B.C. RULE CHANGES
MISS THE MARK

American steelhead fishermen support efforts to conserve, indeed to enhance, steelhead resources in British Columbia. Many, however, do not see the link between that worthy goal and the proposal outlined in the B.C. Ministry of Environment's August 1989 version of the Angling Guide Policy.

The restrictions on non-resident anglers as outlined in that proposal will have little impact on illegal guiding activity (which we deplore). The special license system is hardly more than an administratively facile for visiting anglers who, by the way, practice catch and release by and large. There are a number of much more effective steps which the Ministry of Environment and the B.C. government can undertake to preserve quality steelhead fishing. In order of priority they are:

1. stop the incidental kill of steelhead by commercial salmon gillnet fishermen;
2. control logging so that its effects on rivers are minimal;
3. sharply reduce the number of guides along the province's best steelhead rivers.

Commercial salmon fishermen now are harvesting up to 85 percent of all steelhead entering the Skeena River and a large percentage of Fraser River steelhead. The province should demand that the federal government require the use of traps to harvest salmon in those two river systems, as once was the practice, rather than gillnets. The salmon could then be harvested and distributed among the commercial fishermen and the steelhead separated out and released unharmed to continue migrating upstream.

Logging is the most important industry in British Columbia, as it should be with the great forests there. However, logging can and should be conducted in ways that are much less injurious to the province's rivers and their fish. There are enough trees so that the loggers can prosper while at the same time the rivers continue to flow steady and clear. It isn't necessary to log right down to the water, or to clearcut extensively in prime watersheds. Nor is it necessary to denude steep slopes or build logging roads in ways and places that result in massive erosion. It makes sense and is entirely possible to have a thriving logging industry and still leave the rivers and their runs of anadromous fish unimpared.

In our view, a relatively small number of commercial guides are seeking to control the sport along the best of British Columbia's steelhead rivers. If they have their way they will drive off most non-guided anglers. That the Bulkley, Kappax, Dean and other river systems are overcrowded with sport fishermen is largely because there are too many guides and their operations are run too aggressively. Limit the number of guides so that they account for only a small share of the angling that takes place. Then most crowding and resultant bad feelings will disappear. The vast majority of steelhead anglers in British Columbia prefer to do their fishing without resorting to guides. They tend to deploy themselves along the rivers so that crowding is minimized. If one spot is too crowded they move to another. Most conflicts are between guides and unguided anglers, rather than among unguided.

(Continued on Page 2.)

This is from Bob York, who has just finished another very long season of steelhead flyfishing. York has provided The Osprey with some reactions to this season and recent seasons past, giving reason why some longtime steelhead flyfishers are increasingly pessimistic about the future of our sport and the chances that steelhead will be able to survive in the modern world. York has spent a good share of the past 42 years angling for steelhead. He probably has fished more extensively throughout the Northwest, including Alaska and British Columbia, and fly-caught more of the big rainbows than anyone else, and he says he has witnessed a steady decline in the numbers of fish, especially the past few years.

Twenty years ago, for example, he could count on landing 20 or 25 fish a day in the upper Morice River of B.C.; ten years ago the number had dropped to about five a day; today it is zero to two, and that in spite of increased mobility and improved equipment and technique. Not only are there fewer fish in the major rivers, but small coastal streams that once had healthy runs are now all but devoid of steelhead. The Wakeman and Burman rivers are but two of many such streams he knows about in B.C.

York attributes the decline to many factors, but principally to habitat loss because of indiscriminate logging, high seas netting (especially drift netting), the incidental catch of steelhead that has accompanied a great increase in the commercial netting of salmon near river mouths and in the rivers themselves, the loss of river fertility because fewer salmon are being permitted to spawn and die naturally and replenish the rivers, poorly conceived (Continued on page 3.)
B.C. RULES CHANGE
(Continued from page 1.)
anglers, whatever their citizenship. Guides and
guide operations commercialize the sport and,
inaudibly, lead to competition rather than
companionship.

With regard to the revenues from special
licenses, where will the money go - to
improve habitat or to run an administratively
cumbersome system? Non-residents already
pay substantial license fees, yet the quality of
B.C. angling has continued to decline.

If, as it now appears likely, British Columbia
decides that angling quality will be served by
changing the regulations mainly affecting non-
residents, it would behoove those charged with
writing the changes to bear in mind that if
the changes are too drastic the consequences
in the province, albeit unintended, could be
devastating. While British Columbia steelhead
fishing is still good, it is not nearly as good as
it was only a few years ago. Because of
commercial gillnetting there are far fewer
steelhead available to the angler, and largely
due to poor logging practices rivers that once
ran steady and clear even after days of rain
no longer do so. In addition, the cost of
getting to the rivers from other parts of
Canada and from the United States and other
countries, and once there acquiring the
necessary goods and services, is becoming
increasingly burdensome. The cost of gas,
for instance, is almost twice as much in British
Columbia as in the United States. Food and
most other categories are also more expensive.
It won't take much in the way of jacked up
license fees and more onerous restrictions to
cause many non-residents to look elsewhere
for their sport. If that happens, local
businesses will be hurt badly and the return
to the province from license fees significantly
reduced.

No one argues with seeking to maintain quality
steelhead fishing in British Columbia, even
to trying to restore it to its former excellence.
But let's be realistic about it. Hassling the
non-resident angler is the least effective way
to go about it. Vastly more effective would
be to stop the incidental kill of steelhead, the
wasting of rivers by careless logging, and the
proliferation of guides.

