British Columbia’s Dean River in 2013

by Robert Hooton
— Nanaimo, British Columbia —

The 2013 Dean River season is not even complete but the outcome is hardly in doubt. Those who were there know how poor the fishing was and the camp talk among guides, their clients and numerous veteran resident anglers who make the annual pilgrimage to the river is focused on commercial nets and those who claim to manage them. There is more to the story though. First, some perspective.

The Dean has enjoyed a succession of good fishing years up to and including 2012. Expectations always build around good fishing and last season is commonly as far back as most people look when judging the present. Few look hard enough or long enough to recall there have always been ups and downs with the Dean fishery and every other one. The catch data for the past decade indicate that a two-fold variation between years is common, and it has varied as much as four fold. It shouldn’t come as a surprise then that

Few look hard enough or long enough to recall there have always been ups and downs with the Dean fishery.

the catch rates of the really good years will decline sooner or later.

What happened to the Dean steelhead due back this year is undoubtedly the result of a combination of factors. We know what nets can do, and I’ll speak to that below. What hasn’t been factored in, though, is the fact the central coast of British Columbia (especially the Bella Coola through Dean area) endured an unprecedented flood event in late September of 2010. There were also major flood events again later that year and in 2011. The first flood in 2010 produced the highest water levels ever recorded in the Bella Coola Valley. An emotional Rob Stewart, whom many readers of The Osprey will know was one of the original Dean River lodge owners, told me that by the time the 2011 flood had run its course, there was virtually nothing left of the camp he invested decades in building and operating.

The consequences of those back to back years of “off the charts” floods for the Dean’s juvenile steelhead were clearly evident from annual juvenile population estimation work conducted by staff of the Province’s Ministry of Forests, Lands and Natural Resource Operations (FLNRO), the successor of the once Ministry of Environment (MOE). What the results showed was a two-thirds reduction in steelhead parr abundance in 2011. Unknown is what proportion of the 2010 parr that would have contributed to the smolt output in

Continued on Page 4
Summer steelhead are now making their way up the Deschutes River, and within a couple of weeks will be on the reach just below the dams and within an hour or so drive from my house. It will be time for me to start making plans for a visit. This year’s run is looking to be pretty good, with as many as 10,000 fish passing over The Dalles Dam on the Columbia River each day—although only a small portion of those fish make the right-hand turn up the Deschutes.

Nevertheless, it looks to be working out to be a more than ample steelhead season on the Deschutes, and anglers fishing the lower river are doing very well. One constant, and curious, aspect of Deschutes steelhead is that even though there are four times as many hatchery fish in the river as wild fish, the wild fish provide most of the action. Our local newspaper, the Bend Bulletin, reports that 85 percent of the Deschutes steelhead catch so far this year have been wild fish. The prevailing theory is that the wild steelhead are more active and aggressive, and therefore more likely to take a fly.

The fall Chinook salmon run on the lower river is also looking very good, and Oregon Department of Fish and Wildlife fish biologists are predicting that it may even be a record-breaker. Big fish run years may give anglers and fish conservationists a sense of relief, or at least a feeling that things are not all that bad. But as Bob Hooton, author of our cover story on the state of affairs on the Dean River points out, people often forget that conditions change over time, sometimes radically and for a variety of causes.

Ocean conditions may smile on us periodically and produce lots of returning salmon and steelhead, but we can’t expect the ocean to do all our work for us. There are still plenty of factors conspiring to send those runs plummeting including overfishing, industrial development or just the thousand cuts by human impacts that wear down a salmon or steelhead river over time, as the stories in this issue of The Osprey point out.

Still, abundance of wild fish is an attainable goal, and I hope to experience some of it on the Deschutes in the weeks ahead.
Over the last few years I have watched in amazement as the First Nations of British Columbia’s Nass and Skeena rivers have stood their ground against a relentless onslaught by multinational companies proposing a range of devastating projects, from a massive open pit mine in Babine Lake, natural gas and oil drilling in the Sacred Headwaters of the Skeena and Nass, the Enbridge Pipeline and a range of other shortsighted, environmentally destructive projects. With the governments in Ottawa and Victoria taking unprecedented measures to expedite the rapacious extraction of oil, gas and minerals from Canada’s north, First Nations opposition is often the only thing standing between preservation and total destruction in some of British Columbia’s most important salmon bearing watersheds.

