

M E M O R A N D U M

TO: Council, SSC, and AP Members
FROM: Jim H. Branson
Executive Director
DATE: July 7, 1982
SUBJECT: Southeast Salmon

ACTION REQUIRED

- D-1(a) Review policy on natural salmon stock management*
- (b) Report on Columbia River enforcement activities*
- (c) Scarred ("net marked") salmon report*
- (d) Update on 1982 troll harvest*
- (e) Status of Columbia River Tribes litigation (oral)*

BACKGROUND

- D-1(a) In late May the Council received a request from the Pacific Council to draft a policy statement regarding management of natural salmon stocks. Council staff drafted a brief summary of the policy as stated in the FMP and past Council actions. This draft statement was sent to Dennis Phelan of the Senate Committee on Commerce, Science and Transportation on June 11. Mr. Collinsworth will have discussed adoption of a common "natural stock" policy with the Pacific Council at last week's meeting.
- D-1(b) A major undercover investigation of poaching on the Columbia River has resulted in the identification of more than 70 suspected poachers and 53 tons of fish.
- D-1(c) The results of our request for information on "net marked" fish indicate the problem is being actively investigated and potential sources identified.
- D-1(d) The 1982 troll salmon harvest has gone over 100,000 chinooks (June 26). An oral update will be presented.
- D-1(e) Pat Travers will report on the status of the Columbia River Tribes suit.

DRAFT COUNCIL POLICY ON MANAGEMENT OF NATURAL SALMON STOCKS

The North Pacific Fishery Management Council is responsible for management of chinook stocks off Alaska that originate over a wide geographic range. These stocks are produced naturally and in hatcheries from the Pacific states, British Columbia and Southeast Alaska and commingle in Southeast Alaska where they are a major target of the troll fleet. Because different stocks have different reproductive capacities and are often subjected to different levels of fishing pressure, no single exploitation rate in a particular management unit will provide the protection needed for the health of all stocks. In general, natural stocks cannot support as high a harvest rate as hatchery stocks, and some natural stocks are depressed to the point where little or no fishing pressure can be supported. On the other hand, hatchery stocks can be harvested at a greater rate than all but the healthiest natural stocks and will be underharvested at lower rates.

The Council's primary obligation is to protect the fishery resources under its jurisdiction from overharvest. Because the majority of the chinook harvest in Southeast Alaska comes from naturally produced chinook stocks, there is a strong sense of commitment to natural stocks.

Two objectives of the 1981 amendment to the Council's Fishery Management Plan for "High Seas Salmon off the Coast of Alaska East of 175° East Longitude (FMP) directly address this commitment:

"(1) Manage the troll fishery in conjunction with other Southeast Alaska salmon fisheries to obtain the number and distribution of spawning fish capable of producing the optimum total harvest on a sustained basis from all wild salmon stocks harvested in Southeast Alaska."

"(5) Develop fishery management techniques which will allow full utilization of salmon returning to supplemental production systems while providing necessary protection for intermingling natural runs which must be harvested at lower rates."

This commitment is evidenced by the program established in 1981 to rebuild natural chinook stocks originating in Southeast Alaska streams and subsequent reduction in the allowable harvest in the management unit.

The Council will continue to manage for natural stock production and augment harvests where practicable with hatchery production. Although certain individual stocks may at times be overharvested the majority of natural stocks will be managed to achieve and maintain optimum production. The Council recognizes that it cannot achieve this goal through unilateral action except for Alaskan stocks, and will strive to achieve an equitable sharing of conservation burdens required to maintain healthy natural salmon stocks wherever they originate.

Note: underlined text differs from earlier draft.

The Council recognizes that even a complete closure on ocean harvest of natural stocks of chinooks would not immediately increase all escapements to an optimum level. Therefore, to lessen the impact on existing social and economic structures, but still increasing the productivity of natural production units, they have adopted a policy of rebuilding stocks over time through a logical step by step process with periodic evaluation. As an example the schedule adopted for rebuilding natural runs in Southeast Alaska streams adopted by the Council in 1981 expects optimum escapement in virtually all streams in the area to be attained in three cycles, or approximately 15 years.

