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## ALBACORE FISHERIES, TRADE, AND MARKET OF JAPAN, 2005

Sunee C. Sonu

NOAA-TM-NMFS-SWR-043

U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Southwest Region

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## **NOAA Technical Memorandum NMFS**

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## EXECUTIVE SUMMARY

Fisheries for albacore, *Thunnus alalunga*, continue to be important throughout the world, with a total catch of more than 200,000 metric tons (mt) per year since 1996. Of more than 49 nations that reported albacore landings in 2004, four countries accounted for the majority of the catch with Japan ranked highest with 34 percent of the total. Taiwan, the world's largest producer during 1977, 1982-1983, and 1985-1993, was second with 21 percent. Spain and the United States each harvested 7 percent of the world total.

Between 57 and 66 percent of world catches of albacore from 1998 through 2004 occurred in the Pacific Ocean, followed by the Atlantic Ocean (22 to 28 percent) and the Indian Ocean (10 to 18 percent). While more than 23 nations that reported Pacific albacore landings in 2004, Japan accounted for the majority of the catches of Pacific albacore -approximately 47 percent in 2004. Taiwan and the United States respectively landed about 14 and 10 percent of the total catch. Most of the Pacific catch of albacore, between 32 and 58 percent from 1998 through 2004, occurred in the northwestern sector. Japan harvested about 97 percent of the total northwest Pacific catch in 2004.

Japan is the world's largest market for albacore, utilizing an average of 77,000 mt during 1998-2005. Supply for this market comes from both domestic catch and imports. The share of the Japanese market for albacore supplied by imports increased from 2 percent in 2002 to 9 percent in 2005. In 2005, imports were worth \$22 million. Frozen products dominated, representing 97 percent in volume and 95 percent in value in 2005. Japanese imports of frozen albacore from the United States in 2005 were 1,702 mt valued at \$6.2 million, an increase of four times in quantity and seven times in value over 2003 imports.

Factors which influenced the recent rise in albacore imports to Japan are: decreasing catches by Japan's own fishing fleet, increasing demand for gourmet food, and the appreciation of the Japanese yen relative to U.S. dollar.

Japan regulates imports of albacore products with import tariffs. As the United States and Japan are signatories to the World Trade Organization (WTO), WTO tariffs apply to imports of albacore products from the U.S.

Albacore is sold through auctions at consumer wholesale markets located in consumption areas, and at production wholesale markets located at Japanese ports of landing. Albacore is also sold directly to processors and supermarket chains. Between 1999 and 2005, the wholesale prices at major markets for both fresh and frozen albacore showed fluctuations which were influenced mainly by volume of supply, usually, the lower the supply, the higher the price, and vice versa.

## INTRODUCTION

Japan, the world's largest harvester as well as consumer of albacore, relies mainly on landings by her own fleet. Recently, however, decreasing domestic catches have forced Japan to increase imports of albacore.

Frozen albacore from the United States has found a market niche in Japan. In 2005, Japan imported \$6.2 million of frozen albacore from the United States. Presently, the United States is the second largest supplier of frozen albacore to Japan.

Japan is a major export market for U.S. albacore, accounting for 16 percent in volume and 21 percent of U.S. exports of albacore in 2005 (U.S. Department of Commerce 2006).

This report provides a detailed examination of the world albacore fisheries, as well as Japan's fishery, import, export, supply, demand, and market, in order to identify potential opportunities for export of U.S. producers<sup>1</sup>.

## WORLD ALBACORE FISHERIES

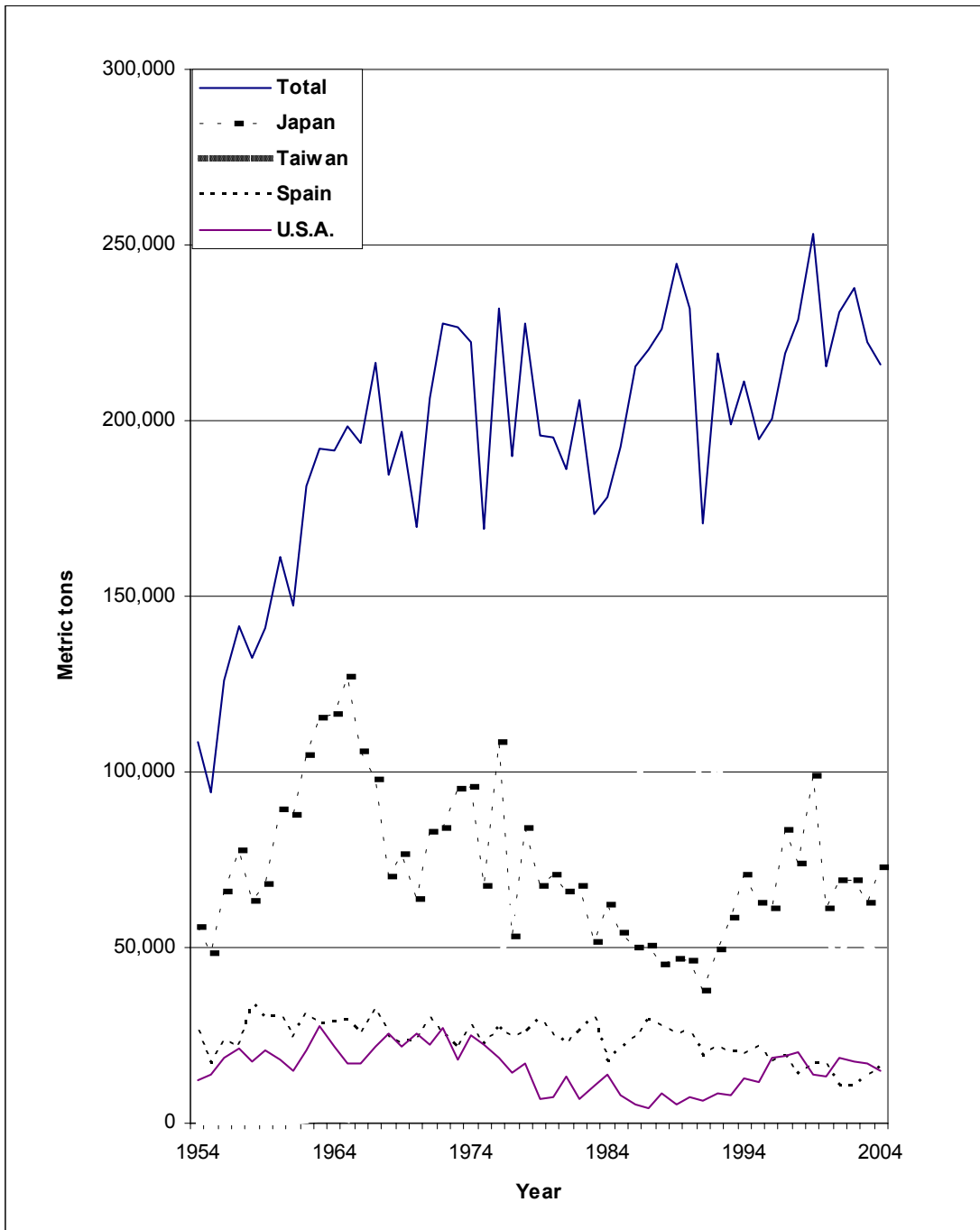
The total world catch of albacore doubled from 108 thousand metric tons (mt) in 1954 to 216 thousand mt in 2004 (Figure 1). Total catch of albacore by all nations reached a high of 253 thousand mt in 1999, with Japan landing 39 percent of the fish (Table 1 and Figure 1). Of more than 49 nations that reported albacore landings in 2004, four countries accounted for the majority of the catch with Japan ranked highest with 34 percent of the total. Taiwan, the world's largest producer during 1977, 1982-1983, and 1985-1993, was second with 21 percent (Table 1 and Figure 1). Spain and the United States each harvested 7 percent of the world total (Table 1, Figure 1).

The global increase in albacore landings during recent years has been due to increased catches by countries other than these four major harvesting countries. Countries with substantial increases in albacore landings from 1998 to 2004 are Fiji Islands, China, Canada, Indonesia, Italy, Namibia, and American Samoa. Combined albacore landings by these seven countries rose from 7,258 mt in 1998 to 37,805 mt in 2004, more than a five-time increase over this period.

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<sup>1</sup> This report is not intended for management purposes.





Source: FAO 2006

Figure 1. Annual landings of albacore by major countries, 1954-2004 (metric tons).

**Table 1. World albacore catch, 1984-2004 (metric tons).**

|                              | 1984           | 1985           | 1986           | 1987           | 1988           | 1989           | 1990           |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Japan                        | 62,164         | 54,137         | 49,927         | 50,333         | 45,243         | 46,616         | 46,105         |
| Taiwan                       | 54,995         | 66,400         | 96,331         | 104,879        | 114,930        | 135,855        | 125,594        |
| Spain                        | 17,520         | 21,502         | 24,587         | 29,017         | 27,810         | 25,424         | 26,021         |
| U.S.A.                       | 13,711         | 8,205          | 5,251          | 4,324          | 8,644          | 5,491          | 7,511          |
| Fiji Islands                 | -*             | -              | -              | -              | -              | 3              | 68             |
| China                        | -              | -              | -              | -              | -              | -              | 4              |
| Canada                       | 47             | 25             | 2              | 42             | 341            | 396            | 541            |
| Indonesia                    | 314            | 323            | 56             | 287            | 336            | 424            | 370            |
| South Africa                 | 3,540          | 6,697          | 5,930          | 7,275          | 6,570          | 6,890          | 5,305          |
| New Zealand                  | 2,773          | 3,253          | 1,911          | 1,265          | 672            | 4,884          | 3,011          |
| Italy                        | 1,942          | 3,348          | 3,208          | 3,433          | 3,529          | 3,529          | 1,191          |
| Namibia                      | -              | -              | -              | -              | -              | -              | -              |
| France                       | 3,201          | 2,625          | 1,426          | 2,316          | 3,037          | 4,087          | 3,456          |
| American Samoa               | .**            | .              | .              | .              | 1              | .              | .              |
| French Polynesia             | .              | .              | .              | .              | .              | 102            | 319            |
| Korea, Rep. of               | 8,339          | 17,661         | 19,550         | 9,353          | 7,647          | 5,589          | 3,695          |
| Papua New Guinea             | -              | -              | -              | -              | -              | -              | -              |
| Cook Islands                 | .              | .              | .              | .              | .              | .              | .              |
| New Caledonia                | 112            | 131            | 179            | 563            | 584            | 566            | 1,053          |
| Samoa                        | 1,800          | 1,478          | 1,290          | 1,250          | 1,020          | 735            | 223            |
| Seychelles                   | -              | -              | -              | -              | -              | -              | -              |
| Vanuatu                      | 400            | 1,012          | 691            | 645            | 580            | 510            | 450            |
| Greece                       | -              | -              | 484            | 500            | 500            | 500            | 500            |
| Australia                    | 28             | 4              | -              | 130            | 107            | 123            | 51             |
| Brazil                       | 732            | 386            | 524            | 399            | 421            | 435            | 514            |
| Venezuela                    | 1,076          | 467            | 172            | 26             | 137            | 41             | 95             |
| Reunion                      | 14             | 11             | 12             | 13             | 16             | 15             | 15             |
| Portugal                     | 1,516          | 2,014          | 1,527          | 1,332          | 1,337          | 726            | 3,917          |
| Solomon Islands              | 19             | 12             | .              | .              | .              | .              | .              |
| Cyprus                       | -              | -              | -              | -              | -              | -              | -              |
| Ireland                      | -              | -              | -              | -              | -              | -              | 40             |
| Morocco                      | -              | -              | -              | 41             | -              | -              | -              |
| Uruguay                      | 526            | 1,531          | 262            | 178            | 100            | 83             | 55             |
| Tonga                        | 135            | 174            | 206            | 252            | 242            | 195            | 152            |
| Saint Vincent/<br>Grenadines | -              | -              | -              | -              | -              | -              | -              |
| Mexico                       | 113            | 49             | 3              | 7              | 15             | 2              | 2              |
| Syrian Arab Rep.             | -              | -              | -              | -              | -              | -              | -              |
| Thailand                     | -              | -              | -              | -              | -              | -              | -              |
| Turkey                       | -              | -              | -              | -              | -              | -              | -              |
| Grenada                      | -              | -              | -              | -              | -              | -              | -              |
| Mauritius                    | -              | -              | -              | 45             | 41             | 56             | 28             |
| Trinidad and Tobago          | -              | -              | -              | -              | -              | -              | 4              |
| Malta                        | -              | -              | -              | -              | -              | -              | -              |
| Chile                        | 24             | 170            | 149            | 3              | -              | 90             | 306            |
| Barbados                     | -              | -              | -              | -              | -              | -              | -              |
| Saint Lucia                  | -              | -              | -              | 1              | <0.5           | <0.5           | <0.5           |
| Philippines                  | -              | -              | -              | -              | -              | -              | -              |
| Saint Helena                 | 9              | -              | -              | 2              | 1              | 1              | 1              |
| Bermuda                      | -              | -              | -              | -              | -              | -              | -              |
| Others                       | 3,020          | 934            | 1,946          | 2,168          | 2,009          | 1,365          | 1,545          |
| <b>Total</b>                 | <b>178,070</b> | <b>192,549</b> | <b>215,624</b> | <b>220,079</b> | <b>225,870</b> | <b>244,733</b> | <b>232,142</b> |

**Table 1 (continued). World albacore catch, 1984-2004  
(metric tons).**

|                              | 1991           | 1992           | 1993           | 1994           | 1995           | 1996           | 1997           |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Japan                        | 37,664         | 49,246         | 58,266         | 70,890         | 62,543         | 61,059         | 83,592         |
| Taiwan                       | 83,413         | 102,921        | 70,347         | 65,471         | 56,467         | 58,408         | 55,205         |
| Spain                        | 19,126         | 21,802         | 20,357         | 19,820         | 21,690         | 17,737         | 18,961         |
| U.S.A.                       | 6,590          | 8,388          | 7,903          | 12,779         | 11,855         | 18,669         | 18,907         |
| Fiji Islands                 | 208            | 243            | 463            | 842            | 702            | 1,446          | 1,842          |
| China                        | <0.5           | <0.5           | 1              | 22             | 13             | 28             | 2              |
| Canada                       | 384            | 748            | 795            | 856            | 1,038          | 617            | 260            |
| Indonesia                    | 305            | 509            | 440            | 604            | 684            | 1,300          | 1,561          |
| South Africa                 | 3,411          | 6,360          | 6,883          | 6,932          | 5,216          | 5,634          | 6,708          |
| New Zealand                  | 2,615          | 3,794          | 3,613          | 6,352          | 6,423          | 7,150          | 3,614          |
| Italy                        | 1,191          | 1,464          | 1,275          | 1,107          | 1,109          | 1,769          | 1,426          |
| Namibia                      | -              | 2,241          | 3,524          | 3,075          | 1,861          | 1,521          | 1,199          |
| France                       | 5,188          | 8,786          | 7,231          | 6,378          | 5,739          | 5,275          | 5,200          |
| American Samoa               | 1              | .              | <0.5           | 1              | 27             | 86             | 309            |
| French Polynesia             | 426            | 267            | 959            | 913            | 1,100          | 1,750          | 2,717          |
| Korea, Rep. of               | 1,801          | 222            | 105            | 109            | 74             | 716            | 1,944          |
| Papua New Guinea             | -              | -              | -              | -              | 6              | 38             | 101            |
| Cook Islands                 | .              | .              | .              | 23             | 32             | 5              | 5              |
| New Caledonia                | 909            | 692            | 755            | 840            | 332            | 414            | 277            |
| Samoa                        | 211            | 922            | 213            | 641            | 1,883          | 1,775          | 4,108          |
| Seychelles                   | -              | -              | -              | -              | -              | -              | -              |
| Vanuatu                      | 380            | 310            | 240            | 180            | 109            | 192            | 95             |
| Greece                       | 500            | 500            | 1              | 1              | <0.5           | 952            | 741            |
| Australia                    | 310            | 253            | 329            | 478            | 428            | 472            | 340            |
| Brazil                       | 1,113          | 2,710          | 3,613          | 1,227          | 923            | 819            | 652            |
| Venezuela                    | 319            | 205            | 246            | 282            | 279            | 315            | 49             |
| Reunion                      | 41             | 55             | 120            | 175            | 163            | 347            | 306            |
| Portugal                     | 790            | 1,822          | 3,868          | 2,159          | 7,125          | 2,128          | 651            |
| Solomon Islands              | .              | .              | .              | .              | 24             | 100            | 109            |
| Cyprus                       | -              | -              | -              | -              | -              | -              | -              |
| Ireland                      | 60             | 451            | 1,946          | 2,534          | 918            | 874            | 1,913          |
| Morocco                      | -              | -              | -              | -              | -              | -              | -              |
| Uruguay                      | 34             | 31             | 28             | 16             | 49             | 75             | 56             |
| Tonga                        | 171            | 199            | 231            | 343            | 379            | 431            | 493            |
| Saint Vincent/<br>Grenadines | -              | -              | 2              | <0.5           | <0.5           | -              | -              |
| Mexico                       | 2              | 10             | 11             | 6              | 5              | 21             | 53             |
| Syrian Arab Rep.             | -              | -              | -              | -              | -              | -              | -              |
| Thailand                     | -              | -              | -              | -              | -              | -              | -              |
| Turkey                       | -              | -              | -              | -              | -              | -              | -              |
| Grenada                      | -              | -              | <0.5           | <0.5           | 2              | 1              | 6              |
| Mauritius                    | 20             | 2              | 2              | 2              | 2              | 2              | 7              |
| Trinidad and Tobago          | -              | 247            | .              | .              | .              | .              | 2              |
| Malta                        | -              | -              | -              | -              | -              | -              | 1              |
| Chile                        | 170            | 18             | 19             | 22             | 15             | 21             | -              |
| Barbados                     | -              | -              | -              | -              | -              | -              | 1              |
| Saint Lucia                  | <0.5           | 1              | 1              | <0.5           | 1              | 1              | <0.5           |
| Philippines                  | -              | -              | -              | -              | -              | -              | -              |
| Saint Helena                 | 5              | 28             | 38             | 5              | 82             | 47             | 18             |
| Bermuda                      | -              | -              | -              | -              | -              | -              | 1              |
| Others                       | 3,398          | 3,480          | 4,929          | 6,103          | 5,337          | 8,435          | 5,539          |
| <b>Total</b>                 | <b>170,756</b> | <b>218,927</b> | <b>198,754</b> | <b>211,188</b> | <b>194,635</b> | <b>200,630</b> | <b>218,971</b> |

