

**FY 04 TEST FISHERIES AND TEST FISH FUNDS
IN THE SOUTHEAST ALASKA REGION**



TEST FISH FUND PROJECT RED BOOK 2004

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EXECUTIVE SUMMARY

The Southeast Region Test Fish Fund program consists of 15 projects ranging from test fisheries to determine abundance of salmon and groundfish to herring and shellfish biological sampling and revenue generation to offset costs for new commercial fisheries. Total revenues from test fisheries in Southeast Alaska have averaged \$496.3 during Fiscal years 2001-2003 (Table 1). Test Fish revenues have added approximately \$496.5 to the region's budget during the first half of FY 2005.

Table 1. Test fishery revenues for Southeast Alaska, FY2001-2004^a.

Program	Revenue FY2004	Revenue FY2003	Revenue FY2002	Revenue FY2001	FY2001-2003 Average
Salmon	\$65.6	\$58.6	\$104.2	\$177.6	\$113.5
Herring	\$62.1	\$56.9	\$112.1	\$86.0	\$85.0
Groundfish	\$349.5	\$314.8	\$290.0	\$259.6	\$288.1
Shellfish	\$5.6	\$8.0	\$11.0	\$10.2	\$9.7
Total	\$482.8	\$438.3	\$517.3	\$533.4	\$496.3

^a Does not include revenue from buoy or pot tags required by Board of Fisheries marking regulations.

The total Test Fish receipt authority for Southeast Alaska in FY2004 was \$650.1. A total of \$574.6 in revenue was generated from all test fisheries in Southeast Alaska in FY2004. Of the total, 16% of that revenue was generated from sales of crab and herring buoy stickers and shrimp pot tags. A total of \$482.8 was generated from actual harvest of groundfish, herring, salmon, and shellfish stocks in the region. Of the total revenue generated from test fishery harvests, 72% was generated from groundfish test fisheries, 13% from herring test fisheries, and 14% from salmon test fisheries. Approximately 1% of the total Southeast Alaska test fish revenue was generated from shellfish test fisheries in FY2004.

INTRODUCTION

This document describes the use of Test Fish Funds in the Southeast Region for FY 2004. Each project that generates or expends Test Fish Funds is described, including the primary objectives and how the sale of fish and contracting of vessels is handled for that project.

Use of the Test Fish Fund is authorized by the Alaska State Legislature. The concept of the Test Fish Fund is that revenues are generated from the sale of fish to offset the expenses of certain projects designated as Test Fish Projects. As part of their data collection, these projects harvest fish that are sold to offset expenses and prevent waste. Also included are projects such as catch sampling, stock assessment surveys, and fishery monitoring. Some test fish projects have been added during the last ten years because of general fund cuts and development of new fisheries.

Because these projects are funded by the harvest of fishery resources that would otherwise be available to be harvested by the commercial fishery, it is incumbent upon the department to look for the most efficient means to harvest and sell fish as well as the most cost effective means to operate projects that rely on Test Fish Funds. It is also incumbent on the department not to harvest fishery resources when stocks are depressed or when additional harvest is not prudent or

necessary. For this reason some projects may not operate every year, or may not generate revenue every year. It should also be noted that due to lower salmon prices the bids the Department has received for our salmon test fisheries have changed in recent years. The contractors have bid a higher proportion of the proceeds to go to them to better cover their costs. This, in conjunction with the lower prices, results in less net revenue to the Department for any given number of test fish harvested.

SALMON TEST FISH PROJECTS

Sitka (11117123) and Haines (11117125) projects were deleted in FY2003.

Project Name: Ketchikan Salmon Test Fish

Budget Code: 11100711-1117121

Location: District 1

Timing: July

Contact: Phil Doherty, Ketchikan Area Management Biologist

McDonald Lake Sockeye Run Strength Analysis

Primary Objective: To evaluate the relative abundance of sockeye salmon returning to McDonald Lake in the Yes Bay area of Behm Canal approximately 20 miles north of Ketchikan. The test fish program is used to determine if the run strength of sockeye salmon to McDonald Lake is sufficient to warrant a commercial purse seine opening to target that stock. The department typically charters one commercial purse seine boat to conduct the test fishery in mid-to-late July.

Catch and Sales: This test fish program has been ongoing since 1991 with the exception of 1996. In the eleven years of test fishing an average of 1,170 sockeye, 3,800 pink, and 895 chum salmon have been harvested per year for an exvessel value of \$ 15,500 per year. The purse seine operator is paid approximately 15% to 60% of the value. The state nets approximately \$8,000 to \$10,200 per year from this test fish program.

McDonald Lake is an enhanced sockeye salmon lake (lake fertilization) and can, in some years, support a directed commercial purse seine fishery. With the information obtained through the test fish program, common property commercial fisheries were conducted in the Yes Bay area in 1993 and from 1996 through 2001 with a total harvest of 532,000 sockeye, 7,000 coho, 1,455,000 pink, and 856,000 chum salmon and an approximate exvessel value of \$7,900,000. Approximately 35 purse seine vessels have participated on a yearly basis.

