

M E M O R A N D U M

TO: Council Members, SSC, and AP
FROM: Jim H. Branson
Executive Director
DATE: September 17, 1980
SUBJECT: High Seas Salmon FMP

ACTION REQUIRED

1. *Approve proposed 1981 amendments to go to public comment.*
2. *Set schedule for public hearings.*
3. *Review Limited Entry Report. Information only. No action required at this time.*

BACKGROUND

Major revision of the High Seas Salmon FMP has been completed and is ready for public comment. The revisions are basically in the structure and format of the Plan, with greater clarification and documentation throughout. The seven objectives of the proposed amendment are strengthened to address the increasing fishing pressure in the FCZ, declining natural chinook and coho stocks, and other problems.

The limited entry analysis requested from John Garner has been received and is included along with a summary of the major options and implications [Attachment E-5(a)]. Several questions regarding which option is preferred and how it should be implemented are included.

A public meeting schedule is established for other FMP's with meetings in Anchorage, Kodiak, and Seattle. The Salmon FMP can be included in these meetings, but should probably have a special meeting in Southeast Alaska. The schedule should be established at this meeting.

The comment period will close in early December with the final public hearing at the Council/Board meeting in Anchorage on December 10. At that time the Council will act on the Plan to send the package to the Secretary for review.

JG

SUMMARY OF LIMITED ENTRY REPORT

AGENDA E-5(a)
September, 1980

The 1981 Salmon FMP lists 7 major objectives, one of which is to "control and reverse recent trends of expanding effort in outer coastal and offshore Southeast Alaska waters ...". This trend towards increased fishing effort has made management increasingly more difficult, and certain salmon stocks have suffered as a consequence. Fishery management activities in the FCZ have failed to stop this increased effort, and more restrictive regulations will be necessary to protect natural runs which cannot be harvested as heavily as hatchery stocks. The major management options are area closures, time limitations, and limiting the number of gear units, which generally is the number of boats and lines. Whichever option or combination is chosen, the intent will be to reduce the catch of certain fish stocks, thus reducing the total catch. Each of these options should be weighed carefully before choosing any one.

The management objectives in the 1981 FMP will be difficult to meet, and limited entry is considered by many to be one of the management techniques required to accomplish the task. One method of reducing fishing effort is through limited entry, recognizing it can be a costly management alternative in terms of time, money, and effort. If improperly implemented it can lead to confusion, frustration, and even increased exploitation of the fish stocks which need protection. Thus it is important to be certain that limited entry is the only method to solve the problem, that the proper limited entry scheme is used, and that it is implemented in the best possible manner.

Several options are available to limit fishing effort. These range from less stringent restraints than are presently in force, to a forced rapid reduction in fleet size. These options are listed below (along with some of their implications) in order of increasing restraint on the fishing community.

Each of these options can be modified to hasten or slow the reduction in fishing effort by including regulations to (1) join the FCZ permit to the Alaska permit; (2) modify the transferability of the FCZ permit; and (3) modify the base period for eligibility for the FCZ permit.

A more detailed discussion of the various alternatives follows the outline.

I. Geographic Isolation - different restrictions for different areas.

- Problems:
1. Effort may concentrate in other areas.
 2. Can cause confusion.
 3. Higher management costs.

II. Initial Issuance Level Options

OPTION A - Open Access (no limits)

1. Fishing effort must be controlled through other management measures.
2. Effort may increase.

OPTION B - Status Quo (all Alaska license holders may fish in the FCZ).

1. Would authorize both power and hand trollers to fish FCZ.
2. Does not reduce effort significantly.
3. During interim, effort may increase.

OPTION C - Moratorium

1. Restrict permits to those who fished the FCZ during certain base period.
2. Problems -- How to establish base period.
-- Fishing effort could increase in FCZ.
3. Could slow increase more than OPTIONS A & B.

OPTION D - Prevent Future Increase

1. Sets number of permits at the highest level of any one previous year.
2. Need to allocate permits.
3. How can permits be allocated?
4. This is more restrictive than OPTIONS A, B, and C.

OPTION E - Reduce Effort to Desirable Level.

1. Meets "desirable level" criterion of FCMA.
2. Requires highest level of gear reduction.
3. Implies a high denial rate of permit applications.
4. Requires highly-defined regulations to screen applications.

III. Base Period of Participation in FCZ - must consider present participants (by FCMA); therefore, must include 1980 salmon season.

IV. Joinder of Federal-State Permits - (i.e., severability of permits).

1. To limit gear, permits must be joined (non-severable).
2. Problems and options with non-severability:
 - (a) If the Alaska permit changes hands:
 - (1) the Federal permit must also go;
 - (2) the Federal permit may be denied, reducing the number of FCZ fishermen.
 - (b) Interim use permits during application screening process
 - (1) could be denied if the state permit is denied under FMP;
 - (2) may be approved, and transferable to state permit holder.
 - (c) FCZ-only permits (as presently allowed by FMP).

V. Transferability of Permits

1. Freely transferable: benefits
 - (a) Allows intra-family transfers;
 - (b) Would free government from transfer process;
 - (c) Would allow some mobility from fishery to fishery.
2. Freely transferable - detriments
 - (a) Cost of entry to new fisherman.
 - (b) Cost to government to reduce outstanding permits.
3. Other Options
 - (a) Government's right of first refusal: Would federal government purchase state permit also?
 - (b) Power of condemnation - i.e., FCZ permit could be denied if transferred until "desirable" fleet size achieved.
 - (c) Mandatory retirement of misuse or non-use ("use it or lose it").

The least restrictive combination would be open access with freely transferable, severable permits. This would substantially increase the number of salmon fishing permit holders, and would be unacceptable. The most restrictive combination would be OPTION E (reduce effort to "desirable level") with non-transferable, non-severable permits. When the "desirable" level is reached, permits would have to become more freely transferable in order to maintain fleet size. This option would probably not be acceptable as written here because completely non-transferable permits would create immediate and possibly severe problems for the fishing community. Limited transferability would make this option more acceptable and effective.

Major questions which should be addressed before implementing limited entry include:

1. Would other management measures be successful: Is limited entry necessary?
2. What should the base period for eligibility be?
3. How fast should fishing effort be reduced?
4. Should permits be transferable?
5. Should the government have the right of first refusal?
6. What is the "desirable" fleet size?
7. Should hand trollers be included?

August 25, 1980

Mr. Jim Branson
Executive Director
NPFMC
PO Box 3136DT
Anchorage, Alaska 99510

Dear Jim:

Enclosed is my report, in 'final but not reviewed' form, for your consideration per our conversation of July 26, 1980.

As you will note, I have included a brief discussion of the importance of specifically identifying goals when analyzing limited entry alternatives. While this was not specifically within the scope of the work you requested, it is my belief careful attention must be paid to this matter before any limited entry system is developed.

I have attempted to put the report into language that will be usable throughout the review process; however, I do not claim any expertise in the FMP style, and can merely offer to re-write, certainly for substance, but also for style, as you may require. Feel free, of course, to use other sources for this purpose.

I have reserved the first week of September to meet with any of those who wish to review this matter with me. I will not be available from September 10 to September 20, and may be unavailable for approximately one week thereafter. The earliest possible notice of any review schedule would naturally be appreciated.

Please let me know if there is anything further that I can do. I do hope that you find the document satisfactory, but also hope that constructive criticism in the review process will improve the types of options ultimately available to the Council and Secretary.

I will provide a final billing upon determination that my work is complete, or earlier at your request.

Sincerely,



John N. Garner
586-6121
Box 1771
Juneau, Alaska 99802

LIMITED ENTRY ALTERNATIVES FOR THE PCZ SALMON TROLL FISHERY

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DEFINING THE OBJECTIVES

The drafters of the FCMA apparently viewed limited entry as a unique method of dealing with conservation and management problems, and because of that belief imposed a special requirement before such systems could be implemented in any fishery. Limited entry is the only management device which the Council must approve before the Secretary may adopt it.

Limiting entry will require, ultimately, two very basic findings: it must be found that the present level of units of gear is too high, and it must at some point be determined that some specific fleet size is desirable. This size can of course be flexible with changes in the economics of the fishery. Each of these judgements must be made in the context of the purpose for which limited access systems are allowed under the FCMA: to achieve optimum yield when other measures are inadequate for the conservation and management of the fishery.

