

Recreational Shellfishing in Washington

Participation in 2022



Washington
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WILDLIFE**

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Recreational Shellfishing in Washington: Participation in 2022

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Cover photo by Guy Fleischer.

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Acknowledging the Indigenous People of the Pacific Northwest

Since time immemorial, Indigenous People have lived in the Pacific Northwest and hunted, fished, and gathered natural resources, traditional foods, and medicinal plants to support their diverse cultures. They were the original occupants and stewards of this land that all Washingtonians enjoy today.

The very survival of the Pacific Northwest Tribes is a testament of resiliency of what they have endured and continue to endure throughout generations on this landscape. Through many historical encounters of massacre, renunciation of religious freedom, systemic racism, cultural assimilation of native children through institutional residential schools, and the fight for their inherent rights and liberties, they have prevailed. Throughout this painful history brought by colonization, abrogated treaties, infringement of civil rights, and the salmon protests of the 1960s, the Northwest Tribes and the Washington Department of Fish and Wildlife (WDFW) have founded a commitment of respect, unity, and alliance informed by the realities of the past.

Today, tribal governments and WDFW work collaboratively to conserve and manage aquatic and terrestrial resources statewide and practice sound science to guide management decisions. The Tribes and WDFW work together to ensure the sustainability of fish, wildlife, ecosystems, and culture for the next seven generations and beyond.

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Introduction

With over three-in-five residents living in coastal counties and over two dozen harvestable species, recreational shellfishing is a distinctly Washington pastime. This report provides estimates of the number of participants in recreation shellfishing in Washington in 2022, as well as analysis of their demographics.

Measuring participation in shellfishing in Washington is complicated. While non-tribal recreational shellfishing on public waters requires a license, popular combination licenses permit shellfishing as well as other fishing. Purchasers of these licenses may or may not participate in shellfishing, so relying only on shellfish license sales as an estimate of the number of shellfishing participants would almost certainly result in an underestimate, while assuming all purchasers of combination licenses shellfish would result in an overestimate. Shellfish on private tidelands can be harvested without a license, further complicating participation estimates through licensing data. Recreational shellfish managers conduct surveys to estimate effort and participation, but no consistent estimate exists of overall participation in Washington's many shellfish fisheries.



Photo by Dan Stauffer.

In 2022, the U.S. Fish and Wildlife Service (USFWS) and the Association of Fish and Wildlife Agencies (AFWA) sponsored a revised National Survey of Fishing, Hunting, and Wildlife-Associated Recreation¹. The Survey measured participation in wildlife-related recreation activities, including shellfishing. Washington was one of fifteen states that acquired a large enough sample of residents required to estimate participation in each activity at a sufficient level of precision. This report presents estimates of shellfishing participation in Washington in 2022 based on these data, and the demographics of participants. These estimates should be considered an addendum to an earlier report on participation, demographics, and spending estimates for fishing, hunting, and wildlife watching in Washington published earlier in 2024². Given the limits of licensing data, the results presented in this report represent the best available estimate of shellfishing participation in Washington.

¹ U.S. Department of the Interior, U.S. Fish and Wildlife Service, [2022 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation](#)

² Van Deynze, B. 2024. [Fishing, Hunting, and Wildlife-Associated Recreation in Washington: Participation and Expenditures in 2022](#). Washington Department of Fish and Wildlife, Olympia, Washington.

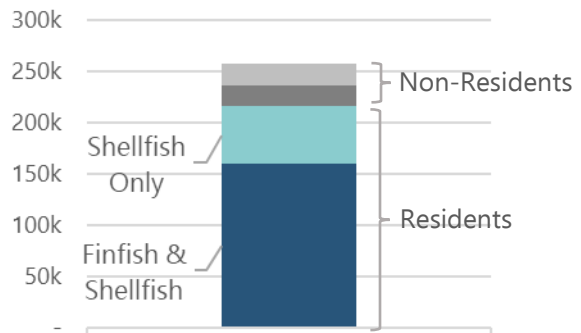
Results

Participation Estimates

In 2022, approximately 257,000 U.S. residents aged 16 and older participated in recreational shellfishing in Washington. Of these participants, approximately 215,000, or 84 percent, were Washington residents and 42,000, or 16 percent, were visiting from other states. Four percent of Washington residents aged 16 years or older participated in shellfishing.

