THE OSPREY

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Federation of Flyfishers

Dedicated to the Preservation of Wild Steelhead

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Linda Hanlon, Editor

WILD STEELHEAD MANAGEMENT:
HOW MSH CAN WORK

Sam Wright is a fisheries research scientist with the Washington Department of Fisheries' habitat division. For many years Sam worked with Washington's Game Department where he was the principle author, in 1984, of its landmark Stream Management Strategy. Sam was one of the state's strongest wild fish advocates and a dedicated promoter of regulations designed to assure that fish, especially wild trout in streams, have an opportunity to spawn in order to perpetuate themselves. Bait restrictions and gear-specific limitations were among the management tools in Sam's approach: not guaranteed to win popularity but, as history has shown, the right way to go. We appreciate Sam's helpfulness as he provides here a professional view of the Maximum Sustained Harvest (or yield) model so widely used in steelhead management regimes.

The MSH standard is a slight adjustment of MSY (maximum sustained yield), which scientists have used for decades as a basic foundation for management of fish populations. The change from MSY to MSH evolved during the early days of the Boldt decision when there were questions over whether or not one party could fully harvest its 50 percent share. These issues are now moot and today's management is actually for MSY. MSY is the highest average catch, or surplus production, that a fish population is capable of producing on a sustained basis.

For example, the term "yield" could mean that the entire surplus trout production of the Yellowstone River is utilized as hooking and handling mortalities incurred during catch-and-release. It is also legitimate to modify MSY for other objectives such as better year-to-year stability of a fishery. The essential requirement is to fully and carefully analyze the trade-offs between any reduction in MSY and the achievement of alternative objectives.

MSY cannot be determined without first making a quantified expression about the relationship between spawners and recruits ("recruits are the returning progeny of a spawning group—eds.,) i.e. S/R. The best way to do this, and with the FEWEST assumptions and chances for error, is to let the fish themselves provide the answer. The figure "Summer Steelhead" does this for a group of upper Columbia River steelhead stocks from 1938 through 1958. The production curve fitted to the data points tells us that this population should be managed for a fixed annual escapement objective of 74,000 fish. MSY is 181,000 steelhead and this works out to an average annual fishing rate of 71 percent—a very productive resource. Note that the 181,000 and 71 percent are only long-term averages of surplus production over and above the annual management objective of achieving the 74,000 fish spawning escapement.

(Eds. ' comment, with apologies to the scientists out there: Not all readers will be familiar with the production curve. The curve itself averages the plots of data points, each point representing the number of returning adults in the year shown, measured on the vertical scale. The replacement curve is the straight line reaching upward from left to right; this line is a series of points each showing an identical value when measured against either the vertical or horizontal scale. A point lying on the production curve at the maximum vertical distance between the replacement line and the production curve, measured against the vertical axis, gives the optimum annual escapement goal. [In this example it is 74,000 fish.] The production curve shows a maximum annual average production of 205,000: 205,000 - 74,000 = 181,000, the...
THE CHAIRMAN’S MEND

As readers know, the Honorable John Crosbie, Canadian Minister of Fisheries and Oceans (the ministry responsible for managing salmon), committed in 1992 to a three-year program to reduce by 50 percent the by-catch of summer steelhead in the Skeena River commercial salmon fishery. The Federation supports strongly the Minister’s goal.

Based upon performance in 1992 (all smoke and magic) the commercial by-catch rate remained about 60-70 percent of the total run and the steelhead escapement was less than 40 percent of the agreed minimum spawning escapement (see Mend #16), the Steelhead Committee remained skeptical that the Canadian government would take the obvious but necessary steps to save Skeena steelhead before it was too late.

In advance of the second year of the three-year plan, I invited Mr. Crosbie to outline the 1993 program for The Osprey which he has done in the article on page six. We appreciate, of course, the Minister’s willingness to do so.

I am now in the awkward position of having invited an article which provokes more questions and concerns than it answers. The DFO 1993 plan looks like its predecessor: long on promises for the future, studies about the problem and citations about monies spent heretofore; short on specific actions to be taken to ensure that steelhead in sufficient numbers actually get to spawning grounds.

Here it is about three weeks in advance of the opening of Skeena commercial openings and the Minister advises us that “discussion of harvest rate management plans is premature.” For 1993? If not now, when might the time be ripe for such discussions?

A clear, unequivocal DFO commitment to an enforced minimum steelhead spawning escapement requirement is the quintessential sin qua non of any effective steelhead conservation program. In my view, in the absence of such a commitment, DFO’s Skeena steelhead plan is doomed to fail. DFO relies, instead, on an agreed minimum spawning goal. In 1992 this goal was systematically ignored over the course of the commercial fishing season while thousands of steelhead continued to be harvested when it is crystal clear that escapements would not even approach the agreed minimum goal.

How will it be different in 1993? DFO continues to support for 1993 the gillnet catch-and-release program which was a complete failure in 1992.

Mr. Crosbie and I must be reading different tea leaves. I fail to see a spirit of cooperation being displayed by the commercials or DFO. There is no real plan for 1993, and certainly there is no agreed spawning escapement requirement; no mandatory regulations for weedline nets; no effort to restrict or create area commercial licenses to lessen the Skeena free-for-all each opening; no commitment to in-season modification of commercial fishing schedules with closures to ensure adequate steelhead escapement; and, finally, no semblance of a plan to REBUILD Skeena steelhead as promised in the original commitment.

The only fishermen actually biting the bullet are, as usual, the sportmen. Once again, the tens of thousands of recreational anglers have committed to catch-and-release as they have in previous years. While we have no other responsible alternative, the fact is that a few thousand commercial fishermen last year killed approximately 11,000 steelhead and native fishers harvested thousands more while sportmen harvested none. If nothing else, this raises a basic fairness issue which, in a democratic society, cannot simply be explained away.

While we agree with Mr. Crosbie that Alaskan interception of Skeena steelhead is a serious problem, he has at his disposal and under his control steps which will solve the Skeena steelhead problem. The FFF and others have been urging it for years: GET RID OF THE NETS, compensating the commercial fishermen appropriately. DFO has already done this in the Maritime Provinces for Atlantic salmon. It is way past due on the West Coast. Selective fishery techniques and gear are available and effective so that the abundant Skeena pink and sockeye salmon stocks may be harvested without harm to depressed coho, chinook and steelhead stocks.

The 1993 DFO plan does not address the basic cause or solution. Until it does, all B.C. summer steelhead are in deep trouble.

With regard to Mr. Crosbie’s pleas concerning Alaskan interceptions, we agree that both the U.S. and Canada must take steps to halt the incidental steelhead harvest. Neither country has taken effective steps in this area which is also tied up in the on-going US/Canada Pacific Salmon Treaty negotiations. American and Canadian fishermen, commercial, charter and recreational, catch huge numbers of salmon bound for the other’s country. For example:

- Alaskan commercial fishermen intercept thousands of Skeena/Stikine/Taku/Nass bound salmon;
- B.C. charter, recreational and commercial fisheries of Vancouver and Queen Charlotte Islands intercept thousands of U.S. chinooks and cohos, many from extremely depressed Columbia and north Puget Sound stocks;
- American commercial fishermen harvest over half the B.C. Fraser River sockeye (and probably a large number of co-mingled Thompson River steelhead).

In each case, the American and Canadian fishermen have sought through the Treaty negotiations to eliminate the other country’s interception while preserving their own invasive fishery. In other words and not surprisingly, special interests have sought special protection. Fishermen and the governments of both countries would do well to simply follow the basic premise, codified in the Law of the Sea Treaty, that anadromous fish belong to the country of origin and eliminate these targeted fisheries.
EDITORIAL—
VOLUNTEERISM: ARE WE KIDDING OURSELVES? John Sager

A few weeks ago the Washington state legislature adjourned its 116-day session and conservation activists from Sequim to Spokane heaved a sigh of relief. Informal damage assessment then became the day's task: Did we gain or give?

