

**HOONAH SOUND HERRING SPAWN-ON-KELP POUND FISHERY**

**1991 MANAGEMENT PLAN**



Regional Information Report No. 1J90-36

Alaska Department of Fish and Game  
Commercial Fisheries Division  
Juneau, Alaska

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## INTRODUCTION

This plan provides an overview of the management approach and regulatory measures that will be used to conduct the 1991 Hoonah Sound Spawn-On-Kelp Pound Fishery. Staff biologists listed at the end of this document are available to provide further assistance regarding questions pertaining to this plan. Pound operators are also advised to review other agency requirements 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. Examples of two herring pound types are shown in Figure 1.

The Alaska Board of Fisheries adopted new regulations that specified a spawn-on-kelp in pound fishery in Hoonah Sound to begin in the spring of 1990. Approximately 400 fishermen applied for permits and were eligible to operate pounds the first year. However, 128 fishermen actually had pounds on the fishing ground and participated in the 1990 fishery harvesting a total 11.9 tons (23,780 pounds) of spawn-on-kelp for an ex-vessel value of \$189,000.

The following is a calendar of events to be considered by pound operators. Pound operators are advised that dates have changed slightly from last year.

- January 15 - Department of Fish and Game pound permit applications will be available.
- February 28 - Deadline for submitting an application to the Department of Fish and Game for a pound permit.
- March 4 - U.S. Forest Service special-use permit applications are due.
- March 5 - The department will issue a permit to each applicant that has met the February 28 deadline.
- April 1 - A completed pound must be present on the fishing grounds by this date.
- April 2 - A Department representative will be on the grounds to inspect each pound.
- April 3 - Allocations will be made for each pound operator that has a completed pound in the fishing area.
- April 3 - Kelp permits will be available.
- April 6 - The fishery will open to the capture of herring to be transferred into pounds.
- June 1 - Pounds must be completely removed from the water by this date.

## REGULATIONS

The Alaska Board of Fisheries approved the following regulations creating the new pound fishery (see 5AAC 27.110. FISHING SEASONS (f) and 5AAC 27.185. MANAGEMENT PLAN FOR HERRING SPAWN-ON-KELP IN POUNDS. (a), (b), and (c)(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 harvest limit for the taking of herring spawn-on-kelp in pounds is 11 tons; no more than 150 tons of herring may be impounded.
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 February 28 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, retainment, 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 before it is transported from the grounds for processing.

## 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 through Emmons Point to the northern shore of Hoonah Sound at 57°37'55" N. latitude, 135°28'35" W. longitude (see map on page 12).

## HERRING STOCK STATUS

Available historical information indicates the herring spawning population in Hoonah Sound is relatively small. Since the early 1970's until 1988, the spawning population has produced 2-5 nautical miles of spawn annually. Based on completed dive egg deposition surveys, the mature spawning population has been estimated to be less than 3 million pounds in most years. 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 1990 the nautical miles of spawn dropped to 10 and the spawning population, based on dive surveys, was estimated to be 4.7 million pounds.

Herring spawning normally occurs in Hoonah Sound between the last week in April and the first week in May. However, in 1989 spawning began on April 18, and in 1990, April 13, which was the earliest ever recorded. 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 1990 spawning occurred primarily along the north shore of Chichagof Island from Finger River to Broad Island and along the north and west shorelines of Emmons Island.

## PERMIT APPLICATION PROCEDURES

To establish eligibility for the 1991 fishery, a pound operator must submit an application for a Hoonah Sound pound permit to any Southeast Alaska Fish and Game office by February 28, 1991. Applications sent by mail must be post marked no later than February 28. Applications received or post marked after this date will not be accepted. Permit applications will be available by January 1, 1991 at any Regional 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 99385.

On or about March 5, the Department will issue a permit to each applicant who has met the February 28 deadline. The permit will specify conditions that will be required of each pound operator.