The force and conviction with which First Nations have been able to oppose the extractive agenda of the federal and provincial governments remains a marvel to me. These communities, often a few hundred to a few thousand people strong, are standing up to some of the largest, wealthiest corporations on earth. Despite their small numbers, the unique legal and moral standing of First Nations when it comes to matters of industrial development in their traditional territories will play a key role in shaping the future of British Columbia’s environment.

In light of their ongoing struggle to protect lands within their traditional territories from extractive industries, environmentalists and wild fish advocates would do well to listen and learn from First Nations in BC. Indeed the same is true in Washington, Oregon and Idaho, where legal action by tribes has often been a driving force in dam removal, improved passage and habitat conditions for wild salmon. While we have recently disagreed with the Lower Elwha Klallam and Klickitat Tribes over the role hatcheries should play in supporting fisheries and the recovery of imperiled wild stocks, both have played a critical role in protecting and restoring habitat in their traditional territories, a fact which should not be overlooked.

Facing growing pressure from industry and government it is vital that we within the environmental community build bridges to other stakeholders with shared values and goals. When it comes to wild salmon and steelhead, no one has a bigger stake in their future than the many Native tribes of the Pacific Northwest. For over 10,000 years salmon have been a vital thread in the fabric of their culture and economy.

Far too often I hear uneducated sports fishermen blaming poor returns or ongoing declines in wild salmon and steelhead populations on tribal fisheries. This blame is typically misplaced. Restoring wild fish populations and ensuring their survival in the coming century will be no small feat. It will take a unified voice from the many communities that depend on and love wild salmon, and the voices of Native Tribes from California to Alaska will undoubtedly be critical to ensuring a future for wild fish.

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First Nations also among First in Fish Conservation
by Will Atlas
— Chair, Steelhead Committee —

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Dean River
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2011 (and 2012) did not survive. Those 2011 smolts would potentially be the greatest contributors to this year’s adult population. So, all else being equal in terms of ocean survival, there wouldn’t have been as many homeward bound adults approaching the Dean this year as there were in the previous few years. If the ocean survival were trending downward while the emigrants of 2010 and 2011 were out there, the situation would be even worse. The jury is still out on that, but we can look north to the Nass and Skeena rivers for clues. In both cases, steelhead returns are well below what they have been in the past few years and those watersheds did not get hammered by the same devastating floods that occurred further south in 2010 and 2011.

Now, let’s talk nets. The prevailing opinion is there was more fishing by more boats in the ocean approaches to the Dean, referred to in the Department of Fisheries and Oceans (DFO) lexicon as Statistical Area 8, in 2013 than at any time in recent memory. That much is true. Also true is the fact there was no weedline requirement for gill nets. No one I can reach has an answer for how that decision arrived. The Dean sport fishing fraternity is convinced the absence of weedlines in 2013 made a significant difference in the number and proportion of the Dean bound steelhead getting safely beyond the last net. That belief is misguided.

The entire premise of the weedline solution, which stipulates that the net be suspended a meter below the corkline, is based on a single, quarter century old study that observed steelhead spent 70% of their time in the top meter of the water column when tracked by a single vessel equipped to detect sonic tag signals. That hardly represents what transpires on the fishing grounds when a fleet of seiners and gill netters is on the loose. That other 30% could well be enough to make 100% of the steelhead vulnerable even if the disturbance caused by dozens of fishing vessels didn’t influence travel depth. Extensive experience where much more thorough investigations of steelhead behavior and vertical distribution in the water column have been undertaken while commercial fisheries were underway and in test fishery monitoring (i.e. the Skeena approaches) revealed there was no measurable benefit to the use of a weedline. There is a side bar to this, however. Where the weedline requirement likely does have benefit is in reducing the number of vessels participating in the fishery. Equipping a gill net with a weedline is not as straightforward as some might assume. It takes time to add one and it takes time to remove it. If entry to the fishery in a given area requires a weedline but adjacent fishing areas do not (commonly the case), it means a vessel must be equipped with two nets or take time to modify a single net. That is no small deterrent to many fishermen and would seem to have significantly reduced interest in fishing the areas closest to the Dean in previous years where the weedline restriction prevailed. Given the lack of commercial fishing opportunities in the Skeena approaches this year and the southern migration of some of the vessels to the Dean approaches, one wonders if the relaxation of the weedline requirement was a behind the scenes concession to bleeding heart commercial fishers who chronically complain about too many restrictions on their “right” to make a living.