Limited entry will also differ from other forms of conservation and management measures because of the significant costs that can be expected in implementing the system. It cannot be emphasized enough that limited entry is not an easy and simple solution to the problems of the FCZ troll

fishery. Implementation will be burdensome and costly, and will not by itself reduce the effort in the FCZ, in the near future, to an acceptable level. Serious consideration must be given to alternative solutions to the problems that exist, both because the law requires that analysis, and because of the substantial task that will be undertaken when limited entry is introduced to the FCZ.

Since the FCMA contemplates close scrutiny of any limited access system, requires a failure of other conservation and management measures before it is employed, and because it will necessarily be a costly measure to implement, it is most important to be absolutely sure that limited access is the tool necessary to resolve the specific problems for which it is being adopted. More specifically, if pure management problems are the issue, then it is likely that limited entry is not the most efficient answer. If, on the other hand, the concerns are broader, and include a variety of socio-economic considerations that cannot be adequately addressed through alternative measures, then limited access systems may be useful management alternatives. What is necessary then, is, to the extent possible, a clear definition of the problems of, and objectives for, the FCZ troll fishery; then the appropriateness of a limited entry system for that fishery can be determined.

BASIC ALTERNATIVES

A. Geographic isolation of problems to be addressed by the limited access system.

It should be determined whether the problems prompting limited entry consideration can be isolated within certain portions of the FCZ, or whether they are found throughout the range of the offshore troll fishery. If the problems to be addressed by the limited entry system are indeed primarily restricted to certain portions of the FCZ, then consideration may be given to designing a limited access system solely for that area. Similarly, if the extent or nature of the problems in a particular area are significantly different than in other areas of the FCZ, then a different type of limited entry system may be appropriate at the outset for each area.

Some problems could arise from the adoption of differing limited entry systems within the FCZ troll fishery. They include:

- an undesirable concentration of fishing effort could occur in any portion of the FCZ left to open entry;
- differing systems could cause confusion and inadvertant fishing violations;
- higher implementation expenditures might be expected if limited access systems are utilized at differing times.

B. Options for initial permit issuance level.

Although they may overlap to some extent, there are five very general alternatives available for the initial level of units of gear that may participate in the FCZ troll fishery.

Option A. This is the open access fishery, under which any person would be authorized to operate troll gear in the FCZ. This system would not interfere with whatever privilege the State of Alaska may have to require an Alaska entry permit in Alaska waters, but would not directly or indirectly require an Alaska entry permit to harvest salmon with troll gear in the FCZ. Effort would necessarily be controlled entirely through other conservation and management measures.

Option B. This second alternative would, in essence, be a continuation of the status quo. Under it, all Alaska troll permit holders, power or hand, would be authorized to participate in the FCZ salmon troll fishery. As under the present FMP, provision would be made for those trollers who have demonstrated historical participation in the FCZ but who did so without holding an Alaska troll permit. The total number of permits for the FCZ would not therefore greatly exceed the total number of troll permits issued by the State of Alaska. However, since many Alaska troll permit holders have not yet fished the FCZ, there could be a

significant increase in the units of gear that engage in the fishery under this option.

Option C. This third option could be characterized as a true FCZ moratorium. It would, generally, restrict participants to those who have participated in the FCZ troll fishery within certain base years. Holding an Alaska salmon troll permit would not by itself qualify the permittee for a federal entry permit. If more than one year is included in the qualifying years, the number of permits issued would exceed the highest number of units of gear that engaged in the fishery during the base years, because of the turnover in the fishery from year to year. Depending on the base years chosen and the rate of turnover, the potential increase should be significantly less than under Option A or B. As under the present FMP, provision would be made for those trollers who have participated in the FCZ salmon troll fishery without holding an Alaska troll permit.

Option D. This fourth option would be designed to prevent any more increase in the number of units of gear that engage in the FCZ fishery during any one year. Under this system, the number of federal entry permits issued would be limited to the highest number of units of gear that engaged in the fishery in any one year in the past (or in any one year of some stated base period). Once fully implemented,

there would be no growth in the size of the FCZ troll fleet. A more complicated system for allocating permits would be necessary under this system, since not everyone in the base period would receive a federal entry permit.

Option E. This alternative would require that a "desirable" level of units of gear be defined, and would restrict the number of federal entry permits to that level. This would presumably be the fewest number of units of gear authorized by any of the options, which in turn would require the initial denial of the greatest number of applicants. As with Option D, highly refined regulations would be necessary to determine permit qualifications of the applicants. This option also requires the greatest degree of certainty about the objectives for the FCZ salmon troll fishery.

The options are not necessarily incompatible. Each of options B through D are possible stages in the transition from open entry to a "desirable" level of units of gear. It is not necessary that some set level of units of gear be identified as a goal in order to justify employment of one of the transitional options. Indeed, a very compelling reason for adopting a transitional option may be that it is recognized that there are too many units of gear in the fishery, but additional research is necessary before a desirable fleet size can be identified.

The implementation of any of Options C - E will create a period of uncertainty for those trollers who are in the

application process but who are awaiting a final determination. If interim relief is provided for some or all of these applicants, then the level of units of gear set by the option adopted may be exceeded during the implementation stage.

ASPECTS TO EACH OPTION

A. The cut off date for determining permit qualification.

The FMP establishes a December 31, 1977 "cut off date", after which "(n)o greater qualification toward the initial issuance of a federal entry permit will be gained by fishing..."in the troll fishery of the FCZ. The cut off date appears to apply only to power troll fishermen, since the FMP contemplates no other lawful means of harvesting salmon in the FCZ.

The cut off date was established to prevent a rush of new participants into the FCZ in anticipation of qualifying for a federal power troll entry permit. It served warning to new entrants not to expect an entry permit when the new federal limited access program was implemented.

Nevertheless, during the three fishing seasons that have lapsed since the cut off date, as authorized by the FMP, some (it is not known how many) new power troll fishermen have begun participating in the FCZ troll fishery. It is also likely that some (how many is not known) power trollers have ceased participating in the off shore fishery. The cut off date, if adhered to, could therefore result in the issuance of permits to some who are no longer in the FCZ troll fishery, while also resulting in the denial of federal entry permits to some present participants.

The FCMA authorizes a limited entry system designed to achieve optimum yield if the Council and the Secretary "take into account...present participation in the fishery." 16 USC 1853(b)(6). While this provision may not require that all "present" participants in the fishery receive a federal entry permit, it would seem to at the least require that these fishermen be given consideration in the allocation of entry permits. Consequently, it is likely that the cut off date in its present form is contrary to the limited entry standards of the FCMA.

Although data concerning the number of units of gear in the fishery from 1978 - 1980 is not yet available, it is likely that the levels for these years are higher than for the years prior to the cut off date established in the FMP. By utilizing that cut off date, and thereby avoiding consideration of the years from 1978 through 1980, the number of permits issued at the outset under Options B - D would be reduced. If the cut off date applies only to the power troll fishery, then any increases in the hand troll fleet which may have occurred in 1978 - 1980 could not be curtailed by this device.

Assuming that Option C is adopted, a reduction in the number of permits issued could also be achieved by reducing the number of years in the base period. The base period could still not be so restricted that "present participants" are not considered.

If the December 31, 1977 cut off date is rejected, a substitute date must be selected to either end the base period (under Option C) or determine permit qualification (under Options D and E). The date that might most correctly reflect the "present participation" standard would be at or near the close of the 1980 fishing season. Since king salmon harvest is lawful through December 31, 1980, that would seem to be the most logical date to choose. However, since the limited access system will be proposed prior to that date, it is possible that some fishermen might try to achieve greater qualification between the time the plan is proposed and the December 31, 1980 date, by participating in the FCZ troll fishery during that period of time. If this potential gear rush is thought to be a real threat to the resource, or if it is thought that it would result in unfair qualification of certain individuals, then a date such as September 20, 1980, might be more appropriate. That date would roughly correspond to the end of the coho season and the time that the limited access system is proposed.

A cut off date sometime between December 31, 1977 and September 20, 1980 is probably not a viable option, because it would continue to suffer from the failure to adequately consider present participants. Also, as a retroactively applied cut off date, it would not have the usual legitimizing purpose of a cut off date - the prevention of a rush of new entrants into a fishery.

B. Joinder of the federal to the state entry permit.

To avoid unnecessary conflict, the federal entry permit should be joined to the Alaska entry permit held by the gear operator. An exception would occur for those individuals who do not hold an Alaska permit. By requiring joinder, only one authorized unit of gear will exist; if the federal permit were not joined at the outset, then two units of gear would be possible, although each would be restricted to a different area.