Fortunately, by most conservationist measures, this was not a bad performance in Olympia. Both the senate and house, and the governor's desk, are controlled by Democrats, and all three segments generally are favorable toward improving stewardship of the state's natural resources, including, one would hope, wild salmonids.

It is in the nitty-gritty of looking at specific bills, what they do and fail to do and, more frustratingly, why and how they passed or failed, that the amateur volunteer confronts his limitations. This may not seem like a big deal to the steelhead fly fisher who pays scant heed to happenings in Olympia, Salem, Boise, etc. But to those who try to follow and even influence the political events that affect wild salmonids, it is big enough to confuse, mystify and even overwhelm.

The merger of Washington's two fisheries management agencies is a case in point. Historically, the departments of fisheries and game (now wildlife) have managed, respectively, salmon and all other "food fish" and all game animals and gamefish species including, especially, steelhead and the other trout. Well into the 1993 legislative session, new Governor Mike Lowry introduced legislation to merge the two agencies: Saving money and streamlining management were the obvious and to-be-hoped-for objectives.

At public hearings before senate and house committees the volunteer activists made their cases. Most agreed with each other on key issues, most importantly that the policy and rule-making authority of the present wildlife commission not be diluted. Less critical but important parts of the bill established a food-fish advisory commission which might retard rather than advance smooth management of all salmonids.

There were behind-the-scenes power plays aimed at the composition and authority of the commission. (The governor and his two agency directors do not suffer gladly the public-access commission system wherein the commission has real teeth.) Another lobbying effort urged that the new commission's policy and rule-setting authority extend to all salmonids, not just steelhead. It failed, but probably will be revisited next session.

And at the last minute, a completely separate bill was attached to the merger bill as a rider because its senate managers apparently believed it would not make it through the house on its own merits. (This rider mandates a special bureaucracy within the new agency dedicated to emphasis on salmon hatchery supplementation to try to improve chinook and coho salmon fishing in south Puget Sound and Hood Canal; but it pays only lip service to wild fish and their habitats.) User-group support for this rider was split: The FFF and Washington Trout opposed it, Trout Unlimited supported it. The Washington Environmental Council (WEC), which had supported the merger so long as the commission's authority was not diminished, remained neutral.

Audubon Society, which had maintained a "no-position" stance on the merger bill during most of its passage, eventually supported new language to broaden the commission's authority over wildlife-related outdoor recreational opportunities.

Nor was the saga over with final legislative passage of this one bill. The governor has a line-item veto and so the lobbying continued as activists tried to persuade him to delete undesirable portions of the bill.

Because this 1993 session was an odd-year event, the legislature's chief function was to develop and pass a state budget for the next two years. In the present socioeconomic climate the budget was hands down the only game that really mattered. So, behind-the-scenes deals (vote-swapping) were even more complex than in non-budget sessions, and not just among legislators but also between them and the governor. (In a budget, virtually every legislator has at least one pet project which for his/her constituents is viewed as life-or-death; those projects translate to votes and/or "understandings" about other favorite projects, present or future.)

In early 1993 the Steelhead Committee decided, for the first time, to try to follow and perhaps influence these events with the paid part-time assistance of a professional lobbyist. Nine Washington FFF clubs and groups contributed funds for this effort. A preliminary assessment of its value suggests that part-time is not good enough. And we were again reminded, as previous legislative battles have shown, that volunteer activists, on their own, have about as much chance to flourish in this arena as does a caddis fly on a trout pond.

The paid-lobbyist program did improve efficiency; whether it really made a difference in effectiveness (would legislation have been different without us?) is moot. It led to...

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OUR EDITOR SAYS "SO LONG"  John de Yonge

The other morning, just after dawn, in a mist that wet my skin and sang in my ears, I waded into my home river. The river ran high.

It covered my marker stones with jade water. The water flecked with mica flakes, rippled and sucked over a point just upstream. I could smell the water and the cottonwoods behind me and sometimes, faintly, vaguely, unbidden but sweet like the memory of a love lost long, there came to me also the scent of hawthorn buds.

A mergansers suddenly whistled by, low over the water, dark in the mist. And I listened to chitters and choruses of bird songs wryly, remembering that birds sing not for love but for space, dominance, habitat. Feathered anthems. Flags of sounds. Avian buggles. Important to the singers, no doubt, but pleasure in my ears.

I cast an orange line on an angle upstream, checked its flight so that the long, black nymph at the end of the leader tucked back under the monofilament, tucked back under the line tip. The orange line settled on the jade water serpentine and moving. At its tip floated a small flower of polypropylene fuzz, half white, half black, my strike indicator.

With the long carbon rod, I lifted and mended line in the mist.

Watch the progress of the floating flower, steady, even, equal with the currents. Think of the nymph settling to the bottom of the long pool, to tumble along the rocks. Imagine the long fish finning at ease among the rocks, sensing the glide of water, tasting its freshness tanged by the glaciers, seeing the black stonesfly ticking toward it.

The flower floated until the line had no more slack to give, swung in the current, disappearing as the nymph rose from the bottom in a most unstonesfly-like way, but in a way, experience has taught, that results in a hard, rocklike strike.

But not this time. Nor the next. Nor the next after that and for many more casts in the slow movement of searching across sectors of the pool with the orange line and the nymph, and then of wading downstream four or five feet to begin the search and the rhythm of casting again.

A half hour. Forty minutes. Only the watch bound know. I never know in the serenity of wading and casting and expecting, thinking of the long silver shadows that may be there, down below my ability to see but not my ability to imagine.

Suddenly the flower pops out of sight. The orange line slithers away across the surface and down. I lift the rod. The surge of hook up. The sigh of the reel spinning off line. Out in the mist, not even near where the line seems to be going, a steelhead torpedoes out of the water. Adrenalin hits my heart and lungs. I see silver in a cone of jade. Slack line. No sudden stripping in tightens on anything. My heart races on, with thanks. A release just a bit before I would have released the fine fish anyway, I weasel. Damnit! says the truthsayer deep inside.

It is the morning's adventure. Slowly the mist rises. The sun burns through. I calm. Downstream a jet boat fires up. Down the highway, way down the highway, duty beckons. It is time enough anyway. The right knee complains, as it always complains now, about the 50 years it has waded, braced itself against currents, absorbed the shock of cobblestones underfoot.

Time to go... just as it's time for me to go now from helping John Sager and Pete Soverel put together The Osprey. As Linda Hanlon takes over as editor, Sager will continue helping; he has my full thanks for making this national newsletter possible and attention catching. A good man.

And the work of the Steelhead Committee of the Federation of Fly Fishers goes on under Soverel's unstinting dedication to the fish and to the sport we all love. Another good man.

Three years of editing The Osprey. It seems like yesterday. We have raised some great articles, thanks to the good fishers and good scientists who have submitted to this little journal, which operates on such little income during a year that the money wouldn't buy a week on a river in Iceland.

We have also stirred our fishing family. We have ruffled the comfortable in the Federation. Some of our angler friends have complained that grousing about government, harping after the truth about hatcheries, dogging the bureaucrats and bitching about logging and farming and other destroyers of habitat are not what fly fishing for steelhead is about.

All I can say in this goodbye, dear friends, is that if we don't ruffle, grouch, hate, dog and bitch, fly fishing for steelhead under the American flag will be just a memory, a sweet memory, like the memory of a long lost love, but a memory nevertheless, fading, fading, then gone.+

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RUSSIAN-AMERICAN COOPERATION: THE KAMCHATKAN CONNECTION

Osprey Staff

Readers may recall a piece in The Osprey’s Issue No. 11, January 1991, a fanciful account of what it might be like to fish steelhead on the Kamchatkan Peninsula. What follows here is an update on Steelhead Committee efforts to make that dream a reality, for the fishing and, more importantly, for the protection of what are probably the planet’s last pure strains of this incredible gamefish.