The funds generated from the sale of fish harvested in this test fishery are used by the department to conduct aerial, foot, and skiff surveys for salmon escapement counts at McDonald Lake and surrounding Behm Canal salmon systems in late July and August. These funds have also been used to pay for the cost of monitoring the commercial fisheries in this area. Without this test fishery there would be no other way for the department to accurately gauge the incoming run

strength of McDonald Lake sockeye salmon and, in some years, the department would not have the information needed to open and monitor a commercial purse seine fishery.

In 2003 the successful bidder received 58% of the total value of the test fishery. The test fishery harvested 1,104 sockeye, 5,286 pink, and 1,466 chum salmon. The ex-vessel value of the fishery was \$7,519.81. The department's share of the test fishery was \$3,158.32.

Table 2. Total Ketchikan Management Area salmon test fishery summary.

Fiscal Year	Authorization	Gross Revenue	Contractor Cost	Net Revenue	Net Expenditures
2004	\$30.0	\$7.5	\$4.4	\$3.2	\$3.2
2003	\$30.0	\$5.9	\$3.8	\$2.1	\$2.1
2002	\$30.0	\$20.5	\$5.9	\$14.5	\$14.5
2001	\$30.0	\$35.8	\$10.8	\$25.0	\$25.0
2000	\$30.0	\$26.3	\$9.4	\$16.9	\$16.9
1999	\$15.0	\$9.4	\$1.3	\$8.1	\$8.0
1998	\$15.0	\$17.5	\$1.0	\$16.5	\$16.2
1997	\$46.8	\$0.0	\$0.0	\$0.0	\$0.0
Average	\$27.8	\$16.5	\$4.6	\$12.3	\$12.3

Project Name: Petersburg-Wrangell Salmon Test Fish

Budget Code: 11100711-11117122

Location: Section 9-B

Timing: Late June and July

Contact: William Bergmann, Petersburg Area Management Biologist

Point Kingsmill and Point Gardner Pink Salmon Abundance Fisheries

Primary Objectives: The primary objectives of these test fisheries are to: 1) To assess the strength of the pink salmon return, 2) determine the run timing through sex ratio sampling and 3) obtain revenue for managing the commercial purse seine fishery in the Petersburg-Wrangell Management Area. Test fishing, combined with other run indicators, is used to decide if purse seining is justified in District 10 and Section 9-B (Frederick Sound and lower Stephens Passage). The department charters two commercial purse seine boats to conduct the test fisheries at Kingsmill Pt. and Pt. Gardner over a four to five-week period from late June to late July.

Catch and Sales: This test fish program has been conducted since 1989. The average annual harvest and total revenue for the past eight fiscal years of test fishing from 1996 through 2003, when the fishery has been consistently operated, is 1,400 sockeye, 500 coho, 47,000 pink, and 17,000 chum salmon for an ex-vessel value of \$59,000 per fiscal year. The purse seine operator is paid a percentage of the catch depending upon their bid with a maximum dollar amount per day. Because of fluctuating values of salmon, the revenue the state obtains for management purposes varies significantly but averages approximately 60% of the total value.

Fund Use: The revenue generated from this test fishery pays for, in order of importance, the vessel charters to catch the fish, aerial escapement surveys in the Petersburg–Wrangell Management Area, vessel charters for conducting foot surveys of streams in the management area, personnel costs for seasonal employees conducting escapement surveys of salmon streams and tools, repairs, and project supplies associated with stream surveying and salmon management.

Table 3. Total Petersburg-Wrangell Management Area salmon test fishery summary.

Fiscal Year	Authorization	Gross Revenue	Contractor Cost	Net Revenue	Net Expenditures
2004	\$41.6	\$41.6	\$25.7	\$15.9	\$41.6
2003	\$102.8	\$39.6	\$20.4	\$19.3	\$19.3
2002	\$72.0	\$71.9	\$23.8	\$48.1	\$48.1
2001	\$120.0	\$120.3	\$38.8	\$81.5	\$68.8
2000	\$150.0	\$150.2	\$64.3	\$85.9	\$86.0
1999	\$43.3	\$99.4	\$55.5	\$43.9	\$60.9
1998	\$43.3	\$108.1	\$37.8	\$70.3	\$60.3
1997	\$43.3	\$36.1	\$20.5	\$15.6	\$18.0
Average	\$77.0	\$83.4	\$35.8	\$47.6	\$50.4

Project Name: Juneau Salmon Test Fish

Budget Code: 111000711-11117124

Location: District 12

Timing: Late June–Early July

Contact: Kevin Monagle, Juneau Area Management Biologist

Hawk Inlet

Primary Objectives: A purse seine test fishery is operated in late June and July to assess the run strength of northbound pink salmon returns in northern Chatham Strait. The Northern Southeast Seine Fishery Management Plan [5 ACC 33.366] specifies that fishing north of Point Marsden in Chatham Strait during July is only allowed when a harvestable abundance of pink salmon is observed. The plan also mandated that open areas and times must consider conservation concerns for all species in the area. Catches in the Hawk Inlet test fishery are one of the principle tools used to make this assessment. Since 1994 the test fishery has become standardized, with test sets conducted at specific locations for specific lengths of time. Information collected includes catch by species by location along this shoreline (Hawk Inlet Shoreline), pink salmon sex ratio (aids in determining run timing), and age, sex, and stock composition information for species of interest.

