

**HOONAH SOUND HERRING SPAWN-ON-KELP POUND FISHERY  
1993 MANAGEMENT PLAN**



Regional Information Report<sup>1</sup> No. 1J92-16

Alaska Department of Fish and Game  
Division of Commercial Fisheries  
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<sup>1</sup> The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished divisional reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

## INTRODUCTION

This plan provides an overview of the management approach and regulations for the 1993 Hoonah Sound Spawn-On-Kelp Pound Fishery. Staff biologists listed at the end of this document are available to answer questions pertaining to this plan. Pound operators are also advised to review requirements of other agencies as described on pages 9 and 10.

A pound fishery involves releasing sexually mature herring into a net impoundment in which kelp is suspended. The herring are released from the pound after they spawn on the kelp, and the kelp with eggs are sold.

In 1992, 120 fishermen operated pounds in Hoonah Sound harvesting a total of 23.1 tons of spawn-on-kelp valued at \$322,000. This compares to 1991 when 104 pound operators harvested 13.25 tons of spawn-on-kelp valued at \$206,000.

Historical herring spawning information for Hoonah Sound is shown on Table 1. In 1992, approximately 10.8 nautical miles of spawn were observed between April 22 - April 24. The biomass estimate derived from dive surveys was 11.4 million pounds of herring. A summary of pertinent information for this fishery is shown on Table 2.

The following is a calendar of events to be considered by pound operators.

- December 21-** Department of Fish and Game pound permit applications will be available.
- January 31** - Deadline for submitting an application to the Department of Fish and Game for a pound permit.
- February 8** - The department will issue a permit to each applicant that has met the January 31 deadline.
- February 10** - U.S. Forest Service special-use permit applications are due.
- April 1** - A completed pound must be present on the fishing grounds.
- April 2** - A Department representative will be on the grounds to inspect each pound.
- April 5** - Allocations will be made for each pound operator that has a completed pound in the fishing area.
- April 5** - Kelp permits will be available.
- April 6** - The fishery will open to the capture of herring to be transferred into pounds.
- June 7** - Pounds must be completely removed from the water.

## REGULATIONS

The Alaska Board of Fisheries approved the following regulations creating the Hoonah Sound pound fishery: 5AAC 27.110. FISHING SEASONS (f) and 5AAC 27.185. MANAGEMENT PLAN FOR HERRING SPAWN-ON-KELP IN POUNDS. (a),(b),(c),(d),(e) and (f)(1) through (6);

1. Herring spawn-on-kelp in pounds may be taken only during periods established by emergency order.
2. Herring pounds for the taking of spawn-on-kelp in pounds may be operated only under terms of a permit issued by the Department.
3. Pounds for the taking of herring spawn-on-kelp in pounds may be operated only in waters of Section 13-C west of the longitude of Nesmeni Point. PLEASE NOTE: The fishing boundary has been changed to avoid navigational hazards at the entrance to Peril Straits. The new boundary is described on page 4 under "Fishery Location".
4. The current allocation allows for 150 tons of herring to be captured and transferred to the pounds. The spawn-on-kelp harvest objective was set based on the ratio of one ton of spawn-on-kelp for each 12.5 tons of herring allocated to the fishery. This will allow for a 1993 quota of 12 tons of spawn-on-kelp product. The Department will manage the fishery to achieve this harvest objective by restricting those persons holding permits to a specified number of kelp blades.
5. The Department shall divide the harvest allocation and the amount of herring available for impounding equally among permit holders.
6. **The operator of a pound shall apply for a permit issued by the Department no later than January 31 of each calendar year.**
7. The permit must specify the following:
  - (a) The location where pounds may be operated.
  - (b) The date by which pounds must be operational.
  - (c) The size of, identification requirements for, and method of operation of pounds.
  - (d) The location and methods for taking, retention, and release of herring and kelp to be used in a pound for the production of herring spawn-on-kelp.
  - (e) The harvest reporting requirements for pound operators; and
  - (f) Other guidelines determined by the Department to be necessary for the conservation and management of herring and kelp, and the health, safety, and general welfare of the public.

8. The holder of a herring pound permit shall weigh all spawn-on-kelp taken at the time it is removed from the pound. A representative of the Department will inspect and seal each container of spawn-on-kelp (including trimmings) before it is transported from the grounds for processing.
9. Herring for placement in herring spawn-on-kelp pounds may be captured only with purse seines or hand purse seines.