SUPPLEMENTATION AND
THE WENATCHEE RIVER

[Bob Arnold specializes in fishing the North
Fork Stillaguamish, Wenatchee, and other well
known Washington steelhead rivers, writes
prolifically about the sport, and is co-editor
of The Osprey. He believes strongly that
steelhead flyfishers have an obligation to repay
some of the pleasure they derive by serving
the sport, and he practices what he preaches.
In this timely and important article he brings
us up to date on efforts underway to reestablish
a breeding population of steelhead in the
Wenatchee.]

When Grand Coulee Dam was built, and
after it many other dams on the
Columbia and Snake rivers, the abundant
runs of salmon and steelhead were doomed
in the name of mitigation for the dams, but
it has led to an increased awareness of the
need for natural production, as well. Flyfishers,
though generally opposed to
hatcheries, have led the way in promoting the
release of all wild steelhead (and salmon) so
that they could go on to spawn naturally and
rebuild themselves into genetically healthy runs.
This has been successful to some extent, but
there are still big problems to be overcome.

The Wenatchee River is one stream in which
the policy of supplementation through planting
hatchery steelhead is working with some
degree of success. It also illustrates some of
the problems involved in trying to increase
wild runs of steelhead and salmon in a river
system that is still affected by the dams and
spillways that caused the runs to be depleted
in the first place. To say that supplementation
in the Wenatchee (and Methow and Grande
Ronde and Snake) has been a big success is
not exactly true. But each of these rivers is
experiencing a recovery of wild steelhead,
boosted by hatchery plants, that bodes well
for the future. (By wild, I probably should
explain that I include any progeny of hatchery
fish that have been born, reared, and smolted
in the river and have then survived at sea to
returned again to the river. These are fish
that still have the natural adipose fin.)

The original wild steelhead of the Wenatchee
looked different from the fish of today. They
were a blunt-nosed, stocky fish that resembled
a B-race Snake River fish but were, of course,
smaller in size. They returned over a three-
year cycle. By the 1970s they had been
reduced to about 2-500 fish. Stocking of
smolts from appropriate Columbia River
brookstock began in 1964; these were fish
trapped at Priest Rapids dam and were
destined for the upper Columbia system --
the Wenatchee, Entiat, and Methow
tributaries. And sometimes stock from other
Columbia hatcheries was added in, such as
fish trapped and reared at Ringold. The
Ringold fish were of Skamania origin. Since
1985, stock has been obtained from fish
trapped at Wells Dam, which probably narrows
the genetic window slightly, when compared
to the earlier Priest Rapids stock.

In 1983, the river was restricted to catch-and-
release fishing and returning fish exceeded
their escapement goal, so there was great
fishing, perhaps the best ever. The
escapement goal is a mix of wild and hatchery
fish and is determined by subtracting the count
of fish over Wells Dam from those counted
at Priest Rapids; these are all presumed to be
headed up the Wenatchee. Depending
(Continued on page 3.)

SUPPLEMENTATION THROUGH PLANTING HATCHERY
STEELHEAD IS WORKING WITH SOME SUCCESS.

2
on who you talk to in the Department of Wildlife, the escapement goal for the Wenatchee is either 3000 fish or 4800. (The former figure is cited in department literature for the Columbia system, while the second is Larry Brown’s reasoned guess of the river’s need. Larry is area fish biologist, and has known the river well for many years.)

By the early 1980s the river was getting decent returns once again, with hatchery fish dominating but the wild component slowly increasing. There are upper limits on what can be expected from wild production and

"THERE ARE UPPER LIMITS ON WHAT CAN BE EXPECTED FROM WILD PRODUCTION."

a twenty percent return of parent stock is what is resulting, under present conditions. This is how it works: if the returning wild run numbers 5000 fish (and I wish it were so high), they are capable of producing about 100,000 smolts; the smolts, however, because of losses of about ten percent each at each of the dams, will only return about 1000 adult fish. So, to expect the wild fish to replenish themselves and build up the run, all by themselves, is unrealistic. For the run to increase, it must be bolstered, or supplemented, by both spawning hatchery fish and by annual plants of hatchery smolts. Each year, 280,000 to 350,000 hatchery smolts are planted. This not only increases fishing but is imperative to preservation of the wild run. Under current regulations most hatchery fish are allowed to spawn. And of course all wild ones are.

By early November, 80 percent of the run is in the river. The keep of hatchery fish only begins at the start of that month and during the next three weeks the fishing is at its best. Then the water becomes cold and the fish uncooperative. They move around little and soon the river is locked up by ice. To figure out the true escapement, biologists subtract the adjusted punchcard kill data from the figures obtained from the dam counts. Punchcards now indicate whether a fish is wild or from a hatchery. Biologists also factor in a tiny figure for losses of fish from natural mortality and catch-and-release.

At the start of the decade, the numbers of returning wild fish had increased to 1000 to 1500 fish. Returning hatchery adults greatly added to the numbers of fish able to spawn. In 1983 about twice the escapement goal was reached, or 9700 fish, including wild and hatchery. Another great year was 1985. The next two years were good, but not great. In 1988 and 1989 the runs were greatly reduced, even though plants of hatchery fish remained about the same. Meanwhile, the wild fish were increasing to the point where they comprised 40 to 50 percent of the run. Larry feels 1000 to 1500 fish is probably the upper limit to the Wenatchee's capability for producing wild fish, without supplementation.

This may not be the bad news it at first seems. The Wenatchee River wild fish are clearly the product of intensive hatchery production over the past several decades, and may have self-selected themselves genetically for maximum adaption to the river's particular environment. With hatchery boistering from stocks that are determined to be genetically compatible, the wild/hatchery mix illustrates supplementation at its best. It is far from the ideal of building a wild run back to the point where it is self-sustaining, however. It is probably as close as we can come in the Columbia system, because of so many life-destroying dams. They take a great toll, both going and coming. About ten percent of the returning adult fish are lost at each dam.