**Table 1 (continued). World albacore catch, 1984-2004  
(metric tons).**

|                              | 1998           | 1999           | 2000           | 2001           | 2002           | 2003           | 2004           |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Japan                        | 73,756         | 99,027         | 61,249         | 69,196         | 68,888         | 62,890         | 72,624         |
| Taiwan                       | 59,868         | 64,302         | 51,668         | 45,458         | 58,526         | 49,936         | 46,141         |
| Spain                        | 13,877         | 16,950         | 16,932         | 10,453         | 10,455         | 13,474         | 15,716         |
| U.S.A.                       | 20,273         | 14,093         | 13,504         | 18,647         | 17,588         | 17,278         | 14,948         |
| Fiji Islands                 | 2,121          | 2,279          | 6,065          | 7,971          | 8,026          | 6,881          | 11,290         |
| China                        | 1              | 3,722          | 3,403          | 4,968          | 4,514          | 7,350          | 6,901          |
| Canada                       | 328            | 600            | 3,008          | 3,319          | 3,752          | 2,545          | 5,551          |
| Indonesia                    | 1,461          | 1,707          | 2,659          | 2,865          | 2,628          | 4,831          | 4,565          |
| South Africa                 | 8,419          | 5,102          | 3,636          | 7,257          | 6,574          | 3,543          | 4,558          |
| New Zealand                  | 6,525          | 3,903          | 4,500          | 5,353          | 5,645          | 6,744          | 4,455          |
| Italy                        | 1,472          | 2,561          | 3,630          | 2,882          | 4,071          | 6,973          | 3,699          |
| Namibia                      | 1,429          | 1,162          | 2,418          | 3,419          | 2,962          | 3,152          | 3,328          |
| France                       | 4,216          | 7,356          | 6,392          | 7,020          | 4,572          | 4,312          | 2,633          |
| American Samoa               | 446            | 338            | 626            | 3,233          | 5,951          | 3,931          | 2,471          |
| French Polynesia             | 3,235          | 2,642          | 3,580          | 4,432          | 4,678          | 3,846          | 2,235          |
| Korea, Rep. of               | 3,998          | 1,179          | 684            | 1,920          | 2,488          | 1,795          | 1,735          |
| Papua New Guinea             | 104            | 129            | 159            | 123            | 136            | 857            | 1,640          |
| Cook Islands                 | 5              | 5              | 5              | 2              | 901            | 1,461          | 1,629          |
| New Caledonia                | 860            | 690            | 895            | 1,020          | 1,165          | 1,111          | 1,468          |
| Samoa                        | 4,742          | 4,027          | 4,067          | 4,820          | 4,223          | 2,253          | 1,232          |
| Seychelles                   | 183            | 67             | 423            | 873            | 1,238          | 1,329          | 939            |
| Vanuatu                      | 10             | .              | .              | .              | 4,279          | 4,725          | 820            |
| Greece                       | 1,152          | 2,005          | 1,786          | 1,840          | 1,352          | 950            | 773            |
| Australia                    | 444            | 435            | 387            | 532            | 749            | 606            | 610            |
| Brazil                       | 3,418          | 1,872          | 4,414          | 6,862          | 3,228          | 2,647          | 522            |
| Venezuela                    | 107            | 91             | 1,374          | 349            | 162            | 424            | 457            |
| Reunion                      | 318            | 357            | 579            | 706            | 368            | 364            | 431            |
| Portugal                     | 215            | 556            | 764            | 1,217          | 2,387          | 968            | 303            |
| Solomon Islands              | 370            | 136            | 224            | 54             | 127            | 122            | 267            |
| Cyprus                       | -              | -              | 6              | -              | 12             | 30             | 255            |
| Ireland                      | 3,750          | 4,858          | 3,464          | 2,093          | 1,324          | 755            | 175            |
| Morocco                      | -              | -              | -              | -              | 55             | 81             | 120            |
| Uruguay                      | 110            | 69             | 90             | 135            | 111            | 108            | 120            |
| Tonga                        | 616            | 801            | 862            | 1,268          | 1,189          | 611            | 102            |
| Saint Vincent/<br>Grenadines | -              | 1              | 2,820          | 5,662          | 345            | 1,555          | 89             |
| Mexico                       | 8              | 32             | 159            | 40             | 68             | 124            | 78             |
| Syrian Arab Rep.             | -              | -              | -              | -              | -              | 15             | 38             |
| Thailand                     | -              | -              | 12             | 30             | 31             | 35             | 35             |
| Turkey                       | -              | -              | -              | -              | -              | -              | 27             |
| Grenada                      | 7              | 6              | 12             | 21             | 23             | 46             | 25             |
| Mauritius                    | 15             | 12             | .              | 18             | 8              | 32             | 21             |
| Trinidad and Tobago          | 1              | 1              | 2              | 11             | 9              | 12             | 12             |
| Malta                        | 1              | 1              | 4              | -              | 2              | -              | 10             |
| Chile                        | -              | 7              | 3              | 5              | 40             | 1              | 8              |
| Barbados                     | 1              | 1              | .              | 2              | 5              | 5              | 5              |
| Saint Lucia                  | <0.5           | <0.5           | 1              | 3              | 2              | 10             | 5              |
| Philippines                  | 506            | 198            | 101            | 68             | -              | 14             | 2              |
| Saint Helena                 | 1              | 1              | 58             | 12             | 2              | 3              | 2              |
| Bermuda                      | .              | 2              | 2              | 2              | 1              | 1              | 1              |
| Others                       | 10,243         | 10,070         | 8,632          | 4,739          | 3,077          | 1,414          | 690            |
| <b>Total</b>                 | <b>228,612</b> | <b>253,353</b> | <b>215,259</b> | <b>230,900</b> | <b>237,937</b> | <b>222,150</b> | <b>215,761</b> |

-\* zero;

.\*\* not available

Source: FAO 2006

Between 57 and 66 percent of world catches of albacore from 1998 through 2004 occurred in the Pacific Ocean, followed by the Atlantic Ocean (22 to 28 percent) and the Indian Ocean (10 to 18 percent; Table 2 and Figure 2). The Pacific catch has fluctuated between 123,000 and 157,000 mt since 1998. The Atlantic catch increased to 64,000 mt in 2001 but has since declined to 47,000 mt in 2004. Catches in the Indian Ocean have remained at low levels.

Source: FAO 2006

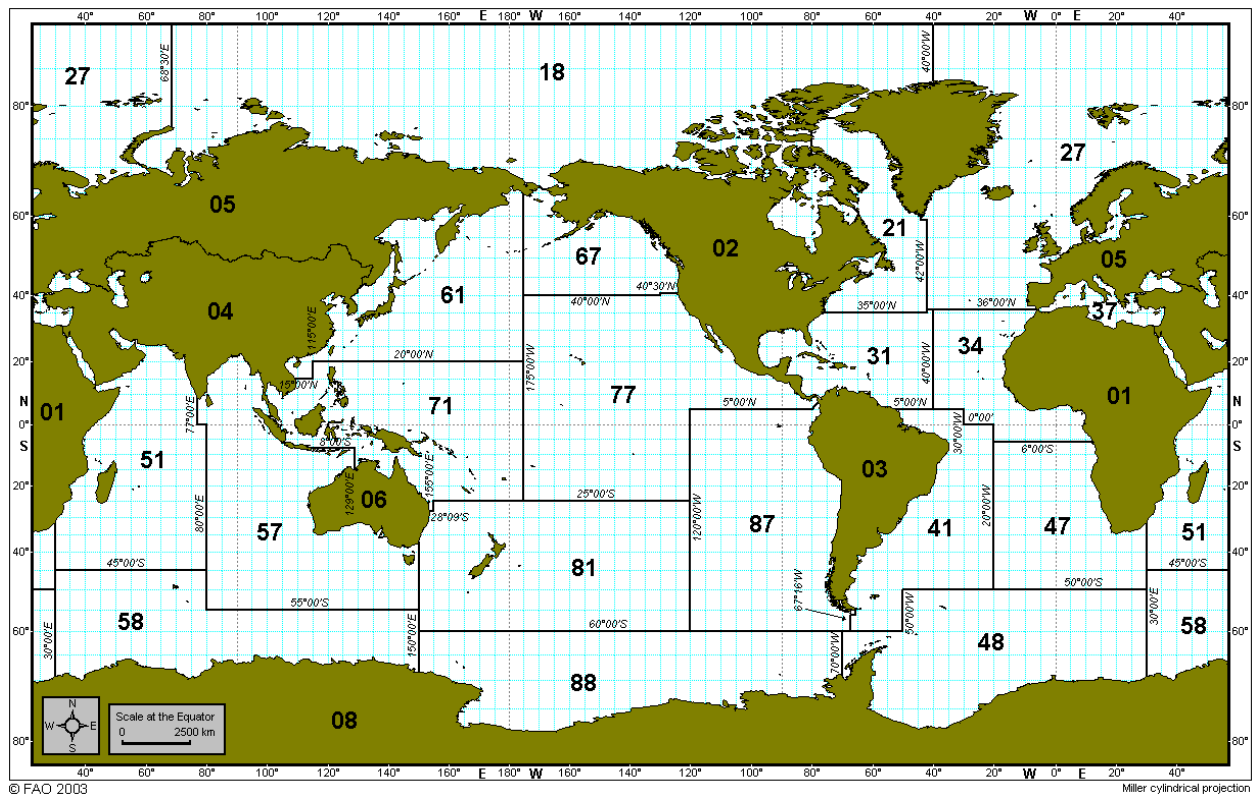


Figure 2. Major fishing areas for FAO statistical purposes.

**Table 2. Distribution of world albacore catch (by FAO fishing area), 1998-2004 (metric tons).**

| Area                        | 1998    | 1999    | 2000    | 2001    | 2002    | 2003    | 2004    |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|
| <b>Atlantic Ocean:</b>      |         |         |         |         |         |         |         |
| Eastern                     |         |         |         |         |         |         |         |
| central (34)*               | 1,117   | 2,284   | 1,148   | 3,562   | 4,431   | 2,864   | 1,487   |
| Northeast (27)              | 20,738  | 26,446  | 26,575  | 17,058  | 13,779  | 15,809  | 18,054  |
| Northwest (21)              | 367     | 490     | 742     | 1,129   | 1,217   | 263     | 572     |
| Southeast (47)              | 20,571  | 15,553  | 14,510  | 15,458  | 14,504  | 14,723  | 11,761  |
| Southwest (41)              | 11,668  | 12,189  | 8,630   | 11,705  | 11,511  | 13,188  | 10,651  |
| Western                     |         |         |         |         |         |         |         |
| central (31)                | 1,522   | 5,476   | 9,537   | 15,579  | 9,987   | 6,185   | 4,773   |
| Sub-total                   | 55,983  | 62,438  | 61,142  | 64,491  | 55,429  | 53,032  | 47,298  |
| Share (percent)             |         |         |         |         |         |         |         |
| Atlantic/total              | 24%     | 25%     | 28%     | 28%     | 23%     | 24%     | 22%     |
| <b>Indian Ocean:</b>        |         |         |         |         |         |         |         |
| Eastern (51)                |         |         |         |         |         |         |         |
| Western (57)                | 29,177  | 28,721  | 18,901  | 13,562  | 14,340  | 13,620  | 9,524   |
| Mediterranean and Black Sea |         |         |         |         |         |         |         |
|                             | 2,698   | 4,851   | 5,578   | 4,866   | 5,608   | 7,908   | 4,913   |
| Sub-total                   | 40,182  | 42,074  | 30,887  | 23,336  | 25,221  | 30,818  | 25,015  |
| Share (percent)             |         |         |         |         |         |         |         |
| Indian/total                | 18%     | 17%     | 14%     | 10%     | 11%     | 14%     | 12%     |
| <b>Pacific Ocean:</b>       |         |         |         |         |         |         |         |
| Eastern                     |         |         |         |         |         |         |         |
| central (77)                | 26,418  | 28,856  | 26,225  | 30,804  | 32,339  | 24,115  | 20,190  |
| Northeast (67)              | 11,517  | 4,675   | 11,182  | 12,133  | 12,204  | 17,931  | 19,364  |
| Northwest (61)              | 54,857  | 86,968  | 47,162  | 50,748  | 50,571  | 52,613  | 60,837  |
| Southeast (87)              | 558     | 570     | 1,811   | 1,735   | 1,891   | 785     | 2,211   |
| Southwest (81)              | 18,255  | 11,565  | 13,567  | 19,630  | 24,981  | 16,921  | 15,601  |
| Western                     |         |         |         |         |         |         |         |
| central (71)                | 20,842  | 16,207  | 23,283  | 28,023  | 35,301  | 25,935  | 25,245  |
| Sub-total                   | 132,447 | 148,841 | 123,230 | 143,073 | 157,287 | 138,300 | 143,448 |
| Share (percent)             |         |         |         |         |         |         |         |
| Pacific/total               | 58%     | 59%     | 57%     | 62%     | 66%     | 62%     | 66%     |
| Total                       | 228,612 | 253,353 | 215,259 | 230,900 | 237,937 | 222,150 | 215,761 |

\* Numbers refer to FAO fishing area (see Figure 2)  
Total share may not add due to rounding

Source: FAO 2006

While more than 23 nations that reported Pacific albacore landings in 2004, Japan accounted for the majority of the catches of Pacific albacore -approximately 47 percent in 2004 (Table 3). Taiwan and the United States respectively landed about 14 percent and 10 percent of the total catch. Taiwan's annual catch of Pacific albacore reached a high in 1989 at 78,000 mt but has since declined (FAO 2006). Fiji Islands, China, and Canada respectively harvested about 8 percent, 5 percent, and 4 percent of the total catch.

**Table 3. Pacific albacore catches by country, 1998-2004 (metric tons).**

|                  | 1998           | 1999           | 2000           | 2001           | 2002           | 2003           | 2004           |
|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Japan            | 69,634         | 95,717         | 57,556         | 64,749         | 64,749         | 59,508         | 67,322         |
| Taiwan           | 19,089         | 18,627         | 24,002         | 21,067         | 27,584         | 16,971         | 19,459         |
| U.S.A.           | 20,083         | 13,916         | 13,391         | 18,518         | 17,485         | 17,233         | 14,855         |
| Fiji Islands     | 2,121          | 2,279          | 6,065          | 7,971          | 8,026          | 6,881          | 11,290         |
| China            | 1              | 3,473          | 3,295          | 4,863          | 4,247          | 7,138          | 6,695          |
| Canada           | 304            | 561            | 2,886          | 3,268          | 3,639          | 2,489          | 5,524          |
| New Zealand      | 6,525          | 3,903          | 4,500          | 5,353          | 5,645          | 6,744          | 4,455          |
| American Samoa   | 446            | 338            | 626            | 3,233          | 5,951          | 3,931          | 2,471          |
| French Polynesia | 3,235          | 2,642          | 3,580          | 4,432          | 4,678          | 3,846          | 2,235          |
| Papua New Guinea | 104            | 129            | 159            | 123            | 136            | 857            | 1,640          |
| Cook Islands     | 5              | 5              | 5              | 2              | 901            | 1,461          | 1,629          |
| New Caledonia    | 860            | 690            | 895            | 1,020          | 1,165          | 1,111          | 1,468          |
| Korea, Rep. of   | 3,876          | 1,152          | 589            | 1,889          | 2,478          | 1,795          | 1,348          |
| Samoa            | 4,742          | 4,027          | 4,067          | 4,820          | 4,223          | 2,253          | 1,232          |
| Vanuatu          | 10             | .              | .              | .              | 4,279          | 4,725          | 820            |
| Australia        | 418            | 404            | 359            | 395            | 677            | 494            | 550            |
| Solomon Islands  | 370            | 136            | 224            | 54             | 127            | 122            | 267            |
| Tonga            | 616            | 801            | 862            | 1,268          | 1,189          | 611            | 102            |
| Mexico           | 8              | 32             | 159            | 40             | 68             | 124            | 78             |
| Chile            | -*             | 7              | 3              | 5              | 40             | 1              | 8              |
| Micronesia       | -              | 2              | 5              | 3              | <0.5           | 1              | <0.5           |
| Nauru            | .**            | .              | .              | .              | .              | 2              | <0.5           |
| Palau            | .              | .              | 2              | <0.5           | <0.5           | <0.5           | <0.5           |
| Others           | -              | -              | -              | -              | -              | 2              | -              |
| <b>Total</b>     | <b>132,447</b> | <b>148,841</b> | <b>123,230</b> | <b>143,073</b> | <b>157,287</b> | <b>138,300</b> | <b>143,448</b> |

-\* zero;

.\*\* not available

Source: FAO 2006

Most of the Pacific catch of albacore, between 32 and 58 percent from 1998 through 2004, occurred in the northwestern sector (FAO fishing area 61). The northwest Pacific catch increased from 36,000 mt in 1983 to 89,000 mt in 1990 (Table 4). The catch then declined abruptly to about 33,000 mt in 1993. The catch recovered to 87,000 mt in 1999, then declined to a low of 47,000 mt in 2000. Since then, the annual catch has remained fairly stable between 51,000 and 61,000 mt. Japan harvested about 97 percent of the total northwest Pacific catch in 2004.