The majority of those who shellfished targeted marine finfish as well. Of the 257,000 people who shellfished, 76,000 targeted shellfish exclusively, while 181,000 (70 percent) also participated in marine finfishing. However, among non-residents participating in shellfishing, co-participation in marine finfishing was less common, with only half targeting both.

Participants in Washington Shellfish Recreation



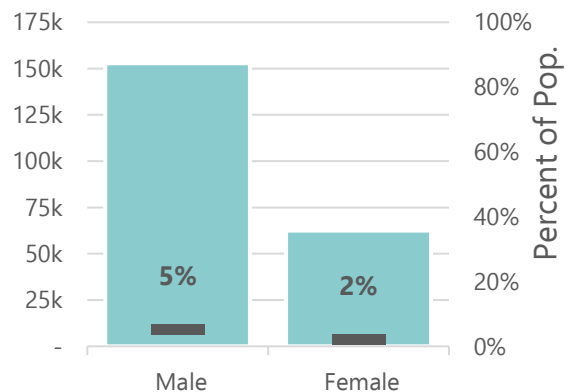
257,000 participants
215,000 residents
42,000 non-residents

Participant Demographics

Gender and Age

Men in Washington were over twice as likely to have shellfished in 2022 than women. This gender gap is similar in scale to the gender gap in fishing overall. Younger Washingtonians were more likely to have shellfished. 18- to 25-year-olds had the highest participation rate at 7 percent, and 55- to 64-year-olds had the lowest participation rate at 2 percent.

