

Soviet Union and Japan Agree on 1978 Quotas

The Soviet Union and Japan concluded negotiations on their 1978 catch quotas in each other's 200-mile fishery zones late last year in Moscow. Japan's total 1978 allocation in the Soviet zone was set at 850,000 metric tons (t); the Soviet Union's quota in the Japanese zone at 650,000 t. These final quotas, which were disappointingly low for the Japanese, reflected the Soviets' basic position throughout the talks, i.e., the so-called "equivalent principle," or the principle of reciprocity based on roughly equal allocations.

Before the negotiations began on 22 November, the Soviet Ministry of Fisheries said it would be willing to approve as much as 840,000 t for Japanese fishermen in the Soviet zone. The Ministry at that time also proposed a 670,000-t quota for Soviet fishermen in the Japanese zone. These 12-month figures were arrived at by simple extrapolation of the 1977 quotas, which were 700,000 t for Japan during March-December and 335,000 t for the Soviet Union during July-December.

The Soviet Union modified its position during the first week of negotiations, demanding that Japan increase the 1978 quotas for Soviet fishermen to enable them to catch as much as the Japanese in the Soviet zone. On 28 November, the Soviets proposed that Japanese fishermen be allowed to catch only 700,000 t (the same as the March-December 1977 quota) and threatened to reduce Japanese quotas even further if their demand was not met. This tough Soviet demand came in response to the Japanese proposal of a 378,000-t quota for Soviet fishermen, only 43,000 t more than their quota for the last 6 months of 1977.

The failure to agree on a quota formula continued throughout the negotiations. On 13 December, the Soviet Minister of Fisheries Aleksandr Ishkov presented to Japan the final Soviet quota proposal, the 850,000-t and 650,000-t figures which Japan ultimately accepted.

However, on the day the proposal was made, Japan rejected it because the 850,000-t quota represented only about half of the previous maximum catch by Japanese fishermen in Soviet waters, while the 650,000-t quota was roughly equal to the past maximum Soviet catch off Japan. Japan also expressed opposition to extrapolating its 700,000-t March-December quota for 1977 into a 12-month quota for 1978 by adding amounts for January and February only.

Because Japanese vessels were not allowed to fish in the Soviet zone during April and May while negotiations on an interim agreement were in progress, the Japanese felt that the 700,000 t quota should also be adjusted to reflect the ban on fishing during those 2 months.

Unless otherwise noted, material in this section is from the Foreign Fishery Information Releases (FFIR) compiled by Sunee C. Sonu, Foreign Reporting Branch, Fishery Development Division, Southwest Region, National Marine Fisheries Service, NOAA, Terminal Island, CA 90731, or the International Fishery Releases (IFR) or Language Services Daily (LSD) reports produced by the Office of International Fisheries, National Marine Fisheries Service, NOAA, Washington, DC 20235.

When it became evident, however, that the Soviet Union would never agree to the Japanese proposal for a 378,000-t Soviet quota in the Japanese zone and would not consider a revision of its own quota proposal based on the "equivalent principle," Japan informed the Soviet Union on 15 December that it would accept the Soviet figures. This decision was also influenced by the fact that Japanese fishermen would not be able to begin operations in the Soviet zone in early 1978, if the Soviet proposal were rejected.

Japanese Agriculture and Forestry Ministry officials stated on the night of 15 December that it was inevitable for Japan to agree to the Soviet proposal, although they were disappointed with the results. Japan's 850,000-t allocation represents a 45 percent decrease from its 1976 catch of 1,538,000 t, while the Soviet allocation of 650,000 t is only about 2 percent less than their 1976 catch.

The exchange of letters on the overall quotas was conducted on 16 December. A protocol on the 7-year extension of the two Soviet-Japanese interim agreements, which was negotiated in October, was also signed. That evening specific species quotas were worked out by the two countries.

JAPAN'S ALLOCATIONS

Over 40 percent, of 345,000 t, of Japan's total allocation in the Soviet zone is Alaska pollock (Table 1). The Soviet Union originally proposed a pollock quota of 260,000 t, but increased it to the present level during negotiations on 16 December. Despite the increase, the 345,000-t quota is still less than one-third of the 1,073,000 t caught in 1976.

For other principal species, the Japanese quota for ocean perch was increased to 22,000 t from 4,000 t in 1976 and for cod to 44,700 t from 38,000 t. The quota for squid was set at 146,400 t and for saury at 68,600 t.