### **FISHERY LOCATION**

The fishery, by regulation, was designated for the waters of Hoonah Sound, located in regulatory Section 13-C, west of the longitude of Nismeni Point and north of Pogibshi Point. However, the U.S. Coast Guard has requested the department prohibit the operation of herring pounds at the entrance to Peril Strait because of navigational hazards. To ensure an orderly fishery and promote vessel safety, the Department has agreed to limit the operations of pounds to areas outside of the main shipping lanes. To accomplish this, pounds will be permitted to be anchored only in the following waters;

Section 13-C: in the waters of Hoonah Sound west of a line projected from Point Marie (57°33'05" N. latitude, 135°34'15" W. longitude) bearing 43° true to a point on the northern shore of Hoonah Sound (57°37'23" N. latitude, 135°27'00" W. longitude). (see map page 13).

### **HERRING STOCK STATUS**

Historically, the Hoonah Sound herring stock size has been approximately three million pounds of spawning biomass (Table 1). However, in 1989, a record spawn of 17 nautical miles was recorded and the spawning population was estimated to be approximately 8 million pounds. In 1992, 10.8 nautical miles of spawn was recorded resulting in a spawning biomass of 11.4 million pounds, the highest biomass recorded for this fishery.

Herring spawning normally occurs in Hoonah Sound between the last week in April and the first week in May. The earliest date herring spawning was recorded occurred on April 13, 1990. In 1992, spawning occurred between April 22 - April 24. Traditionally, herring spawn along the shoreline between Fick Cove and Ushk Point (located at the northern entrance to Ushk Bay) and around Emmons Island. Some spawning has also been documented along the north shore of Hoonah Sound from Broad Island into the North Arm. In 1992, spawning occurred primarily around Emmons and Vixen Island and the shoreline from Fick Cove to Rogers Point.

## PERMIT APPLICATION PROCEDURES

To establish eligibility for the 1993 fishery, a pound operator must submit an application for a Hoonah Sound pound permit to any Southeast Alaska Fish and Game office by January 31, 1993. Applications sent by mail must be postmarked no later than January 31. Permit applications will be available by December 21, 1992 at any Fish and Game Office or they can be obtained by writing the Department of Fish and Game, Division of Commercial Fisheries, 304 Lake Street, Room 103, Sitka, Alaska 99835.

On or about February 8, the Department will issue a permit to each applicant who has met the January 31 deadline. The permit will specify conditions that will be required of each pound operator.

## APPLICATION FEES

The Department is considering implementing a fee for applications permits in 1994. This fee would cover the administrative costs to the Department for processing and issuing permits. The fees would not be any higher than the estimated administrative costs. Individuals who would like to comment on the use of fees to cover costs may contact any of the biologists listed on page 14 of this plan.

## PERMIT REQUIREMENTS

Existing regulations require the Department to establish permit stipulations for management of the Hoonah Sound pound fishery. The following stipulations will be specified on each permit:

- 1 A herring spawn-on-kelp pound is defined as a rigid frame structure with adequate buoyancy to support a net enclosure and spawn-on-kelp, and be used to retain herring alive over extended periods of time. If 150 lbs. of weight placed on any side of the pound submerges a side of the structure, the pound will be declared ineligible.
- 2 Each permit holder must operate a single pound. Pound operators may cooperatively work together by connecting and anchoring their pounds together. However, each pound must have its own net enclosure and be capable of retaining herring when separated from other pounds.
- 3 Each permit holder is required to have a completed pound in the fishing area by April 1. A pound will be considered complete when it is fully assembled, anchored offshore, and ready for the installation of the webbing. A Department representative will be in the fishing area on April 2 to ensure that each pound is fully assembled. Pound operators need not be present at their pound site for this inspection, however, pounds must be clearly identifiable as stated in requirement #5.