The scene is a drab one, typical of the working quarters of Moscow State University’s senior scientists. In late March 1993, seated in the front office of MGU’s Ichthyology Department, a Russian-speaking Steelhead Committee spokesman talks about Kamchatkan steelhead with Drs. K.A. Savvaitova and V.A. Maksimov. These two renowned Russian fisheries scientists co-authored, in the early 1970s, the only definitive steelhead study to have reached English translation in the West. Their work, “The Noble Trouts of Kamchatka,” has become something of a collector’s item among a few steelheaders and, in the 1980s, its typewritten manuscript evoked frustrated wonderment in the face of Soviet security restrictions on the California-size peninsula.

Now there is opportunity to see what is known about these fish in the 1990s, and to learn how to find and study them in their natural habitats.

Some new facts help the discussion with the Russian specialists. Russia is now wide open, a sea change of immeasurable significance. Russian-speaking Americans, with knowledge of the local customs, are able, in many fields of commerce, to do just about anything their persistence and patience will endure. But instead of the old reliable system of Soviet-era restrictions, today there are few rules and even less enforcement; and this applies to fishing as well as anything else.

Eventually question arise. What can the Americans do to help? Are they interested in our help? It is not lost on the Russians that their work on steelhead, even though twenty years old, is still recognized among their U.S. counterparts as the benchmark science on Kamchatkan steelhead. The committee spokesman offers that his Seattle-area steelheading friends are strong advocates for steelhead conservation and could help the Russians focus their scientific needs based on recent experience in the Pacific Northwest. Strong management schemes also could be considered along with trying to determine which Kamchatkan rivers need special protection. And all of this without killing fish.

“The committee also is exploring the best ways to involve commercial outfitters, both Western and Russian, to try to avoid a gold-rush event over the next few years.”

The Russians think about it. They saw Kamchatkan steelhead go into their Red Book (endangered species classification) in 1987 and know they have a problem, what with well-heeled Japanese and Western sportsmen beginning to visit Russia’s Far East in search of resident rainbow trout, several salmon species, and the legendary taimen. In 1992 the first few steelheaders arrived in Kamchatka and actually caught fish.

Following these discussions in Moscow, the Steelhead Committee, with the blessing of FPF National leadership, is presently organizing a series of scientific expeditions to visit the peninsula, hopefully as early as fall 1993 but certainly in 1994 and beyond.

A critical ingredient is the participation of University of Washington fisheries scientists, recognized by the Russians as the best in the world at what they do. In mid-May the chief of the U.W. School of Fisheries sent a proposal for joint cooperation to Academician Dmitry Pavlov, the country’s senior fisheries scientist. Savvaitova and Maksimov plan to participate personally and, so, probably, will several scientists and technical people already working in Petropavlovsk-Kamchatsky, the on-scene fisheries experts who worry primarily about the region’s commercial salmon industry.

The proposal, now accepted by the Russians, suggests the following topics for pursuit by the joint teams:

- Status of present-day research on steelhead in Russia and the U.S.
- Identification of data requirements and best modern methods of collection.
- Initiation of data collection and exchange between countries.
- Establishment of escapement goals to assure optimum seeding within river-specific environments, including appropriate monitoring.
- Identification of administrative and management plans to ensure protection. Discussion of American and Canadian experience and mistakes in this area.
- Exploration of future cooperative scientific efforts.

The committee also is exploring the best ways to involve commercial outfitters, both Western and Russian, to try to avoid a gold-rush event over the next few years. Obviously, it is critical to persuade the locals (especially their enforcement people) that their steelhead, unspoiled by hatchery schemes, are worth far more alive and well in their rivers than they are in cold-boxes and on dinner plates. Such persuasion will probably come hard; local traditions know nothing of catch-and-release and will be established only by watching visitors do it to everyone’s advantage.

As one might imagine, funding is another challenge. The Russians are broke and will need help. And the Steelhead Committee is not exactly flush either. How much are Kamchatkan steelhead worth? They’re worth enough. Stay tuned.
THE MINISTER RESPONDS:
SKEENA STEELHEAD

John Crosbie

John Crosbie is Minister of Fisheries and Oceans in the Canadian national government. Although not entirely analogous, his position is at the same level as the U.S. Secretary of Interior. In recent issues, The Osprey has been critical of the way the Canadian federal government has managed commercial salmon fishing in British Columbia’s coastal waters, especially at the mouth of the Skeena River. That commercial fishery has been shown to be the principal culprit in the decimation of Skeena steelhead, which are netted “incidentally” along with targeted returning salmon. The salmon, in turn, are the products of massive hatchery operations run by the federal government. B.C.’s provincial government, which manages steelhead only, has little to say about federally-controlled off-shore commercial activities. This article is Minister Crosbie’s response to that criticism and, while we do not agree with all that he says, we thank him for taking the time to prepare this information for publication.

Steelhead, a sea run variety of rainbow trout, are part of British Columbia’s rich natural resources. Steelhead stocks are of paramount importance to the sportfishing sector and other stakeholders who enjoy the recreational opportunities they offer. This is especially true on the Skeena watershed, site of a world-renowned steelhead fishery.

The Department of Fisheries and Oceans (DFO) shares the concerns of the various steelhead groups for wild stocks and agrees that harvest rates need to be reduced in some instances. To that end, DFO is fully committed to achieving its objective of a 50 percent harvest rate reduction over a three-year period which began in 1992. An important first step in meeting this objective, however, is reaching consensus with all affected stakeholders. Over the last year, work conducted under the auspices of the Skeena Watershed Committee has made significant progress in addressing conflicts among users over steelhead. This committee, funded by DFO and comprizing recreational, commercial and Aboriginal fishing sectors and federal and provincial staff, has made much constructive progress on the issue of steelhead incidental catch in the commercial fishery. As such, it represents just the kind of vehicle we need as we obtain a consensus on conservation measures for all stocks involving all stakeholders.

In partnership with the provincial Ministry of Environment, Lands and Parks, DFO has been involved actively in a comprehensive effort to conserve and rebuild wild stocks. In 1992, for example, approximately $600,000 in federal and provincial monies was spent on Skeena steelhead programs.

"... DFO is fully committed to achieving its objective of a 50 percent harvest rate reduction over a three-year period which began in 1992."

These included a pilot steelhead recovery program initiated by the commercial fishing sector and co-managed by DFO and the North Coast fishing organizations. At the same time, effective coho concentration measures were undertaken in 1992, such as time and area closures in the commercial net and troll fisheries, and in the river sport fishery.

This comprehensive live release program was mandatory for all gillnetters and seiners. Those operating in outside waters were required to release healthy steelhead caught in their nets. Steelhead were held in tubs on board equipped with circulating water pumps until they were revived and then released. Those fishing inside waters were requested to hold steelhead in tanks, which were then transferred to a steel barge for up to five days to prevent recapture.

As a conservation tool, the program had some successes, most notably in the demonstration that up to 33 percent of the steelhead caught could be released alive from gillnets.

Other efforts in the Skeena include a $125,000 study co-sponsored by DFO and the provincial Ministry of Agriculture, Fisheries and Food which determined that gillnets suspended 1.2 meters below the surface on a weedeine were even more effective in reducing steelhead bycatch. Past studies also showed some reduction in target catches and further work was required to find ways to maintain sockeye and pink catches. It was demonstrated last year that this problem could be overcome depending on the type of netting that was used. Departmental staff are consulting with the commercial sector on the next steps to be taken in the commercial fishery to achieve the desired harvest ratio reduction, taking into full account the concerns of the commercial industry.

