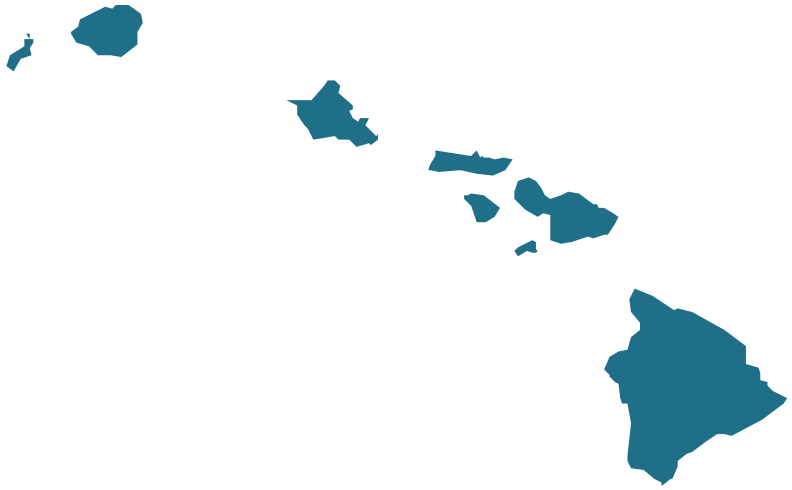
# Western Pacific

## - Hawai’i



### Management Context

The Western Pacific Region includes the state of Hawai'i[1]. Federal fisheries in this region are managed by the Western Pacific Fishery Management Council (WPFMC) and NOAA Fisheries (NMFS) under five fishery ecosystem plans (FEPs). Fishery ecosystem plans manage marine resources from a place-based perspective rather than managing fishing activities in terms of targeted species. These FEPs replaced the Council's existing fishery management plans (FMPs) for Bottomfish and Seamount Groundfish, Coral Reef Ecosystems, Crustaceans, and Precious Corals.

**Western Pacific Fishery Ecosystem Plans**

1. American Samoa Archipelago
2. Hawai'i Archipelago
3. Mariana Archipelago
4. Pacific Remote Island Area
5. Pacific Pelagics

Of the stocks covered in these fishery ecosystem plans, the Hancock Seamount Groundfish Complex is currently considered overfished. This fishery has been closed since 1986. Bigeye tuna is currently subject to overfishing and this status is considered to be primarily due to international fishing pressure. The U.S. harvested 6% (14 million pounds) of the Pacific-wide (western-central and eastern Pacific Ocean) total of Pacific bigeye tuna landings reported in 2010. Currently, there are no catch share programs in place in this region.

In addition to management oversight provided by the WPFMC and NOAA Fisheries, pelagic fish species such as bigeye and yellowfin tunas are also managed by two regional fishery management organizations (RFMOs). The Western and Central Pacific Fisheries Commission (WCPFC) is active in the western and central Pacific Ocean and the Inter-American Tropical Tuna Commission (IATTC) is active in the eastern Pacific Ocean. Species under the purview of the WCPFC and IATTC migrate across international boundaries and require coordinated management between countries with fishing interests in the Pacific Ocean.

The annual bigeye tuna catch limit recommended by WCPFC for the U.S. longline fleet in the Western and Central Pacific Ocean is 8.3 million pounds. NMFS responded to the measure by establishing a quota of 8.3 million pounds of bigeye tuna that may be caught in the Western and Central Pacific Ocean and retained by U.S. longline vessels beginning in 2009. The fishery was closely monitored during the year. The quota in the Western Pacific ocean was reached toward the end of the year and, therefore, the Hawai'i longline fishery was only closed for three days in 2009. In the meantime, the harvest limit established by the IATTC for the U.S. longline fleet in eastern tropical Pacific bigeye tuna is 1.1 million pounds. However, this quota is only applied to U.S. longline vessels greater than 78.7 feet in length, all other vessels are not bound by any catch limit in the Eastern tropical Pacific.[2]

### Commercial Fisheries

Fishermen in Hawai'i earned $84 million from their commercial harvest in 2010, landing over 28 million pounds of finfish and shellfish. Tunas comprised 71% of this landings revenue ($60 million) as well as 60% of total landings (17 million pounds). Swordfish ($7.3 million), mahimahi ($3.3 million), moonfish ($2.6 million), and marlin ($1.8 million) also contributed to landings revenue. Lobsters commanded the highest ex-vessel price in 2010, with an average annual price of $12.36 per pound.