Joinder does nevertheless create some complications:

1) In some cases, the Alaska permit used during the qualifying period may have been transferred before the federal entry permit issuance is to occur.

- If the federal entry permit is transferable, then the federal entry permit should be issued to the transferee of the Alaska permit, unless the transferor has acquired another Alaska permit in the interim or perhaps unless there is strong evidence to show that the transferor is about to acquire another Alaska permit.

- If the federal entry permit is non-transferable, the agency could refuse to issue the permit to any one.

2) In some cases, the individual may hold only an

Alaska interim-use permit. If this person is eventually denied an Alaska permit, under the present FMP, he would also be denied the federal entry permit, solely because of the denial of the Alaska entry permit by the State of Alaska. This is probably an improper result under the FCMA, since the individual would be fully qualified under federal law to receive a permit for the FCZ, but would be denied the privilege to fish in the FCZ solely because of totally unrelated regulations adopted by the State of Alaska under its limited entry law. Individuals in this circumstance should receive a federal entry permit, just as those did who fished in the FCZ exclusively without holding an Alaska troll permit. If the federal entry permit is transferable, then the permit issued to this individual could also be transferable to any Alaska entry permit holder.

3) In certain cases, already recognized by the FMP, persons have fished in the FCZ exclusively, without holding an Alaska troll permit of any type. Treatment of these individuals should continue as under the FMP: issuance of a federal entry permit to those who would otherwise qualify. If the federal entry permit is transferable, then consideration should be given to making these permits transferable.

C. May the permit be restricted to one type of troll gear?

For purposes of limited entry regulation, the State of Alaska distinguishes the hand troll from the power troll fishery. A permit for one gear type may not be used for the other.

The Secretary of Commerce has in the past refused to allow regulatory distinctions between the hand and power troll fisheries. In refusing to ban hand troll gear in the FCZ, the Secretary stated "(i)t was determined that no valid conservation purpose was served by the distinctions that were drawn between the two types of gear." Although no permit has been required to hand troll, the implication is that if one were required, it would be separate from the power troll permit requirement. The question is whether that in fact will be his position when a permit requirement is imposed for each gear type, or whether he will require that hand and power gear be combined into one troll fishery.

Limited access considerations are by law broader than pure conservation purposes. Within the context of these broader purposes, it may be possible to argue that a valid rationale for regulatory distinction exists, since the socio-economic considerations for the power troll fleet may well be different than they are for the hand troll fleet.

Additionally, the basis for the Secretary's past rulings

is not all that clear. If it is that the efficiency of each type of gear is the same or can be the same, then any regulatory distinctions will be harder to defend than if he was saying that, while the hand troller is probably less efficient, it is irrational to ban hand trolling in the name of conservation when continued growth of the more efficient power troll fleet is allowed (under the FMP's "moratorium"). If the latter is the case, then no implicit bar to limited access distinctions between the two gear types exists in the Secretary's past position.

D. Should the federal entry permit be transferable? If transferable, should it be severable?

A federal entry permit could be freely transferable or non-transferable. If transferable, it could be subject to a power of condemnation or a right of first refusal by the federal government. Regardless of its permanent transferability, provision could be made for temporary transfer under certain conditions.

Alaska entry permits are freely transferable. Free transferability was perceived to have the following benefits:

- would allow intrafamily transfers
- would keep government out of the reissuance process
- would allow some mobility from fishery to fishery

Major detriments recognized in the system of free

transferability included the cost of entry to the new fisherman, and the cost associated with reducing the number of outstanding entry permits (since excess entry permits were to be "bought back"). Low interest loans were instituted to help the new entrant acquire a permit, while the buy-back program was to be funded out of assessments on the permittees, thus reducing the cost to the State.

By retaining a right of first refusal on any sale of the entry permit, the federal government would at least be assured the opportunity to reduce the size of the fleet by one vessel each time a permit becomes available for transfer. The permit would be purchased, so there could be a high cost associated with reducing the number of entry permits. This retained right would also discourage free intrafamily transfers, since any such transfers would have to be offered to the federal government on those terms first.

The right of first refusal would be complicated by the joinder of the federal and state entry permits. Presumably the federal government would purchase only the federal permit; but, because of joinder and non-severability, the two permits would normally be sold, on the open market, as one. Many sellers would be unwilling to sever the federal permit, since the Alaska permit alone wouldn't be as marketable, and even if severance could be negotiated, a price for the federal entry

permit would have to be negotiated.

A power of condemnation would also give access to a number of entry permits to retire from the fishery, although the cost and complications associated with the right of first refusal would also exist here. The permits would be more immediately available, but few retirements would be voluntary.

A system of non-transferable permits would make all entry permits available to the federal government, as they are retired, and would be the least costly way of reducing the outstanding number of entry permits. Requiring retirement of the federal entry permit may make the Alaska entry permit and vessel owned by the permittee less marketable. It may also make entry more difficult for those who could otherwise afford to purchase a permit or who had access to funds to purchase a permit. It would nevertheless reduce the cost to new entrants, to the extent that the federal government did not charge for the permit upon reissuance. As permits are returned to the federal government, they can be retired, or a certain portion could be reissued to Alaska troll permit holders who wish to engage in the FCZ troll fishery. After the desired level of units of gear has been reached, all federal entry permits would presumably be reissued .

Events upon which mandatory retirement might occur

could include failure to use the permit for some set period of time (use it or lose it), death of the permittee, permanent transfer of the Alaska entry permit, or conviction of the permittee of some certain number of fisheries violations over some period of time.

A system of mandatory retirement may mean a slow period of reduction in the size of the fleet; since no monetary inducement exists to retire, the fisherman may try to do the 'bare minimum' to keep the federal entry permit current. Consequently, a frequent criticism of the 'use it or lose it' provision is that it forces permittees to fish, in order to preserve the permit, when the individual would not otherwise fish. Thus the problem of too much effort may be aggravated by the attempted cure.

The Alaska entry permit may be transferred on a temporary basis when any unavoidable hardship prevents the permittee from engaging in the fishery. To achieve conformity with Alaska law, the federal entry permit could also be transferable on a temporary basis under similar conditions. It would need to be determined if the grounds for an emergency transfer should also waive any 'use it or lose it' requirement that might be adopted.

In order to prevent multiplication of gear that would result by severance of the federal from the Alaska permit,

the FMP presently makes the federal entry permit non-severable from the Alaska permit. This aspect should be retained in any future system. Under the following circumstances, severability would nevertheless be allowed:

- if the federal entry permit is to be retired for any reason, it must necessarily be severable;
- if the federal entry permit is transferable, there is no apparent reason to prevent the transfer of the federal entry permit from one Alaska entry permit holder to another.

E. The application and permit issuance process.

The application and permit issuance process is adjudicatory in nature. It requires that the applicant be given an opportunity to present all relevant evidence in support of his or her application. It should encourage the applicant to submit as much of the evidence that will be submitted as early as possible, and should be designed to eliminate where possible the necessity of hearings and decision making by the final arbitrator within the agency. Regardless of the process used, it will be burdensome and costly to both the agency and the fisherman.

A two stage process, with initial determination by staff or a contracting agent, and subsequent appeal and

final agency decision, will require the early submission of evidence, allow many cases to be decided without the participation of higher agency officials, and also provide for the hearing and review of disputed cases by those officials.

If an adverse initial determination is received during the first stage, the applicant could, within a set period of time, request an adjudicatory hearing. The hearing would be granted if an issue of fact or law was in dispute, within the jurisdiction of the agency, presented in a timely manner, and if the claims were of such magnitude that, if decided in favor of the applicant, a federal entry permit could possibly be issued.

The appeal process could also be two staged, to reduce the involvement of the ultimate agency decision maker. In the first stage, under the direction of a hearing officer or administrative law judge, an oral hearing could be conducted, or a written presentation made by the applicant. Based upon these presentations, the application and supporting documents, and all official records of the agency, a recommended decision would be drafted for consideration by the agency. The applicant would have the opportunity to comment upon this recommendation before a final decision occurs. The final decision of the agency would of course be subject to judicial review.

An alternative procedure for permit issuance would be to require each applicant to submit to an oral hearing process. This would be more burdensome to both the agency and to many fishermen, but it would provide the opportunity for close examination of each applicant in person. Given some of the uncertainties of the proof available for demonstrating FCZ participation, that may prove to be a justifiable burden.