Another major focus of the federal/provincial effort on the Skeena has been to improve the knowledge base about all stocks so they can be better managed and sustained. Although the Skeena test fishery has been a fundamental element of stock assessment over the years, there continues to be concern over the various technical difficulties encountered in utilizing test fishery data. A variety of conditions can affect the results, including discharge rates, water temperature and clarity, and velocity at the site. All of these factors influence behavior of migrating stocks which in turn results in varying catch rates.

To improve the test fishery information, a technical analysis has been undertaken by DFO biologists and scientists and provincial government officials through the Pacific Stock Assessment Review Committee (PSARC). These technical reports regarding various aspects of steelhead stock assessment have been developed and submitted for peer review as a precursor to providing sound scientific advice to fishery managers.

In general, it has been found that some stocks are more productive than others and special provisions may need to be taken to

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ADVOCATES COUNTER: THE SKEENA CRISIS

The issue of catching fish that know new boundaries continues. This is a crucial time for the survival of depleted stocks heading home to watersheds on both sides. The Osprey asks readers to make their opinions heard in order to keep negotiations moving forward toward acceptable levels and methods of harvest. Rob Brown is chairman of the Wild Steelhead Campaign.

We in the Wild Steelhead Campaign hope history will show that the symposium held in Smithers on November 9, 1991, at the end of the poorest return of Skeena steelhead and coho in memory, was a turning point in the battle to save these magnificent fish. It was there, in the Smithers Rod and Gun Club, in front of anglers, guides, natives, commercial fishermen, representatives from the market fishing industry, government officials and the media that spokesmen from the Canadian Department of Fisheries and Oceans (DFO) publicly acknowledged Skeena summer steelhead and summer coho were in serious trouble—so serious, in fact, that Al Lil, of the DFO, committed his department to a 50 percent reduction in harvest rate of steelhead over a period of three years.

Last year was the first year for this ambitious program. During that season the North Coast Advisory Board, a group dominated by commercial fishing interests, under pressure from the DFO, initiated its Steelhead Conservation Program. The main thrust of which was to have steelhead caught in the areas adjacent to the river mouth be held in live tanks until they could be transferred to a holding barge where the survivors would then be held until the end of the opening and then released. Those steelhead caught further out were to be tagged and released, provided they weren’t dead on arrival.

As might be expected with a radical new program, compliance by the skippers was not overwhelming. In the end, the Conservation and Research Program resulted in 45 tag recoveries upstream. Despite all the post-program ballyhoo by industry representatives, it is painfully obvious that tagging and releasing net-caught fish, particularly gillnet-caught fish, (while it should be mandatory, and may be part of a long range solution), does not go to the heart of the problem.

A post-mortem of the 1992 fishing season shows that flagrant and widespread non-reporting of steelhead catches persisted, the increase in provincial input into the...cont. to page 14
allowable yield or harvest required to ensure sustainability; 74,000 is 29 percent of 205,000, leaving 71 percent of the total production for harvest.)

Other features of the S/R relationship tell us a good deal about some basic steelhead management principles. Note that the curve goes substantially higher than the diagonal replacement line. Before significant fishing started, there were a number of stocks with little or no surplus production capabilities. These were quickly lost during early years of fishing. All pristine stocks were not at MSY but at the equilibrium point where the right hand portion of the curve crosses the replacement line.

The curve itself tells us that the population is limited by something, in this case, primarily the capabilities of juvenile rearing habitat. Another feature of the S/R relationship is that it only remains valid as long as critical habitat constraints remain constant. Year-to-year changes in data points can only be the natural variation possible with a flat trend line for habitat capabilities. We know that the example shown has long since been rendered obsolete by further hydroelectric development. New, intense “fisheries” at dams are now killing both smolts and adults.

In addition, the US Forest Service conceded that many streams on their lands have shown 30 to 80 percent declines in primary pool habitat since measurements were first made in the late 1930’s and early 1940’s. The curve has been both flattened and shifted far to the left. MSY has declined significantly. Unfortunately, steelhead production curves are moving in this same direction virtually everywhere.

For example, a 1992 Forest Practices decision on cumulative effects allowed a 30 percent decline in pool habitat before any meaningful restrictions on landscape disturbance are invoked. As a rough rule-of-thumb, conversion of a unit of stream surface area from pool to riffle habitat will reduce salmonid fish production by two-thirds. If we reduce the quality of critical salmonid habitat (as opposed to quantity), the production curve will tend to shift downward and can be pushed below the replacement line. Stock extinctions will result.

Ideally, future steelhead management will be based on individual S/R relationships for many of the larger streams among the list of 145 defined stocks. However, S/R relationships from data sets representing only a few years can be worse than educated guesses. For example, the first and second five-year sets of data (1938-1942 and 1943-1947) from the Columbia River relationship would tell us to manage for escapement objectives of 66,000 and 176,000 fish, respectively—obviously a very misleading conclusion.

Washington scientists have been able to standardize short-term data sets from a number of rivers with each other (via common rearing habitat units) to produce a composite S/R relationship. The MSY escapement requirement for any system can then be determined from its individual number of habitat units. Even when larger streams are shifted to individual S/R relationships in the future, a composite approach will still be needed for many of the smaller systems.

If we take the basic MSY approach and continued treaty Indian fishing rights as “givens,” how much flexibility really exists for future steelhead management? We already know that numbers of wild fish will continue to fall as habitat capabilities decline unless society decides to reverse the current trend by successfully mitigating cumulative impacts from forestry, farming, grazing, hydropower, mining and urbanization. Still, most of the 145 stocks will continue to exist since any shifts in production curves will be mainly to the left instead of downward.

The fundamental calculation of MSY is sound, but fishery management precision can be improved. For example, basic measures such as escapement will eventually be expressed as more accurate reflections of egg potential (Atlantic salmon managers use pounds of females). Several innovative techniques are evolving in other fishery management forums that account for risk and uncertainty in both setting MSY and managing fisheries to achieve the intended results.

Where risk and/or uncertainty are high, allowable fishing rates are reduced accordingly. These can be increased as risk and uncertainty are reduced by obtaining better technical data on population dynamics.

One other management tool offers flexibility. This is the proper mixture of consumptive harvest and catch-and-release within the recreational fishery’s share of surplus steelhead production. There is general agreement among economists, for example, that recreational benefits, which are normally measured in daily fishing trips, are the better measure of values, not the fish actually harvested and/or released. Thus, we need the proper mixture of opportunities that will produce the maximum number of trips. We already know that the best endpoint for intense trout fisheries is complete catch-and-release. The same number of surplus fish can, by orders of magnitude,
produce more angler trips.

We can also forecast with some confidence that steelhead angling will, if properly managed, pursue a definite trend in the same direction. We do not, however, know the slope of this trend line and there is no magic formula to steer a professional manager through this transition period.

We do have some guidance principles for effective trial and error. We know that maximum overall recreational benefits normally come from providing a high degree of diversity in fishing opportunities. This is true simply because people themselves are diverse. When available opportunities become polarized, such as in a catch-and-release fishery, it is the correct solution only when it clearly maximizes trips. Some additional insight can be gained from fisher preference surveys but these are random samples drawn from selected populations of fishers created by existing programs. Managers should examine the specific types of fishing opportunities which pull Washington residents out of state to other states and Canadian provinces. This would show our weaknesses.

“New, intense ‘fisheries’ at dams are now killing both smolts and adults.”

With these types of information and known trends in hand, a steelhead manager should be able to make some fairly sound decisions on the proper mixture of fishing opportunities that need to be provided. One of the most difficult parts of doing this is to divorce his/her own personal fishing preferences from the professional job of managing recreational fishers. Planned, efficient trial-and-error testing, sometimes called “adaptive management” (often abused) will provide the data needed.