**Key Western Pacific Commercial Species**

- Lobsters
- Mahimahi
- Marlin
- Moonfish
- Pomfret
- Scad
- Snappers
- Swordfish
- Tunas
- Wahoo

*Economic Impacts*[3]

In 2010, the Western Pacific's seafood industry generated $664 million in sales impacts, $201 million in income impacts, and approximately 8,200 full- and part-time jobs. Importers contributed the most to sales (40% of the total), while the retail sector contributed the most to employment impacts (41%), income impacts (37%), and valued added impacts (33%). In contrast, the retail sector contributed most to income (37%) and employment impacts (41% of total jobs) with $74 million in income and 3,400 jobs. The commercial harvest sector generated 2,900 jobs, $146 million in sales, $53 million in income, and $77 million in value added impacts.

*Landings Revenue*

Landings revenue for finfish and shellfish totaled over $84 million in 2010, a 75% increase from total revenue generated in 2001. When adjusted for inflation, real landings revenues increased 35%. Landings revenue in 2010 increased 18% (13% increase in real terms) from the 2009 level ($71 million). Finfish and other catch contributed nearly 100% of total revenue in 2010 ($84 million ), a 75% increase from 2001 (36% increase in real terms). Revenue earned from shellfish landings decreased 29% (a 45% decrease in real terms) from $241,000 in 2001 to $172,000 in 2010. Landings revenue in 2010 was dominated by tunas which contributed $60 million or 71% of total landings revenue. On average, tunas contributed 69% to total revenue over the 10 year time period. The largest increases in landings revenue from 2001 to 2010 were for swordfish (439% or 317% in real terms) and pomfret (301% or 211% in real terms).

[1]The Western Pacific Region also includes the U.S. territories of American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands. However, due to data availability, only information from Hawai'i is reported here.

[2]Under the Tuna Conventions Act of 1950 (64 Stat. 777) as amended (16 U.S.C., 951-961), NMFS must publish regulations that carry out IATTC recommendations and resolutions that have been approved by the Department of State.

[3]The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates (see NMFS Commercial Fishing & Seafood Industry Input/Output Model, available at: `www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf`)

*Landings*

In 2010, Hawai'ian commercial fishermen landed 28 million pounds of finfish and shellfish, a 20% increase from 2001 landings totals. This was a 4.3% increase compared to landings in 2009 (27 million pounds). Finfish and other catch accounted for nearly 100% of total landings annually. Shellfish landings decreased 8.6% from 24,000 pounds landed in 2001 to 22,000 pounds in 2010 and also decreased 0% from 2009 to 2010.

**Commercial Fisheries Facts**

*Landings revenue*

- On average, the key species or species groups account for 96% of total revenue, ($81 million) generated in the Western Pacific Region.
- Tunas contributed more than any other species or species group, averaging $46 million in landings revenue from 2001 to 2010.
- Swordfish had the largest one-year increase in landings revenue over the 10 year time period, increasing 534% from $1.2 million in 2004 to $7.8 million in 2005.
- Swordfish had the largest one-year decrease in landings revenue over the 10 year time period, decreasing 50% from $1.4 million in 2002 to $691,000 in 2003.

*Landings*

- Key species or species groups contributed an average of 94% annually to total landings between 2001 and 2010.
- Tunas, contributed the most to landings in the region, averaging 16 million pounds from 2001 to 2010.
- Swordfish had the largest one-year increase in landings over the 10 year time period, increasing 561% from 520,000 in 2004 pounds to 3.4 million pounds in 2005.
- Swordfish had the largest one-year decrease in landings over the 10 year time period, decreasing 56% from 703,000 pounds in 2002 to 306,000 pounds in 2003.

*Prices*

- Lobsters had the highest average annual ex-vessel price per pound ($11.76) over the time period, followed by snappers ($4.43), and tunas ($2.88).
- Marlin had the lowest average annual ex-vessel price per pound ($1.20) over the time period, followed by moonfish ($1.54), and pomfret ($2.05).
- Marlin had the largest one-year increase in ex-vessel price over the 10 year time period, increasing 58% from $0.85 per pound in 2003 to $1.34 in 2004.
- Marlin had the largest decrease in ex-vessel price over the 10 year time period, decreasing 37% from $1.34 per pound in 2002 to $0.85 in 2003.