**Table 4. Annual albacore catches by country in northwest Pacific Ocean (FAO fishing area 61), 1970-2004 (metric tons).**

|                        | Total  | Japan  | Taiwan | China | Korea<br>Rep. of |
|------------------------|--------|--------|--------|-------|------------------|
| 1970                   | 33,741 | 32,200 | 1,541  | -*    | -                |
| 1971                   | 64,491 | 62,700 | 1,791  | -     | -                |
| 1972                   | 72,604 | 69,700 | 2,904  | -     | -                |
| 1973                   | 82,228 | 82,000 | 228    | -     | -                |
| 1974                   | 63,841 | 63,756 | 85     | -     | -                |
| 1975                   | 47,724 | 47,421 | 255    | -     | 48               |
| 1976                   | 95,224 | 90,444 | 4,233  | -     | 547              |
| 1977                   | 41,835 | 41,476 | 359    | -     | -                |
| 1978                   | 69,961 | 69,619 | 342    | -     | -                |
| 1979                   | 57,786 | 57,642 | 144    | -     | -                |
| 1980                   | 58,925 | 58,215 | 710    | -     | -                |
| 1981                   | 48,217 | 47,977 | 240    | -     | -                |
| 1982                   | 49,228 | 48,356 | 750    | -     | 122              |
| 1983                   | 36,301 | 34,173 | 896    | -     | 1,232            |
| 1984                   | 44,405 | 43,782 | 538    | -     | 85               |
| 1985                   | 37,110 | 30,846 | 6,264  | -     | -                |
| 1986                   | 40,033 | 25,897 | 14,136 | -     | -                |
| 1987                   | 61,252 | 26,912 | 34,340 | -     | -                |
| 1988                   | 58,768 | 22,954 | 35,814 | -     | -                |
| 1989                   | 59,076 | 24,051 | 35,014 | -     | 11               |
| 1990                   | 89,166 | 25,188 | 63,975 | -     | 3                |
| 1991                   | 56,333 | 20,862 | 35,464 | -     | 7                |
| 1992                   | 34,803 | 28,336 | 6,467  | -     | -                |
| 1993                   | 33,252 | 33,011 | 241    | -     | -                |
| 1994                   | 40,175 | 40,098 | 77     | -     | -                |
| 1995                   | 38,126 | 33,857 | 4,269  | -     | -                |
| 1996                   | 51,026 | 48,364 | 2,662  | -     | -                |
| 1997                   | 70,005 | 66,487 | 3,518  | -     | -                |
| 1998                   | 54,857 | 54,206 | 651    | -     | -                |
| 1999                   | 86,968 | 85,662 | 1,306  | -     | -                |
| 2000                   | 47,162 | 45,852 | 1,310  | -     | -                |
| 2001                   | 50,748 | 49,507 | 713    | 528   | -                |
| 2002                   | 50,571 | 49,507 | 854    | 210   | -                |
| 2003                   | 52,613 | 52,068 | 149    | 396   | -                |
| 2004                   | 60,837 | 58,738 | 2,099  | .**   | -                |
| Share of<br>2004 total |        | 97%    | 4%     | .     | -                |

-\* zero; .\*\* not available Source: FAO 2006  
Share of 2004 total does not add due to rounding



Catches in the western central Pacific (FAO fishing area 71), the second most productive area in the Pacific Ocean, made up 18 percent of the 2004 Pacific albacore catch. The catch reached a peak of 38,000 mt in 1989, then declined to a low of 8,000 mt in 1991 (Table 5). The catch recovered to 35,000 mt in 2002. In 2004, Fiji Islands and China accounted for the majority of the catches of albacore in the western central Pacific - approximately 45 percent and 18 percent, respectively. Japan and Taiwan each landed about 9 percent of the total catch.

**Table 5. Annual albacore catches by country in western central Pacific Ocean (FAO fishing area 71), 1970-2004 (metric tons).**

|                        | Total  | Fiji<br>Islands | China | Japan  | Taiwan | Papua New<br>Guinea | New<br>Caledonia |
|------------------------|--------|-----------------|-------|--------|--------|---------------------|------------------|
| 1970                   | 12,500 | -*              | 8,500 | 3,000  | .      | **                  | -                |
| 1971                   | 5,535  | -               | -     | 1,600  | 2,935  | .                   | -                |
| 1972                   | 4,817  | -               | -     | 2,000  | 1,817  | .                   | -                |
| 1973                   | 5,136  | -               | -     | 2,300  | 1,832  | .                   | -                |
| 1974                   | 23,908 | -               | -     | 22,416 | 492    | .                   | -                |
| 1975                   | 15,929 | -               | -     | 14,462 | 427    | .                   | -                |
| 1976                   | 11,827 | -               | -     | 9,424  | 543    | .                   | -                |
| 1977                   | 9,962  | -               | -     | 4,650  | 3,723  | .                   | -                |
| 1978                   | 14,038 | -               | -     | 6,755  | 5,588  | .                   | -                |
| 1979                   | 6,805  | -               | -     | 1,056  | 4,712  | .                   | -                |
| 1980                   | 12,086 | -               | -     | 3,161  | 7,632  | .                   | -                |
| 1981                   | 10,042 | -               | -     | 4,901  | 3,553  | .                   | -                |
| 1982                   | 20,576 | -               | -     | 7,181  | 12,680 | .                   | -                |
| 1983                   | 18,379 | -               | -     | 4,252  | 12,083 | .                   | 12               |
| 1984                   | 15,501 | -               | -     | 3,248  | 11,155 | -                   | 112              |
| 1985                   | 19,433 | -               | -     | 8,282  | 9,624  | -                   | 131              |
| 1986                   | 22,943 | -               | -     | 9,772  | 11,913 | -                   | 179              |
| 1987                   | 25,821 | -               | -     | 9,289  | 15,101 | -                   | 563              |
| 1988                   | 24,457 | -               | -     | 4,824  | 18,290 | -                   | 584              |
| 1989                   | 38,488 | 3               | -     | 6,542  | 30,565 | -                   | 566              |
| 1990                   | 15,330 | 68              | 4     | 7,021  | 6,343  | -                   | 1,053            |
| 1991                   | 8,020  | 208             | <0.5  | 4,352  | 2,158  | -                   | 909              |
| 1992                   | 11,749 | 243             | <0.5  | 8,405  | 2,084  | -                   | 692              |
| 1993                   | 18,114 | 463             | 1     | 12,173 | 4,455  | -                   | 755              |
| 1994                   | 32,962 | 842             | 8     | 19,144 | 11,943 | -                   | 840              |
| 1995                   | 27,579 | 702             | 5     | 17,490 | 8,891  | 6                   | 332              |
| 1996                   | 10,246 | 1,446           | 8     | 2,124  | 5,810  | 38                  | 414              |
| 1997                   | 14,418 | 1,842           | 2     | 5,027  | 6,298  | 101                 | 277              |
| 1998                   | 20,842 | 2,121           | 1     | 6,481  | 5,095  | 104                 | 860              |
| 1999                   | 16,207 | 2,279           | 3,473 | 3,527  | 3,017  | 129                 | 690              |
| 2000                   | 23,283 | 6,065           | 2,056 | 7,926  | 5,784  | 159                 | 895              |
| 2001                   | 28,023 | 7,971           | 2,711 | 8,678  | 6,958  | 123                 | 1,020            |
| 2002                   | 35,301 | 8,026           | 2,710 | 8,678  | 9,148  | 136                 | 1,165            |
| 2003                   | 25,935 | 6,881           | 5,827 | 3,018  | 2,602  | 857                 | 1,111            |
| 2004                   | 25,245 | 11,290          | 4,522 | 2,265  | 2,147  | 1,640               | 1,468            |
| Share of<br>2004 total | 100%   | 45%             | 18%   | 9%     | 9%     | 6%                  | 6%               |

**Table 5 (continued). Annual albacore catches by country in western central Pacific Ocean (FAO fishing area 71), 1970-2004 (metric tons).**

|                        | Vanuatu | Korea,<br>Rep. of | Solomon<br>Islands | Australia | Micronesia | Nauru | Palau | U.S.A. |
|------------------------|---------|-------------------|--------------------|-----------|------------|-------|-------|--------|
| 1970                   | 1,000   | -                 | -                  | .         | -          | .     | .     | -      |
| 1971                   | 1,000   | -                 | -                  | .         | -          | .     | .     | -      |
| 1972                   | 1,000   | -                 | -                  | .         | -          | .     | .     | -      |
| 1973                   | 1,000   | -                 | 4                  | .         | -          | .     | .     | -      |
| 1974                   | 1,000   | -                 | -                  | .         | -          | .     | .     | -      |
| 1975                   | 1,000   | 40                | -                  | .         | -          | .     | .     | -      |
| 1976                   | 1,000   | 854               | 6                  | .         | -          | .     | .     | -      |
| 1977                   | 1,006   | 574               | 9                  | .         | -          | .     | .     | -      |
| 1978                   | 915     | 771               | 9                  | .         | -          | .     | .     | -      |
| 1979                   | 789     | 227               | 21                 | .         | -          | .     | .     | -      |
| 1980                   | 727     | 541               | 25                 | .         | -          | .     | .     | -      |
| 1981                   | 500     | 1,086             | 2                  | .         | -          | .     | .     | -      |
| 1982                   | 500     | 207               | 8                  | .         | -          | .     | .     | -      |
| 1983                   | 500     | 509               | 19                 | .         | -          | .     | .     | 1,004  |
| 1984                   | 400     | 567               | 19                 | .         | -          | .     | .     | -      |
| 1985                   | 1,012   | 365               | 12                 | .         | -          | .     | .     | 7      |
| 1986                   | 691     | 294               | .                  | .         | -          | .     | .     | 94     |
| 1987                   | 645     | 167               | .                  | .         | -          | .     | .     | 56     |
| 1988                   | 580     | 179               | .                  | .         | -          | .     | .     | -      |
| 1989                   | 510     | 302               | .                  | .         | -          | .     | .     | -      |
| 1990                   | 450     | 391               | .                  | .         | -          | .     | .     | -      |
| 1991                   | 380     | 13                | .                  | .         | -          | .     | .     | -      |
| 1992                   | 310     | 15                | .                  | .         | -          | .     | <0.5  | -      |
| 1993                   | 240     | 26                | .                  | .         | -          | .     | 1     | -      |
| 1994                   | 180     | -                 | .                  | .         | -          | .     | 3     | 2      |
| 1995                   | 109     | 20                | 24                 | .         | -          | .     | .     | <0.5   |
| 1996                   | 192     | 114               | 100                | .         | -          | .     | .     | -      |
| 1997                   | 95      | 666               | 109                | .         | 1          | .     | <0.5  | -      |
| 1998                   | 10      | 690               | 370                | .         | -          | .     | .     | 5,110  |
| 1999                   | .       | 147               | 136                | 179       | 2          | .     | .     | 2,628  |
| 2000                   | .       | 20                | 224                | 147       | 5          | .     | 2     | -      |
| 2001                   | .       | 332               | 54                 | 173       | 3          | .     | <0.5  | -      |
| 2002                   | 4,279   | 687               | 127                | 345       | <0.5       | .     | <0.5  | -      |
| 2003                   | 4,725   | 543               | 122                | 246       | 1          | 2     | <0.5  | -      |
| 2004                   | 820     | 606               | 267                | 220       | <0.5       | <0.5  | <0.5  | -      |
| Share of<br>2004 total | 3%      | 2%                | 1%                 | 1%        | <1%        | <1%   | <1%   | -      |

-\* zero

.\*\* not available

Source: FAO 2006

The eastern central Pacific (FAO fishing area 77) was the third largest albacore producing area in the Pacific Ocean with about 14 percent of the 2004 Pacific albacore catch. Catch of albacore in the eastern central Pacific reached 35,000 mt in 1985 and then declined over the next several years (Table 6). Annual catches gradually recovered to 32,000 mt in 2002. The catch in 2004 decreased 16 percent from 2003. Of 11 nations that reported albacore landings from this area in 2004, Taiwan ranked highest with 36 percent of the total. American Samoa landed 12 percent of the total catch.

**Table 6. Annual albacore catches by country in eastern central Pacific Ocean (FAO fishing area 77), 1970-2004 (metric tons).**

| Year                   | Total  | Taiwan | American Samoa | French Polynesia | China | Cook Islands | American Samoa |
|------------------------|--------|--------|----------------|------------------|-------|--------------|----------------|
| 1970                   | 15,250 | 1,300  | .              | .                | .     | .            | .              |
| 1971                   | 19,110 | 1,200  | .              | .                | -     | .            | .              |
| 1972                   | 15,900 | 2,900  | .              | .                | -     | .            | .              |
| 1973                   | 13,500 | 5,000  | .              | .                | -     | .            | .              |
| 1974                   | 10,816 | 3,699  | .              | .                | -     | .            | .              |
| 1975                   | 13,618 | 5,398  | .              | .                | -     | .            | .              |
| 1976                   | 22,562 | 5,859  | .              | .                | -     | .            | .              |
| 1977                   | 22,237 | 10,028 | .              | .                | -     | .            | .              |
| 1978                   | 23,182 | 8,693  | .              | .                | -     | .            | 150            |
| 1979                   | 19,822 | 7,954  | .              | .                | -     | .            | 600            |
| 1980                   | 19,299 | 7,640  | .              | .                | -     | .            | 640            |
| 1981                   | 23,776 | 6,261  | .              | .                | -     | .            | 1,360          |
| 1982                   | 18,154 | 1,000  | .              | .                | -     | .            | 1,920          |
| 1983                   | 20,970 | 1,295  | .              | .                | -     | .            | 2,040          |
| 1984                   | 31,301 | 4,736  | .              | .                | -     | .            | 1,800          |
| 1985                   | 34,849 | 6,473  | .              | .                | -     | .            | 1,478          |
| 1986                   | 33,885 | 6,149  | .              | .                | -     | .            | 1,290          |
| 1987                   | 24,478 | 6,980  | .              | .                | -     | .            | 1,250          |
| 1988                   | 26,042 | 7,680  | 1              | .                | -     | .            | 1,020          |
| 1989                   | 14,462 | 3,115  | .              | 102              | -     | .            | 735            |
| 1990                   | 13,199 | 3,539  | .              | 319              | -     | .            | 223            |
| 1991                   | 13,395 | 3,994  | 1              | 426              | -     | .            | 211            |
| 1992                   | 18,255 | 8,705  | .              | 267              | -     | .            | 922            |
| 1993                   | 14,649 | 5,003  | <0.5           | 959              | -     | .            | 213            |
| 1994                   | 16,534 | 6,093  | 1              | 913              | -     | 23           | 641            |
| 1995                   | 15,943 | 3,867  | 27             | 1,100            | -     | 32           | 1,883          |
| 1996                   | 19,283 | 4,454  | 86             | 1,750            | -     | 5            | 1,775          |
| 1997                   | 22,530 | 4,721  | 309            | 2,717            | -     | 5            | 4,108          |
| 1998                   | 26,418 | 5,409  | 446            | 3,235            | -     | 5            | 4,742          |
| 1999                   | 28,856 | 8,575  | 338            | 2,642            | -     | 5            | 4,027          |
| 2000                   | 26,225 | 6,837  | 626            | 3,580            | 1,239 | 5            | 4,067          |
| 2001                   | 30,804 | 6,729  | 3,233          | 4,432            | 1,624 | 2            | 4,820          |
| 2002                   | 32,339 | 6,675  | 5,951          | 4,678            | 1,327 | 901          | 4,223          |
| 2003                   | 24,115 | 5,978  | 3,931          | 3,846            | 915   | 1,461        | 2,253          |
| 2004                   | 20,190 | 7,216  | 2,471          | 2,235            | 2,130 | 1,629        | 1,232          |
| Share of<br>2004 total | 100%   | 36%    | 12%            | 11%              | 11%   | 8%           | 6%             |