A separate concern is the interaction between natural steelhead stocks and hatchery fish. Since the latter are now routinely marked for identification by removing their adipose fins, the basic mindset of both managers and anglers needs to be fully converted from steelhead management to management of two distinct “species.” When each is carefully managed for its separate needs, perceived “conflicts” evaporate. Recreational fishers will have to continue to carry the primary burden when participating in selective fishery on commingled populations, owing to their ability to release most fish alive.

ED, cont. from page 3

personal meetings with the governor and with key legislators and it helped to focus our limited volunteer-hours on those events we could hope to influence and to defer on those we could not. The merger bill was only one of several that were important to wild salmonid management and survival. Others had their own sets of complexities but were beyond close attention, even with part-time professional help, simply for lack of time and energy.

This recent Washington experience is not unique or startling. But it reinforces the message: If fly fishers really care about steelhead (and other game fish) and how they are managed, then the political dimension of this process demands our attention and some of our money.

We play the mature fool to continue kidding ourselves that there are fellow activists (“volunteers”) out there who are successfully “working the problem.”

Amateurs can’t do it just because they are eager and sincere. Unless they have huge amounts of time, and very few do, they can never amass the experience and connections that separate them from the pros.

What we need is a paid professional; and not just for lobbying. A state-level FFF executive director, for example, paid a decent wage with a full-time office in Olympia (or Salem, or Sacramento) would in time develop the credibility (first priority) and knowledge of and familiarity with all the players (close second).

During legislative sessions he/she would be the key participant, doing most of the lobbying and bill-tracking, but calling for support from amateur volunteers where needed. In the off-season, this paid pro would focus on the management agencies, both in the Capital and the regions; plenty to do there, as well.

The truly influential players—those regarded as such by governors and key legislators—already do this or come very close to it. WEC, Audubon, Wilderness Society, Trout Unlimited all have budgets that pay for the expertise that counts; if anyone can, these pros can identify the hot buttons inside the legislature and the management agencies.

This challenge has been around for years. But right now would be a good time for FFF leadership (club presidents and their boards, state and regional officers) to have a fresh look at their rosters and programs; do they want to go to the trouble to raise money for a paid, full-time activist? (Non-profit status is not an excuse to sit by and watch; there are legal and appropriate ways to get it done.)

The alternative, to continue to avoid the opportunity and challenge, guarantees more of the same. But worse, it erodes the volunteer base as conservation and management issues inevitably become more complex: The volunteers dwindle as they realize they gradually are losing and no help is on the way.

Perhaps it is in the nature of fly fisher organizations that this “calculated indifference” is inevitable. Fly fishing is, after all, a helluva good way to get away from problems rather than looking for more of them.

Maybe so. But let’s not say, someday when our political clout has dwindled to near-zero, that we were caught unaware.
LETTERS

From Our Readers

We appreciate your viewpoints and comments. Write to us at: Editor, The Osprey, P.O. Box 84211, Seattle 98134.

To the Osprey Editor,

Just a quick note to commend you for your good work. This year let's work to close down the main Snohomish and Stillaguamish on March first. I've been working in the town of Snohomish this winter and have seen dozens of native fish over 20 pounds killed. This is a real blow to the gene pool.

Thanks,
Tim Tuura
Edmonds, WA

Editor,

Keep up the great work! The resource can't afford anything less.
Best Regards,
Dick Watts
West Richland, WA

Editor,

We have been getting your newsletter and hope we can continue to receive it — interesting and informative.
Thank you!
Carol Bordin, Fisheries Biologist
Confederated Tribes of the Chehalis Reservation
Oakville, WA

Editor,

The enclosed clipping from British Columbia has got to be a major argument for the state of Washington to favor the sports fisherman. The steps you are taking to get a lobbyist are certainly in the right direction.
Sincerely,
Tom Yost

(Ed's Note: Yost provided a magazine clip reminding B.C. readers that from 1978 to 1988 the commercial fishery in that province killed more than 295,000 steelhead (mostly wild) in pursuit of salmon worth about $2,070,000.

The piece added that the pursuit of 110,000 steelhead over the same period netted the same economy in excess of $72,000,000! As regards the lobbyist, see our editorial in this issue.)

Editor,

I was introduced to your fine newsletter by an Osprey contributor, Bill Barnett, who also persuaded me to try fly fishing for steelhead. I had never fly cast for any fish, let alone a steelhead, so the initial casting experience was on my home river, the Wenatchee. My second trip was rewarded with a very active 9 pound marked fish. This was the most exhilarating experience I have had in 40-plus years of steelhead fishing. The quiet sport to me is deafening. Keep up the good work.
Bill Kuest
Wenatchee, WA

Editor,

Keep up the good work! It's gratifying to see the networking taking place between FFF, BCSS and other such organizations concerned about the long term future of wild steelhead.
Sincerely,
Jon B. Lund
Hillsboro, OR

Editor,

You are doing a great job keeping those of us who are interested well informed about the anadromous issues. The mix of articles makes for interest and pleasant reading.
Tight lines,
R.W. Nicholson
Baldwin, MI

Editor,

Great issue! You're there ... hope you can maintain the effort. I know it's major.
Steve Petit
Lewiston, ID

Editor,

I received the January 1993 issue just today. Excellent, engrossing as usual. The 1992 Honor Roll is a smart idea. My pal Peter Broomhall beat me to the punch again! I'm not worried about making the Honor Roll but I am hoping that among the regular readers of The Osprey who are my acquaintances, especially those whom I number as close friends, several might realize that they, too, have just been procrastinating. Perhaps some will match those 70 or so financial supporters of this fine newsletter.
Sincerely,
Lee Straight
Vancouver, B.C.

Editor,

I wanted to congratulate you on the excellent articles in the January 1993 (No. 17) issue of The Osprey. I have always been impressed with your content and objectivity. However, this issue struck me as exceptionally well done. Keep up the good work. Let's keep fishing in our future.
Sincerely,
Curt Smitch
Director
Washington Department of Wildlife

Editor,

My friends in Europe describe the same kind of problems with steelhead abundance that we experience on this continent. The familiar list includes forest practices, industrial pollution, sewage, and overfishing. They are also keenly aware that the current generation of fishers must set the policies and practices that will save the precious genetic diversity of the wild fish.
I applaud your international extensions via The Osprey and the Federation.
Thank you.
Sincerely,
Joseph Jaucquet
Olympia, WA

Editor,

We appreciate your publication. My husband looks forward to each issue since he's had a stroke and can no longer fish streams for steelhead.
Helen S. Schilling
(Mrs. John A.)
Bellevue, WA

(Ed's note: This is the kind of letter that makes it all worthwhile. Each of us has to give up wading sooner or later but not our concern for steelhead.)
IMPORTANT SUBSCRIPTION NOTICE

Seven years ago, the Steelhead Committee of the Northwest Regional Council of the Federation of Fly Fishers invented The Osprey to inform steelhead anglers on matters relating to steelhead conservation, especially wild steelhead. Boy, have we succeeded!

The readership has grown from a few score to well over one thousand. Initially, "subscriptions" were the result of chance encounters between various Steelhead Committee members and fellow anglers encountered on the river bank.

Now, in addition to a core of dedicated, conservation-minded anglers, our readership includes environmental organizations as well as environmentalists, prominent fisheries biologists, state and federal resource managers, and politicians with broad responsibilities from steelhead management and conservation.

The Osprey has contributed to a heightened commitment by both citizens and government to preserve, protect and restore wild steelhead—no small achievement. But our success comes with a price—bigger is almost always harder and more expensive. Although each issue has been produced by volunteers without pay (at the expense of fishing time), professional publication, mailing and so on costs real money.