Tunas contributed more to the Western Pacific's total landings than any other species or group with 16.7 million pounds landed in 2010. This was a 9.3% increase from 2001 total landings of tunas (15.3 million pounds). Swordfish followed with 3.2 million pounds landed in 2010. Swordfish landings experienced dramatic changes from 2001 to 2010. From 2000 to 2001, landings decreased 91% from 6.4 million pounds to 559,000 pounds when the Hawai'i longline fishery was largely closed to protect sea turtles. A few years later (2004-2005), landings increased 561% from 520,000 pounds to 3.4 million pounds. Swordfish landings between 2001 and 2004 averaged approximately a half million pounds, while in between 2005 and 2010 the average was 3 million pounds.

*Prices*

Overall, the 2010 ex-vessel price for eight of the key species or species groups were above their ten year average annual price. Mahimahi (dolphin) had a lower price per pound ($2.17) in 2010 relative to its annual average ($2.28) over the time period, the price per pound for moonfish was $1.42, which was $0.12 less than the ten year average, and the ex-vessel price for swordfish in 2010 was $0.171 more than the ten year average. Relative to ex-vessel prices in 2009, swordfish (23%) experienced a double digit increase in 2010. Double digit decreases between 2009 and 2010 occurred in , and declining %, and % respectively. In real terms, lobsters, mahimahi, scad, and NA experienced declines in ex-vessel prices between 2009 and 2010.

**Recreational Fisheries**

In 2010, there were 475,000 recreational anglers who fished in the state of Hawai'i. These anglers took 2.4 million fishing trips and of these, 80% were shore-based trips. Scads (bigeye and mackerel) was the most caught species group with 840,000 fish caught in 2010. Almost all of these fish were harvested by anglers rather than released. The most released species or species group was trevallys and other jacks (47%). All others were harvested at least 81% of the time in 2010.

*Economic Impacts and Expenditures*[1]

In 2010, approximately 7,200 jobs in the Western Pacific were generated by recreational fishing activities and over $780 million was spent by anglers who fished in the region. Most of these employment impacts were generated by industries that provided services to anglers who fished from shore (1,149) or a private boat (388). These fishing trip modes also generated the most in trip-related expenditures: $85 million for shore-based fishing trips (67% of total trip expenditures) and $35 million for private boat trips (27% of total trip expenditures). Only 7.3% of total trip-related expenditures in the Western Pacific came from non-resident anglers.

In addition to employment impacts generated by recreational fishing activities, other economic impacts include sales impacts and the contribution of recreational fishing activities to gross domestic product (value added impacts). For-hire fishing trips generated $9.4 million in sales impacts (6.4% of total trip-related sales) and $5.2 million in value added impacts (6.7% of total trip-related value added impacts) in 2010. Private boat trips contributed $41 million in sales (28%) and $21 million (27%) in value added impacts. Shore-based fishing trips contributed $98 million in trip-related sales (66%) and $52 million in trip-related value added impacts (66%).

[1]Expenditures and economic impacts from recreational fishing activities were generated using the NMFS Recreational Economic Impact Model (see Marine Angler Expenditures in the United States, 2006, available at: `http://www.st.nmfs.noaa.gov/st5/publication/AnglerExpenditureReport/AnglerExpendituresReport_ALL.pdf`)

Anglers spent almost $653 million on durable equipment in 2010, contributing 84% to total expenditures in the region (trip and durable equipment combined). Fishermen spent more on fishing tackle ($253 million) than any other durable good. Expenditures related to other equipment ($148 million), vehicle expenses ($145 million), and boat expenses ($79 million) followed in size of expenditures.

Economic impacts from durable equipment expenditures in 2010 include almost 5,600 jobs, $652 million in sales impacts, and $316 million in value added impacts.

**Key Western Pacific Recreational Species**

- Blue marlin
- Dolphinfish
- Goatfishes
- Trevallys and other jacks
- Bigeye and mackerel scad
- Skipjack tuna
- Smallmouth bonefish
- Snappers
- Wahoo
- Yellowfin tuna

*Participation*[1]

In 2010, there were 475,000 recreational anglers who fished in Hawai'i. This was an 7.8% increase from 2003 (440,000 anglers) and a 93% increase from 2009 (246,000 anglers). In 2010, non-resident anglers made up 62% of total anglers (293,000 anglers). There was a 63% increase in non-resident anglers from 2003 (180,000 anglers) and a 177% increase from 2009 (106,000 anglers). In terms of resident anglers, there were 182,000 resident anglers who fished in Hawai'i in 2010, which was a 30% decrease from 2003 and a 30% increase from 2009.

*Fishing Trips*[1]

Anglers who fished in Hawai'i took approximately 2.39 million fishing trips in 2010. This was a 0.5% decrease from the 2.4 million fishing trips taken in 2003. From 2009 to 2010, there was a 11% increase in the number of trips taken (2.2 million trips) in 2009.