## PERMIT REQUIREMENTS

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

1. 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 each pound is fully assembled. It is not necessary for the permittee to be at his pound site when this inspection is being conducted.
2. Each pound must be identified in a conspicuous place with the permittee's name and a number which will be assigned to each pound operator. Letters and numbers must be at least 6 inches high and with lines at least 1/2 inch wide that contrast with the background. Pounds that are not clearly identified will not be able to participate in the fishery.
3. The pound must be constructed so there is a minimum inside surface area of 250 square feet. This restriction is necessary to avoid over-crowding herring.
4. Webbing used for the pounds must be no larger than 1 and 1/4 inch mesh (standard herring web is suggested). This restriction is necessary to avoid gilling of herring in the pound.
5. Pound operators may cooperatively work among themselves 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.
6. Each pound must be constructed to include 6 feet of surplus webbing. The 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.

7. Each permit holder must be physically present at the pound site continuously from the time herring are introduced into the pound until the spawn-on-kelp is harvested.
8. A permit holder who discontinues his operation must notify the Department and surrender his permit.
9. Purse seines and hand purse seines will be the only legal gear to harvest herring for the pounds. To minimize mortality, sets should be small (less than 10-20 tons). 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 from the seine to the pound or when releasing herring after the spawn or kelp has been removed from the pound.
10. The transfer of herring from the purse seine to the pound must be conducted in such a manner that handling mortality is minimized. Brailing, dipnetting or rolling herring into the pound will not be allowed. An acceptable method is to bring the seine and pound together and sink a portion of each to allow herring to swim freely from the seine into the pound.
11. 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.
12. After release of the captured herring, the pound, including webbing, will remain in place for a minimum of 4 weeks. This restriction is necessary to allow eggs on the webbing an opportunity to hatch.
13. The pound structure must be completely removed from the water by June 1.

#### **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 2.2 tons (4,400 pounds) of raw kelp is needed to produce 11 tons of spawn-on-kelp. This assumes that a 500% weight gain is realized from the kelp to the spawn-on-kelp product harvested.

## **ALLOCATION OF GUIDELINE HARVEST**

On or about April 3, the 11 ton spawn-on-kelp guideline harvest, as well as the 150 ton allocation of herring, and 4,400 lbs. allocation of kelp necessary to produce the spawn-on-kelp will be divided equally among all permit holders who have completed pounds in the fishing area by April 1. Notification of the individual allocations will be announced by news release.

Further adjustments to the individual allocations may occur after April 3 if any permit holder drops out of the fishery after this date.

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

## **SEALING AND WEIGHING REQUIREMENTS OF SPAWN-ON-KELP**

The permit holder must weigh all product harvested from his herring pound. All product must be in containers that have sealable lids. A representative of the Department will inspect and seal each container of spawn-on-kelp before it is transported from the grounds for processing.

All spawn-on-kelp above the permittee's allocation will remain in the pound so the eggs have an opportunity to hatch.

## **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. Fishermen are reminded to apply for these licenses well in advance to the fishery since it often takes up to 3-4 weeks to obtain them. Crew member licenses may be obtained from local vendors in most communities.

## 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 Department expects the area between Emmons Island and Vixen Island, south of Emmons Island and Fick Cove to be the main focus for anchoring pounds since herring normally spawn near these areas.

The Department will station a state vessel and personnel in Hoonah Sound beginning approximately April 6. 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. A major change in the management of the fishery in 1991 will specify 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 than April 6 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. Pound operators are advised to use extreme caution when towing herring from the capture site to the pound site since towing can be a source of significant mortality if not done properly. 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.

## OTHER AGENCY REQUIREMENTS

Prospective pound operators are advised to consider the requirements that other agencies may have to construct and operate pounds in Hoonah Sound. Some of these requirements are discussed briefly below; however, a pound operator is urged to contact the Alaska Department of Natural Resources (DNR), the U.S. Forest Service, National Marine Fisheries Service and the United States Coast Guard to consider any others.