**Table 6 (continued). Annual albacore catches by country in eastern central Pacific Ocean (FAO fishing area 77), 1970-2004 (metric tons).**

| Year                   | Japan | U.S.A. | Korea,<br>Rep. of | Tonga | Mexico | Canada |
|------------------------|-------|--------|-------------------|-------|--------|--------|
| 1970                   | 2,900 | 11,000 | -                 | -     | <0.5   | 50     |
| 1971                   | 2,300 | 15,600 | -                 | -     | <0.5   | 10     |
| 1972                   | 3,800 | 9,100  | -                 | -     | 100    | -      |
| 1973                   | 4,900 | 3,600  | -                 | -     | <0.5   | -      |
| 1974                   | 3,194 | 3,922  | -                 | -     | 1      | -      |
| 1975                   | 1,744 | 5,976  | 499               | -     | 1      | -      |
| 1976                   | 4,809 | 10,388 | 1,460             | -     | 36     | 10     |
| 1977                   | 4,489 | 6,448  | 1,272             | -     | <0.5   | -      |
| 1978                   | 4,934 | 8,101  | 1,303             | -     | 1      | -      |
| 1979                   | 5,821 | 4,697  | 749               | -     | 1      | -      |
| 1980                   | 5,582 | 4,504  | 902               | -     | 31     | -      |
| 1981                   | 7,198 | 7,136  | 1,813             | -     | 8      | -      |
| 1982                   | 6,770 | 5,451  | 2,900             | 106   | 7      | -      |
| 1983                   | 7,384 | 6,801  | 3,274             | 143   | 33     | -      |
| 1984                   | 8,294 | 12,436 | 3,787             | 135   | 113    | -      |
| 1985                   | 5,670 | 6,069  | 14,936            | 174   | 49     | -      |
| 1986                   | 5,821 | 2,525  | 17,891            | 206   | 3      | -      |
| 1987                   | 6,168 | 1,766  | 8,055             | 252   | 7      | -      |
| 1988                   | 9,201 | 1,843  | 6,040             | 242   | 15     | -      |
| 1989                   | 5,589 | 1,039  | 3,685             | 195   | 2      | -      |
| 1990                   | 5,274 | 911    | 2,779             | 152   | 2      | -      |
| 1991                   | 6,700 | 505    | 1,385             | 171   | 2      | -      |
| 1992                   | 6,526 | 1,424  | 202               | 199   | 10     | -      |
| 1993                   | 6,450 | 1,707  | 75                | 231   | 11     | -      |
| 1994                   | 4,839 | 3,579  | 96                | 343   | 6      | -      |
| 1995                   | 5,098 | 3,504  | 48                | 379   | 5      | -      |
| 1996                   | 4,401 | 5,772  | 588               | 431   | 21     | -      |
| 1997                   | 4,717 | 4,236  | 1,171             | 493   | 53     | -      |
| 1998                   | 5,187 | 3,593  | 3,177             | 616   | 8      | -      |
| 1999                   | 4,506 | 6,976  | 954               | 801   | 32     | -      |
| 2000                   | 2,372 | 5,909  | 569               | 862   | 159    | -      |
| 2001                   | 3,285 | 3,814  | 1,557             | 1,268 | 40     | -      |
| 2002                   | 3,285 | 2,251  | 1,791             | 1,189 | 68     | -      |
| 2003                   | 1,916 | 1,828  | 1,252             | 611   | 124    | -      |
| 2004                   | 1,231 | 1,124  | 742               | 102   | 78     | -      |
| Share of<br>2004 total | 6%    | 6%     | 4%                | 1%    | <1%    | -      |

.\* not available

-\*\* zero

Source: FAO 2006

Approximately 13 percent of the 2004 Pacific albacore catch was made in the northeast Pacific (FAO fishing area 67). Catch of albacore in the northeast Pacific reached 23,000 mt in 1974 and then declined to 2,000 mt in 1982 (Table 7). The catch in 2004 recovered to 19,000 mt. The United States harvested about 71 percent of the total northeast Pacific catch in 2004.

**Table 7. Annual albacore catches by country in northeast Pacific Ocean (FAO fishing area 67), 1970-2004 (metric tons).**

| Year                   | Total  | U.S.A. | Canada | Taiwan | Japan | Korea,<br>Rep. of |
|------------------------|--------|--------|--------|--------|-------|-------------------|
| 1970                   | 15,400 | 14,500 | 900    | -*     | -     | -                 |
| 1971                   | 9,300  | 7,000  | 2,300  | -      | -     | -                 |
| 1972                   | 22,600 | 18,200 | 4,400  | -      | -     | -                 |
| 1973                   | 16,100 | 14,500 | 1,600  | -      | -     | -                 |
| 1974                   | 22,560 | 21,042 | 1,517  | -      | 1     | -                 |
| 1975                   | 16,370 | 16,241 | 126    | -      | 3     | -                 |
| 1976                   | 8,868  | 8,245  | 335    | -      | 288   | -                 |
| 1977                   | 7,978  | 7,925  | 53     | -      | -     | -                 |
| 1978                   | 9,019  | 8,821  | 23     | -      | 175   | -                 |
| 1979                   | 2,623  | 2,296  | 289    | -      | 38    | -                 |
| 1980                   | 2,904  | 2,692  | 212    | -      | -     | -                 |
| 1981                   | 6,415  | 6,116  | 103    | -      | 196   | -                 |
| 1982                   | 2,231  | 1,426  | 92     | -      | 713   | -                 |
| 1983                   | 3,443  | 2,686  | 242    | -      | 515   | -                 |
| 1984                   | 3,123  | 1,251  | 47     | -      | 1,825 | -                 |
| 1985                   | 5,096  | 2,113  | 25     | -      | 2,958 | -                 |
| 1986                   | 4,220  | 2,586  | 1      | -      | 1,633 | -                 |
| 1987                   | 2,758  | 1,677  | 21     | -      | 1,060 | -                 |
| 1988                   | 5,807  | 3,672  | 165    | -      | 1,963 | 7                 |
| 1989                   | 3,384  | 1,402  | 180    | -      | 1,802 | -                 |
| 1990                   | 3,063  | 2,245  | 303    | -      | 515   | -                 |
| 1991                   | 2,058  | 1,354  | 143    | -      | 561   | -                 |
| 1992                   | 4,754  | 3,848  | 512    | -      | 394   | -                 |
| 1993                   | 5,373  | 4,822  | 551    | -      | -     | -                 |
| 1994                   | 8,877  | 8,288  | 589    | -      | -     | -                 |
| 1995                   | 6,671  | 5,853  | 792    | 26     | -     | -                 |
| 1996                   | 10,038 | 9,581  | 457    | <0.5   | -     | -                 |
| 1997                   | 14,588 | 14,508 | 80     | <0.5   | -     | -                 |
| 1998                   | 11,517 | 11,380 | 137    | <0.5   | -     | -                 |
| 1999                   | 4,675  | 4,312  | 308    | 55     | -     | -                 |
| 2000                   | 11,182 | 7,482  | 2,535  | 1,165  | -     | -                 |
| 2001                   | 12,133 | 8,762  | 3,061  | 310    | -     | -                 |
| 2002                   | 12,204 | 8,499  | 3,495  | 210    | -     | -                 |
| 2003                   | 17,931 | 15,405 | 2,489  | 37     | -     | -                 |
| 2004                   | 19,364 | 13,731 | 5,461  | 172    | -     | -                 |
| Share of<br>2004 total | 100%   | 71%    | 28%    | 1%     | -     | -                 |

-\* zero

Source: FAO 2006

In 2004, albacore catches in the southwest Pacific (FAO fishing area 81) accounted for 11 percent of the Pacific albacore harvest. Catch of albacore in the southwest Pacific reached a peak of 44,000 mt in 1992. Since then the catch has fluctuated between 12,000 and 25,000 mt (Table 8). The catch in 2004 decreased 8 percent from 2003. Taiwan and New Zealand landed majority of the catches of albacore in this area -approximately 48 percent and 29 percent, respectively. Japan landed about 21 percent of the total catch.

**Table 8. Annual albacore catches by country in southwest Pacific Ocean (FAO fishing area 81), 1970-2004 (metric tons).**

|                        | Total  | Taiwan | New Zealand | Japan | Australia | Canada | Korea, Rep. of | U.S.A. |
|------------------------|--------|--------|-------------|-------|-----------|--------|----------------|--------|
| 1970                   | 8,750  | 6,700  | 50          | 2,000 | -         | -      | .              | -      |
| 1971                   | 17,901 | 1,701  | 200         | 3,100 | -         | -      | 12,900         | -      |
| 1972                   | 19,175 | 1,507  | 268         | 1,800 | -         | -      | 15,600         | -      |
| 1973                   | 19,452 | 1,468  | 484         | 1,500 | -         | -      | 16,000         | -      |
| 1974                   | 12,907 | 1,200  | 898         | 1,178 | -         | -      | 9,631          | -      |
| 1975                   | 10,458 | 1,020  | 646         | 584   | -         | -      | 8,208          | -      |
| 1976                   | 8,963  | 915    | 25          | 845   | -         | -      | 7,178          | -      |
| 1977                   | 20,117 | 8,941  | 621         | 375   | -         | -      | 10,180         | -      |
| 1978                   | 19,117 | 7,768  | 1,686       | 689   | -         | -      | 8,974          | -      |
| 1979                   | 16,209 | 4,803  | 814         | 730   | -         | -      | 9,862          | -      |
| 1980                   | 26,989 | 15,247 | 1,468       | 1,328 | -         | -      | 8,946          | -      |
| 1981                   | 23,330 | 5,541  | 2,085       | 1,210 | -         | -      | 14,494         | -      |
| 1982                   | 20,275 | 4,673  | 2,434       | 1,771 | -         | -      | 11,397         | -      |
| 1983                   | 8,752  | 4,071  | 744         | 1,799 | -         | -      | 2,138          | -      |
| 1984                   | 9,786  | 3,089  | 2,773       | 1,592 | -         | -      | 2,332          | -      |
| 1985                   | 9,708  | 3,181  | 3,253       | 2,139 | -         | -      | 1,135          | -      |
| 1986                   | 7,622  | 3,022  | 1,911       | 2,219 | -         | -      | 470            | -      |
| 1987                   | 8,897  | 3,430  | 1,265       | 2,886 | 129       | -      | 424            | 763    |
| 1988                   | 11,690 | 3,770  | 672         | 3,128 | 107       | 140    | 810            | 3,063  |
| 1989                   | 23,698 | 8,736  | 4,884       | 5,859 | 93        | 162    | 1,009          | 2,955  |
| 1990                   | 14,844 | 2,325  | 3,011       | 4,974 | 51        | 235    | 62             | 4,186  |
| 1991                   | 14,562 | 4,949  | 2,615       | 1,900 | 213       | 235    | 133            | 4,517  |
| 1992                   | 44,197 | 34,902 | 3,794       | 2,144 | 204       | 235    | -              | 2,918  |
| 1993                   | 22,580 | 14,624 | 3,613       | 2,759 | 226       | 235    | -              | 1,123  |
| 1994                   | 13,716 | 4,006  | 6,352       | 2,167 | 351       | 235    | -              | 605    |
| 1995                   | 14,411 | 2,875  | 6,423       | 2,307 | 401       | 235    | -              | 2,170  |
| 1996                   | 18,723 | 5,479  | 7,150       | 2,267 | 468       | 136    | -              | 3,223  |
| 1997                   | 12,753 | 5,797  | 3,614       | 2,876 | 317       | 149    | -              | -      |
| 1998                   | 18,255 | 7,849  | 6,525       | 3,287 | 418       | 167    | 9              | -      |
| 1999                   | 11,565 | 5,619  | 3,903       | 1,565 | 225       | 253    | -              | -      |
| 2000                   | 13,567 | 7,452  | 4,500       | 1,052 | 212       | 351    | -              | -      |
| 2001                   | 19,630 | 5,491  | 5,353       | 2,415 | 222       | 207    | -              | 5,942  |
| 2002                   | 24,981 | 9,710  | 5,645       | 2,415 | 332       | 144    | -              | 6,735  |
| 2003                   | 16,921 | 8,052  | 6,744       | 1,877 | 248       | -      | -              | -      |
| 2004                   | 15,601 | 7,499  | 4,455       | 3,254 | 330       | 63     | -              | -      |
| Share of<br>2004 total |        | 48%    | 29%         | 21%   | 2%        | <1%    |                |        |

-\* zero

Source: FAO 2006

Approximately 2 percent of the 2004 Pacific albacore catch was made in the southeast Pacific (FAO fishing area 87). Japan and Taiwan accounted for the majority of the catches of albacore in the southeast Pacific -approximately 83 percent and 15 percent, respectively (Table 9). Taiwan harvested about 80 percent of the total southeast Pacific catch in 2000.

**Table 9. Annual albacore catches by country in southeast Pacific Ocean (FAO fishing area 87), 1970-2004 (metric tons).**

|                        | Total | Japan | Taiwan | China | Chile | Korea<br>Rep. of | Cuba | Others |
|------------------------|-------|-------|--------|-------|-------|------------------|------|--------|
| 1970                   | 400   | 400   | -*     | -     | .**   | -                | -    | -      |
| 1971                   | 300   | 300   | -      | -     | .     | -                | -    | -      |
| 1972                   | 200   | 200   | -      | -     | .     | -                | -    | -      |
| 1973                   | 400   | 400   | -      | -     | .     | -                | -    | -      |
| 1974                   | 277   | 277   | -      | -     | .     | -                | -    | -      |
| 1975                   | 155   | 155   | -      | -     | .     | -                | -    | -      |
| 1976                   | 553   | 200   | -      | -     | 353   | -                | -    | -      |
| 1977                   | 1,759 | 786   | -      | -     | 960   | 13               | -    | -      |
| 1978                   | 1,646 | 748   | -      | -     | 2     | 896              | -    | -      |
| 1979                   | 1,119 | 255   | -      | -     | 14    | 850              | -    | -      |
| 1980                   | 1,005 | 288   | -      | -     | 60    | 657              | -    | -      |
| 1981                   | 962   | 378   | -      | -     | 36    | 548              | -    | -      |
| 1982                   | 115   | 113   | -      | -     | 2     | -                | -    | -      |
| 1983                   | 723   | 421   | -      | -     | 2     | 300              | -    | -      |
| 1984                   | 642   | 618   | -      | -     | 24    | -                | -    | -      |
| 1985                   | 417   | 247   | -      | -     | 170   | -                | -    | -      |
| 1986                   | 518   | 369   | -      | -     | 149   | -                | -    | -      |
| 1987                   | 639   | 634   | -      | -     | 3     | -                | 2    | -      |
| 1988                   | 588   | 588   | -      | -     | -     | -                | -    | -      |
| 1989                   | 1,399 | 318   | 991    | -     | 90    | -                | -    | -      |
| 1990                   | 1,549 | 646   | 597    | -     | 306   | -                | -    | -      |
| 1991                   | 1,141 | 857   | 114    | -     | 170   | -                | -    | -      |
| 1992                   | 855   | 681   | 156    | -     | 18    | -                | -    | -      |
| 1993                   | 2,099 | 1,658 | 422    | -     | 19    | -                | -    | -      |
| 1994                   | 1,774 | 1,695 | 57     | -     | 22    | -                | -    | -      |
| 1995                   | 978   | 960   | 3      | -     | 15    | -                | -    | -      |
| 1996                   | 796   | 613   | 162    | -     | 21    | -                | -    | -      |
| 1997                   | 601   | 430   | 171    | -     | -     | -                | -    | -      |
| 1998                   | 558   | 473   | 85     | -     | -     | -                | -    | -      |
| 1999                   | 570   | 457   | 55     | -     | 7     | 51               | -    | -      |
| 2000                   | 1,811 | 354   | 1,454  | -     | 3     | -                | -    | -      |
| 2001                   | 1,735 | 864   | 866    | -     | 5     | -                | -    | -      |
| 2002                   | 1,891 | 864   | 987    | -     | 40    | -                | -    | -      |
| 2003                   | 785   | 629   | 153    | -     | 1     | -                | -    | 2      |
| 2004                   | 2,211 | 1,834 | 326    | 43    | 8     | -                | -    | -      |
| Share of<br>2004 total | 100%  | 83%   | 15%    | 2%    | <1%   | -                | -    | -      |

-\* zero

.\*\* not available

Source: FAO 2006

## **JAPANESE FISHERY**

The albacore fishery is a valuable fishery in Japan. In 2004, Japan's albacore landings were valued at \$170 million (Ministry of Agriculture, Forestry & Fisheries 2006).

The Japanese catch of albacore peaked in 1965 at 127,000 mt and showed a decreasing trend to 1991 with exceptions in 1971-1974 and 1976 (Table 10). Annual catches did peak again at 101,000 mt in 1999. Since then the catch has fluctuated between 51,000 and 90,000 mt, with an average of 61,000 mt. The catch in 2005 decreased 26 percent from 2004. The catch of albacore in 2005 represented 9 percent of the total catch of major tuna species.

Between 1997 and 2003, an average of 52 percent of albacore was caught by tuna longline, 44 percent by skipjack pole-and-line, 3 percent by purse seine, and the rest by other pole and line, other longline, set net, drift net, and gillnet (Table 11).

In 2003, about 53 percent of albacore was caught by skipjack pole-and-line, 44 percent by tuna longline, 1 percent each by purse seine and other pole and line, and the rest by drift net, set net, other longline, and gillnet.

From 1997 to 2003, the catch by distant-water skipjack pole-and-line increased from 24,948 mt to 31,931 mt. The catch by distant-water tuna longline and purse seine decreased from 13,932 mt to 10,677 mt and 1,067 mt to 627 mt, respectively, during the same period.

