

The 49th state offers many rewards to the marine angler.

Marine Recreational Fishing in Alaska

This paper on marine sport fishing in Alaska was written by staff members of the Alaska Region, National Marine Fisheries Service, Juneau, AK 99801.

INTRODUCTION

Alaskans go fishing. Marine sport fishing in Alaska occurs primarily near centers of population and along coastal road systems. In southeastern Alaska many anglers can be on the fishing grounds within an hour from the time they leave work in the afternoon. In 1969 for example, Kodiak sportsmen took over 12,000 pink salmon while surf fishing at the mouth of the Buskin River, a 20-minute drive from town.

Elsewhere saltwater fishing may prove a major weekend undertaking. Some residents of the greater Anchorage area may actually keep their pleasure boats in such places as Homer or Seward for the entire summer, commuting on the weekend to fish. Many Canadian residents use cartop skiffs or trailer small boats from as far away as Whitehorse, Yukon Territory to Haines for a weekend's fishing. All indications point to a continued rapid increase in marine recreational fishing in Alaska. Both resident and non-resident sport fishing license sales dramatically support this contention.

SPORT FISHING LICENSE SALES

Resident license sales have increased from 33,300 in 1960 to 71,707 in 1970, a gain of 116 percent in 10 years. In 1970 over 37 percent of all Alaskans 16 years and older bought sport fishing licenses. Many others under 16 years of age, and who are not required to purchase fishing licenses, fished too.

The sale of nonresident sport fishing licenses shows even greater growth. In 1960 nonresidents purchased 12,800 fishing licenses while in 1970 sales reached 41,683, an increase of 226 percent in just 10 years. Revenues from nonresident license sales comprised only 38 percent of total sales in 1960 but by 1970, 50 percent of the license revenues came from nonresident sources. We believe this rapid increase in nonresident sport fishing will continue.

Several factors contribute to the expanded interest in sport fishing in

Alaskan waters. The State of Alaska is increasing its ferry system throughout southeastern Alaska and more people are using the marine highway each year. Air travel from Seattle has made major centers along Alaska's coastline readily accessible to tourists from the lower 48 states. A sportsman can now board a plane in Seattle and be in Juneau in just 2 hours. An additional 1½-hours flying time puts an angler in Anchorage, which is centrally located with good transportation for reaching prime fishing areas on the Kenai and Alaska Peninsulas. Visitors are journeying to Alaska in increasing numbers each year. Many of these people are anglers and they are quick to learn that catching a 12-14 pound coho or 30-40 pound chinook salmon provides a high quality fishing experience.

MARINE SPORT FISHING VALUE

In 1970, resident and nonresident sport fishermen purchased Alaskan licenses worth \$662,081. The 1970 National Fishing and Hunting Survey, compiled for the U.S. Bureau of Sport Fisheries and Wildlife, estimated that the average freshwater fisherman spent \$127 per year while the average saltwater angler spent \$129 per year. Recognizing that these values are undoubtedly low for Alaskans, we can still use them to estimate that resident Alaskans spent a minimum of \$9,250,203 to go sport fishing in 1970. Since approximately 75 percent of Alaskans live on or near the coast, we may assume that at least about the same proportion of license holders fish for marine or anadromous fish species, primarily salmon. Consequently, marine sport fishing in Alaska represented a minimum expenditure of over \$6.9 million in 1970.

Although most anglers direct their attention toward salmon fishing (primarily chinook and cohos) a growing number of fishermen are becoming aware of other anadromous species that provide excellent fishing at certain times and locations throughout



Fishing derbys are popular in Alaska. Here, boats take off at one of the three starting lines during the 1973 Golden North Salmon Derby¹ at Juneau.

Alaska. Steelhead trout, cutthroat trout, Arctic char, Dolly Varden char, and shee fish all offer exciting recreation to the angler willing to spend a little extra time and effort to seek them. Other visitors are delighted when they catch a Pacific halibut or a few crabs or dig a bucket of razor clams.

While current interest centers on the above species, a high abundance of other marine fishes provides an unequaled opportunity for the informed angler. Potential sport fisheries also exist for true cod, ling cod, rockfishes, greenlings, and other flat fishes that are all now being considered scrap fish by most fishermen. Herein lies a real potential for developing an expanded sport fishery through educating the fishing public to the value of these species as welcomed additions to the angler's creel.

Currently, from 90 to 95 percent of the marine recreational fishing is probably directed toward chinook and coho salmon. The Alaska Department of Fish and Game, fully recognizing the importance of marine recreational fishing, conducts a fairly substantial marine sport fish program supported largely by Dingell-Johnson funds. The

¹Mention of trade names or commercial products in this publication does not imply endorsement by the National Marine Fisheries Service, NOAA.

program covers four major areas of endeavor: creel census, hatchery propagation, pond and lake culture, and escapement surveys.