The 4,100-t quota for crab (hair, brown king, and tanner) was reduced sharply from the 5,300 t permitted during June-December 1977 and the

Table 1.—Japan's 1978 quotas in seven fishing areas within the Soviet 200-mile zone (in metric tons).

Species	Areas ¹							Total quota 1978	Actual catch 1976	1978 quota as % of 1976 catch
	1	2	3	4	5	6	7			
Pollock	—	199,900	2,700	—	—	65,500	76,900	345,000	1,073,000	32
Squid	—	38,200	2,000	—	—	2,000	104,200	146,400	111,000	132
Sand lance	—	—	—	63,500	—	—	1,700	65,200	42,000	154
Flounders	—	21,900	1,900	—	—	1,000	5,500	30,300	68,000	45
Ocean perch	—	21,800	200	—	—	—	—	22,000	4,000	550
Cod	—	31,000	4,900	—	—	100	8,700	44,700	38,000	118
Wachna cod	—	13,900	—	—	—	1,500	100	15,500	13,000	119
Atka mackerel	—	2,400	500	1,000	—	300	6,800	11,000	43,000	26
Shrimp	—	—	—	—	—	—	500	500	7,000	7
Saury	—	66,600	1,000	—	—	1,000	—	68,600	39,000	176
Octopus	—	1,600	800	200	—	—	900	3,500	n.a.	—
Other fish	—	67,700	1,500	2,400	—	1,500	7,700	80,800	69,000	117
Red tanner crab	—	—	—	—	—	—	2,300	2,300	5,000	46
Crabs	—	—	—	800	800	2,500	—	4,100	16,000	26
Snail	21,800	—	—	—	—	2,700	—	2,500	4,000	62
Tuna and skipjack	—	6,400	—	—	—	—	—	6,400	6,000	107
Sharks ⁴	—	1,200	—	—	—	—	—	1,200	n.a.	—
Total	1,800	472,600	15,500	67,900	800	76,100	215,300	850,000	1,538,000	55

¹See Table 2 and Figure 1.

²Shucked

³With shell

⁴Excluding dogfish shark

Source: Regional Fisheries Attache, U.S. Embassy, Tokyo.

16,000 t caught in 1976. The species breakdown is: hair crab, 800 t; brown king crab, 800 t; and tanner crab, 2,500 t. The 1978 quota for red tanner crab is 2,300 t, a decrease of 46 percent from the 5,000 t caught in 1976.

Japan received no quota for herring in 1978. Following the conclusion of the first interim agreement in May 1977, the Soviet Union banned Japanese fishing for herring in its waters. This ban has been extended

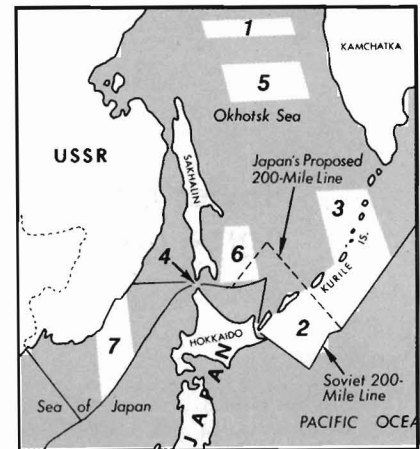


Figure 1.—Areas open to Japanese fishing in 1978, per Russian-Japanese accord: 1) Northern Okhotsk Sea; 2) Kuriles, Pacific side; 3) Kuriles, Okhotsk side; 4) Nijo-Iwa, northern Hokkaido; 5) Okhotsk Sea; 6) East Sakhalin; 7) Sea of Japan, Primorskaya.

through December 1978. Negotiations on high-seas salmon fishing were to be conducted in early 1978.

Japan was permitted to deploy a total of 6,546 fishing vessels in specific areas in the Soviet zone in 1978 (Table 2, Fig. 1). According to press reports, the number of coastal fishing vessels was reduced by 27. An additional 20 vessels

Canadian Fish Hatchery Utilizes Solar Energy

Use of solar energy to heat the water of a Federal Government fish hatchery is being tried by the Canadian Department of Fisheries and the Environment, that agency reports. Scheduled for full operation by the end of May, the solar project was installed at the Fisheries and Marine Service's Experimental Fish Hatchery in the municipality of Rockwood in Manitoba's Interlake region.