*Harvest and Release*[1]

Of Hawai'i's key species and species groups, bigeye and mackerel scad, snappers, and yellowfin tuna were most frequently caught by recreational fishermen. In 2010, 840,000 bigeye and mackerel scad, 365,000 snappers, and 303,000 yellowfin tuna were caught by anglers in Hawai'i. Blue marlin (100% harvested), dolphinfish (100%), and yellowfin tuna (100%) were more often harvested than released, while trevallys and other jacks were released more often (47%) than any of the other key species or species groups.

**Recreational Fishing Facts**

*Participation*

- An average of 372,000 anglers fished in the Western Pacific annually from 2003 to 2010.
- In 2010, in-state residents made up 38% of total anglers in this region. These anglers averaged 52% of total anglers annually over the eight year time period.

*Fishing trips*

- In the Western Pacific, an average of 2.5 million fishing trips were taken annually from 2003 to 2010.
- Private or rental boat and shore-based fishing trips accounted for 484,000 and 1.9 million fishing trips, respectively in 2010.

*Harvest and release*

- The bigeye and mackerel scad species group was the most commonly caught key species or species group, averaging 890,000 fish caught over the 10 year time period. Of these, 0.23% were released rather than harvested.
- Of the ten commonly caught key species or species groups none were released more often than harvested over this time period. The species or species group that was most commonly released was trevallys and other jacks (42% released).
- Species or species groups that were harvested 100% of the time included wahoo, dolphinfish, and bigeye and mackerel scad
- Between 2009 and 2010, snappers experienced the largest annual increase in catch (113%), and goatfishes had the largest decrease (60%).

Between 2003 and 2010 four of Hawai'i's key species or groups experienced increases in catch totals: smallmouth bonefish (133%), yellowfin tuna (61%), dolphinfish (49%), and snappers (47%). Over the same time period, the largest decreases were experienced by: blue marlin (67%), goatfishes (64%), and wahoo (61%).

In the short term, the largest increases in catch were experienced by snappers (113%) and smallmouth bonefish (74%) from 2009 to 2010. Decreases over the same time period occurred in four of the species or species groups, the largest of which were experienced by goatfishes (60%) and blue marlin (60%).

**Marine Economy**[2]

In 2009, over 32,000 establishments employed approximately 488,000 full- and part-time employees in Hawai'i. Annual payroll totaled $18 billion, employee compensation totaled $37 billion, and gross product by state totaled $65 billion. Gross state product, annual payroll, and employee compensation increased 54%, 40%, and 51%, respectively between 2001 and 2009. The commercial fishing location quotient (CFLQ) for Hawai'i was 5.26. Between 2002 and 2009 the CFLQ for Hawai'i decreased 28% from 7.26 to 5.26. Despite these declines, Hawai'i's level of commercial fishing-related employment was still greater than the national

[1]Due to data availability, the time period 2003 to max(years) is discussed in this section
[2]Information for 2009 is reported in this section; 2010 data were not available for this report.
[1]The CFLQ for the U.S. is 1.0. This provides a national baseline from which state CFLQs can be compared.

baseline. [1]

*Seafood Sales and Processing*

There were seven nonemployer firms engaged in seafood product preparation and packaging in 2009. Annual receipts for this industry increased 209% from $231,000 in 2001 to $713,000 in 2009 (a 149% increase in real terms). The number of employer establishments engaged in this industry decreased to one establishment in 2009. Employee and annual payroll totals were not available. In 2009, there were 38 seafood wholesale establishments that employed 538 full- and part-time workers with an annual payroll of $19 million. The number of employees decreased 34% and the annual payroll increased 10% (a 12% decrease in real terms) from 2001 to 2009. Similarly to employment, the number of establishments decreased 25%.

Nonemployer firms involved in seafood retailremained unchanged between 2001 and 2009 with34 firms. Annual receipt totals increased 43% (a 15% increase in real terms) to $3.6 million in 2009. Similarly, employer establishments involved in this industry decreased 7.4% to 25 in 2009. These establishments employed 158 workers with an annual payroll of $3.6 million. Employee and annual payroll numbers also decreased

*Transport, Support, and Marine Operations*

Data were largely unavailable for the transport, support, and marine operations sector. According to the available information, the marine cargo handling had the highest numbers of establishments in 2009 (11 establishments). The marine cargo handling sector had the largest payroll ($88 million) and the largest number of employees was also in the marine cargo handling sector (1,075). The largest increase in number of establishments between 2001 and 2009 was in the navigational services to shipping sector (120%) and the greatest decrease occurred in the coastal and Great Lakes freight transportation sector (55%).