There are other factors that are important to a high percentage of returns of adult fish to the Columbia. A vital one is a sustained high water flow during the spring, when the smolts migrate 500 miles to the sea. Not only does each dam decimate them, but the vast distances they must swim through the slack water of the reservoirs causes great losses. (With high water, the current carries them along.) The good returns of the 1980s were all marked by large snowpacks and steady high flows; 1988 and '89 -- two poor years -- were not.

Efforts are underway to prioritize maximum water flows during... (Continued on page 4.)

"TO EXPECT THE WILD FISH TO REPLENISH THEMSELVES, IS UNREALISTIC."

QUICKLY... (Continued from page 1.)
hatchery programs, and ineffective and outmoded management. More often than not, he believes, sport angling is only a minor factor. The species is especially vulnerable, much more so than salmon, because so much of its time is spent in fresh water. Also because, once in the ocean, steelhead are so wide-ranging they are difficult to track, and they travel so near the surface that it is impossible to protect them from the drift nets.

With 35 years as a commercial fisherman in Alaska, York knows how efficient nets are in taking fish. Properly set, an almost 100 percent catch may result. He personally has observed that steelhead, probably headed for such northern B.C. rivers as the Skeena and Nass, as well as the southern rivers, are being taken in Alaska gillnet operations at the rate of two or three fish per boat per day, and there are hundreds of boats. He knows, too, that Alaska seiners are taking many more.

On the high seas, steelhead and salmon follow many of the same travel routes and have similar feeding habits and likely are taken in proportionate numbers by the drift netters. York believes that as many as a quarter of the salmon and steelhead swimming the oceans today are being lost to the drift net fleets of the Japanese, Taiwanese, and Koreans. Last April, four of 23 steelhead he caught while flyfishing a single river in southeast Alaska had fresh net marks, at a time when, because there was no local netting, such marks could only be attributed to high seas drift nets.

York's pessimism stems from his long experience as both a commercial and sport fisherman. He has observed that the overall situation is deteriorating at an ever-increasing rate. More and more of man's activities are adversely affecting steelhead. He sees little hope that it can be turned around in time. Steelhead are one resource which, because they are so vulnerable, must be managed with great care and long range continuity, rather than by what is politically expedient at the moment. But that isn't happening. York unhappily prophesies that our sport could virtually cease to exist in a relatively few years. Only with a dramatic (and unforeseen) reversal of man's perceived needs for more of everything, his exploding population, and his unfettered greed, does he see any chance that the species will be able to persist.

... (Continued on page 9.)
WENATCHEE SUPPLEMENTATION  
(Continued from page 3)

the spring, but there are many competing water interests, some of which have strong voices. State fish agencies and the tribes are working together on water issues to help guarantee the fish enough water, each year. Biologists believe that this will help increase salmon and steelhead runs more than any other single, controllable factor. The Northwest Power Planning Council is still weighing its considerable weight to help get water for the fish, too.

The life cycle of the Wenatchee River steelhead differs slightly from others. Typically, a steelhead returns in the months of early September through mid-November. If the river remains warm, it remains in the Columbia and does not ascend until water height and water temperature stir it sufficiently. Conversely, if the Wenatchee is too cold or ice-bound, after late November, the fish is apt to remain in the Columbia and over-winter there, not ascending the Wenatchee until February or March, when the ice goes out, the water warms somewhat, and the amount of viable light increases. A hatchery fish is likely to have spent two years at sea, and be of appropriate size, while a wild one is smaller and has spent but one year at sea. The hatchery fish often reach earlier, and will commence spawning at the end of March, during the heavy water of spring runoff; at this time, the river is so high that predation by fishermen is little threat. The wild fish spawn later, in May and June and into July. Both fish utilize the entire length of the river, and spawning fish have been located in the city of Wenatchee itself and so high in the watershed as the Great Northern tunnel. The majority, however, use the reaches between the lower end of the Tumwater Canyon and Cashmere. There are practically no repeat spawners in the Columbia system.

Larry Brown expresses deep concern over problems arising from the Indian gillnet fishery. It is not selective and takes wild fish just as readily as hatchery ones. He thinks the use of traps by the Indian fishers would protect wild fish, but knows the Indians are opposed to the idea because it does not seem natural to them and defeats the element of individual initiative. He is worried about the drop-out rate from gillnets, and resulting loss of steelhead that are of benefit to nobody. He says many Columbia river fish show net marks and sometimes only the smaller fish get through the mesh. The commercial fishery for up-river bright chinooks coincides with the return of steelhead to the Columbia and claims many of them. Hence, to the tail taken by the dams must be added the numbers legitimately taken by Indian nets and those lost through drop-out. There is no way wild steelhead can be protected, under these conditions.

The steelhead has survived and endured in so many streams of the West precisely because of his ability to adapt genetically to drastically changing environmental conditions, including disasters such as the eruption of Mt. Saint Helens and ones unknown to us in the long-ago past. While not having as wide genetic diversity as wild fish, hatchery fish seem to have enough to provide the continuity we seek today in rivers that have lost their anadromous fish populations. Seen in comparison with hatchery programs conducted elsewhere, results from the Wenatchee are more encouraging than we might have expected. But problems from the dams, the nonselective net fishery, and irregular springtime water flows will keep this and other Columbia system rivers from ever reaching their natural potential. Until the problems are resolved, it is the hatcheries that are keeping the system functioning, whether we like hatcheries or not.

STEELHEADER'S ELBOW

[Nate Smith, The Doc, is a long time and successful steelhead flyfisher who knows first hand the physical demands of the sport. He also is Emeritus Professor of Pediatrics and Sports Medicine at the University of Washington. His article, dealing with the prevention and treatment of Steelheader's Elbow, is of relevance to steelhead anglers of all ages.]

