

# Western Pacific

■ Hawaii



# Western Pacific Summary

## Regional Context

The state of Hawai`i, part of the Western Pacific region<sup>1</sup>, is composed of the 1,500 mile-long Hawai`ian Island chain. It contains coral atolls and reefs, as well as volcanic islands located between latitudes 19° N and 29° N in the Pacific Ocean. The Hawai`ian Island archipelago is the most isolated grouping of islands on Earth; the nearest continent, North America, is over 2,000 miles away. Volcanic activity originating on the ocean floor continues to build new islands at the eastern end of the chain. Elevation above sea level creates many microclimates on the larger islands. For example, snow occurs above 13,000 ft. on the island of Hawai`i.

Seven of the main Hawai`ian Islands are inhabited. The island of Oahu where Honolulu is located has the largest population at 876,156, while Ni`ihau has the smallest at 160 persons. Important species sought by commercial fishermen include lobsters, mahimahi (dolphinfish), marlin, moonfish (opah), pomfret, scad, snappers, swordfish, tunas, and wahoo.

In 2007, the Papahānaumokuākea Marine National Monument was created encompassing the 1,200 mile-long western section of the island chain – an area the size of California – into a vast marine sanctuary that includes habitat for rare and endangered species like the Hawaiian monk seal.

Voyagers traveling by canoe from the Cook Islands, Tahiti-nui, or Hiva (Marquesas Islands) settled Hawai`i around 400 A.D. or earlier. The canoes were navigated without instruments by seafarers who depended on their observations of the ocean and sky and traditional knowledge of the patterns of nature. The connection between discovery and fishing is part of a pan-Polynesian tradition where, in a sense, islands were fished out of the sea. Fishermen were likely the most frequent discoverers of islands in ancient times while searching for new fishing grounds or chasing schools of pelagic fish.

Native Hawai`ians used a place-based, ecosystem approach to manage their environments and natural resources for thousands of years. Islands, called mokopuni, were divided into districts or moku which were further divided into ahupua`a, sections of land that extended through dispersed ecological zones from mountain summits out into the fishing grounds, or koas. The ahupua`a were social units containing nearly all of the resources required for survival. The ahupua`a system lasted until the early 1800s, when western concepts of property rights began to take root in Hawai`i.

<sup>1</sup>The territories of American Samoa, Guam, and the Commonwealth of the Northern Marianas are also part of the Western Pacific Region, but are not included in this publication.



Weigh-in during an Ahi Fever tournament, Oahu Island, Hawaii

Europeans first contacted the Hawai`ian Islands in 1778 when the Englishman Captain Cook arrived. He was followed by whaling fleets from around the world throughout the 19th century. Hawai`i became a United States territory in 1900 and the 50th state in 1959.

The city of Honolulu, on Oahu, is the home port for the Hawai`i-based longline fishing fleet, responsible for the majority of commercial fish landed in Hawai`i. The longline fleet primarily targets bigeye tuna but also catches yellowfin, swordfish, other pelagic species, and numerous sharks – nearly all of which are released. Longline vessel ownership is divided along ethnic lines –75% are split about equally between Vietnamese-American operators and those of European descent, and 25% are operated by Korean-Americans. The three ethnic groups tend to have different operational practices, attitudes toward regulations, and social networks, although there are differences within ethnic groups.

Fishing comprises a relatively small component of the state of Hawai`i's total economy but is nevertheless economically important to some local communities. Small-scale commercial fishermen sell a portion of their catch, and then divide the remaining fish among family and friends, an important cultural and social obligation around which intimate social networks develop and are perpetuated through time. The vast majority of small-scale commercial fishing vessels are trailered (transported by a trailer), allowing fishermen to launch at diverse sites.

Recreational fishing is an important part of the Hawai`ian Islands recreational culture and contributes to the tourism economy in many locations. Hawai`i is known as the blue marlin trolling capital of the world. The annual Hawai`i International Billfish Tournament has been held for the past 45 years in Kona, Hawai`i, which is also a center for charter fishing in the state. Fishing clubs and tournaments are an important social aspect of recreational fishing, bringing

together people from several diverse social and economic groups who may otherwise not interact on a regular basis.

