or more are only eight additional species or groups which in order of their importance are sea herring (excluding sardines), mackerel, flounders, halibut, clams, crabs, tuna and tunalike fishes (including Pacific yellowtail), and shrimp.
Most Eaten Fresh

Fresh and frozen products are consumed in greater quantities than all other fishery commodities combined. In order of their importance the per capita consumption of each group of products according to method of preparation was as follows: Fresh and frozen, 8.171 pounds; canned, 3.584 pounds; salted, 0,972 pounds; smoked, 0.288 pounds; edible oil, 0.107 pounds; fresh-cooked, 0.078 pounds; and dried, 0.057 pounds.

Foreign Consumption
Data collected or computed several years ago from various sources have piaced the estimated annual per capita consumption of fish and shellfish in various foreign countries as follows:

## Country <br> Pounds

Japan ..... 55
Sweden ..... 52
Norway ..... 44
Denmark ..... 39
Portugal ..... 37
England and Wales ..... 35
Canada ..... 29
Netherlands ..... 29
Germany ..... 18
Belgium ..... 17
Spain ..... 16
New South Wales ..... 15
France ..... 14
Australia ..... 13
Uruguay ..... 12
Argentina ..... 10
Italy ..... 9
Chile ..... 8
Egypt ..... 7
Why We Lag

It is evident that our own per capita figure is very low in comparison to that of these countries. No doubt the higher figures for many of these countries are occasioned largely by the closer proximity of the producing areas to a larger proportion of the consumers, which not only lessens transportation costs but makes a larger proportion of the population "fish conscious" by this closer association with fish and people interested in fish. Further, foreign countries do not usually have so severe a problem of introducing new products or species due to the same closer proximity as well as the greater similarity of fisheries throughout most foreign countries. In the United States our species and products vary greatly in the various producing regions.

## Seaboard Takes Most

While our annual per capita consumption of fish and shellfish is 13.3 pounds, it is obvious that such a consumption is not uniform ovar the United States. In areas where production is large, consumption is usually greater, being effected by sales of fresh products, and the reverse follows in regions more remote from production centers in spite of sales of frozen, canned, and cured commodities which frequently have wider geographical distribution than the fresh article. This wide variation in consumption is indicated in some of the earlier reports $2 /$ of the Bureau of Fisheries showing large per capita consumption of coastal cities, such as New York City which amounted to nearly 32 pounds and Jacksonville, 18 pounds; while in such inland cities as St. Louis and Louisville the per capita consumption was 9 and 6 pounds respectively, and at Atlanta and Pittsburgh, 11 pounds each.

Comparative data on consumption of fish and shellfish are not available over a period of years except for a few products. A computation for about 1924 showed the annual domestic per capita consumption of fish and shellfish at 15 pounds. The Bureau of Foreign and Domestic Commerce 3/ gives the per capita consumption of canned fish in 1899 as 1.91 pounds; 1909, 3.8 pounds; 1919, 3.34 pounds; and 1929, 4.5 pounds. The same Bureau shows the consumption of smoked fish in 1925 as 0.66 pounds.

A comparison of our consumption of fish and shellfish with meats (pork, beef, lamb and mutton, and veal) which are reported by the Department of Agriculture 4/; shows that for every pound of fish and shellfish, 10 pounds of meats are consumed. More specifically, based on 1931 figures, the annual domestic per capita consumption of meats amounted to 133.2 pounds made up of 69.6 pounds of pork; 49.6 pounds of beef; 7.1 pounds of lamb and mutton; and 6.9 pounds of veal.

Available figures for meats (pork, beef, lamb and mutton, and veal) show that the highest point of consumption was reached in 1907 according to Department of Agriculture data. In that year the consumption reached 155.1 pounds. The lowest consumption was in 1917 during the war when only 120.1 pounds were consumed. In 1932 the per capita consumption was 133.4 pounds. Since 1927 it has ranged between 132 and 139 pounds.

## PER CAPITA CONSUPTION OF FISH

| Item | Pounds | Per cent |
| :--- | :---: | ---: |
| Fresh and frozen | 8.2 | 61.7 |
| Canned | 3.6 | 27.0 |
| Salted | 1.0 | 7.3 |
| Smoked | 0.3 | 2.2 |
| Other | 0.2 | 1.8 |
| $\quad 13.3$ | 100.0 |  |

PER CAPITA CONSTMPTION OF FISH AND MEAT

| Item | Pounds | Value |
| :--- | :---: | ---: |
| Pork | 69.6 | 47.5 |
| Beef | 49.6 | 33.9 |
| Fish | 13.3 | 9.7 |
| Lamb and Mutton | 7.1 | 4.8 |
| Veal | 6.9 | 4.7 |
| Total | 146.5 | 100.0 |

