THE OSPREY
A Newsletter Published by the Steelhead Committee, Federation of Fly Fishers

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OVERVIEW
Bob Arnold, Editor

The editors would like to thank everybody who contributed to the survival of The Osprey. Rather than name each one who gave, let us just say we've had two sizeable bequests and a number in the $5-20 range. We are grateful for both types, and happily report that we're in good shape for the rest of the year. Rolling over the material for this issue, it seems to be primarily from Oregon and about Oregon. Well, it's about time. Steelheaders in that state and Southwestern Washington have been working hard for years for improvement in the wild steelhead resource and its habitat in the lower Columbia River and its tributaries, and results are coming forward.

The Northwest Power Planning Council is asking for comments by July 3 on its rule making for Protected Areas Designation. This is an intelligent, forward-looking plan to prevent dam building on rivers inside and in some instances outside the Columbia River drainage that have critical fish and wildlife populations. We plan to support it and urge individuals to obtain a copy of the guidelines and write their own comments. Contact the council by phoning toll-free 1-800-222-3355.

In this issue we welcome Bill Hake, Ralph Wahl, John Sager, and Richard Nowa as contributing writers. We've also got news from British Columbia, Washington, and -- hurray, at last -- the Great Lakes Region, namely, Michigan, with a report from Eugene Sunday.

Oregon Steelhead Committee Formed
Early in March, Stan Young and I drove to Portland -- Gresham, actually -- for the first meeting of the Lower Columbia Steelhead Committee. Though it spans the Washington side of the Columbia, the committee has a decided Oregon bent. Twenty-eight dedicated steelheaders turned out that wet Saturday morning, when they could just as easily have gone fishing. Fred Holevas chaired the meeting, and there was a talk by Marty Sherman on some of the issues to be faced. Then Bill McMillan gave one of his brilliant slide presentations on wild steelhead in the Wind and Washougal. The meeting continued in small groups over lunch and reconvened with a general discussion of how the group could best organize itself and become effective.

Seven issues were identified: 1. Protection of wild fish, in light of the Northwest Power Planning Council's plan to double salmon and steelhead production over the next decade, 2. How to best protect wild steelhead on the Kalama, East Lewis, and Wind in Washington, and the Hood, Sandy, Clackamas, Molalla, and North Santiam in Oregon through working with agencies, 3. Habitat restoration and improvement, perhaps in programs like Oregon's Salmon and Trout Enhancement Projects (STEP), 4. Making the importance of steelhead known to legislators and agencies such as those involved in fisheries, forestry, water resources, tourism, etc., 5. Streambank access, 6. User fees and funding, especially for wild steelhead programs, 7. Ethic.

The group decided its purpose was "to protect, maintain, and enhance the steelhead resource, especially native or wild fish, and to maintain the integrity of steelhead river ecosystems." They would favor no special angling method, such as flyfishing, but would form a diverse group of all kinds of steelhead fishers who would agree to work together in common cause for the benefit of the fish. They decided a single group could best coordinate action plans among individuals and groups, and they would function as an umbrella organization. One emphasis was to be on education/research, another on policy and political action in fisheries and environmental matters. A steering committee was formed and sub-committees. The following officers were elected: Chairman, Fred Holevas; Vice Chair, Policy/Political Action, Ira Smith; Vice Chair, Education/Research, Bill McMillan; Secretary, John Bauman; Treasurer, Buddy Wright; Newsletter Editor, Bill McMillan.

The sub-committee on regulations, chaired by Marty Sherman, agreed on two proposals: to urge the release of all non-finned clipped steelhead in the Columbia River below Bonneville Dam and to request a late opener (May 25-28) for trout on rivers where the present April opener is impacting outmigration of steelhead smolts. They also recommended that the Oregon and Washington State Legislatures be asked to pass laws making their wild steelhead states. This would encourage angling tourism, as it has in Montana and on the Bow River in Canada. Anglers interested in participating in the Lower Columbia Steelhead Committee should write Fred Holevas, P.O. Box 1346, Gresham, OR 97030, or phone him at (503) 665-4014.
HATCHERY VS. WILD STEELHEAD

[To complement Bill Babke's article on Wild Steelhead Conservation, which follows, the Editor thought some excerpts from the Department of Wildlife's "Studies of Hatchery and Wild Steelhead In The Lower Columbia Region Progress Report for Fiscal Year 1967" by Steve Leider, John Loch, and Pat Hults might be useful. I have also quoted from "Comparative Life Characteristics... in the Kalam River," Can. J. Fish. Aquat. Sci., Vol. 43, 1986. These papers are highly technical and abstract, but occasionally some bit of cogent English creeps in, and these bits have been apologetically lifted out of context for inclusion here.]