The more important factors in the net fisheries in Area 8 and elsewhere are the number of boats fishing, the area over which they are distributed and how many days they are fishing. I see nothing that tells me there is sufficient knowledge of the history of the Area 8 fishing effort distribution or the migratory behavior of steelhead in that area to be able to make conclusive statements on what proportion of the fish would be vulnerable under different scenarios. This is in sharp contrast with the Skeena where models built around migration timing, migration rate through the fishery, fleet size and distribution, comprehensive test fishery data, etc. can predict with reasonable accuracy what will happen under any given commercial fishing scenario, not that it has ever made a difference in terms of fishery openings or closures. DFO will no doubt argue two days of fishing per week allows sufficient escapement of steelhead for the other five. However, if it takes Dean River steelhead a week or more to clear the area over which fishing is occurring, two days per week is not going to save any of them.

The uncertainty inherent in the Dean situation plays to the hand of DFO and the commercial fishing sector. Their position has always been steelhead interception is an allocation issue, not a conservation issue. It will be a cold day in purgatory before DFO will ever accept that a sport fishery should be on an even paying field with a commercial fishery, let alone take precedence. A conservation argument is an even harder sell. Given the willful blindness of DFO and the conspiracy of deception around steelhead catch reporting within the commercial fishing sector, how does one even begin to demonstrate what the harvest rate on Dean steelhead is or what the consequences are for the distant sport fishery? No data equals no problem equals the status quo.

Regardless of the deliberate uncertainty inherent in the influence of the Area 8 commercial fisheries on Dean steelhead and how it is exploited, there are a few things we can state definitively in terms of how the fishery has unfolded this year.

First, there were more boats and more days of fishing in Area 8 than in any other in recent years. The fact that the weedline restriction of past years mysteriously disappeared this year probably meant there were more gill net vessels fishing closer to the Dean itself than at any time since weedlines were first implemented.

Second, there was virtually no communication between the DFO salmon people and the MFLNRO steelhead people regarding any aspect of the Dean fishery before any net fishing opening was announced. Complaints from sport fishermen, guides and lodge operators after it became abundantly obvious how bad the fishing was in the Dean this summer fell on deaf ears.

Third, as is always the case in the Area 8 fishery (and virtually every other one that impacts steelhead), the commercial netting occurs well before there is ever any real sense of what the consequences are, even for the target stocks. Stated simply, the assessment Continued on next page
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is on the wrong side of the nets. By the
time the escapements of the various
species are reasonably understood, the
season is over and the harm done irre-
versible.

Fourth, the area 8 fishery reflects a
story that has unfolded up and down
the coast of BC since commercial fish-
ing began. Openings are focused on
the strongest stock(s) present. In the
case of Area 8 that puts the focus on a
single enhanced stock of chum salmon
originating from the hatchery near
Bella Coola. It is the classic mixed
stock fishery scenario well understood
but ignored by DFO. A multitude of
smaller streams flowing into the same
coastal waters that are the highway to
the Bella Coola each supports stocks of
chum, coho, pink and some even a few
Chinook and sockeye. Every one of
those stocks is at risk of extirpation,
given the practice of targeting the sin-
gle dominant stock of hatchery chums
bound for Bella Coola. In fact many
have probably already been eliminat-
ed. Long before the Bella Coola hatch-
ery program for chum began, the
neighboring Kismit River supported
the chum stock that sustained the local
commercial net fishery. Ask DFO how
that Kismit stock is doing this year.
Ask also how the unique beach spawn-
ing chum stock along the Dean estuary
is doing. So much for DFO’s much
trumped and now eight year old Wild
Salmon Policy.