In the waiting room of the sports medicine clinic you find the tennis elbow, the jumper's knee, the runner's heel, the swimmer's shoulder, the Little League elbow, etc. On occasion there also is the flycaster's elbow. The steelhead fisherman who brings this malady to the clinic knows it's no joke! It might have cost him that once-in-a-lifetime fishing trip or it could be threatening to have him give up one of the real joys of his life.

Fly caster's elbow and all of the above mentioned sport-specific medical problems have a common cause, a common program of management, and some common activities for their prevention. These disorders are all too-much-too-soon-too-often disorders, known as "overuse disorders." They all result from doing some sport-specific activity over and over again when the body part involved has not been adequately strengthened and conditioned to handle the demanded level of intensity. The painful result is irritation and inflammation of the muscle-tendinous unit being used in the activity. Most commonly this inflammation occurs at the tendinous attachment of the muscle to bone. Inflammation of the tendon, tendinitis, is painful and gets progressively more painful as the offending activity continues. "Toughing out" the pain is certain to make it worse.

Fly caster's elbow is tendonitis of the tendons attaching the forearm and wrist muscles to the lower end of the large bone of the upper arm. This results from repeated casting and mending with hefty rods and sinking heads. The involved tendon attaches to a bony prominence on either the inside or the outside of the elbow. The flycaster most commonly gets into trouble with the tendons that attach on the outside of the elbow. This attachment area, although no larger than a dime, can become tender enough to prematurely terminate a day's fishing.

How Flycaster's Elbow Occurs

"Overuse" medical problems are "early season" problems when tight, weak, under-conditioned muscles are asked to do more than they are used to doing. The flycaster may encounter this difficulty when, after a few weeks or months of being away from the river, he spends a full dawn-to-dark day on his favorite steelhead stream with his number nine rod. Or perhaps, even after having been fishing quite regularly, he takes off for ten 14-hour days of fishing in British Columbia. In either instance, his forearm muscles are asked to do more than they have been used to doing and are very apt to protest with some very debilitating pain. The more senior caster, the caster with limited skill, and those who previously have been bothered with a (Continued on page 5.)
STEELHEADER'S ELBOW

(Continued from page 4.)

Tendonitis or bursitis, are at increased risk of ending up with a sore elbow.

The fly fisherman who is headed for trouble begins to feel some discomfort in the elbow of the casting arm with each back cast or mend by mid afternoon of a long fishing day. Continuing to cast, he has a mighty tender point on his elbow by evening. If he is just out for the day, this is as bad as the problem hard to come by, get to a nearby grocery store and buy a package of frozen peas. They can be made to fit nicely over the painful area.

An alternative to ice treatment with a plastic bag of ice is to apply ice massage. One needs only have access to a refrigerator with a freezer unit. Fill styroform cups with water and freeze them. Feel an inch or so of the top of the cup away from the ice. Holding the styrofoam bottom of the cup, rub the ice on the skin over the tender area of the elbow pain in the elbow. Doing exercises with a painful elbow will only cause more trouble.

When free of pain, start forearm muscle strengthening exercises every day. The best way to strengthen these muscles is by doing reverse wrist curls. Rest your arm on a table with your wrist and hand hanging free over the edge. Then curl your wrist back as far as possible. If your elbow remains pain free after doing this movement ten times, repeat this series three times. If it continues to be pain free, add some resistance in the form of a dumbbell or some rubber tubing. Increase the resistance as the muscles get stronger.

Stretch the forearm muscles before doing your strengthening exercises. Stretch your casting arm out in front with your wrist down and with your other hand pull your hand under the arm toward you. If this causes pain, start with the elbow bent and stretch only to a degree not accompanied by any pain in the elbow.

If flycaster's elbow is threatening to compromise your career as a steelheader and stretching, strengthening, icing and aspirin don't keep you on the river, there are

"YOU PROBABLY FISH TOO FAST AND TOO FAR ANYWAY. ... TODAY IS NOT THE DAY TO BE THE LAST ONE OFF THE RIVER."

Managing an Episode of Fly Caster's Elbow

If the elbow is hurting because it is being used more than it wants to be used, it makes sense to use it a little bit less. At the first twinge of pain, particularly if you have had a sore elbow from casting previously, slow down and shorten up the casts. You probably fish too fast and too far anyway. If the discomfort increases and you hope to fish the next day, leave the river early and take care of the complaining elbow. Rest! Today is not the day to be the last one off the river.

Obtain a supply of the world's greatest pills - aspirin. Take two when you stop fishing and take two more before going to bed. Next, find some crushed or shaved ice - the first bar or fast-food place down the road. Put the ice in a thin plastic bag, the one from the supermarket produce counter that you brought your lunch in. Place a single layer of a cold wet cloth (handkerchief?) over the sore spot and the plastic bag of ice on top of this wet cloth. Don't put the plastic ice bag directly on the skin. Immobilize this ice pack and leave it there for at least thirty minutes. Repeat the ice treatment again later in the evening. If shaved of crushed ice is

... IT MAY BE A PROBLEM YOU SIMPLY ARE GOING TO HAVE TO LIVE WITH ... FISHING LESS OR EVEN NOT AT ALL.

that ten day Canadian trip. Of course, playing fifteen to twenty-pound steelhead will make it worse. The recommended aspirin dose for most athletes with an overuse problem is two regular aspirin fourths times each day.

If, after the fishing trip, the elbow is still complaining, one should visit his physician or the local sports medicine clinic. A specific diagnosis will be made -- all pain in the elbow isn't flycaster's elbow. In addition, some preventive exercise programs can be outlined that will help avoid future problems.