Between 93 and 97 percent of Japanese catches of albacore from 1995 through 2004 occurred in the Pacific Ocean, followed by the Indian Ocean (2 to 5 percent) and the Atlantic Ocean (1 to 3 percent; Table 12). The total Pacific catch has fluctuated between 58,000 and 96,000 mt since 1995. Catches in the Indian Ocean increased from 1,791 mt in 1995 to 3,553 mt in 2004. From 1995 to 2004, catches of albacore rose sharply in the western central Atlantic Ocean (FAO fishing area 31).



**Table 10. Japan's tuna catch by major species, 1956-2005  
(1,000 metric tons).**

| Year | Skipjack | Yellowfin | Bigeye | Albacore | Bluefin | Total |
|------|----------|-----------|--------|----------|---------|-------|
| 1956 | 98       | 81        | 49     | 66       | 37      | 331   |
| 1957 | 97       | 100       | 60     | 78       | 34      | 369   |
| 1958 | 147      | 112       | 73     | 63       | 21      | 416   |
| 1959 | 167      | 126       | 74     | 68       | 51      | 486   |
| 1960 | 79       | 154       | 72     | 89       | 66      | 460   |
| 1961 | 144      | 148       | 114    | 88       | 70      | 564   |
| 1962 | 170      | 158       | 126    | 105      | 47      | 606   |
| 1963 | 113      | 131       | 130    | 116      | 63      | 553   |
| 1964 | 167      | 123       | 112    | 116      | 61      | 579   |
| 1965 | 136      | 124       | 110    | 127      | 56      | 553   |
| 1966 | 229      | 128       | 106    | 106      | 45      | 614   |
| 1967 | 182      | 94        | 106    | 98       | 55      | 535   |
| 1968 | 169      | 116       | 96     | 70       | 57      | 508   |
| 1969 | 182      | 90        | 100    | 78       | 53      | 503   |
| 1970 | 203      | 79        | 92     | 64       | 44      | 482   |
| 1971 | 172      | 71        | 89     | 88       | 48      | 468   |
| 1972 | 223      | 68        | 98     | 92       | 46      | 527   |
| 1973 | 322      | 76        | 105    | 95       | 49      | 647   |
| 1974 | 347      | 76        | 102    | 97       | 50      | 672   |
| 1975 | 259      | 72        | 113    | 69       | 41      | 554   |
| 1976 | 331      | 86        | 115    | 107      | 42      | 681   |
| 1977 | 309      | 83        | 128    | 54       | 52      | 626   |
| 1978 | 370      | 98        | 128    | 88       | 47      | 731   |
| 1979 | 330      | 100       | 130    | 67       | 44      | 671   |
| 1980 | 354      | 119       | 123    | 70       | 50      | 716   |
| 1981 | 289      | 110       | 111    | 64       | 58      | 632   |
| 1982 | 303      | 114       | 132    | 70       | 44      | 663   |
| 1983 | 353      | 112       | 139    | 52       | 37      | 693   |
| 1984 | 446      | 115       | 131    | 64       | 36      | 792   |
| 1985 | 315      | 134       | 149    | 58       | 30      | 686   |
| 1986 | 414      | 118       | 158    | 51       | 23      | 764   |
| 1987 | 331      | 115       | 141    | 47       | 25      | 659   |
| 1988 | 434      | 102       | 136    | 45       | 19      | 736   |
| 1989 | 338      | 100       | 117    | 45       | 20      | 620   |
| 1990 | 301      | 98        | 122    | 43       | 14      | 578   |
| 1991 | 397      | 108       | 125    | 38       | 16      | 684   |
| 1992 | 323      | 123       | 144    | 49       | 17      | 656   |
| 1993 | 345      | 127       | 140    | 60       | 17      | 689   |
| 1994 | 300      | 106       | 126    | 74       | 19      | 625   |
| 1995 | 309      | 112       | 116    | 64       | 17      | 618   |
| 1996 | 275      | 80        | 102    | 61       | 18      | 536   |
| 1997 | 314      | 112       | 108    | 84       | 18      | 636   |
| 1998 | 385      | 94        | 99     | 74       | 15      | 667   |
| 1999 | 287      | 97        | 99     | 101      | 24      | 608   |
| 2000 | 341      | 99        | 87     | 66       | 23      | 616   |
| 2001 | 277      | 102       | 90     | 70       | 17      | 556   |
| 2002 | 302      | 73        | 90     | 90       | 18      | 573   |
| 2003 | 322      | 79        | 83     | 68       | 16      | 568   |
| 2004 | 297      | 77        | 80     | 69       | 19      | 542   |
| 2005 | 367      | 80        | 69     | 51       | 19      | 586   |

Source: Ministry of Agriculture, Forestry & Fisheries 1967, 1978, 1988, 1999, 2004, 2005, 2006.

**Table 11. Japan's albacore landings by fisheries, 1997-2003  
(metric tons).**

| Type of fishery       | 1997   | 1998   | 1999    | 2000   | 2001   | 2002   | 2003   |
|-----------------------|--------|--------|---------|--------|--------|--------|--------|
| Skipjack pole & line: |        |        |         |        |        |        |        |
| Distant               | 24,948 | 15,815 | 42,968  | 20,375 | 27,365 | 43,011 | 31,931 |
| Offshore              | 7,097  | 6,990  | 7,373   | 892    | 2,018  | 5,308  | 4,115  |
| Coastal               | 205    | 148    | 128     | 304    | 65     | 146    | 75     |
| Total                 | 32,250 | 22,953 | 50,469  | 21,571 | 29,448 | 48,465 | 36,121 |
| Tuna longline:        |        |        |         |        |        |        |        |
| Distant               | 13,932 | 15,257 | 12,430  | 12,251 | 11,896 | 15,544 | 10,677 |
| Offshore              | 9,666  | 9,450  | 8,364   | 10,040 | 9,299  | 17,780 | 15,839 |
| Coastal               | 24,926 | 23,403 | 21,219  | 19,228 | 17,539 | 3,699  | 3,809  |
| Total                 | 48,524 | 48,110 | 42,013  | 41,519 | 38,734 | 37,023 | 30,325 |
| Purse seine           | 1,067  | 1,554  | 6,871   | 2,408  | 974    | 3,303  | 627    |
| Drift net             | 358    | 206    | 284     | 67     | 116    | 331    | 125    |
| Gillnet               | 1      | 0      | 5       | 0      | 1      | 1      | 1      |
| Set net               |        |        |         |        |        |        |        |
| Large                 | 24     | 18     | 71      | 98     | 55     | 67     | 50     |
| Small                 | 16     | 23     | 19      | 38     | 23     | 42     | 19     |
| Other longline        | 52     | 57     | 25      | 51     | 17     | 59     | 48     |
| Other pole & line     | 1,651  | 1,220  | 919     | 667    | 423    | 802    | 948    |
| Others                | 17     | 17     | 9       | 13     | 11     | 11     | 11     |
| Grand total           | 83,960 | 74,158 | 100,685 | 66,432 | 69,802 | 90,104 | 68,275 |

Source: Ministry of Agriculture, Forestry & Fisheries 1999-2006

**Table 12. Japan's annual albacore catches (by FAO fishing area), 1953-2004 (metric tons).**

| Year | Atlantic Ocean |       |       |        |        |        | Indian Ocean |        |
|------|----------------|-------|-------|--------|--------|--------|--------------|--------|
|      | (34) *         | (27)  | (21)  | (47)   | (41)   | (31)   | (51)         | (57)   |
| 1953 | .**            | .     | .     | .      | .      | .      | 1,094        | .      |
| 1954 | .              | .     | .     | .      | .      | .      | 2,659        | 75     |
| 1955 | .              | .     | .     | .      | .      | .      | 1,867        | 1,192  |
| 1956 | .              | .     | .     | .      | <0.5   | <0.5   | 3,466        | 1,609  |
| 1957 | .              | .     | .     | .      | 700    | 100    | 3,179        | 1,483  |
| 1958 | .              | .     | .     | .      | 1,100  | 900    | 2,618        | 3,667  |
| 1959 | .              | .     | .     | .      | 3,000  | 600    | 5,164        | 5,246  |
| 1960 | .              | .     | .     | .      | 8,700  | 1,100  | 5,190        | 5,872  |
| 1961 | .              | .     | .     | .      | 8,900  | 400    | 3,848        | 11,393 |
| 1962 | 700            | .     | .     | 8,400  | 8,000  | 5,000  | 3,955        | 13,694 |
| 1963 | 1,600          | .     | .     | 7,600  | 7,500  | 13,000 | 4,994        | 7,565  |
| 1964 | 1,600          | 500   | 200   | 14,100 | 10,000 | 13,100 | 3,900        | 11,400 |
| 1965 | 2,200          | 1,300 | 1,000 | 20,800 | 7,900  | 9,400  | 6,200        | 8,000  |
| 1966 | 600            | 1,000 | 900   | 16,800 | 4,600  | 3,000  | 3,100        | 9,200  |
| 1967 | 500            | 500   | 300   | 6,100  | 1,800  | 3,300  | 4,900        | 10,300 |
| 1968 | 3,900          | 1,600 | 200   | 4,800  | 2,400  | 2,300  | 3,300        | 6,900  |
| 1969 | 1,600          | 1,000 | 100   | 800    | 4,500  | 3,000  | 1,800        | 8,400  |
| 1970 | 1,500          | 100   | 500   | 1,300  | 5,500  | 2,900  | 2,300        | 3,600  |
| 1971 | 900            | 300   | 1,800 | 2,800  | 900    | 3,400  | 1,400        | 1,500  |
| 1972 | 500            | <0.5  | 300   | 1,300  | 2,300  | 900    | 600          | 500    |
| 1973 | 500            | <0.5  | 500   | 600    | 300    | 200    | 900          | 900    |
| 1974 | 919            | 61    | 761   | 668    | 27     | 60     | 1,739        | 857    |
| 1975 | 754            | 22    | 499   | 436    | 26     | 57     | 913          | 275    |
| 1976 | 310            | 3     | 985   | 467    | -***   | 47     | 575          | 308    |
| 1977 | 41             | 2     | 749   | 260    | 7      | 36     | 248          | 65     |
| 1978 | 51             | 3     | 470   | 275    | 11     | 8      | 312          | 29     |
| 1979 | 35             | 2     | 1,146 | 311    | 1      | 38     | 240          | 26     |
| 1980 | 76             | 7     | 946   | 355    | 179    | 8      | 374          | 113    |
| 1981 | 100            | 36    | 1,566 | 485    | 368    | 41     | 1,101        | 280    |
| 1982 | 86             | 47    | 520   | 775    | 243    | 133    | 449          | 483    |
| 1983 | 92             | 32    | 1,030 | 602    | 33     | 31     | 724          | 539    |
| 1984 | 47             | 18    | 424   | 613    | 20     | 95     | 1,076        | 512    |
| 1985 | 118            | 14    | 655   | 635    | 274    | 83     | 1,516        | 700    |
| 1986 | 35             | 9     | 416   | 905    | 499    | 17     | 1,173        | 1,162  |
| 1987 | 19             | 25    | 402   | 747    | 235    | 50     | 1,034        | 872    |
| 1988 | 38             | 40    | 632   | 407    | 272    | 25     | 489          | 682    |
| 1989 | 113            | 111   | 298   | 514    | 178    | 254    | 631          | 356    |
| 1990 | 59             | 55    | 438   | 488    | 283    | 215    | 658          | 291    |
| 1991 | 53             | 100   | 441   | 429    | 351    | 123    | 440          | 495    |
| 1992 | 42             | 72    | 331   | 1,052  | 177    | 22     | 244          | 820    |
| 1993 | 93             | 60    | 337   | 645    | 119    | 8      | 509          | 444    |
| 1994 | 58             | 70    | 365   | 720    | 233    | 14     | 647          | 840    |
| 1995 | 73             | 197   | 113   | 609    | 39     | 9      | 1,166        | 625    |
| 1996 | 149            | 104   | 185   | 615    | 36     | 35     | 1,138        | 1,028  |
| 1997 | 193            | 46    | 186   | 692    | 88     | 23     | 1,238        | 1,589  |
| 1998 | 131            | 89    | 148   | 867    | 41     | 33     | 690          | 2,123  |
| 1999 | 51             | 71    | 175   | 800    | 27     | 140    | 905          | 1,141  |
| 2000 | 194            | 146   | 222   | 786    | 86     | 125    | 1,088        | 1,046  |
| 2001 | 275            | 117   | 492   | 456    | 64     | 281    | 1,172        | 1,590  |
| 2002 | .              | 140   | 558   | 209    | .      | .      | 1,978        | 1,254  |
| 2003 | 187            | 10    | 20    | 195    | 63     | 461    | 523          | 1,923  |
| 2004 | 171            | 296   | 109   | 718    | 42     | 413    | 675          | 2,878  |

**Table 12 (continued). Japan's annual albacore catches (by FAO fishing area), 1953-2004 (metric tons).**

| Year | Pacific Ocean |       |        |       |        |        | Total<br>All areas |
|------|---------------|-------|--------|-------|--------|--------|--------------------|
|      | (77)          | (67)  | (61)   | (87)  | (81)   | (71)   |                    |
| 1953 | .             | .     | 50,906 | .     | .      | .      | 52,000             |
| 1954 | .             | .     | 53,166 | .     | .      | .      | 55,900             |
| 1955 | .             | .     | 45,341 | .     | .      | .      | 48,400             |
| 1956 | .             | .     | 60,725 | .     | .      | .      | 65,800             |
| 1957 | .             | .     | 72,238 | .     | .      | .      | 77,700             |
| 1958 | .             | .     | 54,915 | .     | .      | .      | 63,200             |
| 1959 | .             | .     | 54,190 | .     | .      | .      | 68,200             |
| 1960 | .             | .     | 68,238 | .     | .      | .      | 89,100             |
| 1961 | .             | .     | 63,259 | .     | .      | .      | 87,800             |
| 1962 | .             | .     | 64,851 | .     | .      | .      | 104,600            |
| 1963 | .             | .     | 73,241 | .     | .      | .      | 115,500            |
| 1964 | 3,800         | .     | 40,100 | 1,000 | 16,800 | .      | 116,500            |
| 1965 | 2,800         | .     | 53,300 | 300   | 14,100 | .      | 127,300            |
| 1966 | 2,200         | .     | 45,100 | 1,100 | 18,500 | .      | 106,100            |
| 1967 | 1,200         | .     | 55,200 | 400   | 13,500 | .      | 98,000             |
| 1968 | 2,700         | .     | 36,500 | 300   | 5,500  | .      | 70,400             |
| 1969 | 2,600         | .     | 49,400 | 600   | 3,000  | .      | 76,800             |
| 1970 | 2,900         | -     | 32,200 | 400   | 2,000  | 8,500  | 63,700             |
| 1971 | 2,300         | -     | 62,700 | 300   | 3,100  | 1,600  | 83,000             |
| 1972 | 3,800         | -     | 69,700 | 200   | 1,800  | 2,000  | 83,901             |
| 1973 | 4,900         | -     | 82,000 | 400   | 1,500  | 2,300  | 95,000             |
| 1974 | 3,194         | 1     | 63,756 | 277   | 1,178  | 22,416 | 95,914             |
| 1975 | 1,744         | 3     | 47,421 | 155   | 584    | 14,462 | 67,351             |
| 1976 | 4,809         | 288   | 90,444 | 200   | 845    | 9,424  | 108,706            |
| 1977 | 4,489         | -     | 41,476 | 786   | 375    | 4,650  | 53,184             |
| 1978 | 4,934         | 175   | 69,619 | 748   | 689    | 6,755  | 84,079             |
| 1979 | 5,821         | 38    | 57,642 | 255   | 730    | 1,056  | 67,341             |
| 1980 | 5,582         | -     | 58,215 | 288   | 1,328  | 3,161  | 70,632             |
| 1981 | 7,198         | 196   | 47,977 | 378   | 1,210  | 4,901  | 65,837             |
| 1982 | 6,770         | 713   | 48,356 | 113   | 1,771  | 7,181  | 67,640             |
| 1983 | 7,384         | 515   | 34,173 | 421   | 1,799  | 4,252  | 51,627             |
| 1984 | 8,294         | 1,825 | 43,782 | 618   | 1,592  | 3,248  | 62,164             |
| 1985 | 5,670         | 2,958 | 30,846 | 247   | 2,139  | 8,282  | 54,137             |
| 1986 | 5,821         | 1,633 | 25,897 | 369   | 2,219  | 9,772  | 49,927             |
| 1987 | 6,168         | 1,060 | 26,912 | 634   | 2,886  | 9,289  | 50,333             |
| 1988 | 9,201         | 1,963 | 22,954 | 588   | 3,128  | 4,824  | 45,243             |
| 1989 | 5,589         | 1,802 | 24,051 | 318   | 5,859  | 6,542  | 46,616             |
| 1990 | 5,274         | 515   | 25,188 | 646   | 4,974  | 7,021  | 46,105             |
| 1991 | 6,700         | 561   | 20,862 | 857   | 1,900  | 4,352  | 37,664             |
| 1992 | 6,526         | 394   | 28,336 | 681   | 2,144  | 8,405  | 49,246             |
| 1993 | 6,450         | -     | 33,011 | 1,658 | 2,759  | 12,173 | 58,266             |
| 1994 | 4,839         | -     | 40,098 | 1,695 | 2,167  | 19,144 | 70,890             |
| 1995 | 5,098         | -     | 33,857 | 960   | 2,307  | 17,490 | 62,543             |
| 1996 | 4,401         | -     | 48,364 | 613   | 2,267  | 2,124  | 61,059             |
| 1997 | 4,717         | -     | 66,487 | 430   | 2,876  | 5,027  | 83,592             |
| 1998 | 5,187         | -     | 54,206 | 473   | 3,287  | 6,481  | 73,756             |
| 1999 | 4,506         | -     | 85,662 | 457   | 1,565  | 3,527  | 99,027             |
| 2000 | 2,372         | -     | 45,852 | 354   | 1,052  | 7,926  | 61,249             |
| 2001 | 3,285         | -     | 49,507 | 864   | 2,415  | 8,678  | 69,196             |
| 2002 | 3,285         | -     | 49,507 | 864   | 2,415  | 8,678  | 68,888             |
| 2003 | 1,916         | -     | 52,068 | 629   | 1,877  | 3,018  | 62,890             |
| 2004 | 1,231         | -     | 58,738 | 1,834 | 3,254  | 2,265  | 72,624             |