Catch and Sales: In July 2003 the contractor harvested 621 sockeye, 32 coho, 5,295 pink, and 3,933 chum salmon. Of the scheduled 4 days of test fishing, only two days were fished due to vessel mechanical problems experienced by the contractor. Revenues totaled \$6,569 and 72% of this was paid to the test fishermen. The remainder was used for stream surveys.

Fund Use: Funds generated from this test fishery are used to charter purse seine vessels, to conduct aerial and foot escapement surveys of salmon systems in northern Southeast Alaska during late July through September, and to cover costs of monitoring the commercial purse seine fishery in the area.

Table 4. Total Juneau Management Area salmon test fishery summary.

Fiscal Year	Authorization	Gross Revenue	Contractor Cost	Net Revenue	Net Expenditures
2004	\$25.0	\$16.4	\$4.7	\$1.8	\$1.8
2003	\$25.0	\$13.1	\$8.6	\$4.5	\$1.0
2002	\$25.0	\$11.8	\$6.3	\$5.5	\$5.1
2001	\$25.0	\$21.5	\$5.6	\$15.9	\$15.9
2000	\$25.0	\$26.4	\$9.5	\$16.9	\$16.9
1999	\$25.0	\$12.4	\$5.9	\$6.5	\$6.5
1998	\$25.0	\$10.9	\$5.7	\$5.2	\$5.2
1997	\$43.7	\$23.4	\$8.6	\$14.8	\$14.8
Average	\$27.3	\$17.0	\$7.2	\$6.9	\$8.4

HERRING TEST FISH PROJECTS

Samples are collected by commercial herring vessels to obtain a more accurate forecast of the spawning biomass from which the commercial fishery quotas are determined. Size at age information from test fisheries may be applied directly to the age structured analysis (ASA) computer model that is used to set the quota for the following year's fisheries. As the Alaska Board of Fisheries (Board) has adopted regulations for new herring fisheries in Southeast Alaska the department has incurred additional costs associated with the Southeast herring management and assessment programs. Relatively recent fisheries include a sac roe fishery in Hobart Bay (1997) and spawn-on-kelp pound fisheries in Craig (1992) and Hoonah Sound (1990). Test fish revenues have covered these increased management and stock assessment costs over the past several years. The Board adopted three new fisheries in January 2003. Those fisheries were a sac roe seine and gillnet fishery (alternating years) in West Behm Canal and spawn-on-kelp pound fisheries in Ernest Sound and Tenakee Inlet. Increased herring test fishery revenues will also offset increased costs associated with those new fisheries beginning in FY2004. Additionally, general fund budget cuts have reduced the scale of stock assessment and management support programs in all the management areas of Southeast Alaska.

Southeast Alaska herring test fishery receipts and expenditures were coded to one code, 11100711-11117177, prior to FY2000. This code received revenue and supported herring management and stock assessment costs for four area offices (Ketchikan, Petersburg, Sitka, and Juneau). Beginning in FY2000 this one code was split into four separate codes to facilitate expenditure tracking and revenue deposits. Location specific authorizations, revenues, and expenditures are summarized below for FY2004. Pooled historical Region 1 information is also summarized:

Table 5. Southeast Alaska herring test fishery summary.

Fiscal Year	Location	Authorization	Gross Revenue ^a	Contractor Cost	Net Revenue	Net Expenditures
2004	Ketchikan	\$30.0	\$0.0 ^b	0	\$0.0	\$25.4
	Petersburg	\$30.0	\$0.0 ^c	0	\$0.0	\$12.9
	Sitka	\$48.0	\$47.1	0	\$47.1	\$41.0
	Juneau	\$15.0	\$15.0	0	\$15.0	\$18.1
2004	Region-Wide	\$123.0	\$62.1	0	\$62.1	\$97.4
2003	Region wide	\$85.0	\$56.9	0	\$56.9	\$65.9
2002	Region wide	\$85.0	\$112.1	0	\$112.1	\$101.7
2001	Region wide	\$95.0	\$86.0	0	\$86.0	\$92.7
2000	Region wide	\$96.8	\$92.0	0	\$92.0	\$93.6
1999	Region wide	\$96.8	\$62.7	\$8.5	\$54.2	\$54.2
1998	Region wide	\$96.8	\$72.8	\$0.4	\$72.4	\$72.4
	FY98-03	\$92.6	\$80.4	\$1.8	\$78.9	\$80.1
	Average					

^a Herring test bids from 1996 to 1999 were based on percent value of the catch. Winning bidders in those years had bid 0% and recouped their costs and profit on tendering fees and subsequent retroactive payments. Since 2000, herring sac roe test bids have been based on a fixed amount of revenue the department felt was required to manage the fisheries and conduct stock assessment. Bids were expressed in tons of herring minimum bidder won the contract. Recent herring spawn-on-kelp test fisheries have been bid based on percent value of catch.