**Fishing Communities Facts**

- Fishing communities in Hawai`i correspond to a single island. Oahu and Hawai`i (the Big Island) are each also counties, while Kauai County consists of two islands and Maui County of three.
- Since 1992, Honolulu has frequently been among the top ten U.S. ports in economic value of landings.
- In 2006, Honolulu ranked only 38<sup>th</sup> in quantity of fish landed (20.9 million pounds) but 4<sup>th</sup> in value (\$54.6 million), reflecting strong market demand for fresh fish.

**Role of subsistence fishing**

- In Hawai`i, the distinction blurs between commercial, recreational, and subsistence fishing since it only costs \$50 for residents to buy a commercial marine fishing license allowing the sale of fish.

**Seafood consumption**

- Consumption of recreationally-caught fish is very important. Hawai`i has the lowest rate of catch and release of recreational fish in the nation.

**Native Hawai`ians**

- Ni`ihau is a private island inhabited primarily by Native Hawai`ians who strive to maintain traditional customs and fisheries management practices.
- Native Hawai`ians used a place-based, ecosystem approach to manage their environments and natural resources for thousands of years. Some see it as a model to adapt and include in some aspects of modern ecosystem-based management on islands in the Western Pacific today.

**The Fishing Communities**

Fishing communities in the State of Hawai`i are defined as the main inhabited islands which are Hawai`i, Kauai, Lana`i, Maui, Moloka`i, Ni`ihau, and Oahu. The three less populated islands (Lana`i, Moloka`i, and Ni`ihau) have fewer than 7,500 inhabitants each; Kauai, Maui, and Hawai`i have 58,000, 118,000, and 149,000 inhabitants, respectively. Oahu has 876,000 inhabitants.

Fishing activity including locations for landing fish, supplying fishing vessels, and location of fishermen's residences are often localized in sub-areas of each island. In 2006, Honolulu was ranked 4th on the list of U.S. top fifty ports based on landings revenue. On average, from 1997-2006, Hawai`i accounted for 2% of U.S. landings revenue.

**Community Resiliency, Growth, Marine Health, and Well Being**

According to the 2000 U.S. Census, 9.2% of families in the U.S. live below the poverty line, the median income level is \$42,000, and 18% of residents over five years of age

speak a language other than English at home. Relative to the U.S. as a whole, Hawai`i has a lower percentage of families living in poverty (7.6%), a higher median income level (\$50,000), and a higher number of residents older than five who speak a language other than English at home (26.6%). More information on these and other factors that may affect community resiliency are discussed below.

Family household poverty rates vary across Hawai`i. The islands of Moloka`i (15.8%) and Hawai`i (11%) have poverty rates exceeding the national rate. The poverty rates of the other islands vary from 0% to 8.5%. All of the islands have a relatively high percentage of residents who speak a language other than English at home, ranging from a low in Hawai`i of 18.4% (just above the national rate) to 93.1% in Ni`ihau.

The state population grew 8.1% between 1997 and 2006. The number of building permits issued grew 105% and the unemployment rate declined 57% for this period, falling from 5.8% in 1997 to 2.5% in 2006; the lowest unemployment rate among the coastal states. From 2005-2006, the number of building permits issued decreased 23.4%. There were four disaster declarations during the 1997-2006 time period and no emergency declarations.

**List of Fishing Communities & Ports**

The following list contains fishing communities and ports that have been identified by NMFS social science staff as having ties to commercial and/or recreational fisheries in the Western Pacific region. With the exceptions of Kaua`i and Maui which have multiple fishing communities, each Hawai`ian island is defined as a fishing community. Profiles of these communities will be available in late 2008 at the Pacific Islands Fisheries Science Center website: <http://www.pifsc.noaa.gov>.