F. Proof problems in general.

Many of the problems with demonstrating participation in the FCZ troll fishery by fish tickets are already well known; those problems cannot be easily solved, and there will not be any one alternative source of proof which can serve as a litmus for FCZ participation. Nevertheless, certain general principles should be kept in mind.

The burden of proving that a permit should be issued rests with the applicant. There is no presumption that a permit should be issued. The applicant must be given the opportunity to present his evidence, which may include not only fish tickets, but also Fishermen's Annual Information Reports, log books, pictures, demonstration of vessel characteristics common to off shore trolling vessels, and affidavits or testimony of knowledgeable individuals including government officials and other fishermen. Each

case must ultimately be judged based upon the totality of evidence on the record: did the applicant prove, by a preponderance of the evidence, that he or she qualifies for a federal entry permit.

The precision of proof required of the applicant could vary depending upon the type of system of limited entry being implemented. If, for example, a limited number of permits are to be issued (as in Option D and E), then a failure to be sufficiently rigorous in the standards of proof means that some other applicant may be unfairly disqualified. Similarly, if there is a high cost to removing excess permits from the fishery (as in, e.g., Option C coupled with a freely transferable permit which must be bought back), there is an incentive, other than the problems associated with the initial higher level of effort, to be very strict in applying the evidence standards. On the other hand, if there is no high cost to reducing the initially excessive number of entry permits (as under Option C coupled with a non-transferable permit), and if biological problems can be addressed through other conservation and management measures, then that high degree of rigor in the standards of proof may not be as necessary.

§. Interim relief.

The processing of applications, particularly as to individuals who pursue all avenues of review, may take a considerable period of time. The agency may retain the discretion to provide relief during this interim for individuals who have an application pending and who have received no final determination.

If some interim relief is provided, it may mean that more permits will be available for use during the interim than what would be allowed ultimately under the option adopted. Providing this relief may also encourage applicants to pursue claims and avenues of review they might not otherwise pursue, merely so that they might fish in the FCZ in the meantime. If no interim relief is provided, the agency may be compelled to make its judgments in a much more expeditious manner than would otherwise be the case.

It may be unfair to refuse interim relief to an applicant who has complied with all the time limitations established for submission of proof, and who has not received a decision solely because of the backlog of cases before the agency. Additionally, under certain options (e.g., Options D and E), no permits can be issued until final decisions are made as to most if not all applicants. The time delays under these options could be enormous for these 'innocent' applicants.

If the agency does retain the discretion to provide interim relief to applicants awaiting a final determination, distinctions may be drawn among certain classes of applicants and among certain stages of the proceedings. Certain classes might then receive interim relief, while others do not.

As a first class, one could certainly rationally deny interim relief to any individual who causes significant delays in the application review process. One could also distinguish those individuals who yet have an application before the agency, and who have not therefore received a final decision, and those who are seeking judicial review of the agency decision. The latter individuals have already received a final adverse determination, and the agency should have no obligation to provide interim relief except by reason of court order. Interim relief could also be denied to anyone making insufficient claims for the issuance of a federal entry permit, and to any person seeking merely the right to apply for a permit (e.g., the individual who wishes to make late application).

Any interim relief need only be for as long as the applicant falls within the class of individuals eligible for such relief. However, because of the costs incurred by the fisherman in preparing for the fishing season, some consideration may be given to allowing interim relief to run throughout the fishing season regardless of a change in eligibility for such relief.

H. Reducing the number of entry permits in the fishery.

Assuming that Option E is not adopted, some reduction in the number of outstanding entry permits may become desirable in the future. Some of the means of reducing the number of outstanding permits have already been discussed in the section on transferability. The means available include:

- 1) Retained right of first refusal on sale of the federal entry permit. This would be used only if the federal entry permit is transferable.
- 2) Right of condemnation. This would be an involuntary means of reduction; the means of selecting the permits to condemn would have to be scrupulously fair.
- 3) Voluntary buy-back. The federal permit would be voluntarily transferred to the federal government at a price negotiated between them. The federal government would have no priority over other potential transferees.
- 4) Mandatory retirement under certain named conditions. The federal entry permit would be retired upon some named conditions, without cost to the federal government. A certain portion could be reissued on an annual basis to allow ongoing new entry. After the desired level of permits is reached, all retired entry permits are reissued. Reissuance could be by auction, by lot, or to those 'most qualified' (e.g., long time trollers in the 0 - 3 mile area

who desire to fish in the FCZ).

5) Limit entry even further. By making it clear at the outset that no vested right to fish in the FCZ accrues to the federal entry permit holder, and that the option adopted is merely transitional pending further refinement of the available information, a more restrictive option and level of entry permits could be adopted at a later date. Qualifying criteria under the new option could be developed at that later time to ensure the reduced level of permits desired. No compensation would be necessary for those who failed to qualify for the subsequent permit, since their initial inclusion was solely because of the need for further study.

Additional administrative costs would obviously be incurred by the agency under this option, and of course the additional application process and involuntary reduction in the number of permits would likely be resented by some fishermen. Also, if the fishermen are aware of the possibility for adoption of a more restrictive option in the future, it may induce them to fish in the FCZ more intensively than they might otherwise.

I. Effort limitations attached to the permit.

Limiting the number of permits does not, directly, limit the amount of effort in the FCZ troll fishery. Vessels and

gear may be upgraded to allow more intensive fishing, or permittees may fish in the FCZ for longer periods of time than they did during the qualifying years.

In order to better control effort, it may be desirable to limit the length or tonnage of the vessel that the permittee can use to that which was used at the time of permit issuance. This would prevent a certain amount of upgrading, although improved efficiency may certainly be achieved in ways other than vessel size. There is also little information available that would actually show a correlation between efficiency in the FCZ troll fishery and vessel size. Deciding the specific restriction to impose may be complicated in certain cases where the permittee is between vessels, leases a vessel, or has more than one vessel.

Effort might also be controlled by limiting the number of days the permittee can fish in the FCZ. However, this would seem to be much easier to accomplish on a fleet-wide basis than by restricting each permittee to a set number of days. The only fair way to parcel out boat-days of fishing to each permittee would be on the basis of historical participation. That in turn would require very precise information about not only the total days the permittee fished the FCZ, but also about everyone else, since the permittee's time is calculated as a percentage of the total time of the fleet. Such precise information does not appear to be available at this time.

E-5
9-24-80

1981 MANAGEMENT RECOMMENDATIONS AND CONSIDERATIONS
FOR THE SALMON TROLL FISHERY IN THE FCZ
BY THE SALMON PLAN DEVELOPMENT TEAM

Introduction

The Fisheries Conservation and Management Act of 1976 requires that stocks of salmon be managed throughout their range. Since the salmon troll fishery is considered continuous between waters of both State and Federal jurisdictions, the management objectives and resulting management regulations should be compatible.

The management policies and regulations adopted by the North Pacific Fishery Management Council and Alaska Board of Fisheries should reflect compatible management objectives and provide the necessary flexibility to meet in-season abundance variations. The management objectives and 1981 regulatory options briefly outlined below provide the framework for meeting the existing management policies for the net, troll, and recreational fisheries in Southeast Alaska.

The PDT has identified the following fishery and resource management problems that the NPFMC should consider in formulating proposed regulations for the 1981 fishing season.

1. The majority of natural chinook salmon stocks from all sources harvested by the troll fishery are depleted to such an extent that they are currently producing far below the maximum potential total harvest on a sustained yield basis. Escapement levels of Southeast Alaska chinook stocks are far below historic levels. With the present effort and catch of the troll fishery on these stocks, minimal improvements, if any, in escapement levels can be expected.
2. Coho stocks harvested by the troll fishery have declined in abundance from historical levels. Recent increases in fishing effort in the coastal and offshore fishing areas have reduced the managability of the fishery and intensified al-locations problems between offshore and inshore salmon fisheries.

3. Although the 1980 troll fishery was regulated to prevent the chinook harvest from exceeding the OY range of 286,000 to 320,000 fish, substantial conservation problems continued to occur. Escapement of natural chinook runs to S.E. Alaska systems in 1980 reflected only limited, non-uniform improvement although no net fisheries targeted on these stocks. Additionally, when complete tabulation of the summer season fish tickets is completed the upper end of the OY range may be exceeded as of the September 20 closure presently in effect. Disruption of the S.E. Alaska historical winter fishery may be averted only by deliberately exceeding the upper end of the OY range. Conservation problems were also encountered on upper Columbia River 'Brite' chinook stocks which are known to contribute to the S.E. Alaska troll fishery.