"Wild steelhead are defined as offspring from the natural spawning of any combination of hatchery, wild, or indigenous (native) parents. Annual releases of winter-run hatchery smolts have been made into the Kalam River from the Beaver Creek Hatchery (a mixture of Cowlitz and Elkhorn River stocks) since 1955, whereas annual hatchery summer-run smolt releases from the Skamania Hatchery (a mixture of Klickitat and Washougal River stocks) have occurred since 1957. All winter-run fish were trucked directly to the lower Kalam River for release, whereas summer-run fish were conditioned in a midwatered rearing pond two to three months prior to smolt release. Only sex and dorsal-fin conditions were recorded for all fish. Summer steelhead returns were consistently dominated by fish of hatchery origin (average composition: 80% hatchery and 20% wild.) Winter steelhead were 41% hatchery and 59% wild. The time of return for hatchery summer steelhead generally ranged over a 12-month interval (from March through February). Since adult summer steelhead spend a greater amount of time in the freshwater environment, they incur higher pre- and postspawning mortality than winter steelhead. [From the 1987 study.] Genetic marking studies have been conducted on Kalam River summer steelhead since 1975. To date, these studies have documented that about 50% of the wild summer steelhead smolts are the direct offspring of naturally spawning hatchery summer steelhead. However, under natural conditions wild summer steelhead appear to be about 3.5 times as effective as hatchery steelhead in producing smolt offspring. Furthermore, [1986 results] have indicated that wild summer steelhead are about six times as effective as their hatchery counterparts in producing returning adult offspring. These findings have important implications concerning the management of sympatric populations of hatchery and wild steelhead without losing the genetic distinctiveness of 'wild' populations. The mean survival of hatchery offspring between the fry and smolt stages was only about 25% of that of wild offspring. The period of worst relative survival for hatchery offspring occurred after the fry stage, and was about equally poor during the fry-to-smolt and smolt-to-adult stages. Survival to the fry stage does appear to be an important factor in determining the relative reproductive success of hatchery spawners. The principal conclusions concerning natural reproduction of hatchery summer steelhead in the Kalam River remain unchanged: (1) hatchery escapement contributes substantially to the natural production of fry, smolt, and adult steelhead, (2) the ability of hatchery adults to naturally produce offspring to fry, smolt, and adult stages is markedly inferior to that of wild adults, (3) There is considerable variation among brood years. Wild summer steelhead were 5.8% effective in the natural production of returning adult offspring, for more than 40% of the naturally produced adult summer steelhead were the direct offspring of hatchery adults. It is likely that the genetic fitness of the wild population has been (and is being) compromised by maladaptive gene flow from excess hatchery escapement."

WILD STEELHEAD CONSERVATION

by Bill Babke
Executive Director, Oregon Trout

To those of us who fish steelhead, the conservation of wild steelhead has become an important issue. Few steelhead rivers are managed exclusively for wild fish; most are managed for a combination of hatchery and wild production. In Oregon, for example, there are 1,284 miles of stream managed for wild steelhead; this represents 20% of the total stream miles open to steelhead angling. This can be broken down further into streams managed for wild summer and winter stocks. Of the total miles open to steelhead angling, 15% and 7% are managed for wild and summer steelhead respectively. This means that in Oregon 70% of the streams are managed for a combination of hatchery and wild stocks. "Although I do not have specific information about the number of hatchery/wild steelhead management rivers in other states, I'm assuming that the situation is similar to that in Oregon."

In Oregon there are stewardship responsibilities that have been adopted as state law and administrative policy. Oregon's wildlife charter says the state shall "prevent the serious depletion of any indigenous species." Further, the state "shall... rehabilitate and improve natural habitat and native stocks and insure that the level of harvest does not exceed the capacity of stocks to reproduce themselves." These statutes, in combination with the Oregon wild fish policy, assert a strong interest in the protection of wild stocks of steelhead and other fish. However, it is nearly impossible to determine whether indigenous species are suffering serious depletion if there is no program to monitor the impacts of management on those species. If there is no data, there is no problem.