- 4 Permit holders may locate their pound only in the following waters; Section 13-C: in the waters of Hoonah Sound west of a line projected from Point Marie (57°33'05" N. latitude, 135°34'15" W. longitude) bearing 43° true to a point on the northern shore of Hoonah Sound (57°37'23" N. latitude, 135°27'00" W. longitude). (see map page 13).
- 5 Each pound must be identified by an upright sign in a conspicuous place with the permittee's full name and the number which is assigned on the stick on label on the first page of the permit. Letters and numbers must be at least 6 inches high and with lines at least one-half inch wide that contrast with the background. Pound numbers must also be permanently affixed to the top surface of the pound structure.
- 6 The pound must be constructed so there is a minimum inside water surface area of 250 square feet. This restriction is necessary to avoid over-crowding of herring.
- 7 The department is considering a pound size restriction to be implemented next year for the 1994 fishery. This restriction is necessary to avoid exceeding the herring harvest limit established for the fishery. For the present year the department will measure all existing pound structures and will remove and measure the amount of herring used in selected pounds in order to determine the optimum pound size for this fishery. A pound size limit between 300 and 400 square feet of surface area is being considered.
- 8 Each pound must be constructed to include 6 feet of surplus webbing. Initially, this webbing should be gathered at the surface in such a manner that it can be easily lowered into the water if the submerged webbing becomes egg-saturated to the extent that it prevents adequate water circulation which could cause suffocation of impounded herring.
- 9 Each permit holder must be physically present in the fishing area continuously from the time herring are introduced into the pound until the spawn-on-kelp is harvested.
- 10 The set opening date when pound operators may capture herring to be transferred into pounds will be 12:01 a.m., April 6, 1993. If it appears that spawning will occur earlier than this date, the fishery may need to be opened earlier by Field Announcement to avoid the loss of the fishery.
- 11 Purse seines and hand purse seines will be the only legal gear to harvest herring for the pounds.
- 12 The transport of herring to the pound site must be done with the pound itself or a towable net pen. Transporting with a purse seine will not be allowed. Pound operators are also advised to tow slowly to avoid crushing herring against the net.
- 13 As a general rule, herring may be held for a maximum of 8 days or until they are 80% spawned out, whichever occurs first. Retention of herring for longer periods will be allowed only with special authorization by the Department.

- 14 Open pounding will not be a legal method of operating a pound. Nets may not be lowered in a pound to allow for free movement of herring into a pound. Pound operators may only lower their nets when transferring herring into the pound and when releasing herring immediately prior to the time the spawn-on-kelp will be harvested from the pound.
- 15 A pound operator may only introduce their allocated limit of herring into their pound one time. Pound operators will not be allowed to release their herring and then capture more herring for the same pound.
- 16 After release of the captured herring, the pound, including webbing, will remain in place for a minimum of four weeks. Egg covered webbing must remain on the pound frame in the original configuration with adequate water circulation on all sides to optimize hatching success. The Department will notify pound operators through a news release when pounds may be moved from the water.
- 17 The permit must be in the possession of the pound operator at all times.
- 18 The pound structure must be completely removed from the water by June 7, 1993.

### HARVEST OF KELP

A separate permit is required to harvest kelp to be used in the pounds (5AAC 37.900). Kelp harvest permits may be obtained from local Department offices. Approximately 3 tons of macrocystis kelp or 21,000 blades of kelp is needed to produce 12 tons of spawn-on-kelp. This assumes that a 300% weight gain is realized from the kelp to the spawn-on-kelp product harvested. Kelp permits may be obtained from local Fish and Game offices beginning April 5 and must be completed and returned to the Department within 30 days after harvesting of kelp.

### ALLOCATION OF GUIDELINE HARVEST

On or about April 5, the 12 ton spawn-on-kelp guideline harvest, as well as the 150 ton allocation of herring, will be divided equally among all permit holders who have completed pounds in the fishing area by April 1, 1993. Notification of the individual allocations will be announced by news release. Further adjustments to the individual allocations may occur after April 5 only if a significant number of permit holders drop out of the fishery after this date.

Deadloss resulting from the capture, transfer, and holding of herring will be subtracted from individual pound allocations.

## HARVEST AND PRODUCTION

Each permit holder's spawn-on-kelp blades must remain separate from other permit holder's spawn-on-kelp blades until after processing. Permit holders will be allowed to harvest all the product produced in their pound. A permit holder's fish ticket must report only the spawn-on-kelp harvested from his/her own pound. A representative of the Department must inspect and seal all containers of harvested spawn-on-kelp product (including trimmings) before it is transported from the fishing grounds for processing.

## FISHERY CONDUCT AND MANAGEMENT

Suitable sites for pounds in Hoonah Sound are limited. To avoid herring mortality and damage to the pounds, operators should locate their pounds in an area with minimal exposure to wind and wave action, and with a relatively deep bottom. The distance from where the herring are captured and the pound site should also be considered since long towing distances can cause considerable stress and mortality of herring. The area between Emmons Island and Vixen Island has been the main focus for anchoring pounds since herring normally spawn near this area.