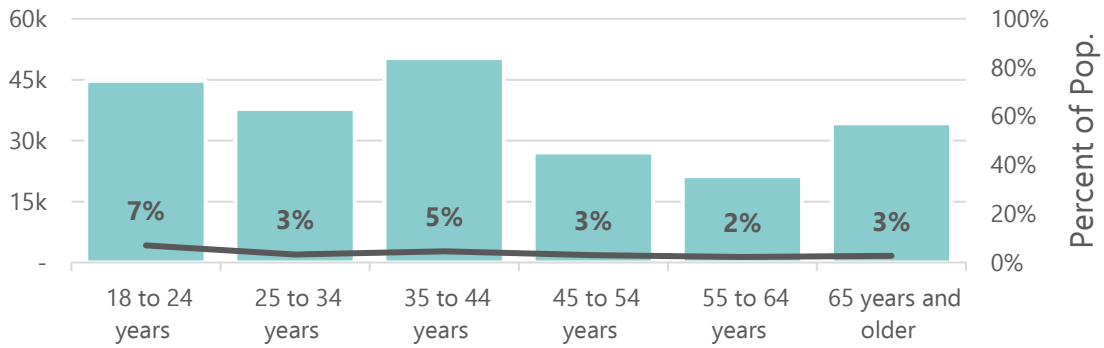
Shellfishers by Gender



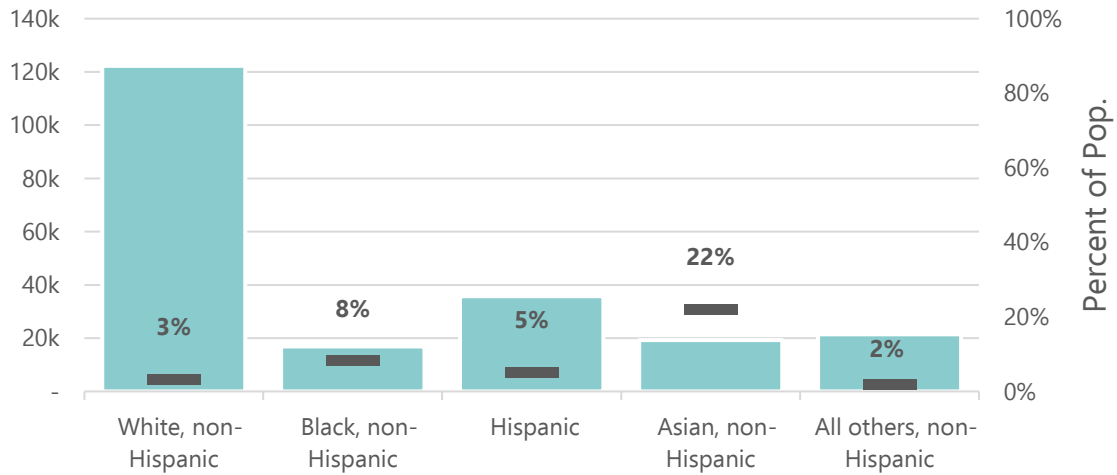
Race and Ethnicity

While white, non-Hispanic Washingtonians represented the majority of shellfishers, their participation rate was below the statewide average at 3 percent. Asian, non-Hispanic Washingtonians were much more likely to have participated in shellfishing in 2022 than other race and ethnic groups. Asian Washingtonians were over five times as likely to have shellfished than the statewide average, and over one-in-five Asian Washingtonians shellfished. Black, non-Hispanic (8 percent) and Hispanic (5 percent) Washingtonians were also more likely to have shellfished than the statewide rate.