In 1977 a research project on the Deschutes River summer steelhead indicated that wild steelhead juveniles survived at a higher rate than did hatchery steelhead juveniles in the same natural stream environment. Evidently the hatchery operates like the natural stream and selects for characteristics that promote survival within that environment. Successful survival in the hatchery, however, puts the hatchery fish at a disadvantage when released into natural environments. The authors of this research hypothesized that hatchery/wild and hatchery/hatchery crosses would produce fewer adults in the next generation.
The State of Washington began its hatchery/wild steelhead interaction study on the Kalam River in 1975, and after 14 years of research the hypothesis posed on the Deschutes was answered. A highly domesticated non-native steelhead stock is released into the Kalam. This stock, the Skamania hatchery stock, has been cultured for 31 years and has shown signs of severe increasing, but it is the "production" stock of choice and is used for outplanting throughout Washington, in parts of Oregon, and in a few instances in Idaho. The Kalam study indicates that wild steelhead survival is considerably higher than hatchery fish at each life stage. It is evident that great numbers of hatchery steelhead are reproducing successfully in the river. Since the wild and hatchery steelhead are not reproductively isolated, the wild population has been and is being compromised by maladaptive gene flow from hatchery steelhead. There is also the possibility that the wild stock, even though it still has the capacity for high survival, has diminished fitness, or survival capacity, relative to its wild ancestors. This is due to long-term interbreeding with hatchery fish. This raises some very disturbing implications for those concerned about wild steelhead conservation. If conservation of wild stocks is not a priority of the management agency, then there is no incentive to apply the findings to management.

The Kalam study tells us that a native stock of fish is disorganized by interbreeding with hatchery fish. This has a direct impact upon survival and the production of adults within the native population. If our primary concern is the production of adult steelhead for harvest, the Kalam study should cause considerable concern. Yet the argument is that if hatchery releases were to be reduced in order to reduce interbreeding, the angler success rate would drop. Thus, the primary concern of the agency must be for the hatchery program, rather than for the long-term continuation of the indigenous resource.

The genetic diversity within a fish population is the key factor in its stability and resiliency under stress, but that diversity is finite and can be used up. It is being exhausted on the Kalam River. We are in the process of depleting the genetic diversity in populations to mitigate the impact of our short-term development activities. These can range from conventional harvest programs to dams. Our standard mitigation solution is to increase hatchery production.

There is a historical, fundamental conflict within fish management agencies; it is between stewardship responsibilities and providing harvest. This inherent conflict within the mission of various natural resource agencies comes from serving a constituency and trying to conserve the resource at the same time. Since the users of the resource are primarily interested in harvest, it is difficult for a professional manager to build a career on conservation. The Kalam study shows that the continued reliance on the conventional hatchery program will eventually cause the extinction of the wild gene pool. We will be left with an artificially produced stock at considerable risk to future production.

Now it may be legitimate public policy to cause the extinction of indigenous species and to reduce the genetic diversity of that species, but doing so is seldom a public decision. The Kalam study has changed our view of conservation considerably because we now have reason to be concerned about the quality of the resource, not just how many fish are there. Unlike a dam that physically threatens fish, management can work invisibly yet have a similar impact. But there is some good news. State agencies are beginning to think about changing their hatchery programs so that hatchery fish mimic the wild fish. And there is a lot of talk about making hatchery fish "compatible" with wild fish. But it is hard to tell at this stage what that means.

The stewardship conscience of steelhead managers is telling them that something must be done to stem the negative impacts of hatchery fish, but their orientation toward hatchery production tells them what still really matters is the catch rate and fish in the boat. Like the biologists, the angling community is divided on this point. When the State of Washington tried to manage the Wind River for wild steelhead, some anglers became upset, and the State backed off its principles. The program for the wind would have implemented the findings of the Kalam study, but failed because of political reasons: the fishing constituency didn't support it.

Successful implementation of the stewardship aspects of the Kalam study is dependent upon planning, policy development, and the involvement of an informed public. That public must begin to advocate gene conservation, as well as more fish in the river.

In a future issue of The Courier, Bill Burke will continue his analysis of the Kalam study and its implication for the Columbia Basin.

THE VALUE OF WILD STEELHEAD
Richard K. Nusa

[The following article is abstracted from a long paper prepared for the North Umpqua Foundation and delivered on December 20, 1987. We want to thank them for permission to print it.]