Over the past year, these expenses are $1.17 per copy. Based upon current publication expenses, the 1993/4 costs will amount to almost $4.00 per reader per year. The bigger the run, the higher the costs for each publication period.

In spite of substantial support from FFF National, the Northwest and other Regional Councils of the FFF, various chapters of the Steelhead Society of British Columbia and numerous generous individuals recognized in this and other issues, The Osprey needs modest additional financial support if we are to continue.

As you know, in the past, The Osprey has asked readers annually in the January issue to send in contributions to support publication. Many have done so. Indeed, some readers have been generous to the extreme with individual gifts ranging up to almost $1000.00. Unfortunately, many readers have never contributed.

I do not know whether these non-contributors are unable to do so or simply do not care much to get The Osprey since, in the past, once on the mailing list, readers would continue to receive The Osprey whether or not they ever made a contribution.

After considerable discussion by the Steelhead Committee and The Osprey editorial board, we have decided on a nominal $4.00 annual subscription rate which will defray most of the publishing and mailing expenses. We have reached this conclusion reluctantly, but there is no other way. In the next few weeks, you will receive a subscription notice in a separate mailing.

We hope that all of you will subscribe. Readers who do not subscribe will stop receiving The Osprey which will drive down costs as well as ensure that those on the mailing list do want to receive The Osprey.

Annually, The Osprey will continue to seek support above the subscription level from individuals and organizations so that we can provide The Osprey to state and federal steelhead biologists, resource managers and others. This will ensure that they continue to receive information on steelhead conservation which contributes directly to the primary wild steelhead conservation mission of the Steelhead Committee and The Osprey.

By subscribing, each of you contributes to that mission.

CHAIRMAN'S NOTE

Times change and so do people. I regret to inform readers that Editor John de Yonge and Associate Editor John Sager are moving on.

The first call I made as chairman of the Steelhead Committee was to John de Yonge, asking him to assume the newsletter editorship which he generously and graciously accepted. For the past three years John has brought his very considerable professional newspaper and editorial skills to The Osprey. Now, John has been appointed as a senior policy advisor to Washington Governor Lowry which leaves him without time to continue as editor.

The newsletter and its readers will miss his hand on the helm, but fish and wildlife and the habitat they depend upon could not have a more committed friend in high places.

John Sager advised me almost two years ago that he would like to step down as Associate Editor where he has worked tirelessly as both associate editor and de facto publisher. He has been on the job almost six years which certainly is more than any volunteer organization, especially one which draws members from the angling community, can expect. Without John's tireless dedication, The Osprey would simply not have been possible.

Under John's watch, The Osprey has grown from a small publication with about three hundred readers to a professional quality publication universally recognized as the definitive steelhead conservation publication with a large readership.

Both Johns have agreed to continue to serve on The Osprey's editorial board working with me, as president of the Northwest Regional Council and the new editor on editorial policy and content. Tight lines to John and John.

That is the bad news. On the plus side, I am pleased to introduce Linda Hanlon as the new editor. Many of you know Linda from her wild rivers, salmon and trout preservation work. She was most recently the Director of the Washington Wild and Scenic Rivers Campaign. Linda has a strong background in desktop publishing. I am looking forward to working with her.

Owrey Staff

Pete Soverel
SKAGIT UPDATE

Two Skagit River management issues have been front-burner topics for the FFP Steelhead Committee. Both the Grandy Creek hatchery proposal and the Wildcat Steelhead Club’s broodstock collection program have seemed to us to require the strongest possible examination and exposure to public scrutiny.

The Grandy Creek Draft Environmental Impact Statement was issued for public comment in February. It was a seriously flawed piece of work and failed to make its case for the hatchery’s need in either scientific or economic terms. In addition to the steelhead committee’s response, other organizations also provided written comments, most of them highly critical: Washington Trout, The Washington Environmental Council, The Washington Wildlife Federation, Greater Ecosystem Alliance, and American Rivers.

Several professional biologists, writing as individuals, also criticized the plan. Beyond the on-the-record comments, the committee has learned reliably that many professionals in the wildlife department, including its highest leadership, have serious misgivings about the project and regard it as a political burden forced on them by Skagit county legislators during the Gardner regime. And most, if not all, the wildlife commissioners would rather not see the project go through. (The already-approved $4.5 million could much better be spent on substantial habitat restoration work in the Skagit watershed.)

Nonetheless, Washington’s environmental laws do not ensure that a poorly conceived DEIS, even though soundly criticized from many responsible quarters, will necessarily lead to a project’s cancellation. Grandy Creek may yet struggle forward. If so, the action could next shift to the legal system.

The other issue is (or was) the Wildcat Steelhead Club’s cooperative program (cooperation with WDW) for collecting wild Skagit steelhead as broodstock for rearing and release operations on the river’s lower section.

In 1991, in compliance with state public disclosure laws, the Steelhead Committee raised a number of questions about that program. Of most concern to us was the public image of a normally closed fishery open to a select few who captured large wild steelhead ostensibly to improve the runs.

The committee never has received a report on the success/failure measurements of this project: number of fish captured, number of eggs successfully spawned, numbers of juveniles released and, most importantly, numbers of adults returning.

However, all of this may now be moot. The Wildcat Club agreed to suspend the program for 1992 when the Skagit runs were predicted to be below escapement goals and the traditional March-April fishery was closed. In 1993 the program was not re-activated (even though the March-April season was again open), apparently because the department was not satisfied with its performance.

MEMORIES

Long before I read Norman Maclean’s delightful story, A River Runs Through It, steelhead and steelhead rivers helped define my family. My three children, Christine, Gregory and Camille, are all accomplished and enthusiastic steelheaders. Although all are now adults, we still fish together frequently throughout the year. Steelhead, their rivers and shared experiences along them form the fabric of our family. Happily, to paraphrase Maclean, we are enchanted rather than haunted by steelhead waters. Let me share two wonderful memories from 1992 which, at least for me, help explain why I feel so passionately about steelhead.

Last summer while laying in camp supplies for a wilderness steelhead trip with Christine, I bought an ingenious little camp oven and, on a whim, a pizza ready mix, “Thick Crust,” for the oven. The oven is a covered 12” teflon frying pan without a handle but with a space blanket. The oven sits atop a diffuser plate on the Coleman stove enclosed in the blanket. The blanket holds the heat in. On the oven’s top is a gauge that advises the camper that the contents are “Warm,” “Done” or “Burned.”

I admit to skepticism. Was I wrong. The oven was terrific! Hot bread, melted cheese, turkey sandwiches, dinner rolls—these emerged hot and well cooked. The best was last, however.

We were washed out the last two days of the trip. Inclement rain put the river over its banks. Howling wind buffeted the camp and blew over trees. We stopped worrying about fishing and began to worry about getting out. On the last day, just before darkness, the weather broke. A soft fall breeze replaced the gale. Sunshine bathed the mountains.

To celebrate, we decided to try the pizza mix. Chris added water, let the dough rise, kneaded it, added the sauce and put it in the new oven. I piled on extra mushrooms, salami, pepperoni and mountains of mozzarella. We put the oven on the stove and waited. The twilight started to smell like pizza. Pretty soon the gauge said, “Done.” It was.

Chris cut the pizza into three shares for Greg (our camping partner), herself and me. I am sure that we are the only campers ever to have a fresh cooked pizza and a $30 bottle of 1985 Cote du Rhone on this wild river. It was heaven. Yeah, the fishing was pretty good, too.

My other warm memory of 1992 involved my other daughter, Camille. She decided to join me on a steelhead river...
Bob Leland is Steelhead Resource Manager, Fisheries Management Division, Washington Department of Wildlife. The Osprey solicited this article out of concern that some cooperative projects, long ongoing, might be running on their own momentum and without evaluation to determine their effectiveness, or worse, their possible negative impacts on wild fish stocks.