^b A bid was accepted for the West Behm Canal herring sac roe test fishery in 2004 and \$30.0 revenue was received as required by the contract however that revenue was refunded as the herring return came in well under forecast and the fish were not available for harvest. Approximately \$4.0 in revenue was received from a Spawn-on-kelp test fishery in District 3 but that revenue was not received until July of 2004 and will be reported in the FY05 test fish report.

^c A bid was received for the District 7 herring spawn-on-kelp pound test fishery however the contractor did not produce any product and no revenue due to logistical problems on the grounds.

Region I Commercial Fisheries Division was required to cut General Fund budgets by \$125,000 for FY2000. Those cuts were distributed across several codes, several of which were herring management and stock assessment codes. The total GF cut to Southeast Alaska herring projects was \$40,000, \$10,500 of which was to Regional stock assessment programs and the balance spread across area offices. Because of these budget reductions, Commercial Fisheries Division increased test fish revenues in subsequent years.

The department discussed the issue of increased costs to manage new commercial herring fisheries at the January 2003 Board meeting. The department indicated there were no unallocated General Funds available to manage any new fisheries and that those costs would be borne by increased test fish revenue. Public testimony during Board committee work indicated consensus industry support for the department to generate additional revenue through herring test fisheries in the absence of new funding from other sources.

Project Name: Ketchikan Area Herring Test Fish

Budget Code: 11100711-11117174

Location: Ketchikan Management Area, Southeast Alaska (District 1)

Timing: January – April

Contact: Phil Doherty, Ketchikan Area Management Biologist

Sac Roe

Primary Objectives: The primary objectives of the Ketchikan herring test fish program are: 1) to generate revenues needed to assess Ketchikan area herring stocks in West Behm Canal, Kah Shakes/Cat Island, Craig/Klawock, and other local stocks, and 2) to collect biological samples (fecundity, age-sex-size and weight-at-age) from the West Behm Canal stock.

Catch and Sales: Beginning in 2000, Ketchikan's General Fund herring management budgets were cut by \$9,000. To compensate for that reduction the West Behm Canal herring test fishery went from a yearly average value (1994-1999) of \$20,000 per year and an average harvest of 20 tons to \$30,000 and an average of 40 tons of herring in 2000 and 2001. The total harvest in the test fishery in 2002 was 106.95 tons. During these test fisheries the price of herring sac-roe has fluctuated from \$2,660/ton in 1996 to as little as \$320/ton in 1998. In 2001, the price received by the department's test fishery was \$700/ton and in 2002 was \$300/ton.

A bid was accepted for the West Behm Canal herring sac roe test fishery in 2004 and \$30,000 revenue was received as required by the contract however that revenue was refunded as the herring return came in well under forecast and the fish were not available for harvest.

With these large swings in the exvessel value of sac roe it is important for the department to have a reliable budget in order to plan for and properly manage and assess the herring stocks in the Ketchikan management districts. If revenue from test fisheries were not available, the Ketchikan herring management budget (code 11100011-1110171) would have to be increased by other funding sources by approximately \$30,000.

Fund Use: Revenues from test fisheries have historically been used to support management of the sac roe gillnet fisheries at Cat Island-Kah Shakes and to assess Ketchikan area herring stocks. Typical expenses funded by test fishing include aerial surveys, age, sex, size sampling, and vessel charters.

Spawn-on-Kelp

Primary Objectives: The primary objectives of the Section 3-B spawn-on-kelp test fishery are: 1) to generate revenues needed to manage and develop the Section 3-B spawn-on-kelp fishery and 2) to generate additional information about herring use, production data, or gear characteristics to continue improvement the fishery.

There is considerable uncertainty regarding production and sales of herring spawn-on-kelp fisheries, and prices are generally not known until post-season sales have been concluded. The

department solicited bids from prospective test fishermen through a Request for Proposals process where bids were based on a percentage of sales that would be paid to the department, with remaining sales available to compensate time spent and costs incurred by the fishermen.

Catch and Sales: The winning bid for the 2004 season was 55% of the gross earnings of the product going to the successful bidder. However, the unavailability of herring at the time the test fisherman was on the grounds resulted in very little spawn-on-kelp product being harvested. The gross earnings of the fishery were \$9,000 of which the department received 45% or about \$4,000 in July 2004.

Fund Use: Revenues from this test fishery will mainly be used to support management of the Section 3-B Herring spawn-On-Kelp fishery (229 limited entry permits) and to monitor spawning in the other major stocks in the management area. Expenses funded by test fishing include aerial surveys, vessel charters, fishery management expenses such as gas, food, and outboard repairs, and hiring technicians to collect and analyze biological samples.