PER CAPITA CONSUMPTION OF FISHERY PRODUCTS

|  | CONSUMED AS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Species | Fresh and firozen | Canned | Salted | Smoked | Dried | Freshcooked | Edible Oil | Total |
|  | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | $\underline{\text { Lbs. }}$ |
| Alewives | 0.113 | 0.026 | 0.102 | 0.004 | - | - | - | 0.245 |
| Blue pike | . 099 | - | - | - | - | - | - | . 099 |
| Buffalofish | . 091 | - | - | . 006 | - | - | - | . 097 |
| Butterfish | . 080 | - | - | . 006 | - | - | - | . 086 |
| Carp | .104 | - | - | . 001 | - | - | - | . 105 |
| Catfish \& bullheads | . 102 | - | - | - | - | - | - | . 102 |
| Cod, haddock, hake, pollock \& cusk | . 958 | . 039 | . 319 |  | 0.034 | - | 0.107 |  |
| Croaker | . 122 | . 0 | . | - | . | - | . | - 122 |
| Flounders | . 355 | - | - | - | - | - | - | - 35 |
| Halibut | . 346 | - | _ | (5) | - | - | - | . 34 |
| Lake herring, chubs, cisco \& tullibees | . 081 | - | . 034 | . 056 |  |  |  |  |
| Lake trout | . 079 | - | - - | . 003 | - | - | - | . 171 |
| Mackerel | . 299 | . 028 | . 073 | . 002 | - | - | - | - 42 |
| Mullet | . 157 | - | . 010 | . | - | - | - | . 167 |
| Pilchard | - | (6). | . | - | - | - | - | (6) |
| Rockfishes | . 057 |  | - | - | _ | - | - | . 057 |
| Salmon | . 586 | 2.063 | - | . 079 | . 010 | - | - | 2.738 |
| Sardines | . | . 689 | - | . 07 | . 010 | - | - | . 689 |
| Sea herring | . 021 | (6) | .424 | . 048 | _ | - | $\underline{-}$ | . 493 |
| Scup ${ }^{\text {S }}$ | . 074 | (6). | . 4 | . 04 | - | - | - | . 074 |
| Shad . ${ }^{\text {a }}$ | . 083 | . 001 | - | . 001 |  |  | - | . 085 |
| Squeteagues or "sea trout" | . 213 | . | - | . 01 | 001 | - | - | -085 |
| Tuna and tunalike |  |  | - | - | . 001 |  | - | . 214 |
| fishes, including |  |  |  |  |  |  |  |  |
| Pacific yellowtail | . 017. | . 243 | - |  | - |  |  | 260 |
| Whitefish | . 123 | (5). |  |  |  |  |  |  |
| Whiting | . 065 | (5) | - | (5) | - | - | - | . 133 |
| Yell ow perch | . 071 |  |  | (5) | - | - |  | . 0671 |
| Other fish | [.838\| | .077 | . 010 | . 020 | - |  |  | . 945 |
| Total fish | 5.134 | 3.166 | . 972 | . 288 | .045 | - | . 107 | 9.712 |

(continued on following page)

|  | CONSUMED AS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Suecies | $\begin{aligned} & \text { Fresh } \\ & \text { and } \\ & \text { frozen } \end{aligned}$ | Canned | Sal ted | Smoked | Dried | Freshcooked | $\begin{aligned} & \text { Edible } \\ & \text { Oil } \end{aligned}$ | Total |
|  | Ibs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Ibs. |
| Clams | . 158 | . 132 | - | - | - | - | - | . 290 |
| Crabs | . 139 | . 092 | - | - | - | 0.055 | - | . 286 |
| Lobsters, including spiny lobsters | . 036 | . 014 | - | - | - | . 010 | - | . 060 |
| Oysters | . 487 | . 070 | - | - | - | - | - | . 557 |
| Shrimp | . 126 | . 105 | - | - | . 012 | . 013 | - | . 256 |
| Other shellfish | . 091 | . 005 | - | - | - | - | - | . 096 |
| Total shellfish | 1.037 | . 418 | - | - | . 012 | . 078 | - | 1.545 |
| Caught for home use (all species) | 2.000 | - | - | - | - | - | - | 2.000 |
| Grand total | 8.171 | 3.584 | . 972 | . 288 | . 057 | . 078 | .107 | 13.257 |

1/ This article was published in "Fishing Gazette", February, 1935, pp. 9-10.
2) U. S. Bureau of Fisheries Document No. 996 by R. H. Fiedler and J. H. Matthews; Nos. 1026, 1036, and 1039 by R. H. Fiedler; and Economic Circulars Nos. 50 and 52 by L. T. Hopkinson.

3/ U. S. Bureau of Foreign and Domestic Commerce, Domestic Commerce Series No. 38, by E. C. Montgomery and C. H. Kardell.

4/ U. S. Department of Agriculture, Separate from Yearbook, 1934, No. 14i0.
5/ Less than 0.001 pounds.
6/ Included with sardines.