NMFS SALMON STUDIES

Although the NMFS now funds no projects solely for the marine recreational fishery in Alaska, considerable progress is being made in certain research that will produce spin-off benefits for sport fishing. Perhaps the most significant program having such potential is the salmon enhancement work being done at our Little Port Walter field station and the Auke Bay Fisheries Laboratory. Here, scientists are developing gravel incubation and rearing techniques that may markedly increase the production of salmon per unit area with only modest outlays of funds and effort. At Little Port Walter, pilot experiments on saltwater rearing of coho smolts with supplemental feedings are producing very encouraging results. A similar experiment is being carried out with chinook. Correlative experiments of planting coho in virgin lakes, not utilized because of barrier falls, are also yielding promising results. Fry are reared in these lakes without supplemental feeding, thus providing low-cost seaward migrants. Overall returns from the various experiments (saltwater pen rearing, virgin lake plants, and different stocking densities) stand at about 16

percent. The U.S. Forest Service and the Alaska Department of Fish and Game have endorsed this research and are joining NMFS in a production-scale project to evaluate the smolt-producing potential of four lakes near Little Port Walter having a combined area of about 740 acres. In addition to this project, Little Port Walter is serving as a source of coho eggs for the ADF&G hatchery program.

Gaining knowledge of the behavior and life history of potentially important sport fish species prior to exploitation can provide resource managers with valuable information upon which to base realistic management programs. Scientists at Auke Bay have completed studies that show the existence of a home site and homing ability for adult yellowtail rockfish. Rockfish are potentially excellent sport fish on light tackle, but this study shows that intensive fishing of a localized adult stock could cause a long-term decline in its abundance, an important consideration in managing this species for a sport fishery.

IMPORTANT USE OF BAYS AND ESTUARIES

The Water Resource Studies Division of the NMFS recognizes marine sport fishing as an important use of Alaska's bays and estuaries. Serious consideration is given to this use of natural resources in their review of

the impact of proposed projects on marine, estuarine, and anadromous fishes and their environments. This Division also works closely with the Corps of Engineers, U.S. Forest Service, and other governmental agencies to insure that adequate measures are taken during the planning and construction of projects to protect and enhance marine sport fishing opportunities.

Currently, a feasibility study initiated by WRS personnel is being proposed for the Corps of Engineers Chena River Flood Control Project near Fairbanks. If adopted, this project would utilize gravel incubation techniques to enhance the chinook salmon runs to this river, providing a source of eggs for the State to use in improving runs to other areas, as well as augmenting an already existing sport fishery for this species deep in interior Alaska.

The outlook for marine recreational fishing in Alaska is not all bright. Already some potentially serious problems are developing whose resolutions will require considerable effort on the part of biologists, resource managers, legislators, and the general public. Chief among these is the localized, but intense, conflict between sport and commercial fishermen. Antagonism has already developed in such areas as Seward, upper Cook Inlet, and certain sections of Prince William Sound and southeastern Alaska. Devising systems for the fair allocation of fishery resources between various users will require additional time and effort as sport fishing pressure increases for such species as chinook, coho, and sockeye salmon.

Conflicts may also arise regarding the origin of these two species. An unknown proportion of chinook and coho salmon originate in Canadian spawning grounds. Some chinooks from the Panhandle rivers of southeastern Alaska come from spawning grounds that are principally in Canada, but pass through Alaskan rivers and estuaries on their seaward migration and returning spawning runs. In our



Even small skiffs can offer exciting salmon fishing potential in the sheltered inside waters of Southeastern Alaska. Alaska Department of Fish and Game photo.

negotiations with Canada then, we must eventually come to grips with weighing the value of a spawning ground as compared to the rearing areas and migration paths of the estuaries.

Other problems confronting managers center around the collection of data and educating the public regarding the yet untapped sport fishing potential of other marine species. Creel census data collection must be standardized, expanded, and used to support additional research. Educational programs to expand public interest in other fishes with sport potential will take some pressure off diminished salmon runs until enhancement measures can be initiated to build up stocks now under intensive exploitation by both sport and commercial fishermen. Further, research on paralytic shellfish poisoning might result in dramatically expanding both the sport and commercial fishery for bivalves, particularly the butter clam, in southeastern Alaska, if a sure and simple method for determining clam toxicity can be developed.

Despite these problems, the future

looks bright for Alaska's growing marine recreational fishery. The increasing pressure on sport fish resources around population centers can be met with aggressive and imaginative research and management programs. Conflicts in resource allocation can be solved through the development of fair regulations based on sound research programs.

The NMFS's role in developing Alaska's marine recreational fisheries will center on (1) providing active support to the State of Alaska for the collection, compilation, and publication of marine sport fish creel census data; (2) continuing the development and improvement of enhancement measures using gravel incubators, saltwater rearing pens, virgin lakes for rearing coho and chinook fry; (3) conducting an informational and educational program directed toward developing public interest in recreational fishing for rockfish, soles, and cods presently regarded as scrap fish; (4) supporting an economic study of the impact of marine recreational fishing on Alaskan communities, and (5) working with the State of Alaska through the State/Federal Program to develop management programs providing fair allocation of catches between users.

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