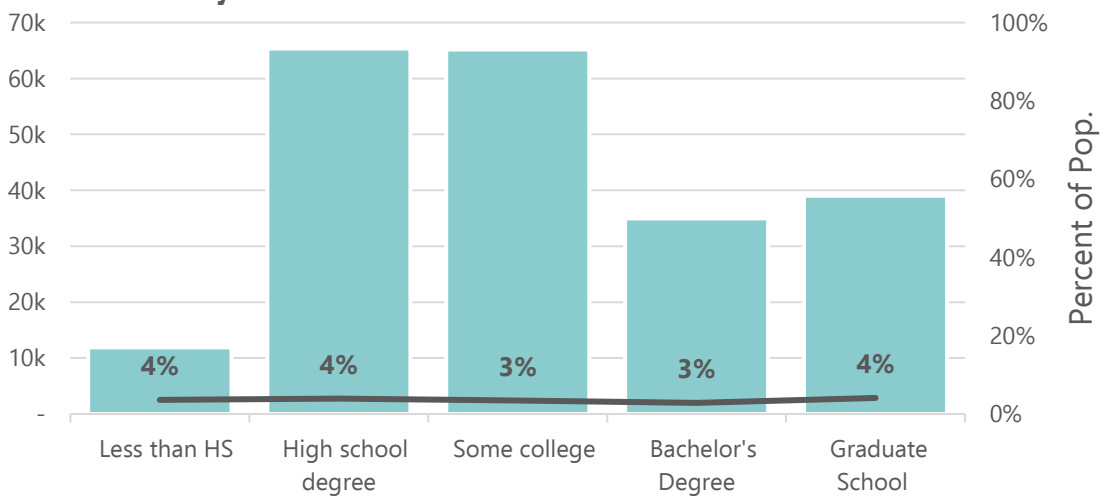
Shellfishers by Age



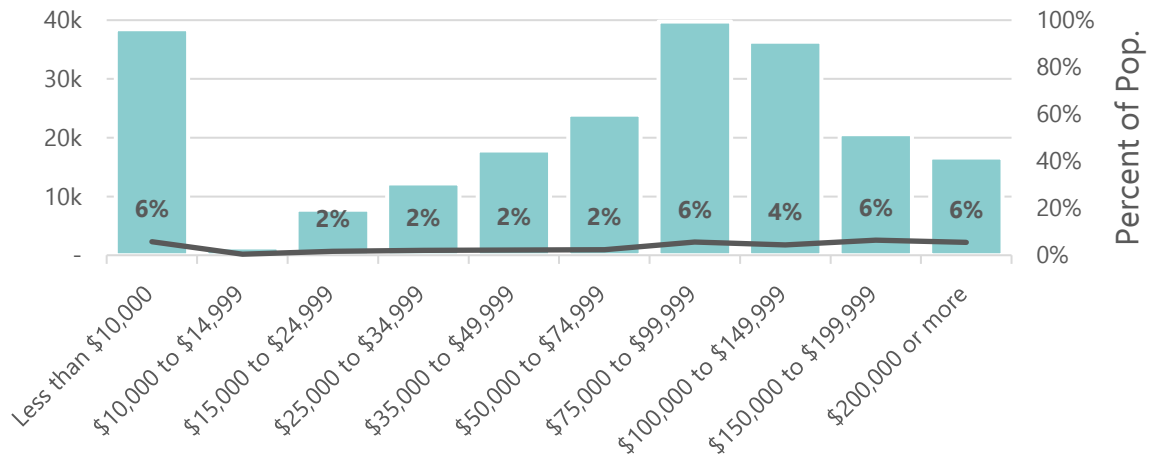
Shellfishers by Race and Ethnicity



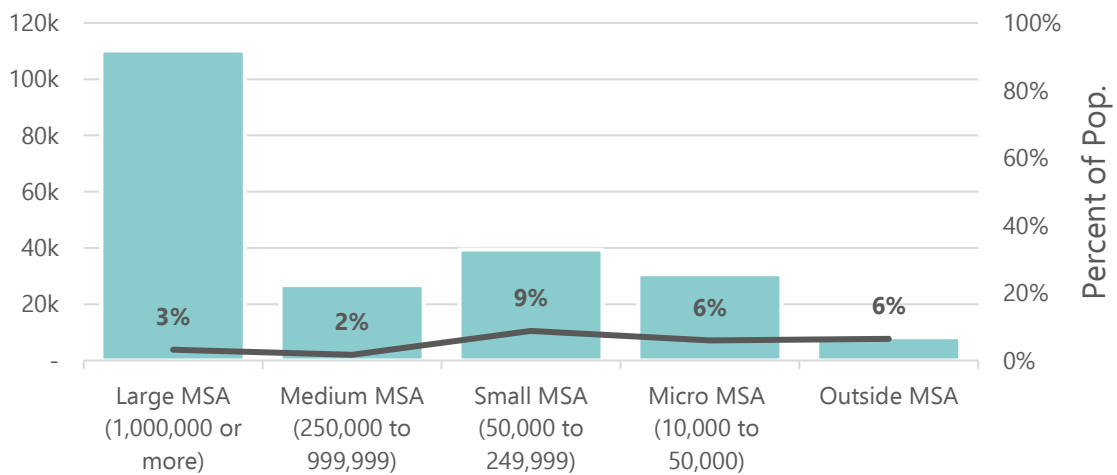
Shellfishers by Education



Shellfishers by Annual Household Income



Shellfishers by Metro Population



Education and Income

Participation rates in shellfishing were consistent across education levels. Participation rates increased with household income, with 6 percent of Washingtonians earning \$75,000 participating versus two percent of those earning between \$15,000 and \$75,999. The positive correlation between shellfishing and income is consistent with the relationship between income and other wildlife-related recreation activities.

Metropolitan Statistical Area Population

The majority of Washingtonian shellfishers lived in the state’s largest metro areas. However, participation rates were significantly higher outside of these counties. The participation rate was highest in Small Metropolitan Statistical Areas (50,000 to 249,999 population). These MSAs include many coastal cities such as Anacortes, Oak Harbor, Shelton, Bellingham, and Port Angeles where shellfishing opportunities are plentiful.

Agency Support for Shellfish Recreation

Along with many partners, WDFW manages and comanages Washington's many recreational shellfish opportunities across both Outer Coast and Puget Sound shorelines. This section provides a broad overview of these shellfishing opportunities and WDFW's contribution to their management.