Fisheries agencies have often made the assumption that numbers of fish are the goal of society and applied science through technology will provide any number of fish desired. Wild steelhead are not easily understood in this framework because evolution has made them a creature of process. Too often we have trusted science to provide value-free "facts," only to find that the most fundamental values of wild fish have been ignored. Citizen participation in management can help assure that agencies will be held accountable for the qualities of steelhead we value most.

Instead of seeking political avenues to check the power of technology. Dams on Northwest rivers have become politically unpopular because of concerns for wild fish. An ever-growing segment of the public has a high value on wild fish ascending free-flowing rivers and is no longer willing to accept the technology of hatchery mitigation. Wild steelhead can be used to control unlimited production by fish-culture technology, that is, hatcheries. On the North Umpqua River, high numbers of hatchery adults prompted managers to reduce outplanting to prevent adverse influences to wild steelhead.
The Northwest Power Planning Council (NPPC) has proposed construction of a giant new smelter and huge releases of hatchery steelhead into the Klickitat River in Southwest Washington. These releases would far outnumber the Klickitat's wild production and have been vigorously opposed on the basis of impacts to native steelhead. Promises of quickly increasing adult returns is enticing to NPPC members, who must authorize millions of dollars each year for fish enhancement. It would be ironic if the wild Klickitat steelhead survived dam-building technology only to be swalloed by fish-culture technology.

But these are not the only technological threats to wild fish. Logging and road-building technology has progressed so far that any stand of trees is harvestable. Harvest in the Willamette National Forest has tripled in the past 30 years. Political and economic pressure to harvest old growth forests has resulted in logging on steep slopes with unstable soils. Winter storms and subsequent landslides contribute large quantities of sediment to streams. The delicate adjustment of stream habitat to normal sediment load is disrupted and long-term cumulative impacts occur far downstream from the original logging sites.

The rational significance of wild anadromous fish was shown recently when several roadless areas with wild fish were incorporated by Congress into the Wilderness System. Wild steelhead and salmon played an important role in wilderness designation of Cummings Creek, Rock Creek, Cedar Creek, Boulder Creek, and Gressy Knob in Oregon and Trapper Creek in Southwest Washington. Entire basins were excluded from logging to protect wild fish and water quality.

Getting Involved

Interest in wild steelhead on particular rivers has been a motivating force in the formation of many citizen groups: the Steamboaters on the North Umpqua, the Rainland Flycasters on the Salmonberry, the Clark-Skamania Flyfishers on the Willamette, Lewis, Wino, and Klickitat, the Portland Anglers Club on the Deschutes. These groups promote flyfishing, restrictive angling regulations, and habitat protection for wild fish. In some areas the flyfishing groups are balanced by associations which emphasize liberal regulations regarding bait fishing and support artificial propagation to provide for a greater harvest. For example, the Umpqua Fisherman's Association was forced to liberalize restrictions on the North Umpqua to allow for all kinds of sport angling methods and to prevent further angling closures or restrictions on harvest. Volunteers operate hatcheries and improve degraded stream habitat to increase or help reestablish steelhead and salmon runs.

Riverkeepers

Mass monitoring of wild steelhead stocks is an overwhelming task for a managing agency. The thousands of miles of streams provide an excellent opportunity for citizens to participate in their management. Professional managers must rely on volunteers to make biological observations and provide eyes and ears for habitat protection. Oregon Trout has developed a riverkeeper program to help fulfill this need. It provides an opportunity for volunteers to learn basic ecology and the necessity for stream and watershed protection and willing. A scale-sampling program in Oregon relies on angler participation and has made significant contributions to the understanding of steelhead. Spawning-ground surveys and snorkeling provide an opportunity for all members of the family to observe steelhead in their native habitat. Oregon's Salmon and Trout Enhancement Projects (STEP) have increased public awareness of stream habitat. There is something about volunteer work in a natural environment that instills a deep sense of commitment in people and provides them with a necessary something lacking in our modern society.

Conclusion

Everyone should be encouraged to take an active interest in streams and their wild fish populations. Wild fish need not be considered only in the context of harvest statistics of the managing bureaucracies. Because wild adult and juvenile steelhead are so widespread in our streams, they are an excellent occasion to insist on maintaining water quality. The consumptive value of wild fish as wildlife can be understood and appreciated by the nonangling public, as well. Wild fish are just as important as are deer, songbirds, and whales.

Anglers who have developed an interest in wild fish through family traditions or years of fishing must participate in managing streams as responsible citizens to make wild fish values an important political concern. Their efforts can assure that quality steelhead fishing will be available for future generations and set an example for new anglers to follow.