Representing the first practical application of solar energy in a Federal Government facility, the installation is expected to supply 70 percent of the annual heating needs of the hatchery, which raises fish for research purposes. Normally,

groundwater at a constant temperature is pumped into the hatchery and then heated electrically to accelerate growth rates of the fish.

"We feel there is a potential for widespread application of this heating method by commercial and government hatcheries throughout North America," said Canada's Fisheries Minister Roméo LeBlanc. "Similar concepts may be tried at other Federal Government fish hatcheries in the near future." An attractive feature of the project is that the life cycle costs of the proposed system are expected to be lower than those of a conventional heating system.

A call for tenders for the required 1,250 square feet of flat plate solar collector for the hatchery project went out to leading Canadian manufacturers. This was in keeping with the Federal Government's objectives to develop a strong solar energy manufacturing industry in Canada. Actual installation was carried out by the hatchery staff. Preliminary research and design for the project was carried out by a departmental energy conservation consultant. A \$40,000 grant from the Renewable Energy Policy Branch of the Department of Energy, Mines, and Resources enabled the project to get off the drawing board.

were reportedly cut out by the agreement, eliminating a potential crab catch of 500 t off the eastern Kurile Islands. Newly permitted were 301 vessels for the tuna fishery and 26 vessels for the shark fishery.

RUSSIA'S ALLOCATIONS

Almost 50 percent of the Soviet Union's total allocation in the Japanese zone is sardine and mackerel. The 318,000-t quota is an 11 percent increase over the actual 1976 catch of these species (Table 3). Soviet quotas for itohikidara and sand lance were set at the same levels as the 1976 catch, while the 80,000-t pollock quota is 54 percent less than the 174,000 t caught in 1976. Under the agreement, the Soviet Union may deploy up to 503 vessels in the Japanese zone in 1978.

REACTIONS TO ALLOCATIONS

Fishermen in northern Japan, who in recent years have supplied from the Soviet zone about 15 percent of Japan's total catch, appear to have accepted the

Table 2.—Species allocated to Japanese fishermen in seven fishing areas within the Soviet 200-mile zone, 1978.

Fishing Area	Species
1. Northern Okhotsk Sea 57°30'N-58°30'N and 146°10'E-154°0'E	Snail
2. Kuriles, Pacific side West of 155°N including the four disputed islands	Flounders, ocean perch, Wachna cod, cod, saury, octopus, squid, pollock, etc.
3. Kuriles, Okhotsk side South of 50°N including the off the coasts	Cod, pollock, flounders, squid, saury, and octopus
4. Nijo-Iwa, northern Hokkaido	Sand lance and hair crab
5. Okhotsk Sea 54°-56°N and 147°E-153°E	Brown king crab
6. East Sakhalin 45°40'-50°N and a line connecting 146°N, Cape Aniwa and Cape Kita Shiretoko. 45°40'N-49°0'N and a line connecting 146°10'N-Cape Aniwa and Cape Kita Shiretoko	Tanner crab and snail Other fish, pollock, etc.
7. Japan Sea, Primorskaya South of a line connecting Cape Berkina and a point 12 miles south of Cape Notoro on West Sakhalin, and East of 135°E. West of 135°E	Other fish, pollock, squid, flounders, cod, atka mackerel Red tanner crab and squid

Source: Regional Fisheries Attache, U.S. Embassy, Tokyo.

Table 3.—Russia's 1978 quotas within the Japanese 200-mile zone (in metric tons).

Species	Okhotsk Sea	Pacific Ocean	Total quota 1978	Quota Jul.-Dec. 1977	Actual catch 1976	1978 quota as % of 1976 catch
Sardine and mackerel	—	318,000	318,000	200,000	287,000	111
Pollock	—	80,000	80,000	30,000	174,000	46
Itohikidara (Remonema)	—	138,000	138,000	58,000	138,000	100
Saury	—	20,000	20,000	10,000	n.a.	—
Sand lance	30,000	—	30,000	4,500	30,000	100
Other	3,000	61,000	64,000	32,500	36,000	178
Total	33,000	617,000	650,000	335,000	665,000	98

Source: Regional Fisheries Attache, U.S. Embassy, Tokyo.