Pacific Razor Clam Fishery

WDFW manages a recreational Pacific Razor Clam (*Siliqua patula*) fishery on Washington's Outer Coast. The coastal razor clam fishery is the largest recreational shellfish fishery managed by WDFW. Annually, license holders conduct an estimated 450,000 digger trips. Coastal communities in Grays Harbor and Pacific Counties depend on the fishery to provide a steady flow of tourists during the quiet months between October and early May. Razor clam habitat is divided into five management beaches that span 58 miles of coastline. Managed beaches include, from the north, Kalaloch, Mocrocks, Copalis, Twin Harbors, and Long Beach.

Management is guided by the directives of the Washington Fish and Wildlife Commission under Policy [C-3009](#). WDFW sets the number of dig days each season based on the total allowable catch for each beach, as determined during annual stock assessment surveys conducted in coordination with tribal and federal partners. Harvest estimation surveys are conducted during the season to determine digger participation and whether harvest is projected to exceed the Total Allowable Catch (TAC) of each beach. WDFW's budget for razor clam management in 2024 is \$423,815.

Razor clam management is conducted in partnership with the Olympic National Park (Kalaloch) and the Quinault Indian Nation (Kalaloch, Mocrocks, and Copalis) on comanaged beaches. WDFW also coordinates with the Washington Department of Health (DOH), tribal comanagers, and members of the Olympic Region Harmful Algal Blooms (ORHAB) Partnership to screen clam populations for biotoxins. The DOH has the authority to close beaches to harvest if biotoxins exceed acceptable levels.

Outer Coast Recreational Crab Fisheries

Recreational crabbers on Washington's Outer Coast fish for Dungeness (*Metacarcinus magister*) and Red Rock Crab (*Cancer productus*). The recreational coastal crab fishery is small in comparison not only to the Puget Sound recreational fishery but also to the much larger coastal commercial Dungeness crab fishery.

Recreational crabbing occurs along the entire 157 miles of the Washington Pacific Ocean coastline and along the banks of the mouth of the Columbia River. Boat based crabbing is often limited by ocean conditions in many locations. Crabbing is limited by the seasonality of the coastal crab resource, with crab generally in their best condition beginning in December when winter ocean conditions limit safe access for most recreational fishers. For this reason, coastal recreational crab effort is focused in the more protected areas such as Grays Harbor, Willapa Bay and the Columbia River.

WDFW manages recreational crab fisheries in accordance with the 3S management principles (size, sex, season) and in accordance with a tri-state agreement with Oregon and California that limits harvest to only male crab of adult size. Recreational crabbing is open year-round on the Washington Coast, but pot gear season closes in several areas for a portion of September, October, and November to reduce soft-shell crab mortality. Crab snares and foldable traps are legal during this time, as are ring nets that lie completely flat on the bottom. Crab may also be harvested from beaches by a variety of methods.

WDFW has a newly formed Coastal Recreational Crab Monitoring Program. Team members are working to develop enhanced monitoring and field activities for coastal crab spanning from Neah Bay to the Columbia River, including Grays Harbor and Willapa Bay. In the summer of 2023, they began effort and creel sampling at crabbing access sites, boat launches, beaches, docks, and piers along the Outer Coast to estimate fishing days and harvest. WDFW's budget for recreational crab fishery management on the coast in 2024 is \$523,409.

Coastal crab management is conducted in coordination with coastal tribal comanagers (Quinault Indian Nation, Quileute Tribe, Hoh Indian Tribe, and Makah Tribe) within their usual and accustomed fishing areas. WDFW also works with the Washington Department of Health (DOH) to monitor crab populations for biotoxin risk. Crab tissue samples are collected following observed increases in biotoxin load within razor clam populations, a popular food source for crab during the winter and spring.

Puget Sound Recreational Intertidal Bivalve and Squid Fisheries

The inland waters of Puget Sound contain a vast number of beaches with suitable access to harvest intertidal bivalves. Of the ten species available to harvest, manila clams (*Lajonkairia lajonkairii*), butter clams (*Saxidomus gigantea*), and Pacific oysters (*Magallana gigas*) are the primary targets for harvesters. Year-round opportunity and a low economic barrier for entry into this fishery, make this a "gateway" fishery to other recreational harvest opportunities in Puget Sound. Intertidal bivalve harvest supports an estimated 174,000 harvester days annually and WDFW enhances up to ten beaches each



Photo by Alissa Allen.

year with clam and oyster seed for recreational harvesters. Squid (*Dosidicus gigas*, *Doryteuthis opalescens*, and others) are also available to harvest year-round by recreational anglers, however most harvest occurs in the fall and winter when squid are more common in Puget Sound. Squid harvest occurs throughout all Puget Sound marine areas, and typically anglers jig from over-water structures such as public docks at night.