How to Prevent Flycaster's Elbow

If you have had an elbow problem from your casting in the past, or are contemplating an extended fishing trip, the casting arm should be conditioned. This can be accomplished by stretching and strengthening those forearm muscles. The strengthening-stretching program is started only after there is no longer any streamside remedies you may hear about. They aren't very scientific but may work for you. A forearm band that realigns muscle forces in the forearm is one you are sure to hear about. Casting with a rod with a larger handle is worth a try if your problem persists.

Improving one's casting technique may also be an answer. Professional casting lessons are sure to upgrade your technique and may change the use of forearm muscles with a positive effect on the elbow pain. The "casting doctor" may do you more good than the medical doctor!

Finally, if you continue hurting after trying the programs suggested here, including seeing your doctor if things don't clear up, you may have to face up to the fact that it may be a problem you simply are going to have to live with -- casting with some pain, fishing less, or even giving up steelheading entirely.
THE TROUBLE WITH GUIDES

[When not fishing the Bulkley, Morice, Käpix, Thompson and other British Columbia rivers, as well as many of Washington's fine streams, Captain Soverel is Professor of Naval Science and head of the NROTC Department at the University of Washington. He also is president of the Washington Chapter of the Steelhead Society of British Columbia and a member of the Washington Steelhead Committee. Pete has strong feelings about commercial guides and the role they should properly have in our sport.]

Under the right circumstances, guides provide the means for some people to enjoy steelhead fishing—a singularly challenging sport requiring both specialized equipment and knowledge. Guides have the equipment, local knowledge, and expertise to help less experienced or visiting anglers. Most of us have encountered guides who operate in a most professional manner and who show a concern and genuine respect for steelhead and an appreciation that they are using a public resource for personal gain. Unfortunately, many of us have also encountered guides who exhibited few of the requisite skills or personal qualities and who were, as well, rude and/or abusive. Boat races, arguments concerning who is where in the pecking order on particular runs, angry words, and baleful glares are but examples of obnoxious behavior one encounters.

I remember, for example, a guide stepping into water below me with his client announcing, in a friendly way, that he was just going to fish this one run. What he was announcing, of course, was that therefore it was okay for him to cut in front of me because he was a guide and was only going to fish the one run while I had the rest of the day to fish wherever I chose. I acquiesced without rejoinder but could not help wonder what his position would have been had our roles been reversed—me cutting in ahead of his client just to fish that one run.

Of course, not all guides, probably not even many, conduct themselves in these ways although, in my experience, most of my own unpleasant memories are centered on rude guide/guided client behavior. I have experienced little unpleasantness from other anglers—we talk about flies, how we are doing (or in most cases not doing), and work out mutually-agreeable ways to fish a run, share rides, spot rigs, and so on. Such is often not the case with guides who rarely help spot rigs and frequently instruct their clients not to share how they are doing with unguided anglers.

I believe a major factor contributing to conflict between guides/guided clients and non-guided anglers is that some guides and clients have a tendency to forget conveniently that they only share with the larger public the ownership of the resource. Those guides and clients tend to regard the river as exclusively "theirs," and resent any unguided anglers they encounter. Clients are paying for the guide's service and knowledge. They are not purchasing any right to exclusive use of a public resource. The fish and the river are a public resource which guides are exploiting for their own profit. The larger public, not guides, has primary claim to the resource.

Thus, guides, guide operations, and their clients should conduct themselves in a fashion which minimizes conflict with the larger fishing public.

To paraphrase an old cliche, some of my best friends are guides which, on reflection, should come as no surprise. I care about steelhead, about steelhead fishing— the fish, the flies, the techniques, and, of equal importance, my fellow steelhead anglers. So do guides. Nevertheless, I have come to the opinion that in most of steelhead country, there are just too many guides and too little regulation and control of them.

In Washington State there are no licensing standards and no limit on the number of guide licenses issued. Guides are not required to demonstrate any practical skills, knowledge of the resource or understanding of ethical, non-confrontational behavior. Incredibly, a guide may even be convicted of two separate game law violations before facing a loss of his guide license. The state sets no limits, either statewide or by river, concerning guide activity and/or total number of guide licenses to be issued. It is only right that the public at large should be able to limit commercial activities affecting a public resource, as well as prescribe what a guide must be able to do to be licensed.

Not all states or regulatory bodies have turned such a blind eye to this issue. Several eastern states are far more stringent. In this context, for example, the U.S. Forest Service limits outfitter activity in the National Forests. When granting an outfitter territory in the National Forests, the Forest Service provides the outfitter exclusivity only relative to other outfitters, not vis-à-vis non-guided hunters who may continue to use the outfitter's territory. The Forest Service does not permit unlimited outfitter activity in the national forest. Such a system could be implemented for steelhead guides. I recommend an approach which:

(1) limits guide licenses on a river-by-river basis. (States limit commercial salmon fishing permits and I see no reason why the state should not also limit the numbers of commercial guides.)

(2) grants guides a certain degree of exclusivity relative to the number of other guides licensed on a river.

(3) requires guides to demonstrate competence and ability in safe boat handling.

(4) sets a code of conduct by which guides avoid conflict with the public.

Overall, guides should approach the stream, the resource, and other anglers with a clear understanding that they profit individually from a public resource at the expense of the other citizens whose good will is dependent upon appropriate behavior of both the guide and his client.

I believe a system which both limits the number of guides and assures a standard competency level for licensed guides would reduce significantly conflict along streams. The public would have confidence in the guide corps and the guides themselves would have a vital stake in the behavior, conduct, and competency of their peers.

Fishing should not be a competitive sport. Limiting guide activity is one effective way of ensuring that it does not become one and of defusing a growing area of confrontation on our rivers. Rivers and their fish are a public resource available for public enjoyment. Guiding activity should be tailored to that reality.