Soviet zone as a fact of life. Their criticism of this latest Japanese-Soviet fishery agreement has focused on the Japanese Government's inability to obtain more than a 850,000-t overall quota. They are particularly dissatisfied with the pollock, crab, and shrimp quotas, which are expected to result in the idling of about 60 vessels, mainly from Hokkaido¹. They are also unhappy over the Government's failure to gain increased access to fishing grounds in the Soviet zone, without which they fear that Japanese vessels may have difficulty catching enough fish to fill their quota allotments. Furthermore, there has been grumbling in industry circles that, by agreeing to a 650,000-t Soviet quota in Japan's 200-mile zone, the Government conceded more than it gained in the negotiations.

¹For additional information on the impact of reduced catches in the Soviet 200-mile zone, request IFR-78/4R "Fisheries in Hokkaido" from NMFS Statistics and Market News Offices.

Despite these customary complaints about the "weakness" of the government's fishery diplomacy, Hokkaido fishing industry leaders seem much less worried than they did after last May's interim agreement. One reason is that the May agreement, which led to the idling of 350 Hokkaido fishing vessels, was potentially far more damaging than the current one. Another is that the industry is apparently more confident this time that emergency government loans and compensation payments will adequately cushion Hokkaido fishermen forced out of the Soviet zone.

Ironically, there are also expectations that, due largely to reduced catches in Soviet waters, fish prices will remain high enough this year to sustain the prosperity of the island's fishing industry².

²For additional information on the impact of rising prices on the Japanese fishing industry request IFR-78/16 "Major Japanese Fishing Firms Profit in 1977" from NMFS Statistics and Market News Offices.

Canada, Alaska, Russia Sea Urchin Roe Eyed

Japanese trading firms are reportedly eyeing Alaska and Canada, along with the Soviet Union, as possible additional sources of supply for fresh sea urchin roe for which an expanding consumer demand is projected at home, according to a trade journal analysis in Tokyo. Fresh sea urchin roe, a delicacy traditionally reserved for sushi bars and high-class restaurants in Japan, has re-

cently begun to appear at retail food stores and supermarkets, and this trend is expected to strengthen in the future.

The United States and South Korea have been two major foreign suppliers of fresh sea urchin roe to Japan, and recently Mainland China and Australia have emerged as new suppliers. (Source: Foreign Fishery Information Release 78-5.)

Regional press reaction to the agreement has also been comparatively restrained. While acknowledging that the fishing industry faces formidable difficulties, newspaper commentary has conspicuously avoided describing these difficulties as a "crisis." This attitude appears to reflect a growing public perception that, contrary to earlier predictions in the press, the region's fishing industry has been enjoying unprecedented prosperity since last summer, partly at the expense of the consumer.

Fishermen, like most large processors and wholesalers, are generally seen as reaping windfall profits by taking advantage of high fish prices, generous government aid, unusually good catches in Japanese coastal waters, and extensive fish stockpiling before the implementation of the Soviet 200-mile law.

The northern Japan reaction, or lack of it, suggests that the sense of crisis engendered by the establishment of the Soviet 200-mile zone last year has now largely dissipated both among the industry and general public. Soviet fishing restrictions will continue to arouse regional concern, for example, during the upcoming salmon negotiations.

Nevertheless, there appears to be a growing feeling that the region's fishing industry can survive these restrictions in the short run, and that over the longer run the industry's viability will depend less on the probably futile effort to maintain traditional catch levels in the Soviet zone than on developing Japan's own coastal fishing resources and promoting aquaculture. (Source: International Fishing Release 78/17.)

Tuna Fishing Booms in Indian Ocean

Good tuna fishing spread over the entire Indian Ocean to include not only the traditional albacore and yellowfin fishing grounds northeast and east of Madagascar but also the Bay of Bengal and other eastern regions of the Ocean,

earlier this year. Catches were reportedly ranging from an average 3 to 3.5 tons of mainly yellowfin tuna a day per vessel by South Korean vessels which reportedly numbered at least 130, to an average 1.5 to 2 tons of mainly albacore tuna a day per vessel by Taiwanese vessels which numbered nearly 100.

Yellowfin tuna was being shipped mainly to Italy at around US\$1,400 a metric ton, C&F Italy, while albacore was being shipped mainly to Puerto Rico at around US\$1,280 a metric ton, FOB local bases in the Indian Ocean, and at between US\$1,450 and 1,500 a short ton, C&F Puerto Rico. Shipments to Japan were also reportedly on the rise.