**Hawai`i**

- Hawai`i*
- Kauai*
- Lana`i*
- Maui*
- Moloka`i*
- Ni`ihau*
- Oahu*

## Geographic Characteristics

State land area (sq. mi): 6,423	% of U.S.: 0.18
Coastline (mi): 750	Shoreline (mi): 1,052
County equivalents: 5	Coastal: 5 Marine: 5

## 2000 Sex by Age: State of Hawai'i and Average of Selected Fishing Communities

	Total	M		Under 5	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
		F											
<b>Hawai'i</b>	1,211,537	50.2%	49.8%	6.5%	13.9%	13.6%	14.1%	15.8%	14.1%	8.8%	7.0%	4.8%	1.4%
Fishing Communities	1,211,537	49.6%	50.4%	7.4%	16.6%	12.9%	12.6%	15.7%	14.0%	8.7%	6.2%	4.6%	1.4%

## 2000 Race and Hispanic/Latino Ethnicity: Hawai'i and Average of Selected Fishing Communities

	Total Population	Race							Ethnicity % Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and other Pacific Islander	Some other race	Two or more races	
<b>Hawai'i</b>	1,211,537	24.3%	1.8%	0.3%	41.6%	9.4%	1.3%	21.4%	7.2%
Fishing Communities	1,211,537	21.0%	0.6%	0.3%	33.1%	21.2%	0.8%	23.1%	6.5%

## 2000 Demographic Attributes: Selected Fishing Communities compared to State Total

Fishing Communities <sup>1</sup>	Total Population	Median Household Income	% Family Households below Poverty Level	% Persons over 16 in Labor Force	Median Educational Attainment	% ≥5 yrs Speak Language other than English at Home
<b>Hawai'i</b>	1,211,537	\$49,820	7.6%	64.5%	Some college	26.6%
Hawai'i <sup>2</sup>	148,677	\$39,805	11.0%	61.7%	Some college	18.4%
Honolulu (Oahu) <sup>3</sup>	876,156	\$51,914	7.0%	64.7%	Some college	28.9%
Kauai <sup>4</sup>	58,303	\$45,057	8.4%	63.1%	Some college	19.4%
Lana'i <sup>5</sup>	3,193	\$43,271	8.5%	65.9%	HS graduate	37.6%
Maui <sup>6</sup>	117,644	\$50,546	7.1%	67.3%	Some college	23.8%
Moloka'i <sup>7</sup>	7,404	\$32,906	15.8%	56.9%	HS graduate	23.2%
Ni'ihau <sup>8</sup>	160	\$25,927	0.0%	80.9%	HS graduate	93.1%

## Indicators for Growth, Marine Health, and Population Well-being in Hawaii

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population <sup>9</sup>	1,189,322	1,190,472	1,185,497	1,211,537	1,221,419	1,233,249	1,245,606	1,259,299	1,273,278	1,285,498
Building Permits	3,676	3,324	4,211	4,905	4,790	5,902	7,284	9,034	9,828	7,530
Unemployment Rate	5.8	5.7	5.0	4.0	4.2	4.0	3.9	3.2	2.7	2.5
Disaster Declarations	0	0	0	1	0	0	0	0	1	2
Emergency Declarations	0	0	0	0	0	0	0	0	0	0

<sup>1</sup>Fishing communities in Hawai'i correspond to a single island and each island is usually a county. Kauai and Maui islands are exceptions; each has multiple fishing communities.

<sup>2</sup>Census data for Hawai'i was identified as Hawaii County.

<sup>3</sup>Census data for Honolulu (Oahu) was identified as Honolulu County.

<sup>4</sup>Census data for Kauai was identified as Kauai County minus Census Tract 410 (Kauai County).

<sup>5</sup>Census data for Lana'i was identified as Census Tract 316 in Maui County.

<sup>6</sup>Census data for Maui was identified as Maui County minus Census Tracts 316, 317, and 318 (Maui County).

<sup>7</sup>Census data for Moloka'i was identified as Census Tracts 318 and 317 (Maui County) and Census Tract 319 (Kalawao County).

<sup>8</sup>Census data for Ni'ihau was identified as Census Tract 410 in Kauai County.

<sup>9</sup>Estimated population for all years except 2000; actual count was available for this year.