[The Osprey invites rebuttal to this article from commercial guides.]
A MATTER OF PERSUASION

[John Sager is vice-chairman of the Washington Steelhead Committee and helps publish The Osprey. A retired native of Seattle, he divides his time between flyfishing for steelhead throughout the Northwest, lobbying on behalf of the sport, and serving as an FFP state officer and legislative chairman of the Washington Fly Fishing Club. In this article, John reflects on a frustration we all have felt: how more effectively to share with other anglers, on the riverbank, our conservation ethic.]

A couple of years ago two Tacoma-area clubs, Puget Sound Fly Fishers and Alpine Flyfishers, decided that one of their backyard streams could provide even better fishing. Why not extend the Carbon River’s season beyond the traditional January 31, but in a way protective of the wild steelhead runs known to return in late winter? So they petitioned the Wildlife Department and asked for fly only and two more months, with catch and release for all fish. They got a lot of names on that petition and the Region IV managers decided it would be worth trying.

But not for fly only. The local fishers, many of them loggers, mill workers, and farmers

THERE IS NOT MUCH DIFFERENCE IN THE REGULATIONS ANYWAY, IF EVERYBODY OBEYS THE RULES.

in the upper Puyallup Valley, have a long tradition for winter steelhead fishing with gear and bait and would rightly resent being required to convert to fly gear. And there are a lot more of them on that river than there are fly fishers. So how about Selective Fishery regulations (no bait, single barbless hooks) and wild fish release? The clubs thought that was okay, because there is not a serious difference between the two regulations anyway, if everybody obeys the rules.

So comes 1989’s February 1 and the Carbon River is still open, sixty more days, for the first time in many years. The first fellow I meet on the river, a few days later, complains about having to release wild fish; I offer that that’s better than a closed stream, and he allows that I have a point. But as we split, he emphasizes to me and the trees, “At least those (bleeping) Indians won’t be getting them.” (Tribal fishermen stopped netting in the lower Puyallup River a few weeks earlier, having taken their prescribed quota for the season.) Later that day I take a nineteen-pound wild fish, lovely plump silver lady, and a marvelous runner despite 36 degree water. Two others come off. It’s a good omen: three fish hooked on my first “extra” day, courtesy of better management, three fish still strong and healthy in the river.

A few days later I’m on a long, straight drift and tangle with another fresh hen, this one eventually looks like mid-teens, probably carrying a zillion eggs. I don’t notice three fishers standing far off watching the show; when they get close they wonder why I released the fish:

“Was it wild?”

“You bet,” I beam, moving off to sit down and re-tie.

The three of them begin casting their hardware and within a short time, one has a fish, hooked at the far bank which I’ve never been able to reach with my nymphs. As I watch the play, I realize none of them even has boots on, much less waders, all wearing work shoes and jeans. And there’s a ten-foot-wide shelf of ice from the beach out over the river. So how does a fisherman in that attire properly release a wild fish? Now the picture is getting clearer.

The fish is tiring and I walk up behind the fisher and suggest that since he’s not able to get into the river real easy, I could go in downstream and help him release the fish, if it’s wild.

He says “Oh, yeah, I guess that would be a good idea.” As the fish does some close-in thrashing around, I’m able to persuade him not to haul her up on the ice:

“We don’t want to hurt this lady; she’s wild and will make lots of babies.”

“Yeah, babies for the damned Indians,” he says as he rushes up to beat me to the large, fully-barbed hook. Fortunately, the hook comes out quickly and as I see it I profess surprise.

“A barb on that hook? Hey, man, you don’t want the warden to see you with that. Cost you your gear and a bundle of bucks.”

Feigned apology: “No kidding! I didn’t know barbs were bad; thought you just had to throw back the natives.” (There’s a large, new poster at the only entrance to this access: SPECIAL REGULATIONS, READ YOUR PAMPHLET.)

So I watch these three for awhile, after the fish-catcher shares this unexpected experience with his buddies. I get some looks, but nobody wants to talk about it and I certainly don’t get invited back to my place in the drift. As I walk back to the car, my brain chides me with should-haves.

On another glorious Carbon day, I hook four fish but none of them stays on for more than

HE QUICKLY GETS TO THE 50 - 50 TRIBAL ALLOCATION BEEF. I TRY TO TALK ABOUT WILD FISH MANAGEMENT, LIKE THE NEW RULES.

a moment; my nymphs are sharp but maybe too small. The water is still low and clear and very cold, as it has been all month. Another gear fisher and I chat and he quickly gets to tribal netting and the 50-50 allocation beef. I try to talk about wild fish management, just like the new rules on the Carbon; and why can’t we appreciate the good fishing in February and March and recognize why fishing is slow in December and January, when the tribes are getting most of the fish—and hatchery fish at that?

No one talks about eating steelhead, about giving up the table fare for the sake of the wild runs. Maybe it’s just assumed that nobody fishes steelhead if he doesn’t want them for the pot. No one seems interested in wild babies and what they mean for everyone, or how the Wildlife Department deserves a few kind words, instead of all the cussing, for doing a better, smarter job. How maybe we all need to get smarter, too. The (Continued on page 8.)
PERSUASION

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Indian is what they talk about, a vague longing for 'the good ol' days' (even though this fellow is too young to remember them), and if the new Wildlife Director's name comes up, cover your womenfolk's ears.

"You ever meet Curt?"
"Naw, but I heard cruff about him."

I don't challenge him by testing his conception of what's involved in managing a conservation bureaucracy, or of the impossible politics of trying to satisfy all the contending user groups; he'd probably go for me and he's 30 years younger and as many pounds heavier. So how do I reach him?