WDFW manages intertidal bivalve harvest throughout Puget Sound on approximately 1,400 beaches. Of those 1,400 beaches, around 40 beaches account for the majority harvest and effort. WDFW co-manages intertidal bivalve and squid harvest with Puget Sound treaty tribes through management plans. The Washington Department of Health (DOH) fills a key public health role, ensuring beaches are safe for public consumption of shellfish through testing for biotoxin, pollution, and vibrio.

Recreational intertidal bivalve harvest is assessed through creel monitoring, where fixed-wing aircraft survey effort and anglers are interviewed at public beaches throughout Puget Sound for catch information. Recreational squid harvest is currently assessed through periodic creeling efforts, and the agency is actively working toward annual harvest assessment. Intertidal bivalve populations are assessed through beach dig surveys, that directly inform harvest quotas and seasons. There is currently no fishery-independent population assessment for squid.

Puget Sound Recreational Crab Fishery

Dungeness crab is one of Puget Sound's most popular recreational fisheries. Annually, an estimated 215,000 recreational crabbers catch over 1.5 million pounds from Puget Sound during dedicated summer (July through Labor Day) and winter seasons (October through December). Most of the harvest and effort occur during the summer fishery when the weather is good. Puget Sound recreational crab fisheries can occur from Neah Bay (Marine Area 4 east of Bonilla-Tatoosh line) to south Puget Sound (Marine Area 13).

WDFW co-manages crab fisheries in Puget Sound following the 3S management principles (size, sex, season). Commission policy ([C-3609](#)) provides guidance for state managed crab fisheries, including defining a base recreational season structure, policy guidance, and providing allocation priorities by management region. Annual co-manager management plans define additional aspects of our management.

Recreational crab harvest is assessed through catch record cards, which fishers are required to return to WDFW following the closure of each season. Additional compliance and harvest information is collected from a new Puget Sound crab creel monitoring team, which collected data for the first time in 2023. Dungeness crab populations are assessed through test fisheries performed at index locations in each management region. Test fishing information is used qualitatively to inform quotas.

Puget Sound Recreational Shrimp Fishery

The protected waters of Puget Sound provide ideal conditions for recreational harvest of spot (*Pandalus platyceros*) and non-spot shrimp. Spot shrimp fisheries, which garner the majority of recreational effort,

occur during short-duration (4-hour) openings in May and June during appropriate tidal cycles. The short-duration fishery openings are needed to ensure adherence to harvest quotas. Fishery openings in the strait (Marine Areas 5 and 6) and San Juan Islands (Marine Area 7) are longer in duration and continue on appropriate tidal cycles into late summer. Recreational spot shrimp fishers account for approximately 40,000 angler trips annually.

WDFW co-manages shrimp fisheries in Puget Sound with treaty tribes under the guidance of commission policy ([C-3610](#)) and annual co-manager management plans. The commission policy provides policy guidance, and allocation priorities by management region. Recreational spot shrimp harvest is assessed through intensive creel monitoring, where fixed-wing aircraft survey effort and anglers are interviewed at access locations throughout Puget Sound for catch information. Spot shrimp populations are assessed through test fisheries performed at index locations in each management region. Test fishing information is used qualitatively to inform quotas.

Puget Sound Recreational Dive Fisheries

WDFW manages recreational diver harvest for a variety of species including sea urchin (*Echinoidea* spp.), sea cucumber (*Parastichopus californicus* and others), scallops (*Pectinidae* spp.), and octopus (*Enteroctopus dofleini* and others), in addition to red rock and Dungeness crab. Given the training necessary to SCUBA dive, shellfish dive harvest is a smaller scale fishery with only 3,300 estimated dive harvesters in 2019. Puget Sound shellfish dive harvest can occur from Neah Bay (Marine Area 4-east of Bonilla-Tatoosh line) to south Puget Sound (Marine Area 13), with some area harvest restrictions for certain species.