The three projects identified here, for example, have not been subjected to comprehensive evaluation but Leland has assured the steelhead committee that when data analysis is completed we will be informed. The department’s criteria and priorities for future projects seem to be a solid step in the direction of affording greater protection to wild fish and their habitats. We appreciate the department’s willingness to go on record here with these worthy goals for all to see.

The Cooperative Fish and Wildlife Enhancement Program (Co-op Program) allows organizations and individuals in conjunction with the Department of Wildlife to volunteer to perform projects, which 1) provide fish and wildlife education 2) improve communication between agencies and the public, and 3) increase fish and game resources of the state. The projects are funded by an approximate $1 million per biennium appropriation through the Department of Natural Resources Aquatic Lands Enhancement Account. Not all Co-op projects which are conducted receive monetary support. The Department has only one paid administrator for the program.

Detailed information is required from volunteer groups when applying to do Co-op projects. A partial list of the requirements are: title, description and location of the proposed project; project objectives or how the proposed project will benefit the wildlife resources; methods for achieving objectives; criteria for measuring achievement of objectives; length of time to complete project; estimated cost, and permits or agreements needed.

Applications for Co-op Program consideration may be submitted at any time. Projects are reviewed every six months (January and July) by the division with primary responsibility. Five examples of Co-op projects are: habitat enhancement, research, facility development, public education and artificial production.

Project proposals are ranked according to their adherence to program goals, objectives and priorities, as outlined in species plans and regional operational plans. A Cooperative Project Rating and Evaluation Form is used to appraise each application. The Evaluation Form is designed to give a numerical score to individual segments of the proposal. Segments that are evaluated are: type of project, need for the project, and other topics given considerations (impact to agency staff time, funding required, and time needed to complete project.)

With the numerical evaluation procedure all applications for projects are reviewed and appraised fairly. Applications for the Co-op Program that are approved through the review process are developed into detailed contracts with the volunteer group, again stating the purpose of the project, how much money the project will cost, detailed information about permits required and other government agencies and Indian tribes which need to be contacted and the amount of time needed for the activity.

The Fisheries Management Division currently has three wild steelhead broodstock and/or scale sampling collection projects. Collection of broodstock is taking place on the Cedar and Green Rivers and Snider Creek on the Soleduck River.

The Cedar River collection is for steelhead fry outplanting above Masonry Dam. The collection project on the Green River is for broodstock collection purposes and wild steelhead scale sample needs. The fry from the collections are distributed above Howard Hanson Dam. The collected scales are read for hatchery or wild origination and age. The analysis is used in run size reconstruction and harvest management plan development. The Snider Creek project is an early return timing wild steelhead enhancement project. Smolts from this project are released back into the Soleduck River.

The Fisheries Management Division currently evaluates new cooperative anadromous fish rearing projects carefully for their potential impacts to wild fish. Proposals for artificial rearing programs for steelhead must meet agency policy as described in the draft steelhead management plan. An organization wishing to rear steelhead or sea run cutthroat cooperatively should be able to answer at least the following questions:

1.) Is this project designed to produce hatchery fish for harvest?
   a.) If so, what fisheries would benefit from the project?
   b.) What would be the source of eggs or broodstock?
   c.) What are the genetic impacts of this project on wild stocks?

2.) Is this project designed to produce wild fish for recovering a depressed population through supplementation?
   a.) If so, what would be the source of eggs or broodstock?
   b.) Why is the run depressed?
   c.) Why would supplementation be more effective than habitat improvement projects?
   d.) Is harvest part of the strategy for the project?
   e.) What level of recovery would indicate that the project was no longer needed?

The Volunteer Co-op Fish and Wildlife Enhancement Program gives volunteer groups and individuals an opportunity to assist the department with projects that will benefit fish and wildlife resources of Washington. Projects can be in many areas: habitat issues, fish and wildlife research, increased public awareness, communication and education pertaining to fish and wildlife, even the artificial production of fish species. The Co-op Program makes it easier for the public to help fish and wildlife by volunteering.
management of the fishery was less than originally promised; the interception of Skeena fish in Southeast Alaska continued to be a concern; and native in-river gillnets proliferated. Predictably, a large number of steelhead were intercepted. As a result, catch-and-release was once again imposed on Skeena anglers. As a consequence, rod days, revenue and recreation all fell sharply.

The Federal Ministry of Fisheries and Oceans is standing by the commitment made in Smithers. The Minister and Deputy Minister also remain committed to consultation with the various committees representing sportsmen and the commercial fishing industry. That's fine. We are all enamored with consultation and subscribe to the theory that consensus decisions are desirable over those of the imposed variety. Time is of the essence—1994 isn't very far away. If the Feds are serious about their commitment to reduce harvest they should be prepared to pick up a big stick if consensus gets stuck in the mud; they should be mindful of their mandate to put the health of the stocks over all other considerations if and when they must to wield that club.

At a time when they should be aggressively investigating innovative ways to reduce the incidental interception of non-target species, the commercial fishermen cling doggedly to their antediluvian fishing methods. Seine boats can fish selectively given the right conditions and sea traps are another innovative idea worth exploring, yet no creative ideas have come from the industry.

There are still plenty of skeptics when it comes to weedlines (gillnets hung 1.2 meters below the float line), but more and more managers seem confident that a lot of steelhead will escape these modified gillnets, at least outside of the murky waters at the mouth of the Skeena. More sockeye will escape too, which is why the commercial fishing industry has repudiated this technology.

Again, weedlines, if they work, are only a partial solution, but if they save steelhead they should be used extensively. In 1993, we expect to see them in the approach waters to the Skeena—Areas 3, 4 and 5. If independent researchers and fisheries managers are convinced at the end of the season that weedlines significantly reduce steelhead interception, then those nets must be implemented coast-wide.

As for the more opaque waters in the river mouth, it is time to move the fleet right out of them. Boats were moved out of the river proper, and it is illogical and ecologically irresponsible to let indiscriminate harvest take place at the mouth, where the concentration of fish is greatest.

In addition to the relocation of boats out of the mouth of the river, the depth of the crisis for steelhead and coho will require a reduction in fishing time. In July, the fishing openings should be a maximum of three-and-a-half days, with no back-to-back openings as have occurred so often in the past. By August, the peak time of coho migration, the fishery should be reduced to one day per week in the areas adjacent to the river mouth with time and area closures depending on stock abundance.

The DFO has little sound data upon which to make their management decisions during the season. Catch reporting is unreliable with processors failing to report steelhead landings and fishermen finding it in their best interest not to report steelhead catches to the fishery officers charged with the collection of "haul data" on the fishing grounds. Moreover, fisheries managers are lately beginning to question the reliability of the data gathered by the test fishery conducted by a gillnet boat upriver at Tyee.

All of these data gathering processes can be improved. Both the DFO and the Provincial Ministry of Environment, Lands and Parks (MOELP), have hired consultants to monitor the fish entering the processing plants. In the past, these consultants have observed gross violations of non-reporting. The DFO must flex its muscle and invoke the Fisheries Act to mete stiff penalties to offenders.

There must be more fishery officers employed to contact boats on the grounds. Boats could then be boarded on a random basis to verify the data given, with violators charged accordingly.

Observers should be a regular feature in the fleet. To ensure their placement, the DFO could make taking an observer aboard a condition of license. Observers placed strategically throughout the fleet would be in position to gather valuable information on run timing as well as the number of steelhead and coho interceptions.

The DFO and the MOELP have done an analysis of the Tyee test fishery and recommended changes to the methodology used there. We understand that, pending a review by the Pacific Salmon Assessment Review Committee, changes will be forthcoming. This is not enough. It's time to augment this with the construction of a selective harvesting device—a trap or weir, say—to gather information. The fish taken in such a device could then be used to offset its operational cost.