COLUMBIA RIVER FISH MANAGEMENT PLAN

Marty Sherman

Recently, a plan for fish management on the Columbia River was released by the Oregon Department of Fish and Wildlife. The plan includes management for summer steelhead runs. The plan resulted when the federal court directed the states of Oregon and Washington to reach agreement with the Treaty Indian Tribes over Columbia River fish management, harvest, and enhancement. Otherwise, the court would set harvest allocations.

The stated purpose of the plan is to "rebuild weak runs to full productivity and fairly share the harvest of up-river runs between Treaty Indians and nonIndian fishermen in the ocean and Columbia River Basin." After the 1988/89-run year, the steelhead plan will be reviewed. Goals of the plan include production of 30,000 natural/wild steelhead above Lower Granite Dam. To help insure that the established
number of steelhead reach the upper Columbia and its tributaries previously determined harvest numbers, methods, and locations may be reconsidered; that is to say, if minimum numbers of steelhead do not pass Bonneville Dam, Indian and sport fisheries allocations may be changed to protect the run. The treaty Indian fishery on wild steelhead is not represented by 15% of the Group A fish or 38% of the Group B fish, based on a count of 75,500 wild/natural steelhead ascending Bonneville Dam. The B Group of steelhead are the large fish which are headed for wild-fish production areas — mainly, the Clearwater in Idaho.

The plan raises some important questions. First, is the plan consistent with Oregon’s Wild Fish Policy and State statutes designed for the prevention of depletion or extinction of indigenous species? Second, is the wild steelhead habitat completely seeded? There are indications that on many rivers managed for wild fish they are undersized. This would call for providing more escapement. There seem to be major strengths and weaknesses to the plan. Treaty Tribes are being given a secure harvest, which they need. But the plan may not give Oregon the opportunity to practice the conservation measures that are State law and policy.

NO HOKO HOKUM
John Sager

ho-kum n. That which may seem convincing or impressive but is untrue or insincere; nonsense, fakery. The American Heritage Dictionary.

More than a year ago, I learned about the Olympic Peninsula's small Hoko River and its fly-only rules during the winter season. These regs apply only to the stream's upper portion. As I learned last February, the river flows low and clear after only a few days without rain. I drifted uneventfully for several days, using the traditional down-and-across streamer for presentation, knowing as I did so that in those low flows there was no way I could get a fly to a fish before he had seen me. I saw no fish but was pretty certain there should have been fish in the river. There was plenty of good spawning habitat, the upper tributaries ran clear and cold, and the wilderness of the place made it seem like a speyman's paradise.

I vowed then to return again in February, 1983, but to eschew the traditional fishing method in favor of a system I had used almost exclusively in New Zealand. The Kiwis call it "upstream nymphing," and their fish biologists consider it more deadly than bait. Thus much as the N.Z. winter rainbows match our steelhead in size and in fact originated from California steelhead stock 85 years ago, it seemed an interesting way to spend three days on the river. What followed was so unusual, in terms of my winter steelhead experience to date, that I would, indeed, label the rest of this tale as "pure hokum," had I not been the hands-on eyewitness.

Day One was bright, sunny, and a good one for exploring. I shot upstream in several leant gropings of my vehicle, covering maybe 3.5 miles. I found only two pools that looked like they should hold fish, one of them virtually unsassailable owing to the micro-geography of the river and a number of inconveniently-placed alders. (Alders are a problem everywhere on the Hoko; one comes away a better caster, no matter what else happens.)

Day Two was providently cloudy and I moved in directly to a spot determined the day before but which I had not fished carefully, having been more intent to cover miles, not pools. Two hours later I had hooked and played five fish, landing and releasing four of them. Two were mint-bright henies, two dark hens. They ranged in weight (estimated) from five to eight pounds, and all four had taken dark, scruffy-looking nymphs, size 10 to 14. The fish I failed to land I never saw, as I could not in ten full minutes budge him from the depths of the pool. (Fish that behave like that, the few I have encountered, have exceeded ten pounds.)

I doubt he moved more than ten yards and eventually the size 16 hook pulled out. Sixteen is probably too small for smart fishing because the gap is simply not large enough to effect a good grip in the hard-mouthed steelie.