WDFW co-manages harvest of sea urchin, sea cucumber, scallops, and octopus through management plans with Puget Sound treaty tribes. Due to the small number of shellfish dive harvesters, harvest is enumerated through periodic telephone/email surveys most recently completed in 2019. Sea cucumber and urchin population surveys are performed at historic index locations.

Appendix: Statistical Tables

Table 1. Resident and Non-Resident Marine Shellfishers and Finfishers 16 Years Old and: 2022

	<i>Washington Resident</i>	<i>Other US Resident</i>	<i>Total</i>
<i>Finfish but not shellfish</i>	155,239	33,703	188,942
<i>Shellfish but not finfish</i>	55,390	21,020	76,410
<i>Both finfish and shellfish</i>	160,062	20,702	180,764
<i>Total</i>	370,691	75,425	446,116

Table 2. Selected Characteristics of Shellfishers (Residents Only): 2022

Characteristic	State Population (16+)		Shellfishing		
	Number	Percent	Number	Percent who participated	Percent
Total persons	6,113,919	100	214,852	4	100
Population Density of Residence					
Urban	5,045,729	83	137,129	3	64
Rural	1,052,702	17	78,323	7	36
Population Size of Residence					
Metropolitan Statistical Area (MSA)					
1,000,000 or more	3,407,173	56	110,215	3	51
250,000 to 999,999	1,589,974	26	26,779	2	12
50,000 to 249,999	450,807	7	39,467	9	18
10,000 to 49,999	520,145	9	30,675	6	14
Outside MSA	130,331	2	8,317	6	4
Age					
16 to 17 years	159,833	3	-	-	-
18 to 24 years	638,449	10	44,705	7	21
25 to 34 years	1,139,201	19	37,816	3	18
35 to 44 years	1,086,509	18	50,332	5	23
45 to 54 years	916,592	15	27,106	3	13
55 to 64 years	943,298	15	21,246	2	10
65 years and older	1,224,178	20	34,247	3	16
65 to 74 years	776,474	13	22,866	3	11
75 and older	447,704	7	11,381	3	5
Gender					
Male	2,969,889	49	152,928	5	71
Female	2,989,184	49	62,525	2	29
Other gender	142,692	2	-	-	-
Race & Ethnicity					
White, non-Hispanic	3,969,340	65	122,223	3	57
Black, non-Hispanic	206,296	3	16,824	8	8
Hispanic	699,952	11	35,709	5	17
Asian, non-Hispanic	87,316	1	19,238	22	9
All others, non-Hispanic	1,151,014	19	21,457	2	10

Table 2. Selected Characteristics of Shellfishers (Residents Only): 2022 (cont.)

Characteristic	State Population (16+)		Shellfishing		
	Number	Percent	Number	Percent who participated	Percent
Annual Household Income					
Less than \$10,000	673,454	11	38,481	6	18
\$10,000 to \$14,999	295,099	5	1,313	<1	1
\$15,000 to \$24,999	457,903	7	7,735	2	4
\$25,000 to \$34,999	601,748	10	12,212	2	6
\$35,000 to \$49,999	792,508	13	17,813	2	8
\$50,000 to \$74,999	1,045,589	17	23,919	2	11
\$75,000 to \$99,999	714,057	12	39,771	6	18
\$100,000 to \$149,999	835,352	14	36,353	4	17
\$150,000 to \$199,999	320,996	5	20,584	6	10
\$200,000 or more	301,643	5	16,642	6	8
Not reported	75,570	1	629	1	0
Education					
Less than HS	327,730	5	11,893	4	6
High school degree	1,674,391	27	65,363	4	30
Some college	1,902,350	31	65,185	3	30
Bachelor's Degree	1,229,916	20	34,971	3	16
Graduate School	951,074	16	39,038	4	18