I tell him about the faint net marks on my biggest yet wild hen, scars much too old to have been caused by Indian nets only recently out of the river. Most likely the result of those frightful drift nets in the North Pacific, 30 feet down they hang from the surface, some of them 30-40 miles long, well over the horizon. They're getting untold thousands of Northwest salmonids, all illegally by every law and treaty on the books. Why can't we gang up on this kind of stuff instead of on our own state and federal officials who are trying to help us all? What does it take for all of us to work together?

His face seems perplexed, somewhat uneasy, and mostly disinterested. But as he turns and shuffles off, I hear him mumble something like "Yeah, maybe we oughta do something about that."

I think my streamside "teaching" has a long way to go.

THE DOLLY VARDEN

[Curt Kraemer is Regional Fish Biologist with the Washington Department of Wildlife and a widely recognized steelhead expert. He enlightened readers in Issue No. 5 of The Osprey by recounting the movements of summer-run steelhead in Puget Sound streams. He is currently researching the little-known Dolly Varden, a char familiar to most Northwest steelhead flyfishers, and in this piece shares some of his fascinating findings.]

Few Northwest anglers or fish biologists have a full understanding or appreciation of the Dolly Varden's life history and spawning requirements. To me, the Dolly Varden is a mystery fish that is encountered incidentally to fishing for steelhead or searun cutthroat. Often they are held in low regard. As one gains an understanding of this unique fish, his appreciation increases.

Taxonomists currently classify this native Pacific Northwest char into two species, bull trout and Dolly Varden. Field sampling indicates that both species are found in North Puget Sound streams. Dollys tend to have a more rounded body shape and exhibit more anadromous behavior and the bull trout has a larger head with a more pronounced yoke, the hook on the lower jaw, and is typically found in inland streams. There has been some question as to the validity of these species classification. For this discussion the two will be treated as one and will be called Dolly Varden.

The Dolly's existence is characterized by efficiency and tenacity. In north Puget Sound stream systems the whole river basin is used during some part of the fish's life history. Spawning and early juvenile rearing takes place in the headwater tributaries. The fish in a given stream spawn over a short period of time, two weeks or less, in the fall (late August through November). Generally those fish spawning at higher elevations spawn earlier than those at lower elevations. The newly hatched fish emerge from the gravel the following spring. Most young fish appear to remain in these headwater areas until they reach about 165 mm (about 6 inches). Some remain in these areas the rest of their lives, which may be as long as ten years, and rarely exceed 300 mm (12 inches).

DOLIES TYPICALLY SPAWN IN WILDERNESS OR NEAR WILDERNESS ENVIRONMENTS.

Those fish that leave the headwater streams are normally two year olds. A portion of these drop downstream and take up residence in the main river where they remain for two or three years before reaching sexual maturity. As 350 to 450 mm (14 to 18 inches) adults they return to their natal streams to spawn. The other portion of downstream migrants have a more complicated life history. In the spring after leaving the earlier rearing areas they drop all the way downstream to the estuary and nearby marine areas. These fish seem to behave much like sea-run cutthroat and are found in many of the same areas. After spending the spring and summer in these rich feed areas the fish return to the lower river to spend the winter. Early the next spring these fish, having reached 250 to 350 mm (10 to 14 inches) return to the same salt

THE DECLINE IN NUMBERS OF DOLLIES IS INDICATION OF DETERIORATION IN FISH HABITAT IN THE SYSTEM.

water areas. By mid summer these fish begin the long spawning migration back to their natal streams. The adults are now 375 to 500 mm (15 to 20 inches) in length. Both anadromous dollys and those that rear in the main river return to the same area to spawn.

The adults on their spawning runs can undergo some impressive journeys. Fish in the Skagit river system may travel more than 115 miles from the river mouth and ascend to an elevation of more than 3000 feet. The spawning area may be upstream of areas used by any other anadromous species. Log jams, cascades and falls that are barriers to the chinook's brute strength and the steelhead's acrobatic abilities may be only minor obstacles to the Dolly's cunning and guile. While Dollys can jump remarkably well for fish their size, as much as seven or eight vertical feet under good conditions, they are just as likely to maneuver around a (Continued on page 9.)
DOLLIES
(Continued from page 8.)

difficult spot. These fish, at a potential barrier, at times seem to be actively seeking alternate ways around it. Some go as far as to stick their heads out of the water to peak at the situation and find the easiest route.

Upon reaching the spawning areas the fish wait for falling water temperatures. Usually spawning starts when temperatures drop to the mid to lower 40s. The fish select clean, one to three inch gravel in which to construct their redds. Ideally, the female can move the smaller gravel away and expose the larger four to eight inch rocks below. She deposits her eggs in the exposed spaces between the larger rocks and then buries the eggs with smaller gravel. She is normally attended by several males with the larger male assuming the dominate role. He aggressively defends the female and her redd from the other males. It takes only a day or two to complete the spawning. Almost immediately after spawning, the fish begin to work their way back downstream. Some survive the perils of riverbank anglers to spawn a second or even third time.

Because Dollies use headwater areas they typically are spawning in a wilderness or near wilderness environment. They need these areas to supply the clean gravel to successfully hatch eggs. The presence of small amounts of silt dramatically reduce egg survival in the gravel. With their requirement for cool water and clean gravel and the use of the whole river system at some time in their life history, Dolly Varden are good indicators of the general health of the system. The lack of Dollies, or a decline in their numbers, is cause for concern, indication of possible deterioration of fish habitat in the system.

It is as kelts (spawned out fish) that many anglers encounter their first Dolly Varden. Fall spawnings, the fish arrive back in the main stems as aggressive kelts in early winter looking to feed and recover from the stress of spawning. Unfortunately for the Dolly, this happens as anglers are searching the river for winter steelhead. The fact that many anglers are catching Dollies as kelts, with gear more appropriate for the large steelhead, accounts in part for the Dolly’s reputation as a poor fighter. Rather than react to being hooked with blind terror or brute force, the personality of the fish dictates that it react more passively. The fish is programmed to respond to situations as efficiently as possible and to use its energy as wisely as possible.