M E M O R A N D U M

TO: Council, SSC, and AP Members
FROM: Jim H. Branson
Executive Director
DATE: July 7, 1982
SUBJECT: Columbia River Enforcement Activities

ACTION REQUIRED

None. Information only.

BACKGROUND

In late June we received news of a major undercover investigation into illegal fishing on the Columbia River above Bonneville Dam. The investigation was conducted from April 1981 through May 1982 and covered two spring chinook runs and one fall run. Over 70 suspected fish and game violators were identified and approximately 106,000 lbs. (53 tons) of illegally taken fish were detected or purchased. These fish were mainly spring chinook, although a portion were upriver bright fall chinook. The magnitude of the observed poaching does not account for the majority of the interdam loss but this investigation does put a major dent in this source of "lost" fish. Hopefully, efforts to determine other sources of interdam loss (pollution, dam operation, irrigation, etc.) will be equally successful.

We expect an update on the poaching problem from NMFS enforcement officers at the September meeting.

M E M O R A N D U M

TO: Council, SSC, and AP Members
FROM: Jim H. Branson
Executive Director
DATE: July 7, 1982
SUBJECT: Scarred Salmon

BACKGROUND

There has been a significant increase in the effort to determine the incidence, distribution, and cause(s) of scars and wounds on salmon harvested in Southeast Alaska. On April 15 I sent a memo to management agencies and various fishery scientists coastwide asking for information and ideas concerning "net marks" and the responses have been compiled. We will continue to follow these studies and present information to the Council as it becomes available.

A. Occurrence of net marks in other areas.

Net marked sockeyes have been observed in Juan de Fuca Strait in Area 20 of Canadian Convention Waters (John Roos, International Pacific Salmon Fisheries Commission). These occurred in late August 1981 and the marks appeared to be at least one to two weeks old. No net marked pinks have been reported in the area.

Oregon Department of Fish and Wildlife personnel have not reported scars on troll-caught salmon other than fresh marks probably caused by the troll gear (Bob Garrison, ODF&W).

We have not received any reports on the incidence of marred salmon in Washington and British Columbia troll catches, although Ken Pitre (Fisheries and Oceans, Vancouver, B.C.) has indicated that scarred coho have been reported. He attributes a significant portion of these to fish rolling in leaders or brushing against the wires.

B. Potential causes of scars and marks.

Jerry Jurkovich (NMFS) examined photos of scarred fish provided by ADF&G in 1981 and identified four classes of marks: trawl, gillnet, predator, and unknown. Comments we have received are consolidated into the first three of these areas.

1. Trawl marks. Trawl marks could be foreign or domestic and could originate anywhere in the Gulf of Alaska, i.e., there is no information to implicate any particular area at this time.

2. Gillnet marks.

- a. Southeast/Yakutat. Gillnet marks could originate from several sources, both domestic and foreign. Alan Davis (ADF&G) feels that Southeast gillnets probably aren't involved due to their timing and location. The Yakutat surf fishery could impact cohos as they migrate along the beach.
- b. Derelict nets. Derelict nets may be a significant source of gillnet-type marks, although we have received different opinions. Mike Dahlberg (NMFS, Auke Bay) estimates that approximately 275 nautical miles of 115 mm (4-1/2") mesh was lost in 1981 by Japanese salmon and squid gillnet fisheries. This was lost in the area from 40°N to the Aleutians. Both land based and mothership fleets and the squid gillnet fleet contribute.
- c. Japanese squid fishery. Squid fishing by Japanese drift gillnet fishermen began in the fall of 1978 for flying squid (Ommastrephes bartrami). Because it is a more efficient method of fishing than the squid jigging fishery and therefore too competitive, the Japanese government prohibited net fishing in 1979 for squid in the areas north of 20°N and west of 170°E, effectively forcing it eastward towards North America. The fishery uses 115-120 mm (4-1/2" - 4-3/4") mesh and the standard tan (unit of net) is 90 m long and 10 m deep. One set uses up to 40 nautical miles of net, although with shrinkage the actual length may be closer to half that distance. In 1981, 534 boats were authorized to fish.