The measures DFO has employed to
supposedly protect the non-target
stocks inevitably caught in the Area 8
nets consist of non-retention and non-
possesson of those species.

Currently, those regulations state
that seiners are not permitted to har-
vest sockeye, coho, Chinook or steel-
head. That’s four of six species, never
mind the impoverised neighboring
stocks of chum salmon. Pink salmon
are entirely exempt from considera-
tion. Gillnetters fishing the same
water at the same time are required to
release Chinook and steelhead but only
requested to release sockeye. Coho
do not warrant mention for the gill net
fleet. One wonders what the seiners
think about having to release two
species that gill netters don’t and who,
in their wisdom decided this non-tar-
get species approach would pass the
red face test.

The release rules for seiners and gill-
netters are an exercise in confusion
and frustration for anyone trying to
understand the objectives. Some of
the formal notices state seiners must
have operating revival boxes on board.
Others make no mention of the infa-
rous boxes. None of the gill net
notices say anything about revival
boxes. Both seines and gill nets are
supposed to release non-target species
“with the least possible harm”. How
would any legal authority interpret
and apply that? Seiners are required
to release four of six species they
might encounter (steelhead, coho,
Chinook and sockeye). Gill netters
fishing in the same times and places
are not warrant for the gill net fleet.

The grim reality is that
compliance and enforcement of regula-
tions governing by-
catch are non-existent.

are allowed to keep the Chinook
and sockeye the seiners aren’t. Heaven
knows what the rationale behind that
is. Only the most naive or deliberately
deceptive individuals would have us
believe a significant proportion of the
gill netted or seine fish that could not
be retained legally were sufficiently
healthy at release that they would con-
tinue their migration and contribute to
a normal spawning. The fact that the
likelihood of further encounters with
nets is high never enters the discus-
sion. Aggravating all of this is the
grim reality that the compliance and
enforcement of any of the regulations
governing by-catch are non-existent.

The inescapable conclusion here is
that the only thing that will make a sig-
nificant difference in the number of
non-target fish that survive commer-
cial fishing nets is less fishing, a lot
less. The lessons of the Skeena are
equally applicable to the Dean.
Substitute enhanced Babine sockeye
for enhanced Bella Coola chum. Then
consider that the only years a greater
proportion of homeward bound steel-
head got past river mouth nets on the
Skeena were the ones that saw poor
returns of Babine sockeye. Nothing
else has ever factored into that equa-
tion. How much longer do we have to
down the same sorry path we’ve
been on for more than a century before
we deal with the fact there is no such
thing as a selective fishery as prose-
cuted in Area 8 (and most other areas
of the BC coast) today. The time is
long overdue to eliminate gill nets.
Full stop. For seines the frenetic pace
demanded to be able to make a buck on
the lowest value species (i.e. pink and
chum salmon) must be reduced dra-
matically to even begin to address the
assumed efficacy of regulations.
Finally, in the absence of a serious
effort directed toward compliance
monitoring and enforcement, no one
should ever expect profit motivated
commercial fishermen to alter their
behavior.

Now for the most instructive compo-
nent of the Area 8 fishery story.
Reference to DFO’s own data regard-
ing the value of the net fisheries over
the past decade indicates the average
annual value of all salmon landed by
commercial fishing vessels in that
time is $52,1,000.00. Think about that.
All species, all gear types, all year.
The previous five-year average was almost
times five times higher. Chum salmon domi-
nated in terms of both numbers and
total value. They fetched a whopping
average of $7.64 per “piece” in the
most recent five years. I’m guessing a
significant part of that sum relates to
the sale of highly valued roe in a luxu-
ry market on the other side of the
Pacific. (Sacrificing summer steel-
head to support belly robbing of chum
is nothing short of a travesty.) It is still
too early to know what the 2013 picture
will ultimately reveal but it is absolute-
ly crystal clear we are not talking
about a high value fishery. Its primary
purpose seems to be to qualify some
commercial fishers and perhaps a few
shore workers for unemployment
insurance benefits in the off-season.
The federal and provincial govern-
ments and the individual who controls
most of the seine fleet and the shore
based processing capacity in British
Columbia are going to need some work
if the future of the Dean River steel-
head fishery is ever going to command
the attention it so richly deserves.
The Peril and Promise of California’s Eel River

By Samantha Kannry and Scott Greacen

The Eel River has seen transformative changes that have sharply reduced its ability to support the fish that support the forest.