\* Numbers refer to FAO fishing area (see Figure 2)

.\*\* not available

\*\*\* zero

Source: FAO 2006

## IMPORTS

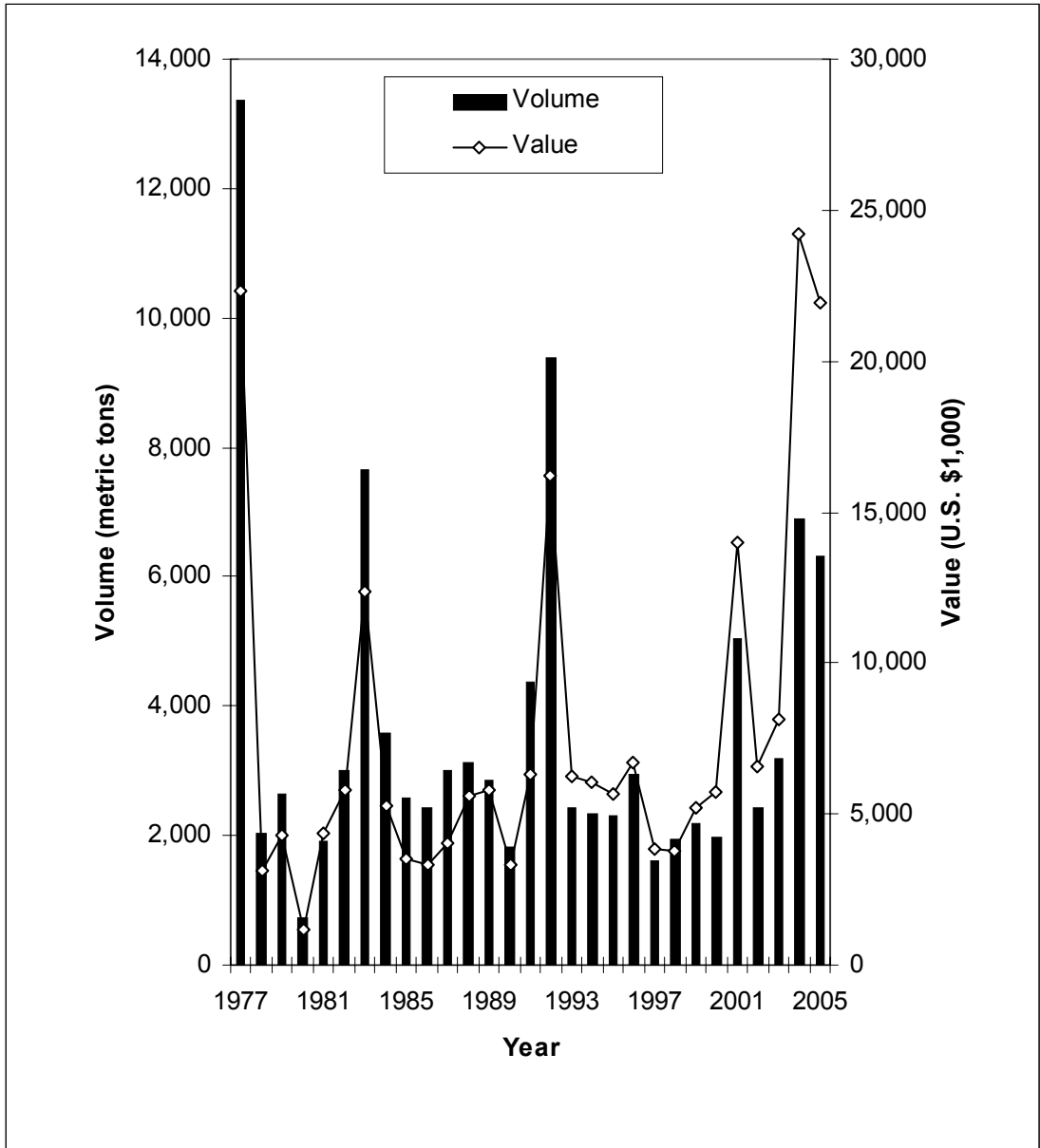
Japan liberalized the import of tuna in 1961, making it free from import quota restrictions (Suisan Sha 1968). Tuna imports to Japan have since steadily increased and the trend has been accentuated in recent years. From 1981 to 2005, imports of tuna into Japan increased more than five times in volume and seven times in value (Japan Fish Traders Association 1982 and 2006). Much of this increase was due to strong demand, decreased domestic catches, and strong yen (Appendix).

Japan's imports of fresh and frozen albacore in 2005 were 6,308 mt valued at about \$22 million, a decrease of 9 percent in volume and 10 percent in value over 2004 imports (Figure 4). Frozen products dominated, representing as much as 97 percent in volume and 95 percent in value (Tables 13 and 14). Fresh products accounted for 3 percent in volume and 5 percent in value.

Imports of frozen albacore rose from 1,669 mt in 2002 to 6,100 mt in 2005. Canada has been the leading supplier of frozen albacore to the Japanese market since 2004 (Table 13). In 2005, significant quantities of frozen albacore were also shipped from the United States, the Republic of Korea, and Trinidad. Supplies of frozen albacore from Taiwan to Japan increased from 8 mt in 2004 to 413 mt in 2005.

Imports of fresh albacore were minor. Fiji has remained the major source for air-shipped fresh albacore since 1991 (Table 14 and Japan Marine Products Importers Association 1992-2006). Supplies of fresh albacore from Fiji to Japan have declined since 2003.

Albacore products imported into Japan are subject to tariffs. As the United States and Japan are signatories to the World Trade Organization (WTO), WTO tariffs apply to imports of albacore products from the U.S. The current tariff for fresh or frozen albacore products is 3.5 percent, calculated as percentage of total cost, including, insurance and freight.



Source: Japan Fish Traders Association 1978-2006

**Figure 3. Japan's imports of fresh and frozen albacore, 1977-2005.**

**Table 13. Japan's frozen albacore imports by country, 2002-2005.**

| Country of Origin | 2002         | 2003         | 2004         | 2005         | 2002         | 2003         | 2004          | 2005          |
|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|
|                   | Metric tons  |              |              |              | U.S. \$1,000 |              |               |               |
| Canada            | 206          | 837          | 2,916        | 2,084        | 524          | 2,342        | 11,594        | 8,155         |
| U.S.A.            | 116          | 380          | 1,897        | 1,702        | 210          | 891          | 6,798         | 6,246         |
| Korea, Rep. of    | 1,028        | 1,206        | 1,372        | 939          | 1,515        | 2,221        | 2,970         | 1,865         |
| Trinidad          | -*           | -            | -            | 716          | -            | -            | -             | 2,506         |
| Taiwan            | 122          | 124          | 8            | 413          | 215          | 191          | 15            | 1,262         |
| Singapore         | -            | -            | 101          | 98           | -            | -            | 245           | 246           |
| Cook Islands      | -            | -            | -            | 86           | -            | -            | -             | 237           |
| China             | 95           | 97           | -            | 29           | 106          | 135          | -             | 67            |
| Guam              | 4            | 18           | 14           | 19           | 4            | 23           | 14            | 25            |
| Ecuador           | 68           | 28           | 49           | 12           | 131          | 59           | 125           | 31            |
| Australia         | -            | -            | -            | 1            | -            | -            | -             | 3             |
| Belize            | -            | -            | 83           | -            | -            | -            | 200           | -             |
| Panama            | -            | -            | 16           | -            | -            | -            | 38            | -             |
| Brazil            | -            | -            | 14           | -            | -            | -            | 25            | -             |
| Vanuatu           | -            | -            | 13           | -            | -            | -            | 21            | -             |
| Philippine        | 3            | 26           | 5            | -            | 4            | 33           | 7             | -             |
| Viet Nam          | -            | -            | 2            | -            | -            | -            | 2             | -             |
| Namibia           | -            | -            | 2            | -            | -            | -            | 2             | -             |
| Fiji              | -            | -            | 1            | -            | -            | -            | 2             | -             |
| Thailand          | -            | 84           | -            | -            | -            | 143          | -             | -             |
| Indonesia         | 1            | 6            | -            | -            | 2            | 6            | -             | -             |
| Iceland           | -            | 1            | -            | -            | -            | 3            | -             | -             |
| Spain             | 13           | -            | -            | -            | 27           | -            | -             | -             |
| Bolivia           | 7            | -            | -            | -            | 11           | -            | -             | -             |
| Portugal          | 4            | -            | -            | -            | 6            | -            | -             | -             |
| Libya             | 2            | -            | -            | -            | 7            | -            | -             | -             |
| <b>Total</b>      | <b>1,669</b> | <b>2,804</b> | <b>6,494</b> | <b>6,100</b> | <b>2,763</b> | <b>6,047</b> | <b>22,061</b> | <b>20,643</b> |

-\* zero imports

Total may not add due to rounding

Source: Japan Fish Traders Association 2003-2006

**Table 14. Japan's fresh albacore imports by country, 2002-2005.**

| Country of Origin | 2002        | 2003       | 2004       | 2005       | 2002         | 2003         | 2004         | 2005         |
|-------------------|-------------|------------|------------|------------|--------------|--------------|--------------|--------------|
|                   | Metric tons |            |            |            | U.S. \$1,000 |              |              |              |
| Fiji              | 377         | 206        | 191        | 153        | 1,882        | 1,024        | 1,131        | 806          |
| Australia         | 49          | 36         | 19         | 27         | 295          | 263          | 132          | 146          |
| Papua New Guinea  | 1           | 21         | 83         | 20         | 7            | 86           | 374          | 105          |
| Tonga             | 6           | 2          | 3          | 2          | 59           | 9            | 15           | 12           |
| Solomon Islands   | -*          | 2          | 78         | 2          | -            | 8            | 275          | 9            |
| New Caledonia     | 270         | 79         | 8          | 1          | 1,305        | 412          | 42           | 8            |
| Indonesia         | 1           | -          | 7          | 1          | 8-           | -            | 56           | 3            |
| French Polynesia  | 13          | -          | -          | 1          | 80           | -            | -            | 3            |
| New Zealand       | -           | 9          | 10         | -          | -            | 61           | 74           | -            |
| Korea, Rep. of    | -           | -          | 6          | -          | -            | -            | 6            | -            |
| Cook Islands      | 25          | 36         | 3          | -          | 127          | 187          | 19           | -            |
| Samoa             | 1           | 2          | -          | -          | 7            | 8            | -            | -            |
| American Samoa    | -           | 1          | -          | -          | -            | 4            | -            | -            |
| U.S.A.            | 1           | -          | -          | -          | 11           | -            | -            | -            |
| Portugal          | 0**         | -          | -          | -          | 3            | -            | -            | -            |
| <b>Total</b>      | <b>746</b>  | <b>393</b> | <b>407</b> | <b>207</b> | <b>3,783</b> | <b>2,062</b> | <b>2,124</b> | <b>1,091</b> |

-\* zero imports

0\*\* more than zero but less than 500 kg.

Total may not add due to rounding

Source: Japan Fish Traders Association 2003-2006



## EXPORTS

Japanese exports of albacore products from 1994 through 2005 are summarized in Table 15. In 2005, Japan exported about 11,000 mt, amounting to \$25.42 million worth of fresh and frozen albacore products, a decrease of 62 percent in volume and 59 percent in value from the 2004 level. Much of the decrease was due to decreased exports of frozen albacore.

Japanese exports of frozen albacore in 2005 decreased 62 percent in volume and 59 percent in value over 2004 (Table 16). Thailand has been the major market, taking as much as 78 percent in volume and 80 percent in value of Japanese exports of frozen albacore in 2005. Other important buyers for Japanese frozen albacore in 2005 were South Africa, Mauritius, American Samoa, and Malaysia.

Japanese exports of fresh albacore are minor (Table 17). Papua New Guinea and Guam were the main buyers of fresh albacore in 2005.

**Table 15. Japan's exports of fresh and frozen albacore, 1994-2005.**

| Year | Volume (metric tons) |       |        | Value (million yen) |       |       | U.S.\$1,000 |
|------|----------------------|-------|--------|---------------------|-------|-------|-------------|
|      | Frozen               | Fresh | Total  | Frozen              | Fresh | Total | Total       |
| 1994 | 23,504               | 1,481 | 24,985 | 5,468               | 337   | 5,805 | 56,546      |
| 1995 | 18,525               | -*    | 18,525 | 3,910               | -     | 3,910 | 41,587      |
| 1996 | 17,553               | 9     | 17,562 | 4,168               | 3     | 4,171 | 38,496      |
| 1997 | 31,623               | 6     | 31,629 | 8,396               | 2     | 8,398 | 69,762      |
| 1998 | 26,913               | 215   | 27,128 | 6,759               | 82    | 6,841 | 52,082      |
| 1999 | 27,195               | 54    | 27,249 | 6,694               | 24    | 6,718 | 58,702      |
| 2000 | 11,942               | 141   | 12,083 | 2,898               | 63    | 2,960 | 27,555      |
| 2001 | 5,288                | 14    | 5,302  | 1,566               | 7     | 1,572 | 13,004      |
| 2002 | 16,760               | 83    | 16,843 | 3,336               | 18    | 3,354 | 26,686      |
| 2003 | 15,357               | 84    | 15,440 | 3,139               | 29    | 3,168 | 27,207      |
| 2004 | 28,538               | 34    | 28,572 | 6,721               | 11    | 6,733 | 62,185      |
| 2005 | 10,683               | 137   | 10,821 | 2,735               | 51    | 2,786 | 25,424      |

-\* zero exports

Total may not add due to rounding

Source: Ministry of Finance 1995-2006

**Table 16. Japan's exports of frozen albacore by country, 2002-2005.**

| Country of Origin | 2002          | 2003          | 2004          | 2005          | 2002                | 2003         | 2004         | 2005         |
|-------------------|---------------|---------------|---------------|---------------|---------------------|--------------|--------------|--------------|
|                   | Metric tons   |               |               |               | Value (million yen) |              |              |              |
| Thailand          | 14,608        | 13,847        | 14,065        | 8,342         | 2,935               | 2,846        | 3,226        | 2,187        |
| South Africa      | 485           | 619           | 886           | 941           | 76                  | 109          | 165          | 192          |
| Mauritius         | 117           | 161           | 63            | 610           | 18                  | 28           | 12           | 131          |
| American Samoa    | 183           | 139           | 11,605        | 400           | 38                  | 29           | 2,853        | 106          |
| Malaysia          | 554           | 275           | 839           | 172           | 109                 | 55           | 197          | 42           |
| China             | 25            | 69            | 117           | 71            | 9                   | 26           | 55           | 34           |
| Viet Nam          | - *           | -             | 75            | 73            | -                   | -            | 17           | 21           |
| Indonesia         | 166           | 50            | 478           | 51            | 36                  | 10           | 105          | 16           |
| Spain             | 25            | 64            | 211           | 14            | 5                   | 13           | 43           | 3            |
| Canary Islands    | 130           | 31            | 38            | 9             | 23                  | 5            | 7            | 2            |
| Hong Kong         | 0 **          | -             | -             | 0             | 2                   | -            | -            | 1            |
| Taiwan            | -             | -             | -             | 0             | -                   | -            | -            | 1            |
| Canada            | -             | -             | 81            | -             | -                   | -            | 23           | -            |
| Korea, Repl of    | 273           | -             | 75            | -             | 43                  | -            | 17           | -            |
| Peru              | -             | 6             | 8             | -             | -                   | 1            | 0            | -            |
| U.S.A.            | -             | 69            | -             | -             | -                   | 12           | -            | -            |
| Philippines       | -             | 24            | -             | -             | -                   | 5            | -            | -            |
| France            | 168           | -             | -             | -             | 37                  | -            | -            | -            |
| Trinidad          | 25            | -             | -             | -             | 5                   | -            | -            | -            |
| <b>Total</b>      | <b>16,760</b> | <b>15,357</b> | <b>28,538</b> | <b>10,683</b> | <b>3,336</b>        | <b>3,139</b> | <b>6,721</b> | <b>2,735</b> |

-\* zero exports

0\*\* more than zero but less than 500 kg.