Each of the fish landed put on a dazzling display of running and leaping. Ancient bridge pilings wall out in the current, plus a VW-sized boulder in mid-stream, provided split-second possibilities both for the fish and the angler; and the alders made each cast a geometric crapshoot. Fifty-sixty feet was all I could manage and back eddies demanded careful casting to get a drift that worked. Takes were subtle; the strike indicator barely varied its downstream course, but each time the hook was set the fish responded instantly.

When I returned to my camp at Sekiu, I had all but decided I'd had enough; but after a long and restful sleep (always longer and more restful in the camper, somehow, than at home), I decided to give it another try. Whether the fish were still sore-mouthed or had moved on, I'll never know. An hour of careful fishing produced only one strike; the fish felt heavy and strong, and was on for less than a minute before he rid himself of the too-small nymph.

The mouse, clearly, are encouraging: six fish hooked and played in about eight hours spread over two days. I've persuaded myself that upstream nymphing angers well as a varied kind of winter fishing. The Hoko experience may have been a fluke, but it was not hokum.

ONE MAN'S SHARRIER-LA
Ralph Wahl

[The following is excerpted from Ralph's Skagit notebooks and is described as "an unfinished narrative."
Some of it appeared in Random Casts, the newsletter of the Fourth Corner Fishers. A publisher has
contacted Ralph about bringing out the notebooks in book form, perhaps with his fine photographs to illustrate it. A man not known to be outspoken about the location of his favorite fishing holes, Ralph is more willing to discuss this one and the extraordinary fishing he and Judge Olson had there, now that it has been gone for 40 years. His prayerful wish is that each of us might experience a Skagri-Is in our lifetime. Amen.

Over the years some of my best friends have been fly fishermen, and one of my closest was the Judge, a gentle six-foot-five, 230-pound giant of a man. We started fishing together in the 1930s, when he introduced me to the spectacular Steelhead fishing to be had in March and April along the wind-swept beaches of Harrison Lake in British Columbia. We fished the local streams and estuaries and the secret springs that formed the headwaters of Washington state's Salmon River. In 1940, he joined me in flyfishing for winter steelhead, and in 1942 we found the little lake that one day we would call Mystery Lake, where we took fresh-run steelhead. Our relationship continued for over twenty years, until his death in 1955.

We tied our own flies, constructed our own leaders, and built flyrods especially for steelhead fishing. We honed our casting skills at a wading pool in the park during long summer evenings, and we kept the local game officials on their toes by clamoring for improved fishing regulations, for even then the fishing had deteriorated. In due time I introduced the Judge to THE POOL (he was number 6 of the Pool Fishers), where we spent considerable time, for this was during the years of World War II when rationing limited our travel. There were many worthy incidents involving him, some serious, some humorous.

For instance, there was a delightful summer day in 1944. It was pleasant, a little on the warm side, but tempered by a thin layer of glaze-reducing clouds. I was fishing the shallow flats at the upper inlet when suddenly a steelhead appeared behind my fly but did not take it until it was a few feet from me, then closed in for the kill. There was a violent surface explosion and the fish took off at full speed toward the inlet and through an opening in a bushy snag that was hung up in the current. In seconds it was through the obstruction and into the pool without fouling line or leader. It took a huge pull, then crashed, the line at a 90-degree angle from where it entered the water, the reel clicking with each run. There was little I could do but stand helpless by and contemplate disaster, but the Judge saw my problem and solved it. He handed me a gaff into submission, fashioned it into a pole and, while out to the brush pile. When the fish was quiet, he forced it back through the tricky opening with the pole and I landed it. It had been an exciting fifteen minutes.

All the commotion had disturbed the pool, so we decided to rest it and explore the slough above. We had not been there in some time. I slipped my carrying rope through the fish’s mouth and gills, and caught up with the Judge as he proceeded slowly along the slough, the big steelhead bouncing awkwardly against my legs with each step. A couple of hundred yards farther, I decided to park the fish until we returned, so wedged a stick in the sand at the water’s edge, slipped the rope over it, and continued on to where the Judge was waiting for me.

What wonderful changes greeted us ahead. The monotonous winter tone of the upper slough was now a colorful paradise. The bank on Huck Finn’s Island, previously barren, now bristled with bright green willows. Above the high-water mark on both sides were grassy meadows filled with wildflowers. Deer and raccoon tracks covered the wet sand. A Great Blue Heron departed with a raucous croak and slow beat of its powerful wings.