Only winter steelhead seem likely to survive past the middle of this century, unless systematic and coordinated efforts are made to ensure the river’s recovery from the excesses of the 20th and 21st centuries.

As if to balance the bounty of the last several years, 2012-13 saw the driest January-June on record. Summer arrived with already low river levels that continued to drop, while temperatures rose, soon creating conditions lethal for fish. By early August 2013, dozens of coho-bearing streams had gone dry across the South Fork and neighboring Mattole River.

Making matters worse, the passage of California’s Proposition 215 in 1999 legalizing marijuana for medical use resulted in a sharp increase in cultivation of the plants in the region. That dramatic increase in the size and number of commercial marijuana-growing operations across the Eel River drainage and many other areas of California’s north coast has added new sources of sediment and water pollution, as well as the chronic problem of water diversions which, along with the cumulative impacts of other human activities, do not leave enough cold clean water in the creeks to keep the fish alive.

While many of the practices that created the most serious impacts on salmon, steelhead, sea-run cutthroat trout and Pacific lamprey, such as logging, road building, livestock grazing, and overfishing have been much reformed, the damage done by a host of such causes in the early part of the 20th century was compounded and amplified by catastrophic floods in 1955 and 1964. Both floods, but especially the gigantic 1964 event, moved incredible volumes of sediment off steep, clearcut slopes, leaving much of it in the river or along its banks. It will be the work of centuries of natural flooding to clear this burden fully. But the river is beginning to recover some of the deep pools and clean gravels that are part of the recipe for healthy habitat and anadromous fish abundance. Making juvenile salmon and steelhead’s chance of survival even more tenuous, invasive Pikeminnow (Ptychocheilus grandis), which prey on young fish, were introduced to Lake Pillsbury in the 1970s. They have since drifted and established populations throughout the watershed, excluded only by barriers and cooler temperatures.

The Eel River watershed encompasses 3,684 square miles, including some of Northern California’s least stable and most productive terrain. The

Continued on next page
The Eel River once hosted some of the largest salmon runs in California, behind only the Sacramento and Klamath river systems. Photo by Shaun Thompson
necklace, at Founder’s Grove on the famous Avenue of the Giants. This historic stretch of Highway 101 is now a two-lane byway, but the modern freeway also follows the river downstream to the Eel’s last major tributary, the Van Duzen River.

Like the Middle Fork, North Fork, and mainstem, the upper reaches of the Van Duzen conceal steep and rugged canyons with immense boulder dams of multi-hued chert, greywacke and shale, while lower sections meander languidly through scattered remnants of ancient forests.

Just downstream of the Van Duzen confluence, the Eel passes the only town in the watershed large enough to consider itself a city, though Fortuna’s population of 12,000 would scarcely make an impression on any of California’s great metropolitan areas. From Fortuna, the now tidally influenced river flows west through a wide floodplain to its mouth.

The Eel River historically held some of the largest salmon runs in the state, behind only the much larger Sacramento and Klamath. One highly credible study suggests that, in good conditions, it is likely that more than one million salmonids (800,000 Chinook, 150,000 coho and 100,000 steelhead) returned to the Eel River. In less abundant years, the total was probably closer to 500,000 — though neither figure includes coastal cutthroat trout and smaller runs of chum and pink salmon. (Yoshiyama and Moyle, 2010) These numbers decreased to around 150,000 fish in the 1960s.