### 2010 Economic Impacts of the Hawaii Seafood Industry (thousands of dollars)

| | With Imports | | | Without Imports | | |
|---|---|---|---|---|---|---|
| | Jobs | Sales | Value Added | Jobs | Sales | Value Added |
| **Total Impacts** | 8,206 | 664,361 | 295,289 | 6,221 | 334,187 | 179,740 |
| Commercial Harvesters | 2,945 | 146,365 | 76,733 | 2,945 | 146,365 | 76,733 |
| Seafood Processors & Dealers | 484 | 42,094 | 21,490 | 342 | 29,693 | 15,159 |
| Importers | 962 | 264,561 | 80,650 | 0 | 0 | 0 |
| Seafood Wholesalers & Distributors | 460 | 43,320 | 20,212 | 259 | 24,340 | 11,357 |
| Retail | 3,355 | 168,021 | 96,204 | 2,676 | 133,788 | 76,492 |

### Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total revenue | 48,080 | 52,384 | 52,755 | 57,679 | 71,040 | 66,120 | 75,705 | 85,120 | 71,168 | 84,023 |
| Finfish & other | 47,839 | 52,078 | 52,493 | 57,274 | 70,677 | 66,013 | 75,531 | 84,753 | 70,985 | 83,851 |
| Shellfish | 241 | 306 | 262 | 406 | 364 | 106 | 174 | 367 | 183 | 172 |
| Lobsters | 98 | 122 | 68 | 91 | 111 | 61 | 93 | 120 | 136 | 116 |
| Mahimahi (dolphin) | 2,262 | 2,630 | 2,940 | 4,909 | 3,597 | 3,640 | 3,482 | 3,182 | 2,850 | 3,300 |
| Marlin | 2,139 | 2,010 | 1,986 | 2,472 | 2,512 | 2,558 | 2,028 | 2,072 | 2,141 | 1,756 |
| Moonfish (opah) | 999 | 1,219 | 1,509 | 1,343 | 1,897 | 1,873 | 2,170 | 2,197 | 2,408 | 2,591 |
| Pomfret | 386 | 675 | 777 | 1,316 | 1,440 | 1,311 | 1,460 | 1,665 | 1,379 | 1,549 |
| Scad | 882 | 1,067 | 1,105 | 944 | 839 | 1,020 | 1,099 | 896 | 555 | 1,251 |
| Snappers | 1,965 | 2,009 | 2,035 | 2,201 | 2,005 | 1,756 | 1,680 | 1,710 | 1,844 | 1,637 |
| Swordfish | 1,354 | 1,371 | 691 | 1,225 | 7,768 | 5,125 | 7,726 | 7,176 | 7,334 | 7,302 |
| Tunas | 34,491 | 37,598 | 37,381 | 38,484 | 46,071 | 44,085 | 51,148 | 60,874 | 47,674 | 59,756 |
| Wahoo | 1,657 | 1,452 | 1,919 | 2,201 | 2,253 | 2,329 | 2,087 | 2,235 | 1,672 | 1,745 |

### Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total landings | 23,484 | 23,968 | 23,740 | 24,456 | 28,140 | 25,659 | 28,938 | 30,682 | 26,906 | 28,069 |
| Finfish & other | 23,460 | 23,937 | 23,711 | 24,426 | 28,113 | 25,644 | 28,916 | 30,653 | 26,884 | 28,047 |
| Shellfish | 24 | 31 | 28 | 31 | 26 | 15 | 22 | 29 | 22 | 22 |
| Lobsters | 8 | 10 | 6 | 8 | 10 | 6 | 8 | 10 | 11 | 9 |
| Mahimahi (dolphin) | 1,245 | 1,376 | 1,326 | 2,225 | 1,440 | 1,342 | 1,388 | 1,252 | 1,287 | 1,518 |
| Marlin | 2,220 | 1,497 | 2,337 | 1,844 | 2,190 | 2,389 | 1,376 | 1,951 | 1,678 | 1,220 |
| Moonfish (opah) | 765 | 912 | 1,095 | 786 | 1,086 | 1,071 | 1,226 | 1,313 | 1,884 | 1,824 |
| Pomfret | 272 | 490 | 459 | 766 | 646 | 576 | 593 | 672 | 627 | 593 |
| Scad | 505 | 571 | 630 | 478 | 398 | 442 | 463 | 320 | 205 | 460 |
| Snappers | 526 | 499 | 501 | 508 | 436 | 377 | 376 | 376 | 386 | 314 |
| Swordfish | 559 | 703 | 306 | 520 | 3,439 | 2,514 | 3,643 | 3,835 | 3,881 | 3,153 |
| Tunas | 15,288 | 15,871 | 14,421 | 14,965 | 16,118 | 14,631 | 17,589 | 18,303 | 14,589 | 16,704 |
| Wahoo | 906 | 660 | 990 | 852 | 818 | 891 | 715 | 853 | 605 | 600 |