The Department will station a state vessel and personnel in Hoonah Sound when herring are available for capture. Department personnel will closely monitor herring activities and all phases of the fishery to assure compliance with permit conditions. All fishery announcements, including updates of herring activities and fishery openings, will be broadcast by VHF radio, Channel 10. Fishermen are strongly encouraged to have a VHF radio.

The Department will be closely monitoring herring activity in Hoonah Sound by vessel and aerial surveys. Beginning in 1991, a major change in the management of the fishery occurred which specifies a set date that pound operators may capture herring to be transferred into pounds. This set opening date will be 12:01 AM, April 6. If it appears spawning will occur earlier than this date, the fishery may need to be opened earlier to avoid loss of the fishery.

Department personnel will closely monitor the capture and transfer of herring into pounds to ensure that allocations are not exceeded and to document any mortality of herring. To avoid mortality, the transport of herring to the pound site must be done with the pound itself or a towable net pen. Transporting with a purse seine will not be allowed. Pound operators are also advised to tow slowly to avoid crushing herring against the net. The Department will regulate the fishery by setting and enforcing a strict limitation on the number of kelp blades that can be put in each permit holders pound. Pound operators, will then be allowed to harvest all of the spawn-on-kelp from their pounds.

## REQUIREMENTS FOR BUYERS

Operators of floating processing vessels will be required to report in person, by VHF radio, or by telephone, to the Department of Fish and Game office in Sitka before the start of processing operations in Hoonah Sound. These reporting requirements are specified by regulation 5AAC 39.130 (f).

Fish tickets must be submitted to the Department within 7 days after landing. Fish tickets should be sent to the Department of Fish and Game, Division of Commercial Fisheries, 304 Lake St. Room 103, Sitka, Alaska 99835 or submitted to a representative of the Department before leaving the fishing area.

### **LICENSE REQUIREMENTS**

In addition to the Alaska Department of Fish and Game permits required to operate a pound and harvest kelp for transport into a pound, pound operators must also obtain an interim use permit (L21A) from the Commercial Fisheries Entry Commission. Individuals who do not have pound permits but are assisting in the operation of the fishery in any manner must have a crew member license. All commercial vessels (including skiffs) used in the fishery are required to be licensed with the Limited Entry Commission. Fishermen are required to display the permanent vessel license plate (ADF&G number) on both sides of the hull, cabin, or mast in permanent symbols at least 12 inches high and with lines at least 1 inch wide that contrast with the background.

Applications for vessel and interim use permits are available from all offices of the Department of Fish and Game or can be obtained by writing the Commercial Fisheries Entry Commission, 8800-109 Glacier Hwy, Juneau, Alaska 99801-8079. Crew member licenses may be obtained from local vendors in most communities.

### **OTHER AGENCY REQUIREMENTS**

Prospective pound operators are advised to consider other agency requirements for constructing and operating pounds in Hoonah Sound. Some of these requirements are discussed briefly below; however, a pound operator is urged to contact the U.S. Forest Service, National Marine Fisheries Service and the United States Coast Guard to determine other regulations and requirements.

#### **U.S. Forest Service**

In the Hoonah Sound area, the U.S. Forest Service has jurisdiction over and manages the land above mean high tide. People who plan to use National Forest land in connection with the fishery must apply for a special use permit from the Forest Service prior to any occupancy. These land uses might include temporary camps, temporary equipment storage, and herring pound storage.

Special use permit applications are available at the Sitka Ranger District Office, 204 Siginaka Way, Sitka, Alaska 99835, phone# 907-747-6671. Completed applications should be submitted to the Sitka Ranger District by February 10, 1993. The permit fee is \$100.00, and in most cases a bond will be required.

Since this is a commercial venture, free wood will not be available for pound construction. According to current Forest Service rates, the cost of logs is \$8.00 per linear foot. Requests for timber should be made to the Sitka Ranger District no later than February 10, 1993.

Firewood for personal use may be taken free of charge. Only dead or downed trees may be used for firewood.

Please contact the Sitka Ranger District with any questions about use or occupancy of National Forest lands.

### **National Marine Fisheries Service**

The National Marine Fisheries Service (phone# 907-747-6940) regulates activities which might harm marine mammals. Herring pounds are classed as a Category 3 fishery, which means that participating fishermen do not need to apply for an "exemption". Fishermen may not kill sea lions, sea otters or whales, porpoises or dolphins. Fishermen must report mortality of marine mammals associated with their activities. Since Federal regulations may change at any time, fishermen should check with their local NMFS office before fishing.