In summary, the Wild Steelhead Campaign proposes the following steps be taken to remedy the coho/steelhead crisis on the Skeena:
1. That the live release of steelhead and summer coho become mandatory.
2. That commercial boats be relocated out of the mouth of the Skeena River.
3. That the commercial fishery opening be restricted.
4. That weedlines be required on all gillnet vessels in all North Coast waters.
5. That the Observer Program of 1992 be improved and expanded to gather critical management data.
6. That the Tyee Test Fishery be maintained and improved.
7. That commercial fishing effort be tied to the conservation requirements of the weaker stocks.
8. That a pilot live capture fishery be implemented in 1993.
9. That the problem of the interception of Skeena steelhead and salmon by the Southeast Alaska commercial fisheries continue to be investigated and pursued aggressively in the Pacific Salmon Treaty Forum.

With the adoption of these measures, the Ministry of Fisheries and Oceans may be able to ensure that the minimal requirement of 23,000-plus steelhead reaches spawning gravel, while at the same time honoring their promise to reduce the harvest rate by half.
During the past year-and-a-half, American Rivers, a national river conservation organization, has intervened in several Northwest hydroelectric dam relicensings and relicensings before the Federal Energy Regulatory Commission on behalf of many conservation and fishing organizations. The following are examples of their work on behalf of riverine ecosystem protection, free-flowing rivers, fish and recreation:

White Salmon River, Washington (Condit Dam)

Last December, American Rivers intervened on behalf of a 15-group coalition in relicensing proceedings for the Condit Dam on the White Salmon River, calling for restoration of the river ecosystem, including possible removal of the dam. The White Salmon is a tributary of the Columbia in south-central Washington. Important anadromous fish runs once supported two native villages. Fall chinook were once prolific, as were runs of coho, spring chinook, and summer and winter steelhead.

The Condit project, operated by PacifiCorp Electric, was constructed in 1913 without fish passage to an estimated 40 to 45 miles of potential spawning and rearing habitat and has contributed to the near extinction of most of the White Salmon runs. Very little natural production of fish now occurs downstream of Condit Dam as the result of gravel loss and low flows. Water discharged from the powerhouse also attracts adult fish into the machinery and turbulence of the raceway; fluctuating river flows strand fish and disturb spawning.

Considering the damage it causes, Condit Dam produces little electricity. The project’s nine average annual megawatts provide less than one percent of the region’s overall supply. The location of the White Salmon River and its tributaries, low in the Columbia Basin where water temperatures and passage are optimal for migrating anadromous fish, make it an ideal candidate for dam removal.

The coalition included the following groups: American Rivers, American Whitewater Affiliation, Columbia Gorge Audubon Society, Columbia Gorge Coalition, Columbia River United, Federation of Fly Fishers, Friends of the Columbia Gorge, Friends of the Earth, the Mountaineers, Northwest Rivers Council, Sierra Club, Trout Unlimited, Washington Trout, Washington Wilderness Coalition, and White Salmon River Steelheaders.

Nisqually River, Washington (Alder/LaGrande Projects)

On the Nisqually River, American Rivers intervened last August in the relicensing of the Alder and LaGrande projects on behalf of Federation of Fly Fishers, Northwest Rivers Council, American Whitewater Affiliation, and the Mountaineers to ask FERC to conduct a full EIS and prepare a comprehensive basinwide plan for the Nisqually River.

The Nisqually River supports runs of chum, coho, fall chinook, and pink salmon, winter and summer steelhead and sea run cutthroat trout, including a unique stock of wild late-run chum salmon. Three Nisqually runs have already gone extinct: normal timed chum salmon, and spring and summer chinook. Moreover, its sea-run cutthroat trout run is “of special concern” according to the American Fisheries Society study Salmon at the Crossroads, due primarily to the hydroelectric projects on the river.

The Alder and LaGrande projects, operated by the City of Tacoma, currently divert all of the water in the river for a two-mile stretch—the LaGrande bypass reach. Sockeye salmon in spawning colors have been found stranded in the dewatered bypass reach.

The groups want FERC to condition any new license on provision of instream flows sufficient for anadromous fish spawning, rearing and migration. They are also requesting establishment of a mitigation fund comprised of a percentage of the future operating revenues from the LaGrande and Alder projects. The fund would be partial compensation for the 80 some years that Tacoma has operated its projects without any protection for fish, wildlife or recreation. In addition, the groups are asking that the Alder/LaGrande proceedings be consolidated with those for the Yelm hydroelectric project downstream to ensure comprehensive, basinwide planning for restoration of Nisqually Basin fisheries.

Deschutes River, Oregon (Bend Project)

In July 1992, American Rivers intervened in the Bend, Oregon, Hydroelectric Project, insisting that FERC and the project owner, PacifiCorp, fulfill their legal obligations to protect fisheries and recreational resources in the relicensing process.

The project impounds Mirror Pond Reservoir on the Deschutes River in the city of Bend. The current license expires in 1993. Operated for 80 years without fish passage facilities, the project has contributed to the decline of the once-abundant native trout populations in the upper Deschutes.

Under the federal law, FERC is required in relicensing decisions to give equal consideration to fisheries and hydropower resources. PacifiCorp, however, is taking a hard line against fish passage facilities and other means to mitigate damage caused by its hydropower projects throughout the Northwest.

The motion for intervention on behalf of American Rivers, Oregon Rivers Council and Oregon Trout, asks FERC to require PacifiCorp to install fish passage facilities for brown and rainbow trout. It also requests instream flows sufficient to support spawning, rearing, and in-river migration of the fish, and to support the restoration of traditional recreational activities in the project area.

Cowlitz River Basin, Washington (new hydroelectric development)

The Cowlitz Basin is facing a new onslaught from public utilities and private developers seeking to construct at least ten small and two large hydroelectric projects. Last summer, American Rivers, Friends of the Earth, and Friends of the Cowlitz filed... cont. to page 16
noted, simultaneously, for challenging fishing, demanding wading, and exceptionally large steelhead come to the dry fly. The wading concerned me—it is the most difficult in all of steelheadingdom. And the fishing concerned me. Some anglers go years on this river between steelhead. Chris advised Camille not to worry. Every member our family knows Camille as the luckiest angler ever to cast.

First day, first drift. I spend ten minutes helping Camille learn a two-handed rod that she has never fished. We stay upstream of the honey spot. Quickly, she has the hang of it. Working the big rod easily, she lays out about 60 feet and is ready to fish.

We move down to the sweet spot. Second cast, an 18 pounder explodes on the fly; goes crazy. Twenty minutes later, I tail the big buck. Camille removes the fly and releases the memory—nothing to it!

A hug, “Thanks, Dad.” “No charge,” I reply. If anything is better, I have not found it.

Tight lines and best wishes. Let’s commit ourselves together to protecting and restoring these wonderful fish.

motions for intervention in all of the hydroelectric license proceedings for the Cowlitz Basin, asking for development of a comprehensive plan and full assessment of cumulative environmental impacts.

Historically, the Cowlitz River Basin hosted tens of thousands of anadromous fish. Chinook, coho and steelhead salmon ranged through more than one hundred miles of accessible habitat. In the 1960s, these fish populations were decimated by Tacoma City Light’s Cowlitz River Project, which completely blocked fish passage to hundreds of miles of the upper Cowlitz.

Efforts are underway to restore the fisheries of the Cowlitz Basin. The Bonneville Power Administration is funding restoration of chinook, coho, and steelhead salmon under the terms of a 1991 settlement agreement with Friends of the Cowlitz. More action is needed, including changes at the Cowlitz River Project, for full restoration of fisheries. The intervener believe that new hydropower development should not interfere with these ongoing restoration efforts.