Project Name: Petersburg Area Herring Test Fish

Budget Code: 11100711-11117175

Location: Petersburg Management Area, Southeast Alaska (Districts 7 and 10)

Timing: January – April

Contact: William Bergmann, Petersburg Area Management Biologist

Sac Roe

Primary Objectives: The primary objectives of the Petersburg herring test fish program are: 1) to generate revenues needed to assess Petersburg-Wrangell area herring stocks in Hobart Bay/Port Houghton, Ernest Sound, and other local stocks, and 2) to collect biological samples (fecundity, age-sex-size and weight-at-age) from the Hobart/Houghton stock.

The department charters one herring gillnetter to catch the fish and this usually requires less than 12 hours. Samples are collected by commercial herring gillnet vessels and by ADF&G personnel to gather data for a more accurate forecast of the spring spawning biomass from which the commercial fishery quotas are determined. Size at age information from test fisheries and pre-fishery throw net samples are used in the age structured analysis (ASA) computer model that is used to set the quota for the following year's fisheries.

Catch and Sales: This test fish program has been conducted intermittently since 1993. In the seven years of test fishing an average of 32 tons of herring have been harvested per year for an exvessel value of \$28,700/year. Beginning in 2000, Petersburg's General Fund herring management budgets were cut by \$8,000. There were no sac roe herring test fisheries conducted in the Petersburg-Wrangell management area in 2002, 2003 or 2004.

Fund Use: Revenues from test fisheries have mainly been used to support management of the Port Houghton-Hobart Bay sac roe fishery (117 limited entry permits) and to monitor spawning

in the other major stocks in the management area. Expenses funded by test fishing include aerial surveys, vessel charters, fishery management expenses such as gas, food, and outboard repairs, and hiring technicians to collect and analyze biological samples.

Spawn-on-Kelp

Primary Objectives: The primary objectives of the Ernest Sound spawn-on-kelp test fishery are: 1) to generate revenues needed to manage and develop the Ernest Sound spawn-on-kelp fishery and 2) to generate additional information about herring use, production data, or gear characteristics to continue improvement the fishery. During the first test fishery in 2004, the department contracted for the operation of four herring pounds. Due to problems the contractor had, no spawn on kelp was harvested.

Catch and Sales: No catches were made and no sales occurred in FY04.

Fund Use: Department expenses associated with the Ernest Sound herring spawn-on-kelp fishery, which began in 2004, are not supported by general funds so test fishing is expected to pay for the expense of managing this fishery.

Project Name: Sitka Area Herring Test Fish

Budget Code: 11100711-11117176

Location: Sitka Management Area, Southeast Alaska (District 13)

Timing: January – April

Contact: Bill Davidson, Sitka Area Management Biologist

Sac Roe

Primary Objectives: The primary objectives of the Sitka sac roe herring test fish program are: 1) to generate revenues needed to assess and manage the herring stock in Sitka Sound and other areas, and 2) to collect biological samples (fecundity, age-sex-size and weight-at-age) from the Sitka Sound stock which provide a basis for understanding of population trends, setting harvest quotas and stock forecasting.

Catch and Sales: Herring test fishing to support Sitka herring management began in 1992 and has continued annually since that time. From the outset of the program until 2001, the test fishery took place in the winter and the fish were sold as frozen bait. In response to General Fund budget cuts of \$8,500 in 2000, and an additional \$8,000 in 2004, the department has increasingly relied on test fish program revenues. Beginning in 2001 test fishery herring was sold as sac roe to maximize their value and reduce the amount of fish harvested. In FY 2004 76.9 tons of herring was harvested which generated revenues of \$32,277.

Fund Use: Revenues from test fisheries have mainly been used to support management of the Sitka Sound sac roe fishery and to monitor spawning in the other major stocks in the management area. Expenses funded by test fishing include aerial surveys, vessel charters, fishery

management expenses such as gas, food, and outboard repairs, and hiring technicians to collect and analyze biological samples.

Spawn-on-Kelp

Primary Objectives: The primary objectives of the Hoonah Sound spawn-on-kelp test fishery are: 1) to generate revenues needed to manage and develop the Hoonah Sound spawn-on-kelp fishery and 2) to generate additional information about herring use, production data, or gear characteristics to continue improvement the fishery. The initial spawn-on-kelp test fishery occurred in 2003 and was continued in 2004. As new spawn-on-kelp fisheries have begun elsewhere in the region, the department has worked to devise an appropriate test fish program that can generate revenues needed and continue fishery development. The ex-vessel value of the Hoonah Sound common property spawn-on-kelp fishery has been around \$2.0 million for the past two years.