### *Department of Natural Resources*

The Alaska Department of Natural Resources (phone 907-465-3400) controls use of tide and submerged lands seaward of mean high water. (9.1 ft.) No DNR permits will be required for pound operations; however, a permit is needed for longer term storage of logs. Existing lease areas (primarily for log rafting) occur in Poison Cove and portions of Ushk Bay. Permission of the lessee should be obtained before using leased tidelands for pounds.

### *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 Signaka Way, Sitka, Alaska 99835, phone 907-747-6671. Completed applications should be submitted to the Sitka Ranger District by March 4, 1991. 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 March 4, 1991.

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.

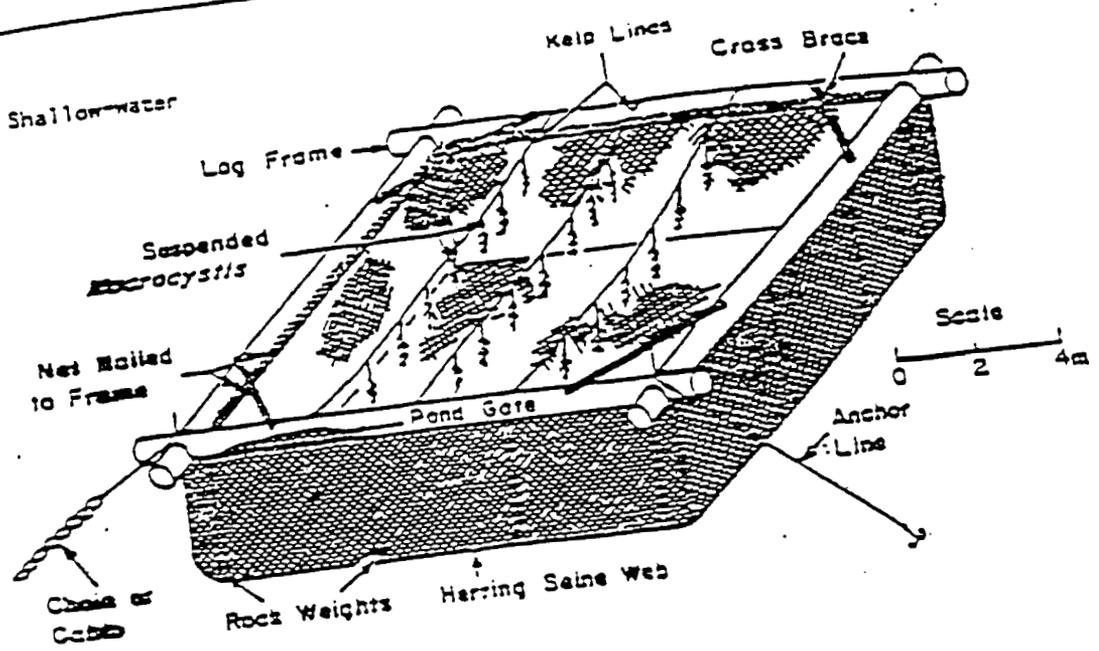
The proposed pens of the Hoonah Sound Spawn-on-Kelp Pound Fishery do not require permits for private aids to navigation at this time, provided the owners:

1. Place a two-sign marker on opposite corners of the structure. These markers will be worded "Danger, Fish Pens" (Page 13).
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 marker 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 1, 1991.

If all these conditions are not met, the permit holder must apply to this office for an individual "Private Aids to Navigation permit". If you have any questions, please call Mr. James Helfinstine at the Coast Guard Aids to Navigation office, at 463-2245.