Delighted with it all, we resumed our hike and had gone but a short distance when the Judge looked back and exclaimed, “Look at that eagle. It’s after your fish.” Sure enough, circling lower and lower, a bald eagle was intent on obtaining a meal from my tattered fish. I dropped my rod and raced back, bowling at the top of my lungs. Halfway there, gasping from exertion, I stopped for breath, but continued to yell and wave my arms feebly. The big bird got my message. It checked its downward progress and flapped away over the trees. I recovered my prize and hid it in the woods beyond the eagle’s telescopic eyes, and — for good measure — covered it with brush. I found the Judge astride a log, doubled up with laughter. Few people would be privileged to see the humorous side of this serious man who would be years a Supreme Court Justice. My antics kept him chuckling the rest of the afternoon. Somehow, I didn’t think it so funny.

We rested there, then decided not to continue up the river. I retrieved my fish from the woods and the Judge and I returned to the pool. We went through our usual routine of inspecting the other fish first, but the Judge outlasted me in this game and I started fishing. On the second cast a fish bolted but turned away from my fly. The Judge, standing but a few yards away, cast to the swirl and hooked the fish. I could tell it was big, as it raced away, the reel protesting. Then he stopped, as the line unraveled in a hopeless birdnest. The Judge’s rod tip jerked forward violently, then swung back with a twang as fly and leader parted company. There was a moment of silence. The Judge opened his mouth to speak and his ever-present pipe dropped with a soft plop into the water and disappeared. I tried not to laugh, but that was funny.

SKAGIT SYSTEM TABULATION

Bob Arnold

Those who -- like myself -- fish the Sauk and Skagit each spring might like to compare notes with Ralph Wahl and Judge Olson, back in the '40s. For sheer numbers, their catch was impressive; remember, they fished mostly Sundays. But one wonders whether they didn't get out more often than that, in their best seasons together.

In 1940, Ralph reports they hooked 16 steelhead and landed 10, with April the best month and the average weight 9½ pounds. In 1941, they hooked 23 and landed 9, average weight 9½ pounds. In 1942, 1943, they took 11 fish from the Skagit, plus three from the Nooksack. In 1944, 45, 46, were good years, but number and weight are not given. 1947 gave them 7, but the scarcity of fish in 1948, 49, 50. Ralph says they never had it so good.
again in that decade. Then a dam was built on the upper reaches and the Skagit inundated with springtime floods and sand that changed or obliterated many riffles and holding pools.


The talk today is about very large fish in the Skagit and the Sauk, which holds its principal run. Some years, there seem to be quite a few 20-pound plus fish reported, numerous ones in the 14-18 pound range, and ones running 10 to 14 pounds common. The 1988 season was typical because of high, dirty water and reduced fishing opportunity, particularly on the Sauk, but the run in the mid-ranges, 12-19 pounds, were reportedly fewer than usual. This resulted in a few big fish being taken and many in the six- to 12-pound range, which makes the run seem much more like it was in Ralph Wahl's time. Judge Olson took fourth place in the Field and Stream Contest in 1942 with a 13-pounder. Today, such a fish would be unexceptional. The indication is, today's Skagit/Sauk fish are bigger, on the average, and the run is near its historic level. This can be attributed to closing the Sauk to spring fishing for many years and catch-and-release fishing during the wild spawning run. But the March slaughter of big wild fish in the Skagit worries us.

**HATCHERY MANAGEMENT FOR THE GREAT LAKES**

Eugene Sunday

The Little Manistee River strain of steelhead is being utilized as the principal source for hatchery fish in managing the Great Lakes. A weir constructed on this river in Michigan is used to trap broodstock for egg-taking purposes and eyed eggs are being supplied to other Mid-West states to raise and plant as smolts. An average of one million smolts are produced each year. The Little Manistee is not planted and is managed for naturally reproducing broodstock.

Studies have shown that the return of mature hatchery fish to the egg-taking facilities is 15-16% in the Little Manistee, this is the same percentage of return in other streams planted with smolts. However, other recent studies indicate that the northern half of the Michigan streams contain significant numbers of naturally produced steelhead. In fact, these streams are producing smolts up to capacity, according to some in the fisheries division of the Michigan Department of Natural Resources and many fishermen.

The Pere Marquette River is a prime example. It is one of the few major free-flowing rivers in the state. It does not receive plants of anadromous fish, yet it produces bountiful runs of chinook, coho, and pink salmon, plus steelhead.