### Average Annual Price of Key Species/Species Groups (dollars per pound)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| Lobsters | 12.61 | 12.66 | 11.88 | 11.08 | 10.99 | 9.66 | 11.84 | 12.14 | 12.37 | 12.36 |
| Mahimahi (dolphin) | 1.82 | 1.91 | 2.22 | 2.21 | 2.50 | 2.71 | 2.51 | 2.54 | 2.21 | 2.17 |
| Marlin | 0.96 | 1.34 | 0.85 | 1.34 | 1.15 | 1.07 | 1.47 | 1.06 | 1.28 | 1.44 |
| Moonfish (opah) | 1.31 | 1.34 | 1.38 | 1.71 | 1.75 | 1.75 | 1.77 | 1.67 | 1.28 | 1.42 |
| Pomfret | 1.42 | 1.38 | 1.69 | 1.72 | 2.23 | 2.28 | 2.46 | 2.48 | 2.20 | 2.61 |
| Scad | 1.75 | 1.87 | 1.75 | 1.97 | 2.11 | 2.30 | 2.37 | 2.80 | 2.71 | 2.72 |
| Snappers | 3.73 | 4.02 | 4.06 | 4.33 | 4.59 | 4.64 | 4.44 | 4.54 | 4.78 | 5.20 |
| Swordfish | 2.42 | 1.95 | 2.26 | 2.36 | 2.26 | 2.04 | 2.12 | 1.87 | 1.89 | 2.32 |
| Tunas | 2.26 | 2.37 | 2.59 | 2.57 | 2.86 | 3.01 | 2.91 | 3.33 | 3.27 | 3.58 |
| Wahoo | 1.83 | 2.20 | 1.94 | 2.58 | 2.75 | 2.61 | 2.92 | 2.62 | 2.76 | 2.91 |

## 2010 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)

| | Jobs | Sales | Income | Value Added |
|---|---|---|---|---|
| Trip Impacts by Fishing Mode: | | | | |
| For-Hire | 98 | 9,432 | 3,053 | 5,186 |
| Private Boat | 388 | 40,917 | 12,304 | 20,923 |
| Shore | 1,149 | 98,158 | 32,305 | 51,819 |
| Total Durable Equipment Impacts | 5,609 | 651,859 | 215,231 | 315,686 |
| **Total State Trip and Durable Equipment Economic Impacts** | 7,244 | 800,366 | 262,893 | 393,613 |

## 2010 Angler Trip & Durable Expenditures (thousands of dollars)

| Fishing Mode | Trip Expenditures | | Equipment | Durable Expenditures |
|---|---|---|---|---|
| | Non-Residents | Residents | Fishing Tackle | 253,372 |
| For-Hire | 6,820 | 29 | Other Equipment | 148,474 |
| Private Boat | 838 | 34,006 | Boat Expenses | 78,731 |
| Shore | 1,626 | 83,868 | Vehicle Expenses | 145,194 |
| *Total Trip Expenditures* | 9,284 | 117,903 | Second Home Expenses | 27,202 |
| | | | *Total Durable Equipment Expenditures* | 652,972 |
| **Total State Trip and Durable Equipment Expenditures** | | | | 780,159 |

## Recreational Anglers by Residential Area (thousands of anglers)[1]

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| Coastal | | | 261 | 223 | 204 | 173 | 170 | 192 | 140 | 182 |
| Non-Coastal | | | NA[2] | NA[1] | NA[1] | NA[1] | NA[1] | NA[1] | NA[1] | NA[1] |
| Out of State | | | 180 | 183 | 166 | 224 | 146 | 137 | 106 | 293 |
| **Total Anglers** | | | 440 | 407 | 370 | 396 | 317 | 329 | 246 | 475 |