(A)

Shallow-water



(B)

Deep-water

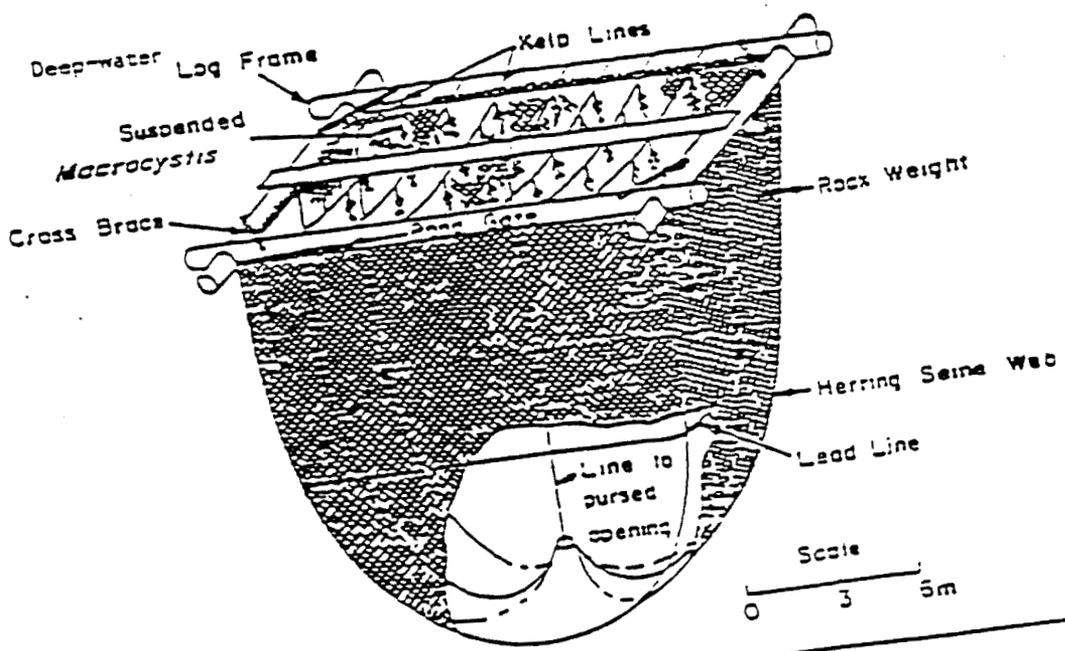
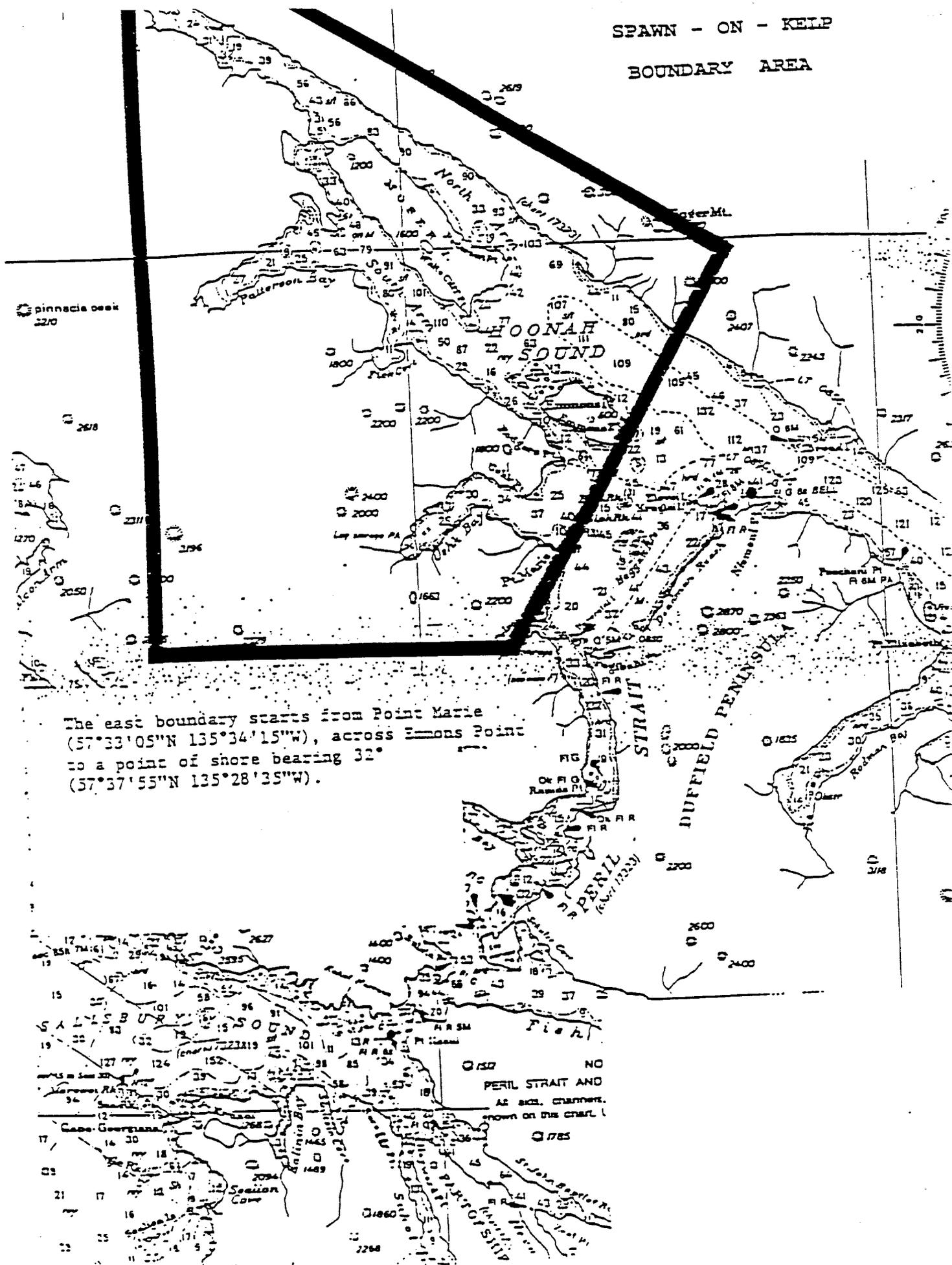