The next time you catch a Dolly, take the time to admire and appreciate it as a product of the river. If you are fortunate enough to take a male in full fall spawning dress you will witness one of our most striking fishes. With its dark olive back, sometimes bordering on black, its orange-red belly, its bright red spots and florescent white fin edges, it is a match to fall’s spectacular colors. The gray and pale spotted kelts match the somber mood of winter. The more you observe and learn about this fish the more you will appreciate its special place in our rivers.

RIVER NETWORK

The protection of steelhead rivers from the many diverse influences that may result in their degradation or even destruction (logging, dams, road development, subdivision, diversion, pollution, etc.) is one of today’s most pressing needs. Effective protection is extremely difficult to achieve because of the often powerful and determined economic forces that conspire to utilize rivers in ways that are inimical to what is best for steelhead. River Network, a Portland-based organization similar to The Nature Conservancy but focusing exclusively on river protection, is now available to assist local groups and interests.

River Network is set up to assist in two ways: (1) through its Local Training Program, a small but highly skilled staff works with local people in their own community, helping them form an effective, broad-based coalition to protect their river, and (2) through its Land Conservation Program key riverlands threatened by development may be acquired and then resold to public agencies for appropriate management and protection.

Under the Local Training Program, staff personnel travel to local communities to conduct workshops and meetings for the purpose of helping landowners, anglers, farmers, and other interested groups develop a protection strategy, to train them in such specific skills as fund-raising, resource inventories, and public relations, and to actually guide specific projects such as a newsletter or public forum. Case studies are made available showing how other local groups have successfully protected rivers, as are lists of individuals, organizations, and government agencies whose work may be helpful, and a reference library containing applicable books and articles.

Under the Land Conservation Program the staff negotiates with owners of private riverlands that are critical for recreation and wildlife with the objective of purchasing those lands at a price below appraised value and then transferring them to a public agency at appraised value. The difference provides funding to support River Network.

River Network has been on the scene for only several years but it already has an impressive list of accomplishments. Although it operates mainly in the United States, its services are also available to Canadians. For more information, get in touch with its director, Phillip Wallin, P.O. Box 8787, Portland, Oregon 97207, telephone (503) 241-3506.

QUICKLY . . .

(Continued from page 3.)

We erred in the September 1989 issue of The Osprey in stating that the debris avalanche following work by DNR on Deer Creek took place in October 1986. It took place in 1985 and, since the fish have a three-year cycle, the returns from that disaster year would have been in 1988, not 1989. 1988 was, indeed, a bad year, but 1989 was worse. Only a couple of dead steelhead were found afterwards, but forty steelhead had been spotted in the pool just below the slide immediately before the avalanche; these were presumed dead.

Georgia Pacific is planning on cutting 70 acres of old growth alongside Deer Creek, on steep, unstable ground. The TFW group okayed the design of the sale and the State Department of Natural Resources has approved it. Thus, timber harvest may begin anytime. The Department of Wildlife has requested a review.

The Department of Natural Resources has announced that it plans to resume timber harvest soon in the watershed, after its three-year moratorium negotiated with the PPF is over. They say the law forbids them to exclude from sale any timber that can bring in money for state school funds.

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QUICKLY...

(Continued from page 9.) Contributions are needed to keep The Osprey aloft and flying, and to permit readers to continue to receive it without subscription. A return envelope is enclosed in this issue. The cost per copy has increased only a little during the three and one-half years it has been published — this in spite of a substantial increase in size and upgrading in layout and printing quality — and is now about 90 cents. The 90 cents covers layout, printing, and mailing. Neither the editors nor the authors are paid for their efforts. Total costs, however, have tripled because the mailing list has grown from 250 the first issue to 750 this issue. To date about half the costs have been met in contributions from those receiving The Osprey, and the balance from the FFF.

If you aren't already a member of the FFF and would like to join, the annual cost is $20 for an associate membership, $25 for a family membership, and $10 for a student membership. All but $5 is tax deductible. Membership includes a subscription to the quarterly magazine The Flyfisher. Send your membership fee along with name and address to Federation of Fly Fishers, P.O. Box 1088, West Yellowstone, MT 59758.

Pete Soverel reports that 56 have signed up for membership in the newly formed Washington Chapter of the Steelhead Society of British Columbia. Many who have joined are from states other than Washington. One thing all members have in common is a high regard for the fine steelhead flyfishing available in British Columbia and a wish to see it continue. The best way to bring this about is through a voice in the affairs of the very active and influential SSBC. Members are kept up to date through its quarterly newsletter which reports events affecting the sport in the province. In Washington, chapter president Soverel sits on the SSBC's board of directors. Fees are $20 annually and may be paid by sending them to Pete Soverel, 16430 - 72nd West, Edmonds, WA 98020. (206-742-4651).

Colored pictures of Lee Wulff catching his nine-pound steelhead on a size 28 dry fly in the Copper River, B.C., described by Lee in The Osprey, can be seen in the Winter 1990 issue of Trout magazine. Members of TU receive the magazine free; otherwise it can be bought in some tackle shops, or for $4 through the mail. Write 501 Church Street, Vienna, Virginia 22180, and specify the issue. Send along a check.

Late in September 1989, Area Fish Biologist Curt Kramer flew the Deer Creek watershed in a helicopter, looking for adult fish. The water was low and clear and he spotted 88, most of them, he believes, and a historic low. A month later, electroshocking results of one-year-old juveniles was down again, about half of last year's count. At this rate, Curt projects, by 2000 Deer Creek will be down to a fractional steelhead.