The Great Lakes have been called The World's Largest Fishing Hole. When all of these fish decide to return and spawn, hordes of fishermen turn out, demanding good fishing. The states' answer is usually more hatchery fish. One has to look far and wide to find a quality fishing experience. This usually doesn't mean less fish so much as it means fewer people. A little solitude is possible in mid-winter, if you don't care if the fish are uncooperative and the only thing that you might find rising during the day is the temperature -- and that only to a few degrees above freezing.

The Pere Marquette is one such spot. It is open year around, has a fly-only stretch, and attracts large numbers of spawning fish. March is usually the best month in spring, as these fish prepare to spawn. Once hatching is fully underway, the river is crowded with fishermen.

Although there are good runs of fall steelhead, our largest runs occur in March and April. These spring fish seem to have their noses in the gravel and are quite difficult to move to the fly. While fall fish are more desirable, one has to put up with salmon fishermen, that is, the squatters.

As soon as the spring run begins in earnest, the fisheries division starts to operate its egg-taking facilities. This ends when the limit is reached -- which is usually in mid-April. By taking the brood so late in the year, a selective effect is produced on the strain of fish. It's no wonder we have mostly early spring fish in the river. This offers the least chance of good sport. A Michigan fisheries biologist told me that the budget doesn't allow for the taking fall or late spring/early summer fish.

So as not to be entirely critical of fisheries management in the state of Michigan, I probably ought to state that they have brought the Great Lakes region from the depth of darkness to a very productive resource. I've seen both extremes. I hope that, in my lifetime, the fishermen of my state may be able to enjoy a quality experience -- in shirt-sleeve weather. This is something almost unheard of here.

**NOTES FROM BRITISH COLUMBIA**

Having no regular correspondent from B.C., we will have to make do with excerpts from the Steelhead Society of B.C.'s annual report. That group's aggressive actions to protect wild steelhead and its habitat are commendable. Reports often make it sound like a losing battle, however. Occasional small victories often take the form of a delaying action. Lee Straight deplores the fact that "aboriginal food fishing in out of control and losses as a major obstacle to rational, democratic, and fair use of river salmonids." The mixed-stock commercial salmon fishery intercepts steelhead, chinooks, and cohoes, and as reports come in from chapters around the province, the message is sadly repeated; net fishing is biting deeply into the brood on most river systems. Straight warns about mining and leachates from garbage dumps and mines
operating at Kimberly, Babine Lake, Smithers, Quesnel, Stathcona Park, and Britannia Beach. He points out the threat of herbicide spraying in the lower Dean Valley. The good news is the Rivers Defense Coalition has won a victory over Alcan in the Bulkley-Nechako system. But Alcan "threatens the main Nechako River system with untried, unproven mitigation for the right to further flows." The SSBC has joined with the Rivers Defense Coalition to better control the management of this important river and its fish.

Dr. Richard Narver, Director of Fisheries, told the group he was frustrated over the past eleven years in making progress in halting intercepting fisheries. Wild steelhead runs, such as those in the Skeena system, cannot withstand the present mortalities. He is not going to give up, however, and sees hope in catch-and-release regulations protecting the resource. New coastal logging guidelines are now in effect which will help protect vital watershed habitat.

WASHINGTON REPORT

The Washington Steelhead Committee held elections in January, with the following results: Chairman, Stan Young; Vice Chairman, John Sager; Secretary, Bob McLaughlin; Treasurer, Scott Noble.

Programs underway include working with the U.S. Forest Service on implementing its Wild and Scenic Rivers plan on the Sauk and Skagit Rivers. Stan Young is coordinating this. As part of the Timber/Fish/Wildlife accord, Bob Arnold receives all state and private timber sale applications for this and the Stillaguamish River system and comments on them before they are approved. We are concerned that sediment inputs to these rivers be prevented or reduced, since they severely degrade spawning and rearing opportunities for salmonids. Current regs still do not protect riparian habitats sufficiently, in our opinion, but working with state foresters on a site-by-site basis offers us input to the process. We would rather see cumulative effects addressed by river basins and each sale evaluated according to the health of the particular ecosystem.

John Sager continues his assessment of streambank access, budget cutbacks since the 1950s have prevented the Department of Wildlife from obtaining easements by gift or by purchase. Private sources of funding might be utilized. This would be a good project for clubs.

We have commented on the alternatives for the Mt. Baker-Snoqualmie National Forest Plan and have asked that the maximum number of rivers be inventoried for inclusion in the Federal Wild and Scenic Rivers Program, and that the smallest amount of new roads be added and old growth cut over the coming decade.

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