## Recreational Fishing Effort by Mode (thousands of angler-trips)[1,3]

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| Private | | | 509 | 709 | 578 | 570 | 475 | 564 | 441 | 484 |
| Shore | | | 1,893 | 2,162 | 1,892 | 2,074 | 2,102 | 1,966 | 1,722 | 1,907 |
| **Total Trips** | | | 2,402 | 2,871 | 2,470 | 2,644 | 2,577 | 2,531 | 2,163 | 2,390 |

## Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)[1,4]

| | | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Blue marlin | H | 1 | | 4 | 5 | 19 | 3 | 2 | 11 | 3 | 1 |
| | R | (1) | | (1) | (1) | (1) | (1) | 1 | (1) | (1) | (1) |
| Dolphinfish (mahimahi) | H | 4 | | 109 | 225 | 178 | 219 | 136 | 184 | 103 | 164 |
| | R | (1) | | 1 | (1) | 1 | (1) | (1) | (1) | (1) | (1) |
| Goatfishes[5] | H | 25 | | 794 | 715 | 447 | 813 | 298 | 468 | 713 | 270 |
| | R | 7 | | 10 | 17 | 8 | 16 | 9 | 6 | 7 | 18 |
| Jacks (trevallys and other jacks)[6] | H | 15 | | 125 | 331 | 257 | 210 | 169 | 277 | 123 | 140 |
| | R | (1) | | 171 | 146 | 182 | 210 | 130 | 120 | 85 | 126 |
| Scads (bigeye and mackerel) | H | 21 | | 1,951 | 179 | 726 | 812 | 1,089 | 402 | 1,102 | 840 |
| | R | (1) | | 2 | (1) | 14 | (1) | (1) | (1) | (1) | (1) |
| Skipjack tuna | H | 24 | | 440 | 420 | 302 | 201 | 228 | 568 | 230 | 289 |
| | R | (1) | | 1 | 6 | 1 | 1 | 5 | 2 | (1) | (1) |
| Smallmouth bonefish | H | 1 | | 25 | 61 | 25 | 63 | 20 | 50 | 37 | 55 |
| | R | (1) | | 4 | 9 | 12 | 2 | 13 | 4 | 2 | 13 |
| Snappers[7] | H | 13 | | 233 | 236 | 223 | 177 | 104 | 138 | 147 | 340 |
| | R | 14 | | 16 | 19 | 57 | 36 | 40 | 7 | 24 | 25 |
| Wahoo | H | 1 | | 105 | 97 | 54 | 62 | 57 | 78 | 61 | 41 |
| | R | (1) | | (1) | (1) | (1) | (1) | 1 | (1) | (1) | (1) |
| Yellowfin tuna | H | 2 | | 184 | 268 | 231 | 124 | 273 | 461 | 198 | 302 |
| | R | (1) | | 5 | (1) | 9 | 1 | 2 | (1) | 1 | 1 |

[1]Participation (number of anglers), effort (number of trips), and catch (number of fish harvested or released) data were not available for 2001 and 2002.
[2]NA = not applicable because all Hawaii residents are considered coastal county residents
[3]Effort data (number of trips) for for-hire boat trips were not available and effort data were not available for 2001 or 2002.
[4]In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish.
[5]Goatfishes include yellowstripe, yellowfin, pfulgers, bandtail, doublebar, diespot, whitesaddle, manybar, blue, and 'Goastfish famil/genus'
[6]Trevallys & other jacks includes bluefin trevally, giant trevally, bigeye trevally, black trevally, African pompano, greater amberjack, island jack, and other species in the jack family.
[7]Snappers include bluestip, blacktail, ruby, longtailed, pink, VonSiebolds, Binghams, green jobfish, ironjaw, and smalltooth jobfish.

### Hawaii's State Economy (% of national total)

| | Establishments | Employees | Annual Payroll (million $) | Employee Compensation (million $) | Gross State Product (million $) | Commercial Location Quotient [1] |
|---|---|---|---|---|---|---|
| 2001 | 30,175 (0.43%) | 441,856 (0.38%) | 12,684 (0.32%) | 24,655 (0.41%) | 42,401 (0.41%) | ND[2,3] |
| 2009 | 32,372 (0.44%) | 488,403 (0.43%) | 17,743 (0.37%) | 37,217 (0.47%) | 65,428 (0.48%) | 5.26 |
| % change | 7.28% | 10.5% | 39.9% | 51% | 54.3% | -- |