Figure 1. Diagram of typical herring spawn-on-kelp impoundments.

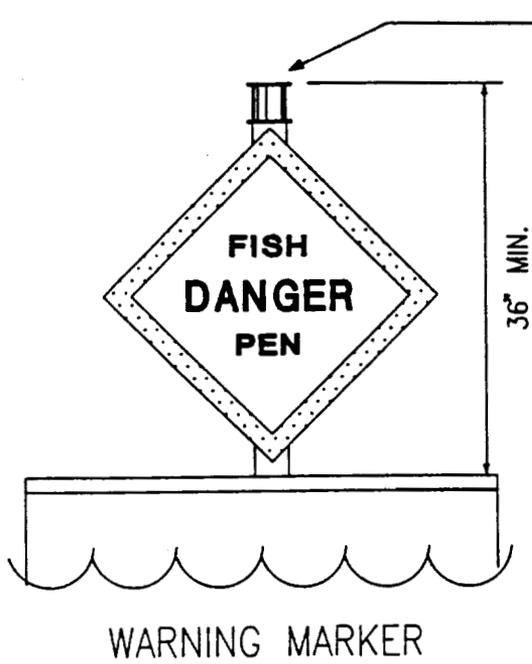
Figure taken from Shier, T.L., G.S. Jamieson, and P.E. Sprout, 1985. *Spawn-on-kelp Fisheries in the Queen Charlotte Islands & Northern British Columbia Coast, 1922-1983*. Canadian Technical Report of Fisheries and Aquatic Sciences No. 1372 (2: 41).