Catch and Sales: The first test fishery from two test pounds in 2003 generated revenues of \$16,845 that were received in FY04 from the sale of 5,100 lbs of spawn-on-kelp product. There is considerable uncertainty regarding production and sales of herring spawn-on-kelp fisheries, and prices are generally not known until post-season sales have been concluded. The department solicited bids from prospective test fishermen through a Request for Proposals process where bids were based on a percentage of sales that would be paid to the department, with remaining sales available to compensate time spent and costs incurred by the fishermen. In 2004 the department sought to repeat the test fishery at Hoonah Sound as well as to implement new test fisheries at each of the four regional locations where spawn-on-kelp fisheries were to occur. Due to revenue shortfalls in Southern southeast spawn-on-kelp test fisheries earlier in the 2004 season, uncertainties with logistics and timing of the relatively new Tenakee Inlet test fishery, and price uncertainties, the department went through a series of four RFQ solicitations beginning from December 18 through April 23 to develop the final 2004 FY test fish program to offset program costs associated with spawn-on-kelp fisheries in the region. In Hoonah Sound a total of seven test fishery herring pounds produced 28,732 pounds of spawn-on-kelp product which generated revenues of \$33,097.

Fund Use: Department expenses associated with the Hoonah Sound herring spawn-on-kelp fishery, which began in 1990, have been supported by general funds, in part made available by the advent of herring test fishing used to supplement costs of the sac roe herring fishery in Sitka Sound. In 2003 the Board of Fisheries created new herring spawn-on-kelp opportunities in Tenakee Inlet and Earnest Sound. The department has found it necessary to provide for these new fisheries by further re-allocation of available funds and by new test fisheries. A spawn-on-kelp test fishery was first initiated in Hoonah Sound since this has now become an established fishery with predictable spawning and fishing areas and good prospects for a success. Revenues from the FY 2003 test fishery were received in FY 2004. Revenues exceeded expenses by \$6,169, so those revenues were carried forward to FY 2004. In FY 2004 test fishery funds generated by the Hoonah Sound test fishery were received in FY2005 and due to shortfalls from developing test fisheries in other portions of the region, those revenues will be used to offset costs for those areas where new fisheries have been implemented without offsetting revenues. The Sitka Management Area will start FY 05 with test fish revenues of \$14,012 available.

Expenses funded by test fishing include aerial surveys and fishery management expenses associated with providing for a fishery in a remote area.

Project Name: Juneau Area Herring Test Fish

Budget Code: 11100711-11117177

Location: Southeast Alaska (Districts 11 and 12)

Timing: April–May

Contact: Kevin Monagle, Juneau Area Management Biologist

Sac Roe

Primary Objectives: The primary objectives of the Juneau herring test fish program are: 1) to generate revenues needed to assess and manage Juneau area herring stocks and fisheries in Seymour Canal, Tenakee, and other local stocks, and 2) to collect biological samples (fecundity, age-sex-size and weight-at-age) from the Seymour Canal stock.

Samples are collected by commercial gillnet vessels in the Juneau management area. Size at age, age composition, and fecundity information from test fisheries may be applied directly to the age structured analysis (ASA) computer model that is used to set the quota for the following year's fisheries.

Catch and Sales: Beginning in 2000, Juneau's General Fund herring management budgets were cut by \$4,000. To offset that reduction and to maintain existing test fishery revenue, test fishery harvests were increased. Unfortunately in the spring of 2003 no test fish revenue was generated due to a lack of opportunity to the contractor. In the spring of 2004 the awarded bid was for 77 tons of which 74.6 tons of herring were harvested. The department received \$15,000 and the price per ton was \$200. During these test fisheries the price of herring sac-roe has fluctuated from \$2,660/ton in 1996, to \$200/ton in 2004.

Fund Use: Revenues from the test fisheries are to be used mainly to support management of the Seymour Canal gillnet sac roe fishery and assess other herring stocks in the Juneau management area. Typical expenses funded by test fishing include aerial surveys, vessel charters, and hiring technicians to collect and analyze biological samples. An increased allocation of general funds would reduce the department's reliance on test fish revenues.

Spawn-on-Kelp

Primary Objectives: The primary objectives of the Tenakee Inlet spawn-on-kelp test fishery are: 1) to generate revenues needed to manage and develop the Tenakee Inlet spawn-on-kelp fishery and 2) to generate additional information about herring use, production data, or gear characteristics to continue improvement of the fishery. This is only the second year of a SOK fishery in Tenakee Inlet and the first test fishery. Similar to Hoonah Sound, there has been considerable interest in evaluating optimum gear size and in optimizing kelp allocations as ways

to maximize production and value of this fishery. The ex-vessel value of the Tenakee Inlet common property fishery was approximately \$890,000 in spring 2004.

Catch and Sales: The first test fishery generated revenues of approximately \$9,900 that were received in FY05 from the sale of 9,100 lbs of spawn-on-kelp product. The department contracted for the operation of two herring pounds on the basis of a percentage of the value of gross earnings. Since these revenues were received following the herring season, they will be used to seed management costs and reduce test fishing necessary to support management costs in the spring of 2005.

Fund Use: In 2003 the Board of Fisheries created new herring spawn-on-kelp opportunities in Tenakee Inlet and Earnest Sound. The department has found it necessary to provide for these new fisheries by further re-allocation of available funds and by new test fisheries. Therefore a spawn-on-kelp test fishery was initiated in Tenakee Inlet in 2004. Expenses funded by test fishing include aerial surveys and fishery management expenses associated with providing for on the grounds fishery management in a remote area.