The salmon PDT endorses the following objectives as an approach to rational management and a positive step toward solution of these problems:

1. Manage the troll fishery in conjunction with other Southeast Alaska fisheries to obtain the number and distribution of spawning fish capable of producing the maximum total harvest on a sustained basis from Southeast Alaska salmon stocks.
2. Allocate the total allowable salmon harvest to the various Southeast Alaska user groups as directed by the Alaska Board of Fish and Game, and North Pacific Fisheries Management Council.
3. Decrease directed and incidental harvest of smaller, immature fish and reduce sublegal chinook hook/release mortalities where possible, consistent with allocation decisions and with the objective of maximizing benefits to user groups.
4. Control and reverse recent trends of expanding effort and catch in outer coastal and offshore Southeast Alaskan waters to accomplish conservation goals of Objective 1.

5. Develop fishery management plans and 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.
6. Manage the coho and chinook salmon fisheries to ensure compliance with U.S.-Canadian fisheries agreements, any other treaty or resource sharing requirements and conservation obligations.
7. Contribute to the development of a coastwide management plan for chinook salmon.

The salmon PDT recommends the following regulatory proposals be approved for public review as an integral part of the redrafted FMP. These proposals are intended to address the objectives of achieving escapement and controlling expanded effort in the troll fishery. Some of these proposals are presented at this time although supportive documentation from the 1980 fisheries may not be available until later in the year.

1. Optimum Yield: The PDT recommends a minimum reduction of 10% of the 1980 OY. A reduction of this magnitude is required to make a meaningful contribution to rebuilding depressed stocks. Complete analysis of 1980 may show that some additional downward adjustment may be necessary.

The salmon PDT seriously questions if the current chinook OY of 286,000 to 320,000 is appropriate as a harvest goal in view of the status of contributing stocks. Assessment of the current status of coastwide natural chinook stocks plus preliminary assessment of 1980 spawning levels of these stocks indicate that they continue to be depressed with Southeast Alaska stocks apparently reflecting the most serious condition. It appears likely that final analysis of the 1980 season data will show that the 1980 catch of approximately 320,000 (the upper end of the OY range) was too high in the sense that subsequent escapements were generally below levels needed for maximum production in some systems and below levels needed to

rebuild the more seriously depressed natural stocks.

The PDT emphasizes that important problems exist with respect to (1) inadequacies in data which prevent a direct approach utilizing normal analytic techniques in developing seasonally adjusted OY's and (2) interpretation and application of the OY concept, as developed in the original FMP, to the Southeastern troll fishery where both Alaskan and non-Alaskan stocks are significant contributions to the harvest. The OY of 286,000 to 320,000 established in response to a need for some limitation in the face of increasing fishing effort and serious conservation problems, was based on the average 1971-77 harvest. While this general magnitude of limitation may be acceptable with respect to the harvest of non-Alaskan stocks, it is not adequate for the seriously depressed Alaskan stocks. Additional protection for these stocks must be provided through appropriate area and time closures.

The PDT recommends that in view of (i) inadequacies in current data, (ii) the overriding need for a significant response to serious conservation problems and (iii) the unique character of this S.E. Alaskan troll fishery in terms of contributions of both Alaskan and non-Alaskan stocks that:

- 1) Seasonally developed OY's be interpreted as ceilings or upper limits to harvest rather than catch targets or goals; and
- 2) Alternative methods of developing specific seasonal OY's be recognized.

2. Limited Entry: The chinook salmon resource in the FCZ includes stocks of fish from Oregon, Washington, Canada and Alaska river systems. Many wild stocks of chinook salmon from the west coast, including Alaska are depleted. The states of Alaska, Washington, and Oregon and the Pacific Fishery Management Council have

adopted regulations designed to protect and rebuild chinook salmon runs. To allow increased troll effort on the mixed stocks of chinook off Alaska would directly negate these actions as depressed stocks would be subject to even greater fishing pressure. Therefore some form of limiting offshore effort and catch is needed. The salmon PDT cannot recommend any specific limited entry alternatives. However, it must be realized by the Council that any increase in the numbers of participants in the FCZ fishery has to result in further stock depletion unless compensated for by additional time/area and efficiency restrictions.

3. Time and Area Closures:

A. Shorten the offshore troll season by delaying the opening date until May 15 (one month) and closing the season on September 20, concurrent with the closure of the coho season.

This proposed regulation is designed to curtail expanding early and late season effort in the troll fishery and contribute to conservation of mature Alaska chinook salmon. The proposed season compliments proposals by ADF&G designed to improve the spawning escapement of Alaskan chinook stocks and curtail further increases in early fishing effort inside the surflines. The ADF&G staff is proposing to delay the opening of State coastal waters until May 15, close the outer coastal fishing areas within the surflines from March 1 until the offshore season opening date and to close the corridors from coastal to inside fishing areas from May 16 until June 1.

B. Restrict the expansion of the troll fishery offshore by establishing a baseline beyond which no fishing will be allowed.

In recent years there has been an expansion of troll fishing effort offshore. Further offshore expansion of this effort is not necessary to harvest available

salmon stocks while it tends to increase the degree of mixed stock fishing.

Preventing the fishery from expanding beyond a well defined baseline should reverse recent trends towards increasing mixed stock fishing offshore. The PDT suggests the Council consider at least the following alternative area restrictions.

(1) Close the troll fishery outside of a baseline measured to a specified distance from the surfline as described in the Alaska commercial fishing regulations.

(2) Exempt the Fairweather Grounds from (1).

4. Gear Restrictions: Restrict power troll vessels fishing in the FCZ to no more than 4 lines and 4 gurdies and hand troll vessels to no more than 2 gurdies or 4 sport lines.

Regardless of the outcome of pending litigation concerning jurisdiction over hand trollers in the FCZ, the PDT believes that gear uniformity between the FCZ and State waters for both power and hand troll vessels is necessary to facilitate both standardization of effort and enforcement of gear restrictions. This proposal would bring the number of lines and gurdies allowed for power troll vessels into conformity with an ADF&G proposal to restrict the number of gurdies on power troll vessels to four. Present State law restricts the number of lines power trollers can fish to no more than four and hand trollers are restricted to no more than two gurdies or four sport lines in State waters.

This action is designed to: (1) provide for efficient enforcement of line and gurdy limitations in both the FCZ and State waters; (2) provide for a standardized measure of effort; and (3) contribute to reducing expanded effort in the troll fishery.

5. Reporting Requirements: Require submission of an Alaska fish ticket or the equivalent document by fishermen prior to transporting salmon out of the Alaska area.

At present, salmon are being transported to various buying stations out of the State and the catch of salmon is not reported. Although present regulations require that reports must be submitted within 5 days of the landing date, no reports have ever been received. The enforcement problem is compounded further by the inability to receive landing documents from Washington state in less than 15 days after a fisherman leaves Alaska even if certain confidentiality requirements are waived. If managers are expected to develop the capability for in-season management, timely reporting is necessary.

6. Heads-on Landing Requirements: The PDT recommends no change in the present regulation requiring that all chinook and coho salmon be landed with heads on. Power trollers with freezing capacity have increased their proportion of the total troll salmon catch in recent years. Preliminary indications are that the heads on regulation produced better mark recoveries from freezer boats than under the previous regulations.