### **United States Coast Guard**

Structures such as floating fish pens are subject to the requirements of the Code of Federal Regulations, Title 33, Part 64. This regulation requires an owner to apply for a Coast Guard permit and to install and maintain a light or other private aid to navigation if the Coast Guard determines it to be necessary to protect maritime navigation.

The proposed pens of the Hoonah Sound Spawn-on-Kelp Pound Fishery do not require permits for private aids to navigation at this time, provided the owners:

1. Place a two-sign marker on opposite corners of the structure. These markers will be worded "Danger, Fish Pens" (Page 12).
2. Place a single all-round white light on one corner marker on structures less than 400 sq. ft. in size.
3. Place a single all-round white light on every corner on each structure larger than 400 sq. ft. in size.
4. Place and anchor fish pens within the boundary area specified by this permit.
5. Remove the pens from the waterway by June 7, 1993.

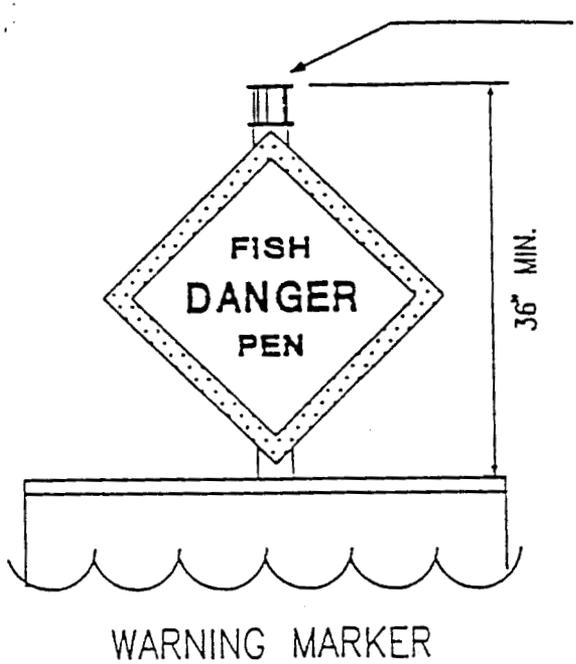
If all these conditions are not met, the permit holder must apply to the Coast Guard office for an individual "Private Aids to Navigation permit". If you have any questions, please call Master Chief Yates at the Coast Guard Aids to Navigation office, at 463-2254.

Table 1.  
HOONAH SOUND HERRING STOCK  
SPAWNING SURVEY: 1971-1992

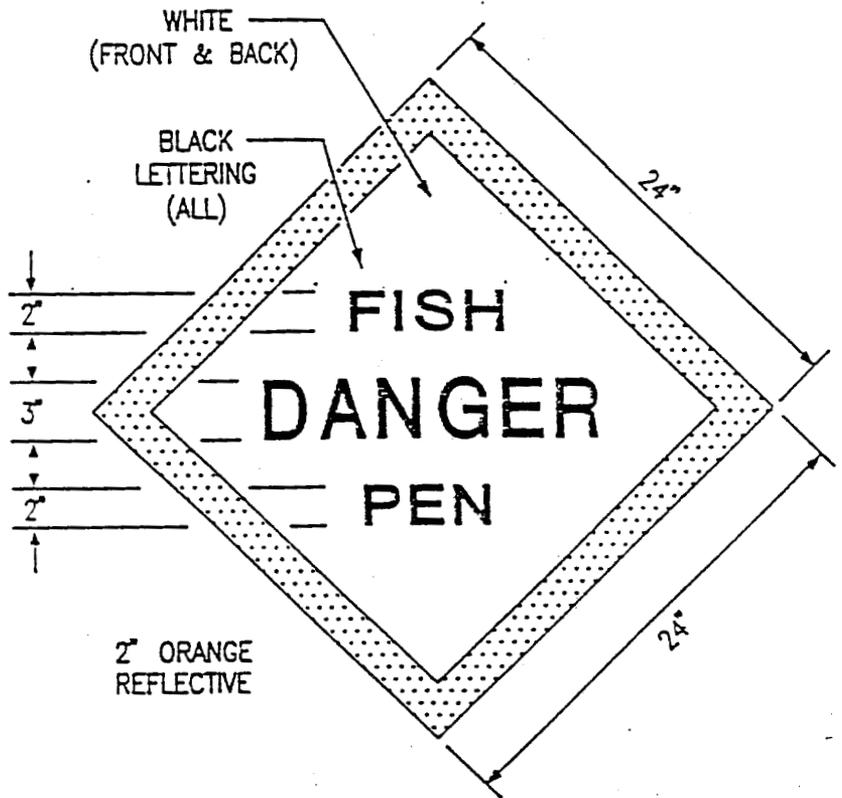
YEAR	DATES	NAUTICAL MILES OF SPAWN	BIOMASS (LBS)
1971		2.5	N/A
1972		2.0	N/A
1973		N/A	N/A
1974		1.0	N/A
1975		0	N/A
1976		1.0	N/A
1977		3.5	N/A
1978		5.3	N/A
1979		N/A	N/A
1980		N/A	N/A
1981	4/30-5/01	2.25	N/A
1982	N/A	1.5	N/A
1983	N/A	1.0	N/A
1984	4/26-5/01	3.0	N/A
1985	5/01-5/03	3.5	N/A
1986	4/28-5/01	3.75	N/A
1987	4/28-5/02	3.75	N/A
1988	4/30-5/01	5.0	N/A
1989	4/16-4/20	17.0	8,000,000
1990	4/13-4/28	10.0	4,700,000
1991	4/19-4/24	8.7	4,350,000
1992	4/22-4/24	10.8	11,428,000