GROUND FISH TEST FISH PROJECT

Project Name: Southeast Groundfish Test Fish

Budget Codes: 11100711-11117187 and 11100711-11117188

Location: Southeast Alaska (Districts 1–16)

Timing: January–December

Contact: Tory O’Connell, Groundfish Project Leader

Primary Objectives: To estimate abundance of sablefish stocks in Southeast Alaska and to set appropriate harvest levels. Annual stock assessment surveys have been conducted since 1988 in southern (Clarence Strait) and northern Southeast (Chatham Strait) to collect abundance and biological information on stock structure and condition. Using longline gear, annual trends in catch per unit effort, size, and age structure of these sablefish populations are used to help determine the sablefish quota for the following year. The department contracts five commercial fishing vessels to conduct the survey each year, three in Chatham Strait and two in Clarence Strait. In addition to the longline surveys we implemented a pot-vessel survey in Chatham Strait in FY01 to mark and release sablefish for recapture in the longline fishery and a pilot project for PIT tagging of sablefish. These projects were partially funded under Nearshore III federal monies but some of the charter cost and equipment costs were covered under test fish funds. The mark and release survey will continue through at least FY05 and in FY05 will rely on test fishery revenues.

The sablefish fisheries are the most valuable state-managed groundfish fisheries in Southeast, with an estimated ex-vessel value of \$6.6 million in 2003. The fisheries are limited entry: current participation is approximately 108 permit holders in NSEI and 28 permit holders in SSEI. At present there is no state general fund support for these fisheries.

Catch and Sales: The Southeast groundfish project relies on the revenues generated by the test fish project to fund the annual stock assessment surveys. The majority of the revenue is used to pay for charter vessels and associated staff sea duty and gear costs: in FY2004, the cost of chartering five vessels for the two-area survey was \$102,500... Other expenses in FY2004 included survey gear, sampling supplies, PIT-tagging equipment, travel and personnel costs for the surveys, and continuing the port-sampling program to sample commercial catches for age and length data. Because Nearshore funding is no longer available for the tagging survey, test fish funds from FY04 were set aside and rolled forward to FY05 to pay for this portion of the Chatham assessment, a cost of approximately 140K.

Table 6. Southeast Alaska groundfish test fishery summary.

Fiscal Year	Authorization	Gross Revenue	Contractor Cost	Net Revenue	Net Expenditures
2004	\$349.5	\$349.5	\$103.0	\$246.5	\$193.9
2003	\$278.3	\$314.8	\$172.2	\$142.6	\$116.3
2002	\$290.0	\$290.0	\$159.0	\$131.0	\$130.5
2001	\$260.0	\$259.6	\$176.7	\$82.9	\$82.9
2000	\$194.3	\$193.2	\$135.8	\$57.4	\$57.4
1999	\$196.2	\$174.4	\$111.2	\$63.2	\$63.2
1998	\$175.1	\$169.7	\$111.6	\$58.1	\$58.1
1997	\$61.8	\$130.3	\$105.9	\$24.4	\$24.4
97-03	\$208.0	\$218.9	\$138.9	\$79.9	\$76.1
Average					

SHELLFISH TEST FISH PROJECTS

Project Name: Southeast Shellfish Test Fish

Budget Code: 11317193-11317193

Location: Southeast Alaska (Districts 1-16)

Timing: September and October

Contact: Gretchen Bishop, Shellfish Project Leader

Primary Objectives: Primary objectives are to develop survey methods to: 1) estimate stock strength of spot and coonstripe shrimp, and 2) estimate relative abundance of Tanner crab in major fishing areas of Southeast Alaska.

Catch and Sales: Pot shrimp stock assessment surveys in which commercial product is retained to partially defray survey costs have been conducted annually in September since 1997. Over this time period, the areas surveyed have expanded from District 3 only in 1997 to Districts 3, 7, 12, and 13 in 2002. In addition to the shrimp sampled by ADF&G biologists onboard the contract vessels, the marketable shrimp captured in each survey were processed and sold on the department's gear card. The cost recovery conducted defrays survey costs and prevents waste of shrimp due to handling mortality after sampling.

Annual October Tanner crab stock assessment surveys have been conducted on the department's *R/V Medeia* since 1997. The areas surveyed have expanded from Icy Straits and upper Stephens Passage in 1997 to include Holkam Bay, Thomas Bay, Port Camden, and Glacier Bay by 2002. While Tanner crabs have not been routinely retained to defray costs during this survey, they were retained in October 1999 to assess the degree to which cost recovery interfered with normal survey operations and the potential for revenue production. Cost recovery has not been conducted in subsequent surveys.

Table 7. Southeast Alaska shellfish test fishery summary.