7. Alaska Board of Fisheries Management Plan for the Southeastern-Yakutat Chinook and Coho Salmon Troll Fishery: The PDT recommends that the Council adopt the management principles contained in the Alaska Board of Fisheries Plan. The 1981 plan as proposed by the ADF&G staff for Board consideration in December, 1980 has the following objectives:

1. Provide greater flexibility for scheduling the 10 day closure during the early portion of the coho season;

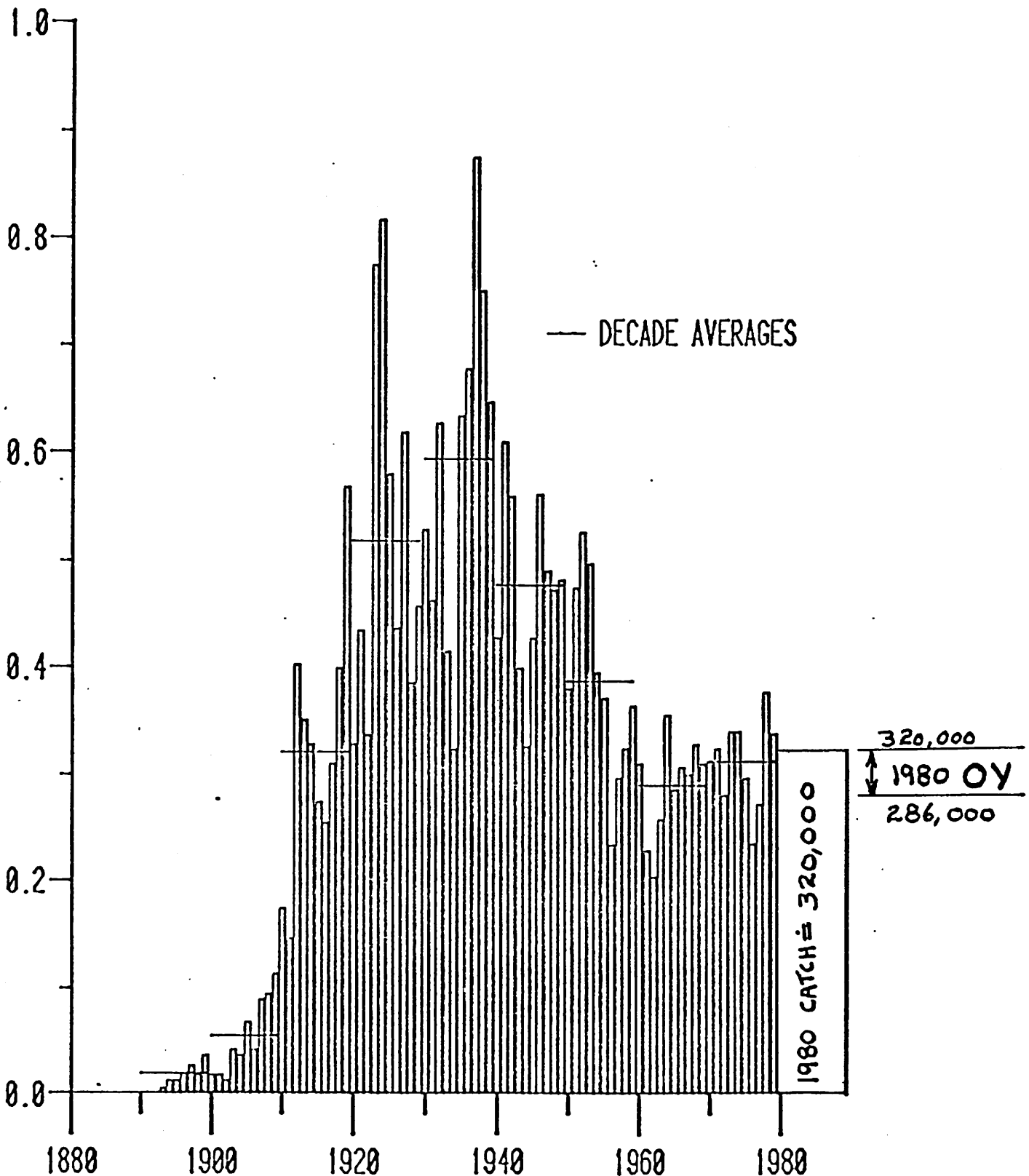
2. Formalize the Board of Fisheries policy for the allocation of the coho catch between hand troll (20%) and power troll (80%) gear types;

3. Establish a policy of returning the outside/inside distribution of the coho catch to the levels of 1976-77.

4. Provide for compliance with the decisions of the Secretary of Commerce/ North Pacific Fishery Management Council and the Board of Fisheries to restrict the catch of chinook in Southeast Alaska.

SOUTHEASTERN ALASKA COMMERCIAL KING SALMON HARVESTS (ADF# G-80)

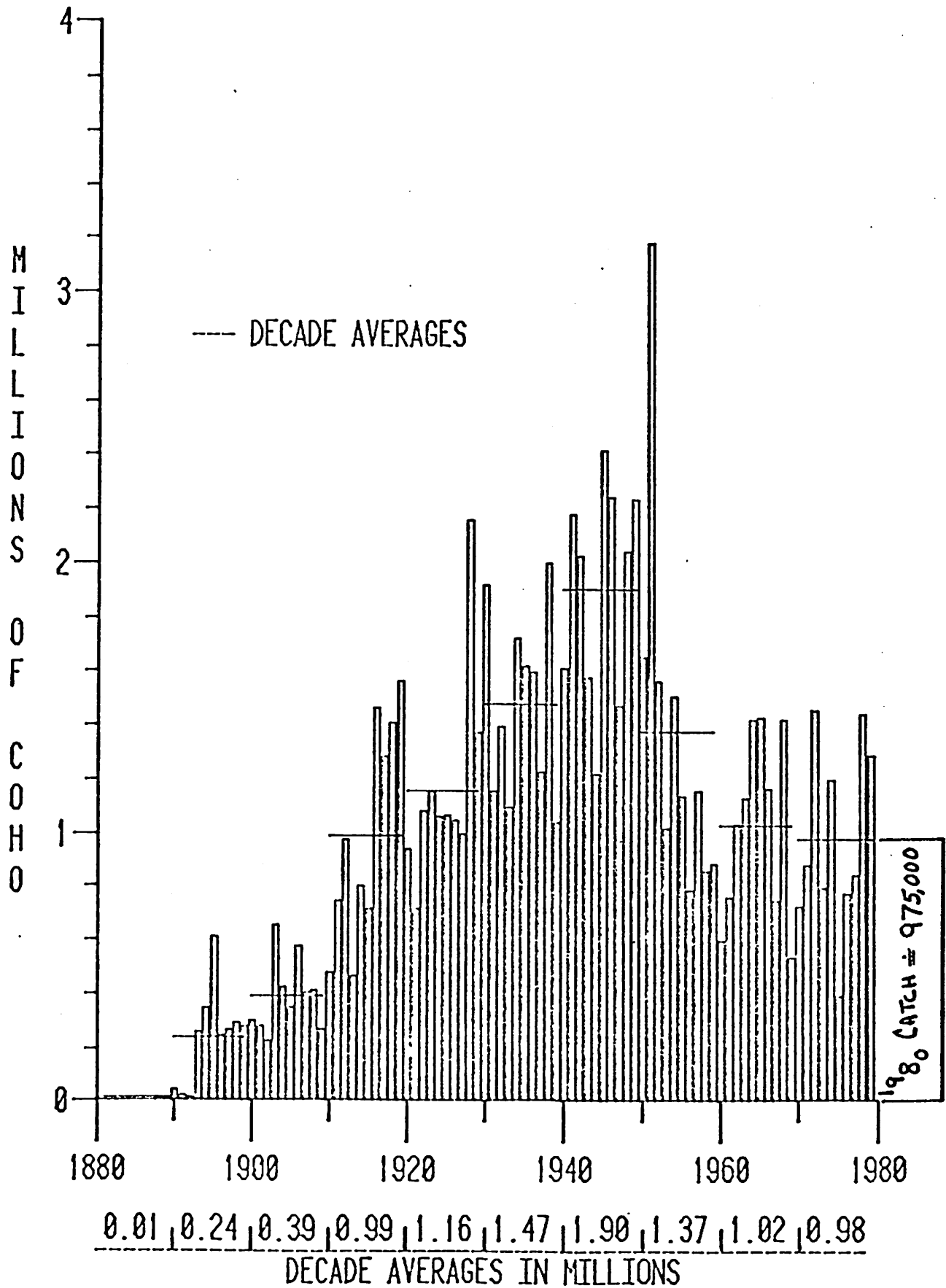
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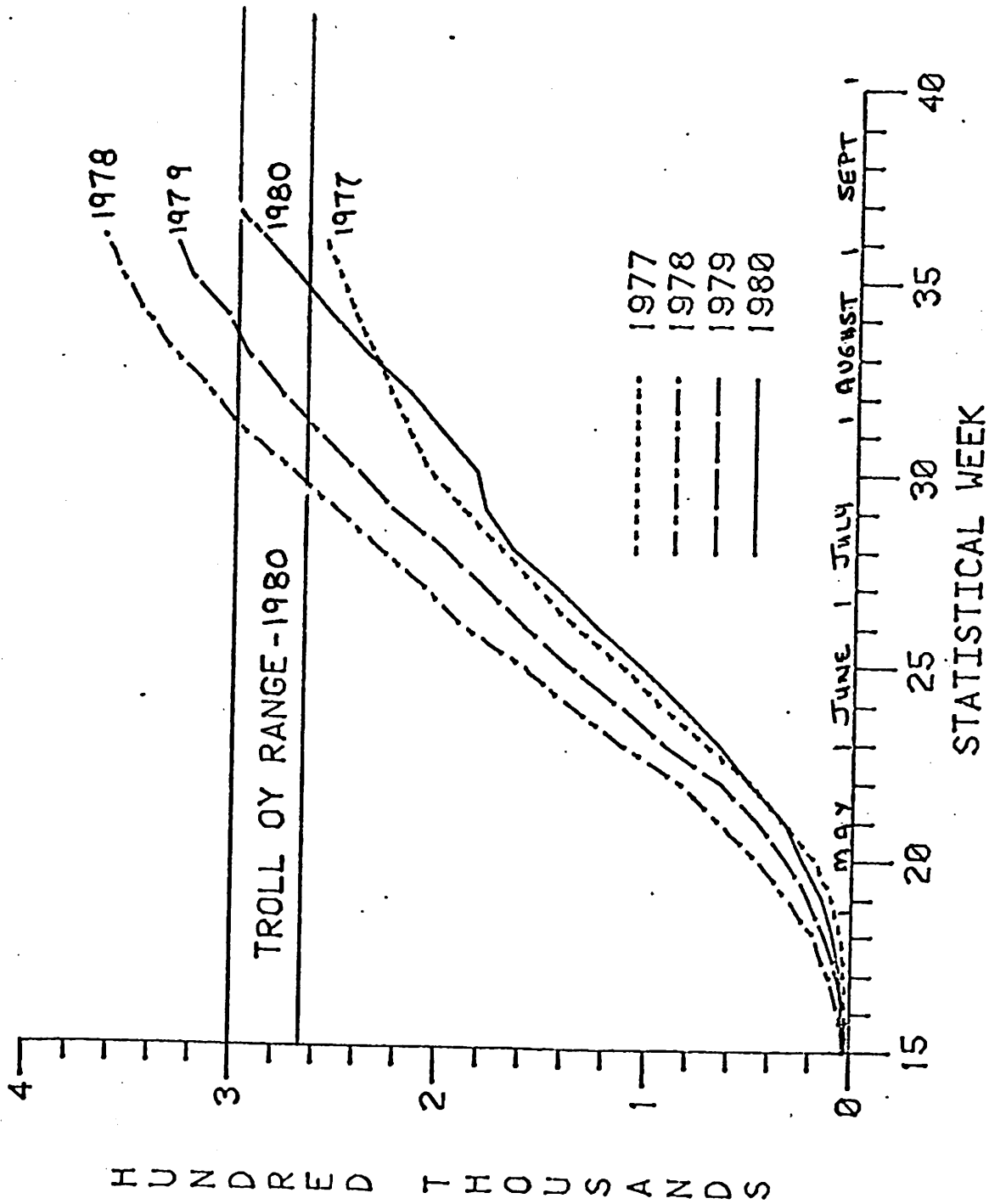