Total may not add due to rounding

Source: Japan Fish Traders Association 2003-2006

**Table 17. Japan's exports of fresh albacore by country, 2002-2006.**

| Country of Origin | 2002        | 2003      | 2004      | 2005       | 2002                | 2003      | 2004      | 2005      |
|-------------------|-------------|-----------|-----------|------------|---------------------|-----------|-----------|-----------|
|                   | Metric tons |           |           |            | Value (million yen) |           |           |           |
| Papua New Guinea  | - *         | -         | -         | 77         | -                   | -         | -         | 29        |
| Guam              | 10          | 83        | 34        | 60         | 4                   | 29        | 11        | 22        |
| Hong Kong         | 0 **        | 0         | 0         | -          | 0                   | 0         | 0         | -         |
| Thailand          | 73          | -         | -         | -          | 13                  | -         | -         | -         |
| <b>Total</b>      | <b>83</b>   | <b>84</b> | <b>34</b> | <b>137</b> | <b>18</b>           | <b>29</b> | <b>11</b> | <b>51</b> |

-\* zero exports

0\*\* more than zero but less than 500 kg.

Total may not add due to rounding

Source: Japan Fish Traders Association 2003-2006

### COLD STORAGE HOLDINGS

Table 18 shows Japan's monthly inventories of frozen albacore between 1990 and 2005. Monthly inventory for 2005 was lower than 1994-2004 average due to poor Japanese catches. Monthly inventories from January 2005 to August 2005 were also lower than the level in the same period a year earlier.

**Table 18. Monthly cold storage holdings of frozen albacore, 1990-2005 (metric tons).**

| Year                   | Jan.   | Feb.   | Mar.   | Apr.   | May    | June   |
|------------------------|--------|--------|--------|--------|--------|--------|
| 1990                   | 8,884  | 8,640  | 8,723  | 10,788 | 9,542  | 10,232 |
| 1991                   | 9,679  | 9,044  | 8,695  | 10,353 | 9,223  | 8,643  |
| 1992                   | 5,781  | 5,142  | 5,176  | 4,441  | 3,051  | 4,327  |
| 1993                   | 9,629  | 8,996  | 10,016 | 9,688  | 7,671  | 7,752  |
| 1994                   | 7,820  | 7,459  | 8,513  | 8,222  | 6,431  | 7,161  |
| 1995                   | 9,607  | 8,634  | 9,617  | 7,290  | 5,774  | 5,304  |
| 1996                   | 10,440 | 9,793  | 9,096  | 7,409  | 5,389  | 7,539  |
| 1997                   | 8,564  | 8,181  | 7,505  | 6,011  | 4,715  | 9,620  |
| 1998                   | 11,450 | 10,386 | 10,668 | 9,806  | 7,833  | 9,502  |
| 1999                   | 9,723  | 8,733  | 8,163  | 6,413  | 8,664  | 11,615 |
| 2000                   | 19,789 | 17,800 | 15,661 | 13,152 | 10,885 | 9,647  |
| 2001                   | 7,675  | 6,976  | 6,153  | 4,515  | 3,542  | 4,839  |
| 2002                   | 17,486 | 16,948 | 16,438 | 14,638 | 13,451 | 18,619 |
| 2003                   | 24,288 | 21,293 | 19,601 | 16,558 | 13,334 | 10,674 |
| 2004                   | 13,014 | 11,608 | 10,680 | 8,488  | 9,990  | 13,407 |
| 2005                   | 9,651  | 8,578  | 7,588  | 6,662  | 5,901  | 6,299  |
| Average<br>(1994-2004) | 12,714 | 11,619 | 11,100 | 9,318  | 8,183  | 9,812  |

| Year                   | July   | Aug.   | Sept.  | Oct.   | Nov.   | Dec.   |
|------------------------|--------|--------|--------|--------|--------|--------|
| 1990                   | 12,339 | 12,659 | 12,186 | 12,451 | 10,783 | 10,604 |
| 1991                   | 7,280  | 7,268  | 7,238  | 7,361  | 6,189  | 7,445  |
| 1992                   | 10,456 | 12,306 | 13,175 | 12,672 | 11,090 | 11,162 |
| 1993                   | 11,406 | 12,482 | 11,427 | 9,728  | 9,304  | 8,492  |
| 1994                   | 10,114 | 13,036 | 13,744 | 12,848 | 11,872 | 10,645 |
| 1995                   | 8,941  | 10,494 | 12,054 | 10,696 | 11,112 | 10,642 |
| 1996                   | 12,474 | 12,814 | 13,687 | 11,362 | 10,702 | 9,953  |
| 1997                   | 10,955 | 11,585 | 12,483 | 13,419 | 13,699 | 12,497 |
| 1998                   | 9,521  | 11,602 | 13,220 | 13,357 | 12,146 | 11,089 |
| 1999                   | 14,576 | 15,557 | 20,876 | 21,095 | 22,637 | 21,293 |
| 2000                   | 11,496 | 12,074 | 12,127 | 11,528 | 9,783  | 8,747  |
| 2001                   | 7,475  | 12,729 | 14,008 | 15,188 | 14,560 | 13,707 |
| 2002                   | 22,571 | 28,184 | 32,158 | 31,339 | 28,749 | 26,111 |
| 2003                   | 10,995 | 12,075 | 13,395 | 14,701 | 17,235 | 14,412 |
| 2004                   | 13,994 | 12,494 | 11,138 | 10,764 | 10,640 | 10,501 |
| 2005                   | 8,846  | 10,340 | 12,807 | 13,098 | 13,797 | 12,388 |
| Average<br>(1994-2004) | 12,101 | 13,877 | 15,354 | 15,118 | 14,830 | 13,600 |

Sources: Ministry of Agriculture, Forestry and Fisheries 1992-2006

## SUPPLY

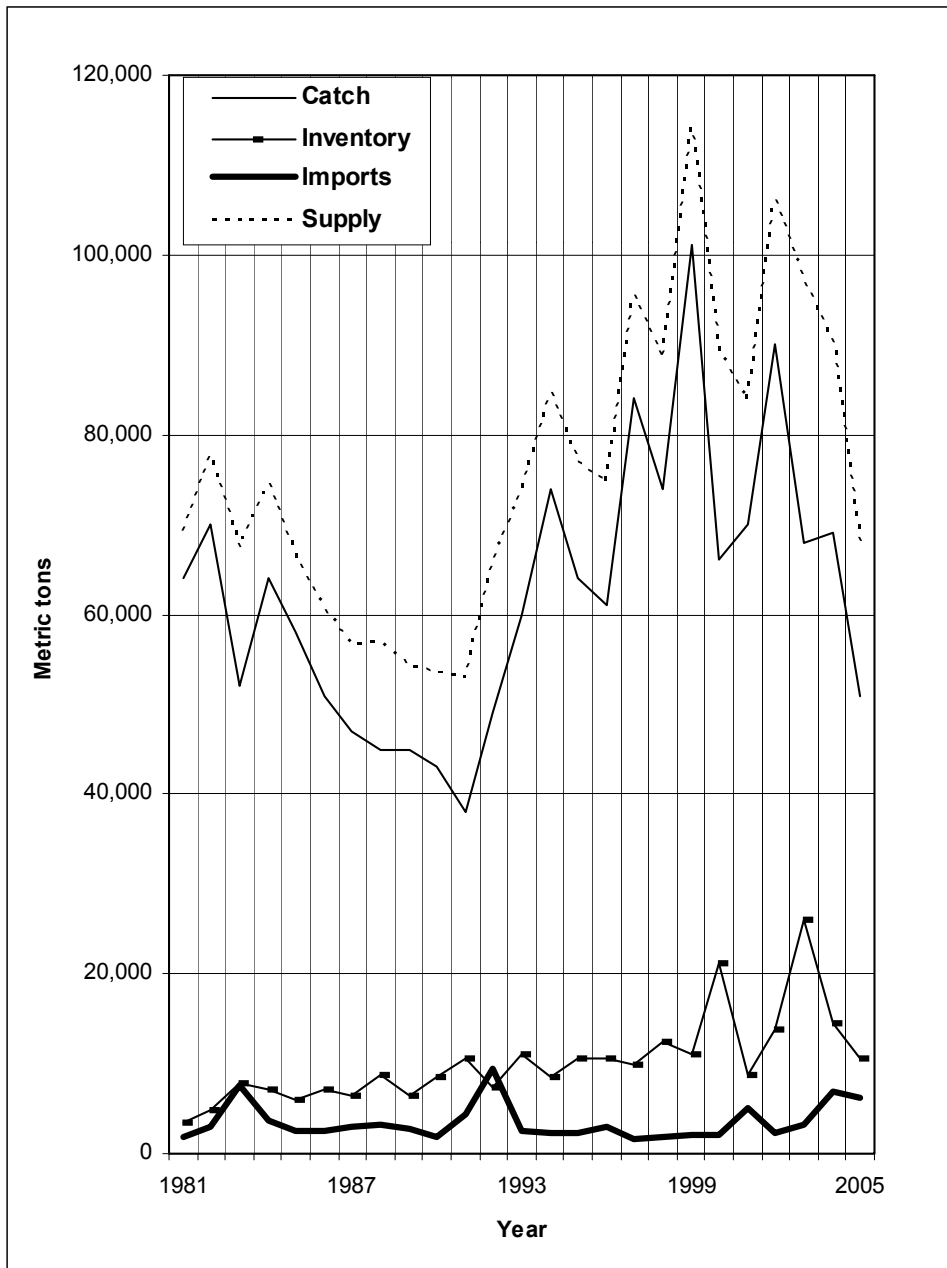
The annual supply of albacore for the Japanese market and for export is comprised of the cold storage inventory of January 1, plus that year's domestic catches and imports. The annual supply reached a record high in 1999 due mainly to sharply increased domestic catches (Table 19 and Figure 5).

Between 1981 and 2005, annual supply of albacore ranged between 53,000 and 114,000 mt, averaging 76,000 mt. During this period catches averaged 62,000 mt (about 82 percent of the total supply). The January inventory averaged 10,000 mt (13 percent), and imports 3,000 mt (5 percent) but the latter was higher (9 percent) in 2005, when the catch was lower.

**Table 19. Japan's annual supply of albacore, 1981-2005.**

| Year                   | Inventory<br>(January 1) | Imports | Catch   | Supply  | Percent of Supply |        |       |
|------------------------|--------------------------|---------|---------|---------|-------------------|--------|-------|
|                        |                          |         |         |         | Inventory         | Import | Catch |
| 1981                   | 3,495                    | 1,910   | 64,000  | 69,405  | 5%                | 3%     | 92%   |
| 1982                   | 4,911                    | 2,997   | 70,000  | 77,908  | 6%                | 4%     | 90%   |
| 1983                   | 7,739                    | 7,638   | 52,000  | 67,377  | 11%               | 11%    | 77%   |
| 1984                   | 7,164                    | 3,575   | 64,000  | 74,739  | 10%               | 5%     | 86%   |
| 1985                   | 5,968                    | 2,583   | 58,000  | 66,551  | 9%                | 4%     | 87%   |
| 1986                   | 7,064                    | 2,433   | 51,000  | 60,497  | 12%               | 4%     | 84%   |
| 1987                   | 6,561                    | 2,992   | 47,000  | 56,553  | 12%               | 5%     | 83%   |
| 1988                   | 8,691                    | 3,135   | 45,000  | 56,826  | 15%               | 6%     | 79%   |
| 1989                   | 6,420                    | 2,867   | 45,000  | 54,287  | 12%               | 5%     | 83%   |
| 1990                   | 8,557                    | 1,808   | 43,000  | 53,365  | 16%               | 3%     | 81%   |
| 1991                   | 10,604                   | 4,375   | 38,000  | 52,979  | 20%               | 8%     | 72%   |
| 1992                   | 7,445                    | 9,397   | 49,000  | 65,842  | 11%               | 14%    | 74%   |
| 1993                   | 11,162                   | 2,438   | 60,000  | 73,600  | 15%               | 3%     | 82%   |
| 1994                   | 8,492                    | 2,324   | 74,000  | 84,816  | 10%               | 3%     | 87%   |
| 1995                   | 10,645                   | 2,305   | 64,000  | 76,950  | 14%               | 3%     | 83%   |
| 1996                   | 10,642                   | 2,941   | 61,000  | 74,583  | 14%               | 4%     | 82%   |
| 1997                   | 9,953                    | 1,600   | 84,000  | 95,553  | 10%               | 2%     | 88%   |
| 1998                   | 12,497                   | 1,953   | 74,000  | 88,450  | 14%               | 2%     | 84%   |
| 1999                   | 11,089                   | 2,187   | 101,000 | 114,276 | 10%               | 2%     | 88%   |
| 2000                   | 21,293                   | 1,968   | 66,000  | 89,261  | 24%               | 2%     | 74%   |
| 2001                   | 8,747                    | 5,039   | 70,000  | 83,786  | 10%               | 6%     | 84%   |
| 2002                   | 13,707                   | 2,415   | 90,000  | 106,122 | 13%               | 2%     | 85%   |
| 2003                   | 26,111                   | 3,197   | 68,000  | 97,308  | 27%               | 3%     | 70%   |
| 2004                   | 14,412                   | 6,901   | 69,000  | 90,313  | 16%               | 8%     | 76%   |
| 2005                   | 10,501                   | 6,303   | 51,000  | 67,804  | 15%               | 9%     | 75%   |
| Average<br>(1981-2005) | 10,155                   | 3,491   | 62,320  | 75,966  | 13%               | 5%     | 82%   |

Sources: Ministry of Agriculture, Forestry and Fisheries 1983-2006  
Japan Fish Traders Association 1982-2006



Sources: Ministry of Agriculture, Forestry and Fisheries 1983-2006  
 Japan Fish Traders Association 1982-2006

**Figure 4. Japan's annual supply of albacore, 1981-2005 (metric tons).**

## DEMAND

Annual demand for albacore for both the Japanese market and for export (annual supply minus the cold storage inventory on December 31) was 55,416 mt in 2005, a decrease of 29 percent compared with 2004 (Table 20). Between 1998 and 2005, annual demand for albacore ranged between 55,000 and 93,000 mt, averaging 77,000 mt per year.

**Table 20. Japan's demand for albacore and apparent consumption, 1998-2005 (metric tons).**

| Year | Supply  | Inventory<br>(December 31) | Demand | Export | Apparent<br>consumption |
|------|---------|----------------------------|--------|--------|-------------------------|
| 1998 | 88,450  | 11,089                     | 77,361 | 27,128 | 50,233                  |
| 1999 | 114,276 | 21,293                     | 92,983 | 27,249 | 65,734                  |
| 2000 | 89,261  | 8,747                      | 80,514 | 12,083 | 68,431                  |
| 2001 | 83,786  | 13,707                     | 70,079 | 5,302  | 64,777                  |
| 2002 | 106,122 | 26,111                     | 80,011 | 16,843 | 63,168                  |
| 2003 | 97,308  | 14,412                     | 82,896 | 15,440 | 67,456                  |
| 2004 | 88,313  | 10,501                     | 77,812 | 28,572 | 49,240                  |
| 2005 | 67,804  | 12,388                     | 55,416 | 10,821 | 44,595                  |

Sources: Ministry of Agriculture, Forestry and Fisheries  
2000-2006  
Japan Fish Traders Association 1999-2006

## CONSUMPTION

Albacore is mainly used for canned products, but small quantities are sold in the form of loins at supermarkets for home consumption as steak and "teriyaki" (marinated in soy sauce and other flavorings, then grilled or broiled). Some high quality albacore is also increasingly used for sushi and "sashimi" (which typically consists of thin slices of raw seafood) served with soy sauce and condiments. Sashimi is eaten both at home and in restaurants.

The annual Japanese apparent consumption of albacore (demand minus exports) was 45,000 mt in 2005, a decrease of 9 percent compared with 2004 (Table 20). Between 1998 and 2005, annual apparent consumption of albacore averaged about 59,000 mt per year.

## WHOLESALE MARKETS

Albacore is usually sold through auctions at consumer wholesale markets located in consumption areas, and at production wholesale markets located at Japanese ports of landing. Albacore is also sold directly to processors and representatives of supermarket chains. The largest consumer wholesale fish market is the Tokyo Central Wholesale Market. In 2005, this market handled about 653,000 mt of seafood products valued at about \$4.9 billion (Tokyo Metropolitan Government 2006). It therefore plays an important role in providing indicators about supply and demand of fishery products in Japan. Wholesale prices at the Tokyo Central Wholesale Market generally serve as price indices for fishery products throughout the world.

Wholesale prices for albacore vary widely, depending on quality, origin, and supply and demand, as well as other factors.

### Wholesale Prices at 10 Major Central Wholesale Markets

Table 21 and Figures 5 show annual average wholesale prices and supply of frozen albacore at 10 major central wholesale markets<sup>2</sup> in Japan between 1997 and 2005. The wholesale prices at major markets were generally dictated by the supply: the lower the supplies, the higher the prices. As shown in Table 21 and Figures 5, the highest price of frozen albacore (1,410 yen/kg) was realized in 2001 when supply was at the lowest at 530 mt.