### Seafood Sales & Processing - Nonemployer Firms (thousands of dollars)

| | | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|---|---|---|
| Seafood product prep. & packaging | Firms | 7 | 7 | 9 | 11 | 5 | 11 | 10 | 9 | 7 |
| | Receipts | 231 | 1,566 | 1,034 | 1,309 | 409 | 1,011 | 1,023 | 1,020 | 713 |
| Seafood Sales, retail | Firms | 34 | 0 | 36 | 33 | 29 | 31 | 41 | 37 | 34 |
| | Receipts | 2,497 | ND[2] | 4,753 | 2,875 | 3,487 | 3,627 | 4,353 | 4,394 | 3,559 |

### Seafood Sales & Processing - Employer Establishments (thousands of dollars)

| | | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|---|---|---|
| Seafood product prep. & packaging | Establishments | 3 | 4 | 4 | 4 | 3 | 3 | 1 | 1 | 1 |
| | Employees | ND[2] | 86 | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] |
| | Payroll | ND[2] | 2,584 | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] |
| Seafood sales, wholesale | Establishments | 51 | 44 | 33 | 36 | 32 | 33 | 36 | 37 | 38 |
| | Employees | 812 | 525 | 654 | 404 | 485 | 462 | 550 | 695 | 538 |
| | Payroll | 17,656 | 15,203 | 12,653 | 13,949 | 15,163 | 16,786 | 18,932 | 20,665 | 19,347 |
| Seafood sales, retail | Establishments | 27 | 29 | 31 | 31 | 29 | 27 | 25 | 25 | 25 |
| | Employees | 235 | 229 | 317 | 321 | 326 | 315 | 393 | 173 | 158 |
| | Payroll | 3,773 | 3,737 | 5,187 | 5,038 | 5,007 | 5,564 | 7,209 | 3,674 | 3,559 |

### Transport, Support, & Marine Operations - Employer Establishments (thousands of dollars)

| | | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|---|---|---|
| Coastal & Great Lakes freight transportation | Establishments | 11 | 11 | 10 | 11 | 13 | 13 | 11 | 5 | 5 |
| | Employees | 463 | ND[2] | ND[2] | ND[2] | ND[2] | 543 | 557 | 478 | 475 |
| | Payroll | 25,782 | ND[2] | ND[2] | ND[2] | ND[2] | 36,941 | 36,635 | 34,544 | 34,367 |
| Deep sea freight transportation | Establishments | 2 | 2 | 1 | NA[4] | NA[3] | NA[3] | NA[3] | 1 | NA[3] |
| | Employees | ND[2] | ND[2] | ND[2] | NA[3] | NA[3] | NA[3] | NA[3] | ND[2] | NA[3] |
| | Payroll | ND[2] | ND[2] | ND[2] | NA[3] | NA[3] | NA[3] | NA[3] | ND[2] | NA[3] |
| Deep sea passenger transportation | Establishments | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 |
| | Employees | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] |
| | Payroll | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] |
| Marinas | Establishments | 7 | 8 | 11 | 11 | 10 | 9 | 11 | 9 | 10 |
| | Employees | ND[2] | 56 | 177 | 178 | 181 | 152 | 167 | 156 | 164 |
| | Payroll | ND[2] | 1,414 | 3,285 | 3,439 | 3,354 | 3,719 | 4,151 | 4,317 | 4,368 |
| Marine cargo handling | Establishments | 6 | 7 | 8 | 8 | 8 | 7 | 8 | 11 | 11 |
| | Employees | 426 | 756 | ND[2] | ND[2] | 694 | ND[2] | 1,048 | 1,098 | 1,075 |
| | Payroll | 24,920 | 49,975 | ND[2] | ND[2] | 53,061 | ND[2] | 87,770 | 89,104 | 87,833 |
| Navigational services to shipping | Establishments | 5 | 7 | 7 | 6 | 6 | 6 | 8 | 11 | 11 |
| | Employees | 103 | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | 105 | 120 |
| | Payroll | 5,926 | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | 3,340 | 5,846 | 5,258 |
| Port & harbor operations | Establishments | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 3 |
| | Employees | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] |
| | Payroll | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | ND[2] | 3,218 | 2,031 |
| Ship & boat building | Establishments | 17 | 16 | 14 | 17 | 16 | 14 | 13 | 14 | 13 |
| | Employees | ND[2] | ND[2] | 480 | 589 | ND[2] | 545 | ND[2] | ND[2] | ND[2] |
| | Payroll | ND[2] | ND[2] | 22,053 | 20,908 | ND[2] | 23,134 | ND[2] | ND[2] | ND[2] |

[1] The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which state CFLQs can be compared.
[2] ND = these data are confidential thus not disclosable
[3] ND = these data are confidential thus not disclosable
[4] NA = these data are not available