Fiscal Year	Authorization	Gross Revenue	Contractor Cost	Net Revenue	Net Expenditures
2004	\$7.0	\$5.6	\$0.0	\$5.6	\$3.4
2003	\$36.0	\$8.0	\$0.0 ^d	\$8.0	\$7.2
2002	\$40.0	\$11.0	\$0.0 ^c	\$11.0	\$9.7
2001	\$40.0	\$10.2	\$0.0 ^a	\$10.2	\$10.2
2000	\$38.5	\$11.5	\$4.9 ^b	\$6.6	\$6.6
1999	\$100.6	\$11.6	\$11.6	\$0.0	\$0.0
1998	\$100.6	\$20.0	\$20.0	\$0.0	\$0.0
1997	\$31.5	n/a	n/a	n/a	n/a
Average 1998-2004	\$49.3	\$11.0	\$10.5	\$5.8	\$5.4

^a Value of product; contractor cost of \$23.4 K charged to code 11311088.

^b Value of product; contractor cost of \$9.2.K charged to code 11110106.

^c Value of product; contractor cost of \$24 K charged to code 11319019.

^d Value of product; contractor cost of \$22 K charged to code 11311095.

The department collects additional revenue from the sale of buoy stickers and buoy tags that are required by regulations adopted by the Board of Fisheries. Fishermen are charged a fixed amount per tag, which defrays the cost of the stickers or tags and the cost of administering sticker and tag sales.

Table 8. Southeast Alaska test fishery summary.

Salmon

Project	FY2004 Revenue	FY2004 Expenditures	FY2003 Revenue	FY2003 Expenditures	FY2002 Revenue	FY2002 Expenditures	Average Revenue 2001-03	Average Expenditures 2001-03
Ketchikan	\$7.5	\$7.5	\$5.9	\$5.9	\$20.5	\$20.4	\$20.7	\$20.7
Petersburg	\$41.6	\$41.6	\$39.6	\$38.2	\$71.9	\$71.9	\$77.3	\$72.6
Juneau	\$16.4	\$16.4	\$13.1	\$9.6	\$11.8	\$11.4	\$15.5	\$14.2
Total	\$65.5	\$65.5	\$58.6	\$53.7	\$104.2	\$103.7	\$113.5	\$107.4

Herring

Project	FY2004 Revenue	FY2004 Expenditures	FY2003 Revenue	FY2003 Expenditures	FY2002 Revenue	FY2002 Expenditures	Average Revenue 2001-03	Average Expenditures 2001-03
Ketchikan	0	\$25.4	\$32.1	\$21.4	\$32.3	\$17.8	\$26.5	\$18.1
Petersburg	0	\$12.9	\$0.0	\$12.7	\$0.0	\$22.4	\$6.7	\$18.3
Sitka	\$47.1	\$41.0	\$24.8	\$29.8	\$53.9	\$38.9	\$36.2	\$34.9
Juneau	\$15.0	\$18.1	\$0.0	\$2.0	\$25.9	\$21.8	\$15.6	\$15.2
Total	\$62.1	\$97.4	\$56.9	\$65.9	\$112.1	\$101.7	\$85.0	\$86.8

Groundfish

Project	FY2004 Revenue	FY2004 Expenditures	FY2003 Revenue	FY2003 Expenditures	FY2002 Revenue	FY2002 Expenditures	Average Revenue 2001-03	Average Expenditur 2001-03
Regional Totals	\$349.5	\$194.0	\$314.8	\$259.6	\$290.0	\$289.5	\$288.1	\$269.6
Total	\$349.5	\$194.0	\$314.8	\$259.6	\$290.0	\$289.5	\$288.1	\$269.6

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Table 8. Page 2 of 2.

Shellfish								
Project	FY2004 Revenue	FY2004 Expenditures	FY2003 Revenue	FY2003 Expenditures	FY2002 Revenue	FY2002 Expenditures	Average Revenue 2001-03	Average Expenditures 2001-03
Regional Totals	\$5.6	\$3.4	\$8.0	\$7.2	\$11.0	\$9.7	\$9.7	\$9.0
Total	\$5.6	\$3.4	\$8.0	\$7.2	\$11.0	\$9.7	\$9.7	\$9.0

Southeast Region Test Fish Total								
Project	FY2004 Revenue	FY2004 Expenditures	FY2003 Revenue	FY2003 Expenditures	FY2002 Revenue	FY2002 Expenditures	Average Revenue 2001-03	Average Expenditures 2001-03
Regional Totals	\$574.6	\$383.4	\$438.3	\$386.4	\$517.3	\$504.6	\$496.3	\$472.8
Total	\$574.6	\$383.4	\$438.3	\$386.4	\$517.3	\$504.6	\$496.3	\$472.8

* Total Region I Commercial Fisheries test fish receipt authority in FY00 was \$1,138.7. In FY01, \$500.0 of Region I Test Fish authority was transferred to Westward Region, Region I total test fish receipt authority has been \$650.1 from FY01 through FY2004. For FY2005, Region I total test fish receipt authority was reduced to \$600.0 and crab, shrimp and herring buoy stickers and pot tag revenue was removed from test fish authority and placed in SDPR.

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