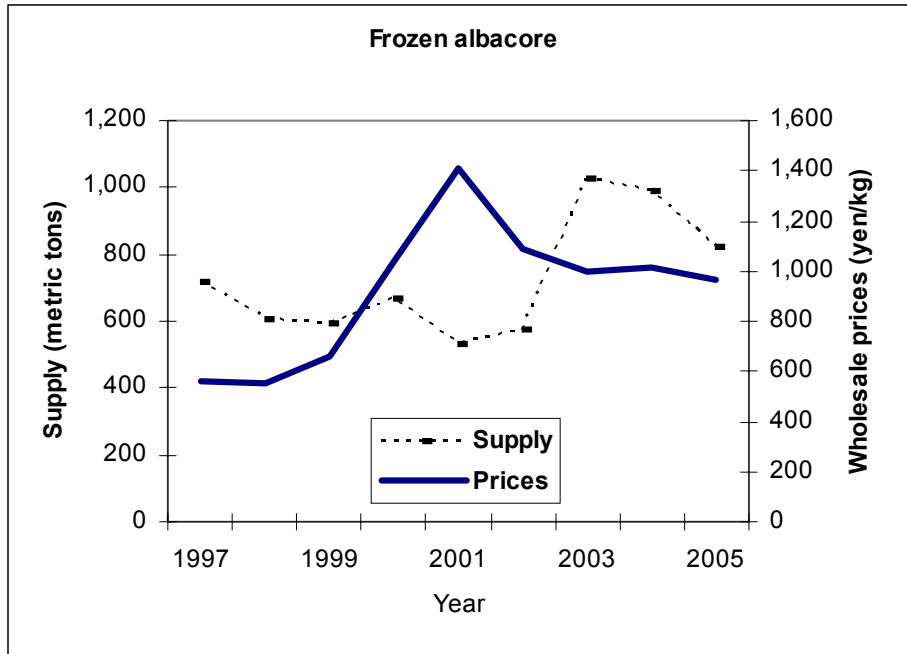
**Table 21. Annual average wholesale prices and supply of frozen albacore at ten major central wholesale markets in Japan, 1997-2005.**

| Year | Supply<br>(metric ton) | Wholesale price<br>(yen/kg) |
|------|------------------------|-----------------------------|
| 1997 | 716                    | 561                         |
| 1998 | 604                    | 555                         |
| 1999 | 592                    | 659                         |
| 2000 | 665                    | 1,041                       |
| 2001 | 530                    | 1,410                       |
| 2002 | 575                    | 1,091                       |
| 2003 | 1,026                  | 995                         |
| 2004 | 987                    | 1,014                       |
| 2005 | 822                    | 967                         |

Source: Ministry of Agriculture, Forestry and Fisheries  
1999-2006

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<sup>2</sup> Markets in Tokyo, Sapporo, Sendai, Yokohama, Nagoya, Kyoto, Osaka, Kobe, Hiroshima, and Fukuoka



Source: Ministry of Agriculture, Forestry and Fisheries  
1999-2006

**Figure 5. Annual average wholesale prices and supply of frozen albacore at ten major central wholesale markets in Japan, 1997-2005.**



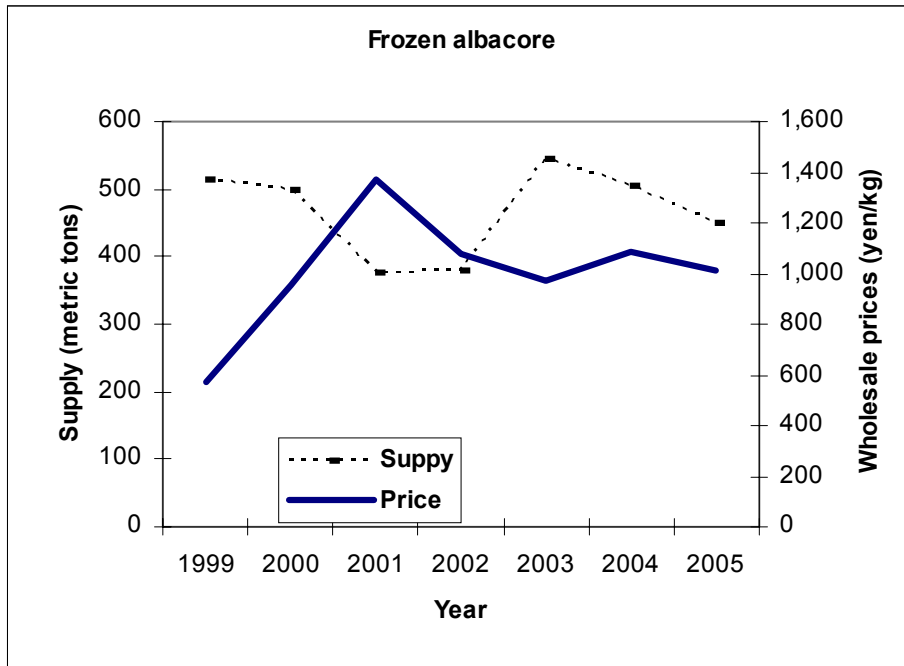
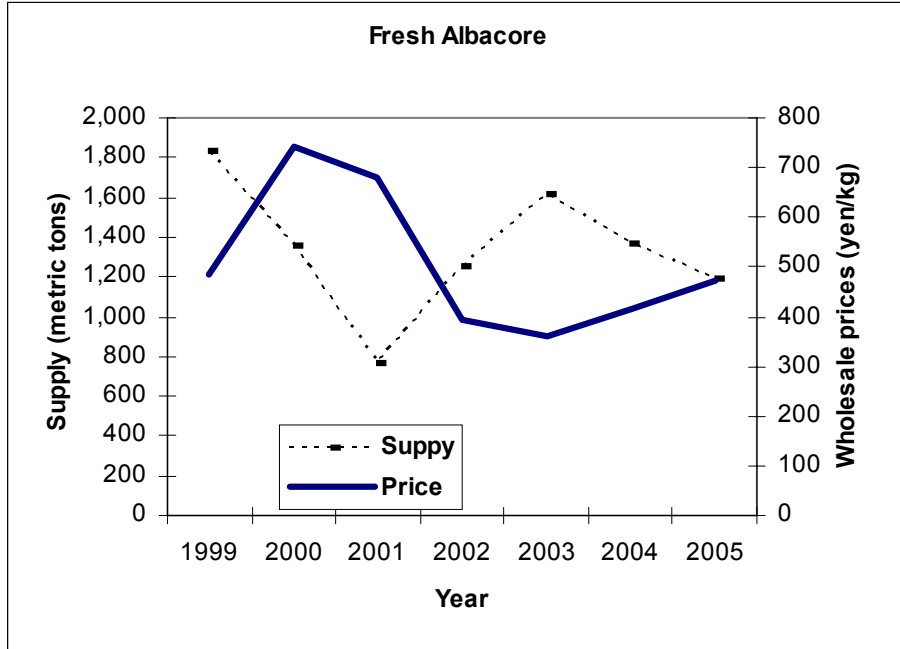
## Wholesale Prices at the Tokyo Central Wholesale Market

Table 22 and Figure 6 show annual average wholesale prices and supply of albacore at the Tokyo Central Wholesale Market between 1999 and 2005. Wholesale prices for both fresh and frozen albacore showed fluctuations which were influenced mainly by volume of supply, usually, the lower the supply, the higher the price, and vice versa.

**Table 22. Annual average wholesale prices and supply of albacore at Tokyo Central Wholesale Market, 1999-2005.**

| Year | Fresh                  |                   | Frozen                 |                   |
|------|------------------------|-------------------|------------------------|-------------------|
|      | Supply<br>(metric ton) | Price<br>(yen/kg) | Supply<br>(metric ton) | Price<br>(yen/kg) |
| 1999 | 1,835                  | 485               | 514                    | 573               |
| 2000 | 1,354                  | 744               | 500                    | 958               |
| 2001 | 765                    | 679               | 377                    | 1,368             |
| 2002 | 1,254                  | 393               | 381                    | 1,077             |
| 2003 | 1,619                  | 362               | 546                    | 972               |
| 2004 | 1,367                  | 414               | 506                    | 1,085             |
| 2005 | 1,196                  | 472               | 449                    | 1,010             |

Source: Tokyo Metropolitan Government 2000-2006



Source: Tokyo Metropolitan Government 2000-2006

**Figure 6. Annual average wholesale prices and supply of albacore at Tokyo Central Wholesale Market, 1999-2005.**

## **Direct Sales to the Tokyo Central Wholesale Market**

United States exporters can export fresh albacore on consignment basis to auction houses at the Tokyo Central Wholesale Market for sale through auctions. Auction houses do not receive frozen albacore directly from overseas. Auction houses at Tokyo Central Wholesale Market are authorized by the Ministry of Agriculture, Forestry, and Fishery to handle fish through auctions at the market. Auction houses at the Tokyo Central Wholesale Market are listed at:  
[http://www.tsukiji-market.or.jp/youkoso/oroshi7/orosi7\\_e.htm](http://www.tsukiji-market.or.jp/youkoso/oroshi7/orosi7_e.htm)

## **Other Wholesale Markets**

While the Tokyo Central Wholesale Market is the largest consumer wholesale market in Japan, other wholesale markets also handle substantial amounts of fish and prices for the same commodities may vary considerably from market to market. Prices at the Tokyo Central Wholesale Market may not always be the most profitable for exporters. For example, in 2003, highest price for frozen albacore occurred at Yokohama Central Wholesale Market (Ministry of Agriculture, Forestry and Fisheries 2006).

## **Direct Sales to Supermarket Chains**

Huge national chains of supermarkets have become significant factors in the Japanese economy. Many of these supermarkets maintain independent supply systems dealing directly with producers, including those located overseas. Since these retailers are powerful enough to use their own independent suppliers, they represent additional potential buyers other than wholesale markets.

## REFERENCES

- FAO. 2006. FISHSTAT PLUS. Capture Production. 1950-2004. Food and Agriculture Organization of the United Nations, Rome.
- Japan Fish Traders Association. 1978-2006. [Annual report series]. Japanese imports of marine products (statistics). Tokyo, Japan.
- \_\_\_\_\_.1995-2006. [Annual report series]. Japanese exports of marine products (statistics). Tokyo, Japan.
- Ministry of Agriculture, Forestry, and Fisheries. 1982-2006. [Annual report series]. Gyogyo suisanbutsu ryutsu tokei nenpo [Annual statistics of fishery marketing in Japanese]. Statistics and Information Department. Tokyo, Japan.
- \_\_\_\_\_.1967, 1978, 1988, 1999-2006. [annual report series]. Gyogyo yoshoku nenpo [Annual production of fisheries and culture in Japanese]. Statistics and Information Department. Tokyo, Japan.
- Ministry of Finance. 1995-2006. [Annual report series]. Shuyo Suisan Boeki Tokei [Fishery Trade Statistics by Major Species in Japanese]. Trade Statistics Department. Tokyo, Japan.
- Tokyo Metropolitan Government. 2000-2006 [Annual report series]. Tokyo to Chuo Oroshiuri Ichiba Nenpo [Tokyo Central Wholesale Market, annual report]. Tokyo, Japan.
- U.S. Department of Commerce. 2006. United States Exports. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Fisheries Statistics and Economics Division.

**Appendix. Monthly and annual average exchange rate applied to Japanese imports, 1981-2005 (yen/U.S. \$1.00).**

| Month     | 1981   | 1982   | 1983   | 1984   | 1985   | 1986   | 1987   |
|-----------|--------|--------|--------|--------|--------|--------|--------|
| January   | 203.99 | 221.36 | 232.89 | 233.83 | 252.04 | 202.07 | 159.01 |
| February  | 203.44 | 231.15 | 237.03 | 233.98 | 256.66 | 193.53 | 152.70 |
| March     | 207.80 | 237.03 | 235.99 | 228.79 | 260.53 | 180.21 | 153.47 |
| April     | 211.99 | 246.01 | 238.61 | 225.10 | 254.49 | 178.62 | 146.97 |
| May       | 217.18 | 237.25 | 235.43 | 227.48 | 251.36 | 167.08 | 139.91 |
| June      | 223.89 | 243.66 | 238.48 | 231.56 | 250.26 | 169.29 | 142.58 |
| July      | 226.55 | 256.07 | 239.93 | 238.69 | 246.22 | 163.17 | 147.81 |
| August    | 236.35 | 257.18 | 242.70 | 243.69 | 237.92 | 155.04 | 150.83 |
| September | 230.26 | 258.60 | 244.80 | 243.02 | 239.20 | 154.66 | 143.02 |
| October   | 229.15 | 268.14 | 236.15 | 246.68 | 221.43 | 154.23 | 144.59 |
| November. | 230.56 | 272.81 | 234.22 | 244.08 | 209.32 | 160.34 | 138.52 |
| December  | 218.15 | 250.33 | 234.81 | 246.07 | 202.60 | 162.73 | 132.65 |
| Jan.-Dec. | 219.94 | 248.30 | 237.59 | 236.91 | 240.17 | 170.08 | 146.01 |

| Month     | 1988   | 1989   | 1990   | 1991   | 1992   | 1993   | 1994   |
|-----------|--------|--------|--------|--------|--------|--------|--------|
| January   | 126.01 | 125.64 | 144.36 | 135.27 | 126.21 | 124.66 | 111.79 |
| February  | 128.57 | 128.49 | 144.93 | 130.97 | 125.47 | 123.98 | 109.23 |
| March     | 128.72 | 128.00 | 148.61 | 134.02 | 130.46 | 117.95 | 105.04 |
| April     | 125.64 | 132.12 | 156.99 | 137.68 | 133.37 | 115.05 | 104.47 |
| May       | 124.76 | 133.78 | 157.09 | 137.71 | 132.77 | 110.81 | 103.07 |
| June      | 125.23 | 143.06 | 159.28 | 139.05 | 128.15 | 107.97 | 104.29 |
| July      | 131.40 | 141.60 | 151.95 | 138.85 | 125.61 | 108.16 | 99.55  |
| August    | 133.12 | 140.29 | 148.90 | 137.00 | 126.99 | 105.38 | 99.57  |
| September | 134.21 | 145.10 | 142.96 | 136.24 | 124.36 | 104.37 | 99.25  |
| October   | 132.58 | 142.58 | 133.82 | 131.72 | 121.03 | 105.79 | 98.97  |
| November  | 125.36 | 142.67 | 128.31 | 130.47 | 122.71 | 107.80 | 97.41  |
| December  | 122.21 | 143.83 | 130.86 | 129.14 | 124.11 | 108.35 | 99.22  |
| Jan.-Dec. | 128.15 | 137.26 | 145.67 | 134.84 | 126.77 | 111.69 | 102.66 |

**Appendix (continued). Monthly and annual average exchange rate applied to Japanese imports, 1981-2005 (yen/U.S. \$1.00).**

| Month     | 1995   | 1996   | 1997   | 1998   | 1999   | 2000   | 2001   |
|-----------|--------|--------|--------|--------|--------|--------|--------|
| January   | 100.25 | 104.49 | 115.60 | 130.98 | 114.09 | 103.76 | 115.37 |
| February  | 99.19  | 106.38 | 121.26 | 125.90 | 115.02 | 107.05 | 116.56 |
| March     | 94.49  | 105.32 | 122.38 | 127.35 | 119.88 | 108.29 | 118.10 |
| April     | 86.99  | 107.07 | 124.29 | 130.84 | 119.55 | 106.02 | 123.97 |
| May       | 83.75  | 106.02 | 123.99 | 132.33 | 120.21 | 107.38 | 122.56 |
| June      | 84.96  | 108.19 | 114.98 | 138.65 | 121.52 | 108.36 | 120.93 |
| July      | 85.46  | 109.55 | 114.08 | 140.47 | 121.56 | 106.34 | 124.40 |
| August    | 90.73  | 107.84 | 117.18 | 143.44 | 115.95 | 108.70 | 123.50 |
| September | 98.48  | 108.78 | 119.44 | 138.58 | 110.21 | 106.71 | 119.97 |
| October   | 100.88 | 110.99 | 121.18 | 129.32 | 106.34 | 107.88 | 119.40 |
| November  | 101.56 | 112.86 | 122.27 | 118.14 | 105.21 | 108.14 | 121.73 |
| December  | 101.51 | 112.70 | 127.90 | 120.26 | 103.73 | 110.67 | 124.35 |
| Jan.-Dec. | 94.02  | 108.35 | 120.38 | 131.36 | 114.44 | 107.44 | 120.90 |

| Month     | 2002   | 2003   | 2004   | 2005   |
|-----------|--------|--------|--------|--------|
| January   | 131.11 | 119.60 | 106.93 | 103.70 |
| February  | 133.32 | 119.30 | 106.03 | 103.80 |
| March     | 132.04 | 118.06 | 108.98 | 104.80 |
| April     | 132.09 | 119.62 | 106.25 | 107.10 |
| May       | 128.74 | 118.54 | 110.39 | 106.00 |
| June      | 124.84 | 117.74 | 111.10 | 107.90 |
| July      | 120.17 | 118.31 | 108.75 | 110.60 |
| August    | 118.39 | 119.35 | 110.45 | 111.50 |
| September | 118.93 | 117.32 | 109.72 | 110.20 |
| October   | 123.23 | 111.49 | 110.29 | 113.30 |
| November  | 122.40 | 109.18 | 106.66 | 116.70 |
| December  | 122.83 | 108.71 | 103.64 | 119.50 |
| Jan.-Dec. | 125.67 | 116.44 | 108.27 | 109.59 |

Sources: Japan Fish Traders Association 1982-2006