The tuna fishing boom in the Indian Ocean started last summer and was then running into its ninth month, in contrast to the extremely poor fishing for tuna in the Atlantic Ocean, particularly for albacore in the north Atlantic, which began during the latter half of last year. (Source: Foreign Fishery Information Release 78-4.)

Norway's Sales of Dried Fish Decline

Dried fish (tørrfisk or stockfish) is one of Norway's oldest trading goods, dating back to Viking times when on their various excursions it was carried as both a source of food and a bartering good, according to Norinform, the Norwegian Information Service. Last year Norway exported about 12,000

tons of dried fish, a 35 percent drop from the previous year and mainly due to a loss of considerable parts of the Nigerian market. There was an increase in internal consumption of dried fish which was mainly used for making "lutefisk," the dried fish being treated in a lye solution. The rest of the production that had been intended for export was stockpiled and early this year stores in Norway amount to about 20,000 tons.

In 1976 the total export of dried fish amounted to about 18,400 tons worth about 415 million NOK. Nearly two-thirds of this went to Nigeria. The next largest market was Italy, taking 4,200 tons and then Sweden, Finland, and Yugoslavia. Last year, exports to Nigeria dropped to about 5,000 tons following a decision of the Nigerian authorities to put more emphasis on the import of capital goods rather than consumer goods.

The dried fish (tørrfisk) referred to above is often called "stockfish" and is quite often confused with another form of dried fish called in Norwegian "klippfisk." Tørrfisk is unsalted, air-dried cod. It is decapitated, cleaned, and hung to dry on racks. Klippfisk known often as "bacalao" is decapitated, cleaned, and the backbone is removed. The two fillets are joined thus only in the back and when spread out, cause the dried fish to take on the characteristic triangular shape. It is strongly salted, goes through a maturing process, is re-cleaned and resalted and then dried in modern drying plants.

Japanese Firms Compete for East Coast Bluefin Tuna

Earnest competitions were reportedly under way early this year among the Japanese fishery and trading firms vying for larger shares of the U.S. and Canadian east coast bluefin tuna, so-called "jumbo bluefin tuna," which they will airlift to Japan this summer and fall.

The intense competition this year reportedly stems from the expectation that the supply of fresh east coast bluefin tuna this year will not surpass last year's level by a wide margin. Last year, competitions among the Japanese buyers drove the ex-vessel prices as high as C\$7/pound. Last year's purchase by Japanese firms, totaling about 1,000 tons for 3,300 fish worth ¥1,615 million (US\$6 million at ¥269=US\$1), consisted of about 2,000 and 500 naturally grown fish respectively from the United States and Canada, along with about 700 corral-grown fish. (Source: Foreign Fishery Information Release 78-5.)

Canada's 1977 Atlantic Coast Landings Increase

Canada's 1977 Atlantic region fisheries catch totaled almost 900,000 t, a slight increase from 1976 (Table 1). Total ex-vessel values rose by about 14 percent, reflecting generally higher prices, especially for groundfish species like cod.

Against this background of stable landings and rising ex-vessel values, the results were uneven, depending on the species. Groundfish and shellfish landings rose appreciably, while landings of pelagic and estuarine species declined, mainly due to a decrease of 53,000 t in herring landings. In the groundfish sector, cod and turbot ac-

counted for practically all of the increase, while, among crustaceans and mollusks, squid landings rose by 20,000 t, almost three times the 1976 level.

The overall increase of almost 14 percent in ex-vessel values to C\$250 million in 1977 was due primarily to strong prices for groundfish. The total ex-vessel value for cod alone was about C\$16.5 million greater than in 1976, and accounted for about 55 percent of the total increase in ex-vessel values for all Atlantic coast fisheries. Herring prices were much higher than in previous years, and despite the large decrease in landings the total ex-vessel value of the herring fishery increased by more than C\$2 million. On the other hand, the general upward trend in prices did not apply to the key species in the shellfish sector. Lobster prices were stable and scallop prices declined appreciably. Both of these fisheries depend heavily on the exports to the United States. In 1977, the scallop landings increased by more than 10,000 t over 1976, thus contributing to unusually heavy supplies in the U.S. market and depressing prices.