0.02, 0.05, 0.32, 0.52, 0.59, 0.47, 0.39, 0.29, 0.31

DECADE AVERAGES IN MILLIONS

SOUTHEASTERN ALASKA COMMERCIAL COHO SALMON HARVESTS (ADF46-80)





SOUTHEASTERN-YAKUTAT CUMULATIVE TROLL KING SALMON LANDINGS (ADFG-80)

WASHINGTON DEPARTMENT OF FISHERIES
Harvest Management Division
September 1980

Introduction

This report summarizes the most current information available for the 1980 Washington coastal and Columbia River chinook salmon fisheries. All information contained in this report is preliminary and subject to revision.

Preliminary Status of Washington Coastal Fishery
for Chinook Salmon

The preliminary 1980 chinook salmon catch statistics for the Washington coastal troll and recreational fishery are presented in Table 1. The total troll/recreational catch of chinook salmon for 1980 is estimated to be 170,100 fish. This is the smallest catch in recent history, only 35% of the 1971-75 base average. Both the troll and recreational catches were lower than 1979, the previous record low. Although analysis is not complete, it presently looks like the highly unusual circumstance of three consecutive weak brood years has been experienced in the fishery (1975, 1976 and 1977 broods).

Table 1. Washington coastal catch of chinook salmon (x 1,000).

	Troll	Recreational	Total
1971-75 Average	272.5	210.4	482.9
1976	353.7	170.7	524.4
1977	231.6	175.0	406.6
Preliminary 1978	145.1	90.1	235.2
Preliminary 1979	122.9	76.9	199.8
Preliminary 1980	116.5	53.6	170.1

Preliminary Status of Columbia River In-River
Fall Chinook Commercial Fishery

Prior to the consideration and adoption of the 1980 fall chinook commercial fishery regulations for the Columbia River by the Columbia River Compact, WDF Harvest Management Division committed over three man-years of staff time in reviewing the status of Columbia River fall chinook stocks and past in-river management practices. This work resulted in the joint Oregon-Washington staff report made to the Columbia River Compact on August 14. This report is attached and does provide full explanation of the management constraints facing the Columbia River managers, due both to the conservation and allocation needs for the fall chinook resource.

After consideration of the joint staff analysis and recommendations, the Compact adopted the following regulations for treaty Indian (above Bonneville Dam) and non-Indian (below Bonneville Dam) fisheries for fall chinook:

Non-Indian

Zone 1 for 1-24 hour period from September 2 at 6 p.m. to September 3 at 6 p.m.

Treaty Indian

Bonneville, Dalles and John Day pools for 5-24 hour periods from 12:00 noon September 2 to 12:00 noon September 4 and 12:00 noon September 8 to 12:00 noon September 11.

This is the least amount of fishing time ever allowed for either the lower river fishery or the upriver treaty Indian fishery.

In addition, Washington adopted regulations allowing commercial fishing in five small tributary river-mouth areas to harvest lower river stocks which would be surplus to hatchery needs due to the one-day fishery in the mainstem Columbia River.

These fisheries resulted in the following estimated harvests, presented by area and stock.

1-Day Zone 1 & Greys Bay Terminal Area Chinook Catch

Bonneville Pool Hatchery Stocks	24,100	
Upriver "Brite" Stock	<u>2,200</u>	
Total Upriver Stocks		26,300
Lower River Stocks		<u>39,500</u>
Total Mixed Stock Harvest		<u>65,800</u>

5-Day Treaty Indian Chinook Catch

Bonneville Pool Hatchery Stocks	22,500	
Upriver "Brite" Stock	<u>7,500</u>	
Total Mixed Stock Harvest		<u>30,000</u>

When the Compact met again on September 12 to consider further fishing time, this information was presented as well as the projected upriver "Brite" run size, which is controlling the mainstem fishery. Oregon/Washington staff analysis indicated a run of only 44,000 fish would be achieved at The Dalles Dam (50,000 necessary to achieve 40,000 at McNary Dam). Thus, it is likely that the spawning escapement as measured at McNary Dam (40,000 goal) would be less than 30,000 adults since the upper two pools' catch must also be removed from the projected run size at The Dalles Dam. Given the present preliminary analysis of upriver "Brite" contributions to the two commercial fisheries (Indian and non-Indian), it is likely that the 1980 upriver "Brite" run size was less than that required to achieve the spawning objective before any in-river fishery was allowed. This conclusion is reached since considerably more "Brite" adult fish need to be counted over Bonneville Dam to achieve 50,000 adults at The Dalles Dam and 40,000 adults at McNary Dam.

Columbia River treaty tribes have begun legal proceedings to block the presently scheduled lower river non-Indian commercial gill net fishery for coho salmon. This fishery is scheduled to begin on September 28, the latest

season ever scheduled, and will harvest less than 1,000 upriver "Brite" fish incidental to the targeted coho catch (70,000 estimated coho catch). It is this low incidental catch which has caused the treaty tribes concern.

Recent Columbia River fall chinook harvests, escapements and total run sizes by stock are presented in Tables 2 and 3.