Current regulations (as of August 1981) prohibit fishing east of 145°W; the northern limit changes monthly to reduce the incidental catch of salmon and steelhead. Legal mesh size is 100-135 mm (3.9" - 5.3").

Mike Dahlberg sees a definite similarity between this fishery and the old Japanese salmon gillnet fisheries before INPFC restrictions in terms of both gear and seasonal distribution. Ken Pitre feels that, on the basis of the Canadians' high seas coho test fishery data, coho are not distributed as far offshore as the squid fishery operates.

Dr. Burgner (FRI) feels that the new regulations may not provide the degree of protection for salmonids that the Japanese indicate.

- d. Japanese albacore fishery. The albacore/marlin gillnet fisheries operate in areas that at least occasionally overlap areas of known coho distribution. The mesh size used by this fishery is larger than would be expected to impact salmon (160 - 200 mm or 6.3 - 7.9"). However, in mid-May a Japanese fisheries enforcement patrol apprehended a white-painted, large-mesh tuna drift gillnet boat with 15 tons of salmon on board.

Approximately 560 vessels were registered for tuna gillnet fishing in 1981.

C. Predator marks.

The only new information we received on predators regarded the squid Onychoteuthis borealijaponica. This deep-water species rises to the surface at night and most damaged fish are caught at dusk. Only hooked fish are thought to be vulnerable. The wounds (which would be fresh) consist of tears usually only on one side and running diagonally from the ventral region (F.R. Bernard, Fisheries and Oceans, Nanaimo).

D. Studies in Southeast Alaska.

We have received from ADF&G a manual for port samplers which contains a series of representative color photographs and description of wound types. Port samplers are recording the total incidence of all wounds and scars into categories which are purely descriptive and don't specify cause. They will monitor deliveries in this manner throughout the 1982 season.

The Auke Bay Lab and NWAFC are also involved in surveying scars and other wounds. Their program, as described by Dr. George Snyder of the Lab, includes the following work items.

1. Record coho and chinook data on scarred versus unscarred fish at weirs operated by NMFS, i.e., Auke Creek, Sashin Creek, and rivers with weirs (8) placed for evaluating U.S./Canada interceptions in southern Southeast Alaska in 1982.
2. Request that pictures be taken of gillnetted coho and chinook in the Japanese mothership fishery (Dahlberg).
3. Request that net marks be documented and photographed in incidental catches of coho and chinook salmon in the foreign trawl fishery off Southeast Alaska (within the FCZ --Marasco).
4. Request that coho weirs of ADF&G be utilized to collect scarred versus unscarred data during 1982. (Gundstrom)
5. That the staff member assigned to this project assist ADF&G in their observation program at the Juneau Cold Storage facilities to photograph and thus document scarred fish with a view towards a practical research program (in the future) to identify scarred fish sources.
6. Analyze data input recorded in Troll Logbook Program to see if other verified sources are supportive of facts gathered in this program.

SUMMARY

By the end of this season we should have a much better handle on the incidence and distribution of wounds and scars on troll-caught salmon. Although the categories of wounds are purely descriptive at this time, we should have a good idea of the types of causes. The observed incidence of gillnet-type

marks should be lower this year if the Japanese squid gillnet fishery is a major source of scars, because the boats should be operating farther west than in 1981.

The albacore gillnet fishery should not impact salmon significantly due to the large mesh net used. However, the fact that a tuna gillnet boat was stopped with 15 tons of salmon aboard implicates this fishery as a potential violator.

Derelict nets must be considered as a possible cause because of the magnitude of the loss of nets each year. Although nets ball up with time they must continue to fish to some extent.



COCKPIT COMMENTS

by Al Meadows

As an industry, fishing has always seemed to have more than its fair share of problems and difficulties. Time has seen changes and no doubt more are on the way as hopefully solutions are found to at least some of the current problems. Whether or not these "solutions" will represent progress is a key question I doubt anyone can answer.