SPAWN - ON - KELP  
BOUNDARY AREA

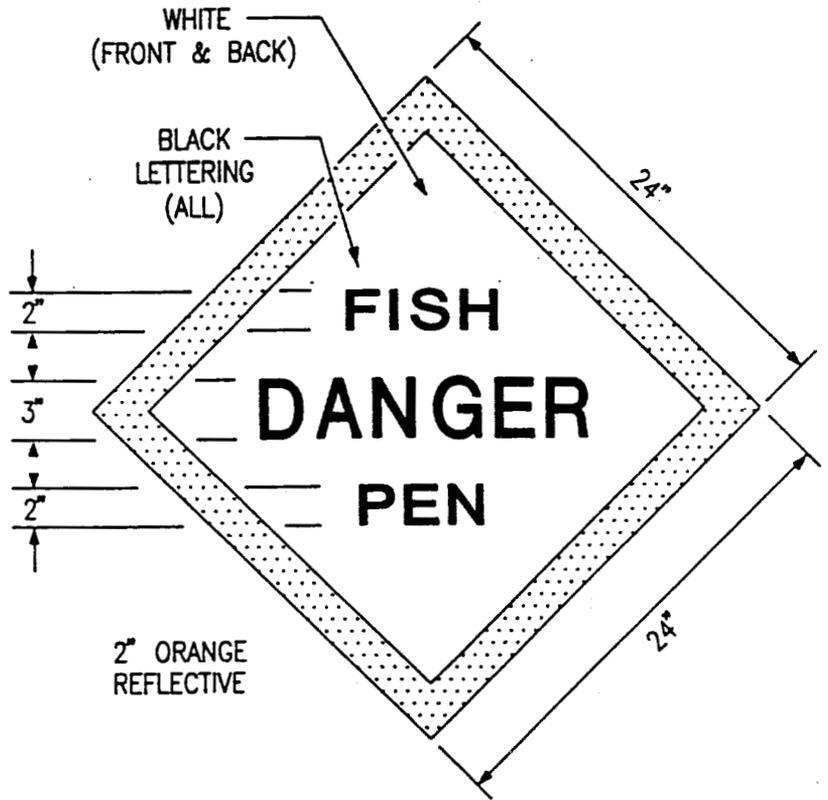


The east boundary starts from Point Marie  
(57°33'05"N 135°34'15"W), across Emmons Point  
to a point of shore bearing 32°  
(57°37'55"N 135°28'35"W).

NO  
PERIL STRAIT AND  
AT ALL CHARTS  
shown on this chart.

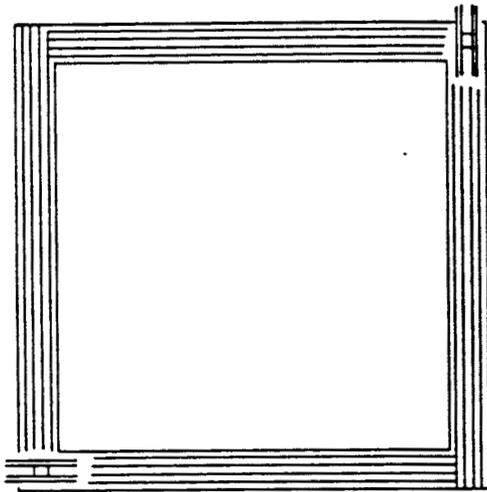


WHITE ALL-AROUND LIGHT  
 MARKS MAY DISPLAY ANY LIGHT RHYTHUM  
 EXCEPT QUICK FLASHING, AND FLASHING & FLASHING (2).



WARNING MARKER

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

Following are Commercial Fisheries contacts regarding this management plan:

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Office of Equal Opportunity, U.S. Department of the Interior, Washington DC 20240

**The department's ADA Coordinator can be reached via phone at the following numbers:**

(VOICE) 907-465-6077, (Statewide Telecommunication Device for the Deaf) 1-800-478-3648, (Juneau TDD) 907-465-3646, or (FAX) 907-465-6078

**For information on alternative formats and questions on this publication, please contact:**

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