Table 2.  
HOONAH SOUND ROE-ON-KELP FISHERY  
SUMMARY: 1990 - 1992

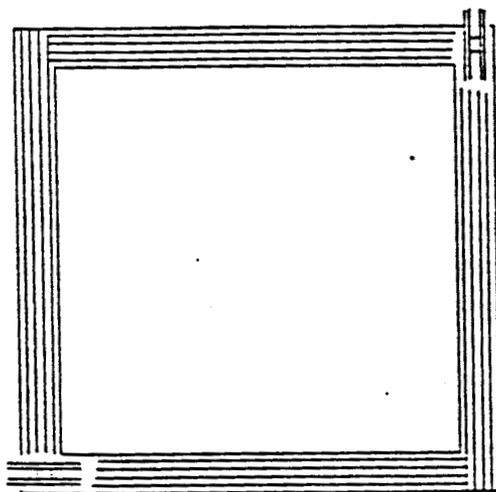
	1990	1991	1992
Herring Quota (tons)	150	150	150
Harvest Quota (tons)	11	12	12
Total Harvest (tons)	11.9	13.25	23.12
Fishery Ex. Vessel Value	\$164,083	\$206,401	\$322,343
Average Price/lb	\$6.90	\$7.79	\$6.97
Average Income	\$1657	\$2487	\$2985
Number of Applicants	400	185	199
Number of Permits Issued	128	104	120
Number of Fishermen Selling	99	83	108
Herring Allocation (lbs)	2,300	3,000	2,500
Kelp Allocation (blades)	240	280	240
Number of Kelp Permits	26	25	27
Total Kelp Harvest (blades)	31,260	28,355	27,255
Pound Harvest Limit (lbs)	170	none	none
Herring Spawn Dates	4/13-4/28	4/19-4/24	4/22-4/24
Miles of Herring Spawn	10	8.7	10.8
Spawning Stock Biomass (10 <sup>6</sup> )	4.7	4.35	11.43
Fishery Open - Closed	4/13-4/22	4/6-4/25	4/6-4/26
Fishing Occurred	4/13-4/22	4/15-4/25	4/17-4/26
Harvest Occurred	4/18-	4/22-4/29	4/22-4/30



WHITE ALL-AROUND LIGHT  
 MARKS MAY DISPLAY ANY LIGHT RHYTHUM  
 EXCEPT QUICK FLASHING, AND FLASHING & FLASHING (2).



WARNING MARKER



MARKING / LIGHTING  
 LOCATIONS

ALL PENS REQUIRE A TWO-SIGN MARKER  
 PLACED ON OPPOSITE CORNERS AS SHOWN.

ALL PENS LESS THAN 400 SQ. FT. REQUIRE AN  
 ALL-AROUND WHITE LIGHT ON ONE CORNER MARKER.

PENS LARGER THAN 400 SQ. FT. ARE REQUIRED TO  
 HAVE AN ALL-AROUND WHITE LIGHT ON EACH MARKER.