The small increase in overall landings, considerably less than the increase in the quantity of fish landed in 1977 by U.S. New England fishermen, was not unexpected. Unusually severe winter weather in the early months of 1977 made fishing operations difficult for the smaller fishing vessels, and it was not until the end of the year that the landing figures caught up with and surpassed by a small amount the results for 1976. Moreover, the Government's conservation policies, especially as they applied to certain traditional fisheries in the Gulf of St. Lawrence and off Nova Scotia, placed severe limits on directed fishing for over-exploited species. Landings of redfish and herring, for example, will take years to increase by an appreciable quantity. Haddock landings will also remain stable for some years.

The economic return of Canada's Atlantic Coast fisheries during the first year of extended jurisdiction gave more cause for optimism. Total ex-vessel values increased by C\$30 million, and

except for the major shellfish species, the trend was fairly widespread. Particularly encouraging was the improvement in squid and herring prices, both fisheries which the Government has made substantial efforts to modernize and help develop for export markets.

Nonetheless the economic value of Canada's Atlantic Coast fisheries remains heavily dependent on three species: cod, lobster, and scallops. The 1977 values of these three fisheries accounted for about 57 percent of total landed values for all Atlantic fisheries. This is significant because, despite the 1977 increases in cod and scallop landings, all three species are highly exploited and managed by strict conservation measures. Substantial and sustained increases in cod, scallop, and lobster landings in coming years are unlikely, with the possible exception of cod if the Canadians develop the fleet capacity to fish the cod stocks in the northern waters off northern Newfoundland and Labrador. (Source: International Fishery Release 78/48.)

Table 1.—Canadian Atlantic Coast landings, by quantity (metric tons) and value (C\$1,000), in 1976 and 1977.

Species	1976		1977 ¹	
	Quantity	Value	Quantity	Value
Groundfish				
Catfish	4,111	503	3,864	548
Cod	193,548	42,995	229,912	59,379
Cusk	3,218	662	3,283	732
Flounder and sole	110,369	20,385	108,629	22,874
Haddock	19,324	8,143	24,858	10,561
Hake	10,580	1,721	10,214	1,815
Halibut	1,322	2,135	1,462	2,264
Pollock	23,239	3,362	21,643	3,413
Redfish	89,652	11,445	64,534	9,485
Turbot	11,515	1,897	22,734	4,435
Other	2,777	341	3,576	377
Total	469,655	93,589	494,709	115,883
Pelagic and Estuarine				
Alewives	7,577	714	9,139	843
Capelin	9,957	323	10,507	544
Eels	604	701	628	910
Herring	225,386	15,821	172,329	18,020
Mackerel	15,756	2,083	19,202	2,148
Salmon	2,195	4,270	2,115	5,438
Smelts	2,153	591	1,806	511
Swordfish	61	97	113	207
Tuna	7,036	4,751	6,287	5,549
Other	2,237	303	2,596	681
Total	272,962	29,654	224,722	34,859
Shellfish				
Clams	2,395	987	2,843	1,042
Crabs	10,840	4,769	14,372	7,367
Lobsters	16,079	46,047	15,270	44,016
Oysters	1,112	523	917	507
Scallops	93,400	38,881	105,052	38,901
Shrimps	5,018	3,196	6,157	4,053
Squid	10,951	1,084	30,221	3,359
Other	647	162	438	109
Total	140,442	95,649	175,270	99,354
Viscera, tongues, and scales				
	2,646	1,311	1,876	557
Total	885,705	220,203	896,577	250,645

¹The 1977 figures are preliminary.

Source: Canada, Ministry of Industry, Trade, and Commerce, *Statistics Canada*, Monthly Review of Canadian Fisheries Statistics, December 1977.

Elver Sale Sets Record in Japan

A 12kg shipment of elvers into Japan early this year from Fukien Province of Mainland China set an all-time record for the import price of this product at ¥240,000/kg (US\$464/pound at ¥235=US\$1), C&F Haneda, Japan. This may be compared with the last year's high of ¥190,000/kg (US\$365/pound) for imported elver from Mainland China. Japan's lagging domestic harvest of elvers this season has given rise to a strong buying interest for foreign elvers. Informed sources are predicting approximately 300,000 tons of elvers from domestic production this year, down about 19 percent from the 370,000 tons harvested last year. (Source: Foreign Fishery Information Release 78-4.)