One approach currently in the limelight is the contentious issue of property rights, tenure and quota systems in the salmon fisheries of both Canada and the U.S. The quota concept has some very attractive features. Paul Thomas, a Washington State troller, has written an excellent article in the April issue of the "National Fisherman" magazine. In it Thomas reviews the case for quotas and lays out the benefits. Fishermen not already having read the article should try and catch up with it. Thomas' points in favour of quota are worth repeating here and briefly are the following:

- 1) The acquisition of personal property that can be sub-divided or combined in any manner.
- 2) The ability of fishermen to plan their own level of involvement in a given fishery.
- 3) Longer fishing seasons and freedom from the frantic, competitive pace of fleet quotas.
- 4) Opportunity to improve quality, marketing conditions and price.
- 5) Time for maintenance, R & R and consideration of weather conditions.
- 6) Opportunity and incentive to improve gear and fuel efficiency.
- 7) Elimination of fleet potential to expand harvest capacity.
- 8) Equity against which loans can be secured.
- 9) Opportunity to lease out a quota and engage in another fishery.
- 10) A retirement nest egg.
- 11) A property right against which judgements for environmental damage to a fisherman's resource can be awarded.
- 12) An equity system in which fishing rights can be freely transferable between gear types as well as between commercial and sport fisheries.


All the above undoubtedly could represent substantial improvement for the future of both the fishing industry and the fishery resource. Nevertheless for the independent operator, particularly the small boat gear types, the issue is one of ensuring "quotas" do not prove out 10 or 20 years from now to have been a garden path of no return.

Thomas notes the overriding fear held by many fishermen that quotas will eventually result in concentration of power and ownership in the hands of a few individuals or corporations. Dr. Peter Pearse in his preliminary report on Pacific Fisheries Policy acknowledges the same. In fact this concern for the concentration of power, privilege or tangible assets can be found as a recurring theme in study after study dealing with management technique for resource industries.

Too often, these concerns are rationalized by glib lip service of the consequences or the setting up of simplistic ill thought out counter measures. Pearse proposes regulation having precise definitions of "control" and "beneficial interest". Thomas in his article suggests placing a limit on percentage of shares any individual can own. Both tend to ignore the human imagination finding loopholes and means to circumvent any such dubiously defined rules and regulations. Who is to say that corporations or others with substantial financial resources, high power lawyers, lobbyists and waffling politicians won't bend, stretch or at some point throw out the rules altogether? How are we to know that quota owner "John Doe" isn't in fact B.C. Packers Ltd., Charter Oil Co., Weyerhauser Corp., or Campbell Soup Co., after all the fronts, folds and corporate, legalistic and bureaucratic meanderings are revealed, if ever? Even if a sophisticated set of laws did exist to stop concentration of power, how effective would they be before we found it too late to turn the clock back?

Other resource industries such as forestry, mining, and agriculture have patterns now repeating in the fishing industry where small independent operators are compelled to become dependent contractors or go out of business altogether. Looking back to 1956 we see in another Commission of Inquiry, this time into the B.C. forest industry, Commissioner and Chief Justice Gordon Sloan prefacing his report by saying in part, "Our economy needs and must plan for the continued existence of the small man".

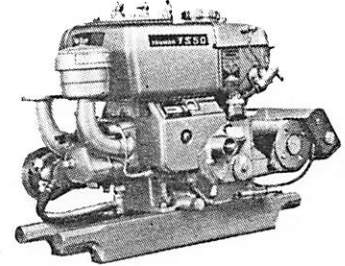
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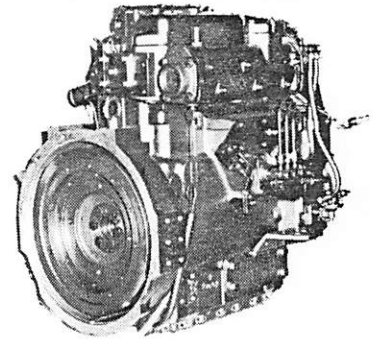
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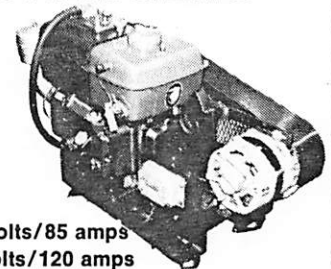
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