MARKING DIAGRAM

ENCLOSURE

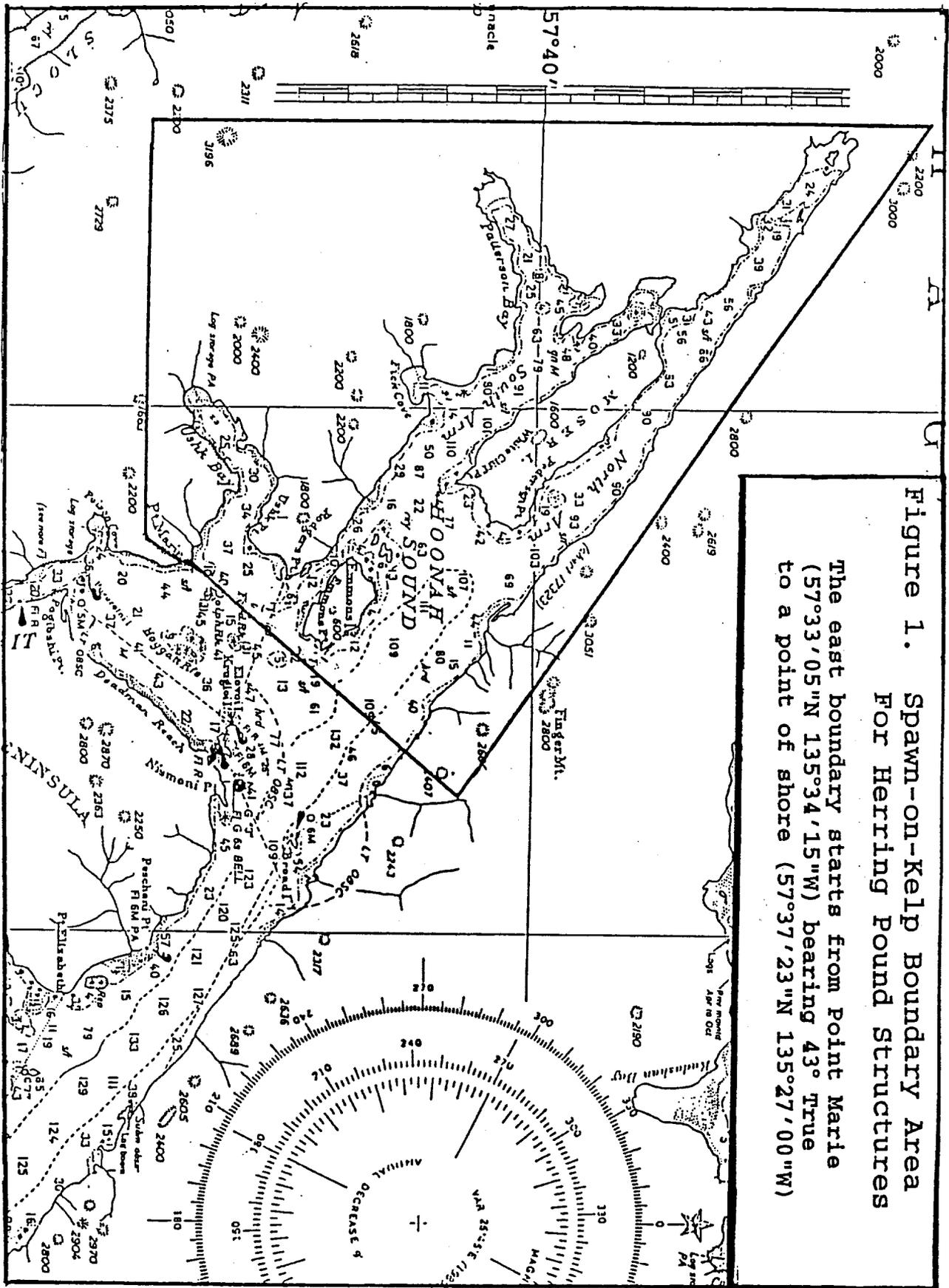


Figure 1. Spawn-on-Kelp Boundary Area  
 FOR Herring Pound Structures  
 The east boundary starts from Point Marie  
 (57°33'05"N 135°34'15"W) bearing 43° True  
 to a point of shore (57°37'23"N 135°27'00"W)

Following are Commercial Fisheries contacts regarding this management plan:

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