1981 Columbia River Fall Chinook Management Concerns

Besides the obvious possibility of not achieving the desired spawning escapement objective in 1981 for upriver "Brite" stock, WDF has concerns for the constraints this problem has placed upon our ability to harvest lower river hatchery and natural stocks and upriver hatchery stocks. Taking the 1980 fishery as an example, potential harvest of 86,100 fall chinook originating in the lower river and the Bonneville Pool hatchery complex would have been foregone to protect the upriver "Brite" escapement. In other words, for each "Brite" fall chinook which cannot be harvested due to escapement problems, potential harvest of 3-5 other fall chinook is lost. This problem is compounded by the ocean distribution pattern of hatchery versus "Brite" stocks as presented in Figure 1. Supportive information for this distribution pattern was presented in the March, 1980, WDF staff report to NPFMC. Despite the severe restrictions placed upon the Washington coastal fisheries to protect and allocate Columbia River fall chinook, runs of insufficient size are returning to the Columbia River to provide for reasonable in-river fisheries and spawning escapement. Additional restrictions to the Washington coastal fishery can return more hatchery fish to the river but will do little if anything for the upriver "Brite" stock.

In March 1980, WDF staff presented 1980 stock status information to NPFMC and the Alaskan Board of Fisheries. This report included detailed information on ocean distribution of Columbia River fall chinook stocks. WDF staff are presently attempting to obtain coastal tag recovery data in a more finalized form through 1979 and possibly on a preliminary basis for 1980. When this information is available and analysis of the 1979 fisheries are complete, WDF will prepare a more comprehensive Columbia River stock status report for the Salmon PDT and NPFMC. WDF will attempt to have this information available by December 1980, but cannot presently be assured of accomplishing that goal.

Table 2. Total commercial harvest of adult fall chinook in Columbia River, 1964-1980 (x 1,000).

<u>Year</u>	<u>Lower River</u>	<u>Treaty Indian</u>	<u>Total</u>
1964	146.1	21.8	167.9
1965	185.8	25.8	211.6
1966	142.1	8.0	150.1
1967	150.1	38.2	188.3
1968	142.3	27.1	169.4
1969	172.5	39.6	212.1
1970	236.6	34.8	271.4
1971	211.6	50.9	262.5
1972	134.8	39.0	173.8
1973	259.9	57.0	316.9
1974	95.1	51.1	146.2
1975	164.9	122.3	287.2
1976	137.4	121.5	258.9
1977	159.8	46.5	206.3
1978	93.0	55.4	148.4
Preliminary 1979	81.2	62.8	144.0
Estimated 1980 ^{1/}	87.3 ^{2/}	30.0	117.3

^{1/} Includes adults and jacks.

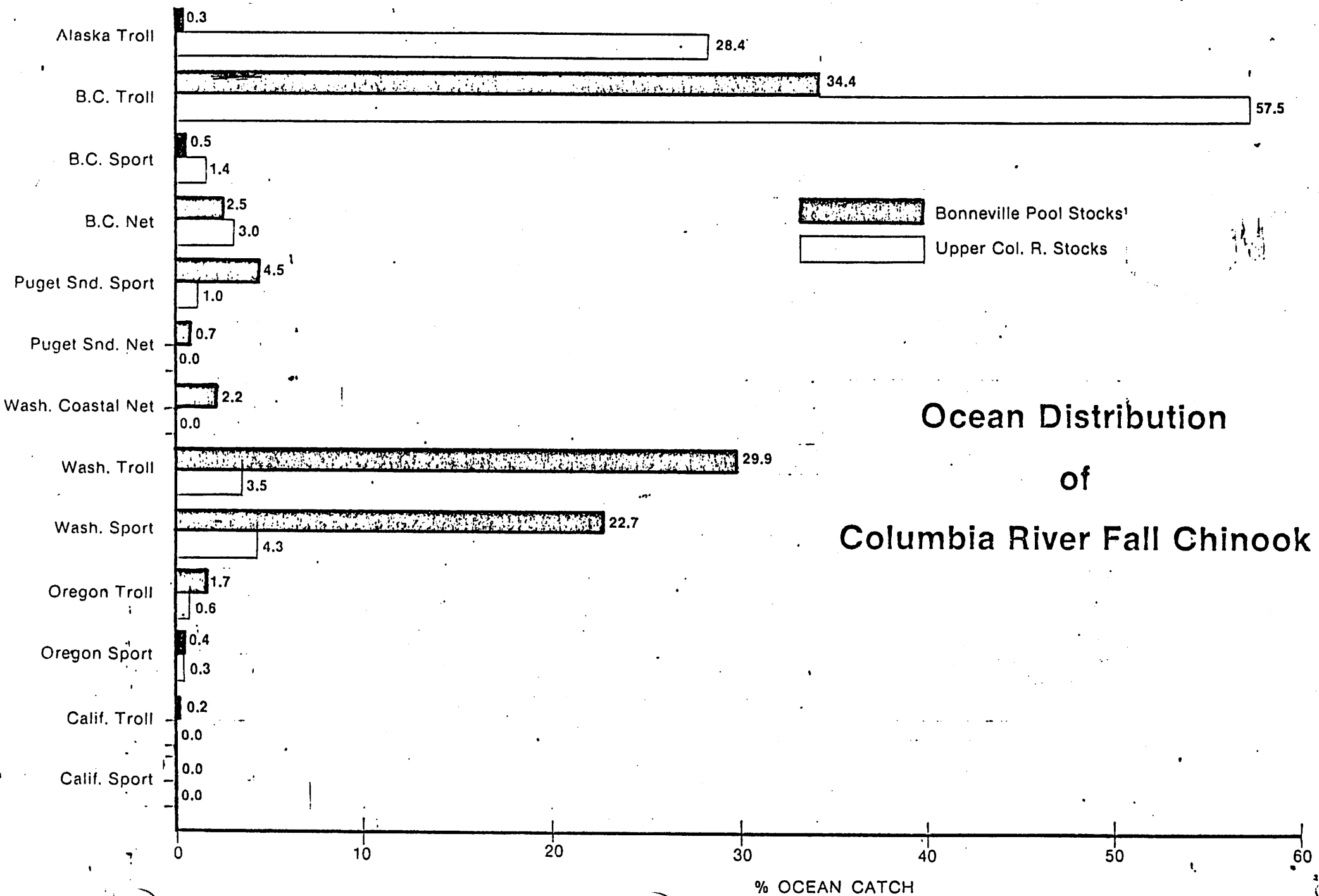
^{2/} Includes Washington tributary select stock lower river catches. Mainstem Columbia River plus Grays Bay catch was 65,800.

Table 3. Total in-river catch and escapement of adult upriver fall chinook by stock (x 1,000).

Year	Upriver Brite				Bonneville Pool Hatchery				Total In-river Run Size
	Escapement	Catch ^{1/}	In-river Run Size	Escapement	Catch ^{1/}	Run Size	Run Size		
1964	40.4	43.3	83.7	27.8	132.5	160.3	244.0		
1965	41.1	72.5	113.6	11.3	105.5	116.8	230.4		
1966	51.1	56.2	107.3	32.2	75.1	107.3	214.6		
1967	42.9	79.0	121.9	14.7	95.5	110.2	232.1		
1968	49.2	73.6	122.8	15.2	64.8	80.0	202.8		
1969	55.4	89.3	144.7	19.4	106.3	125.7	270.4		
1970	43.2	94.5	137.7	10.4	137.3	147.7	285.4		
1971	49.0	76.3	125.3	12.7	99.2	111.9	237.2		
1972	37.6	56.6	94.2	9.1	40.4	49.5	143.7		
1973	46.6	106.0	152.6	17.1	89.6	106.7	259.3		
1974	34.6	63.6	98.2	10.4	55.8	66.2	164.4		
1975	29.6	84.3	113.9	35.2	156.4	191.6	305.5		
1976	28.8	78.4	107.2	24.2	160.6	184.8	292.0		
1977	37.6	58.7	96.3	21.3	82.1	103.4	199.7		
1978	27.3	55.5	82.8	17.5	82.3	99.8	182.6		
1979	31.2	58.8	90.0	18.3	71.6	89.9	179.9		
Est. Prel. 1980	N/A	9.7	56.0	20.0	46.6	66.6	122.6		

^{1/}Catch includes missing or unaccountable fish for all years except 1980.

FISHERY



Ocean Distribution of Columbia River Fall Chinook

¹Same Catch Distribution Applies to Lower Columbia Fall Chinook

Figure 1 OCEAN DISTRIBUTION OF COLUMBIA RIVER FALL CHINOOK