Yoshiyama and Moyle’s estimates, though far from precise and highly variable from year to year, suggest that current average runs are now 3,500 adults (1,000 Chinook, 500 coho, 2,000 steelhead), representing a 99% decline in overall population size. These declines led to the Threatened listings under the federal Endangered Species Act for each of the Eel River’s surviving anadromous salmonids. Coho are also listed as Threatened under the California ESA. The majority of the river is open to catch and release fishing, with the exception of particular spawning grounds in the fall, spring migration closures and summer steelhead refugia.

Fall Chinook, though severely reduced in numbers, are still present throughout most of their historic range. There is a catch and release fishery open, except for low-flow closures in dry periods. In 2012, the California Department of Fish and Wildlife estimated Chinook escapement for the upper Eel River at 7,656 spawners, based on a live trap at Cape Horn Dam and ground surveys on the mainstem and its upper tributaries. This is not necessarily representative of a large run in the river system as a whole. A relatively large tributary of the mainstem Eel, Tomki Creek, located downstream from the lower dam long supported a Chinook population on par with that passing over the Van Arsdale fish ladder to spawn between the dams. Very low recent returns to Tomki Creek suggest the level of disturbance in similar tributaries across the basin may be preventing Chinook population recovery.

Steelhead on the Eel are divided into two main runs, winter and summer. The winter run return from the ocean to spawn in the late fall through early spring. They arrive in freshwater sexually developed. Many return to the ocean after spawning.

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By contrast, summer run steelhead enter freshwater in late spring through early summer with undeveloped gonads. They proceed upstream through inconceivable obstacles, perfectly timed with the steady melt of upper basin snowpack. Summer steelhead remain in their freshwater enclaves throughout the summer, bearing up under persistently increasing temperatures and diminishing flows until the rains return in the fall and they can reach their natal streams to spawn and subsequently return to the sea.

Two runs of summer steelhead still persist on the Eel, in the Middle Fork and the Van Duzen. An additional summer run is known to have been extirpated from the North Fork. Middle Fork Eel summer steelhead have been monitored consistently since the mid 1960s through annual diving surveys of the 26 miles of refugia, and additional dives on the less populated upper reaches. The average has been around 780 adults, with a high of 1,550 in 1987. Last year had a recent high of 1,191 individuals.

The Van Duzen summer refugia has been monitored far less consistently, with an average over the last five years of around 150 fish. These two runs represent the southernmost extent of the summer steelhead life history pattern and some of the largest summers observed, averaging 28-36 inches, with many individuals over 40 inches.

Winter-run steelhead still maintain a presence in a significant portion of their historic range. A July 2009 report by the Center for Ecosystem Management and Restoration (CEMAR) surveyed available records of steelhead distribution in the Eel River basin, finding evidence of historic steelhead presence in at least 463 of the 558 streams evaluated. Of those streams, CEMAR found about 35% still supported anadromous runs — a relatively large proportion. However, the trend lines are far from reassuring: as CEMAR reported, “(i)n virtually every instance where information was sufficient to allow comparison between historical and current (i.e., within the last 15 years) conditions, decline was evident.”

Though winter and summer steelhead appear to have distinct life-histories on the Eel at present, with geographically separate spawning areas, the National Marine Fisheries Service listed the fish as a single Evolutionarily Significant Unit (ESU). Arguably, Eel River winter and summer-run steelhead are more closely related than are their cousins in other rivers. Researchers have suggested this may be the result of a landslide blocking the mainstem Eel roughly 22-25,000 years ago, forcing winter and summer-run fish into close enough proximity to interbreed. Given their low population size and sharply restricted habitat, if summer-run steelhead were considered separately they would almost certainly have to be considered Endangered under the federal ESA (at risk of extinction in the next century) rather than Threatened (at risk of becoming endangered in the next century).

Comprehensive spawning surveys and life cycle monitoring are not currently being conducted in the Eel, resulting in incomplete data sets for population estimates. Long overdue investments in the monitoring and restoration may finally be on the table. The Eel River Forum, a multi-stakeholder group convened by California Trout, is pressing forward with proposals for joint state and federal action. The successful implementation, after decades of effort, of major projects that will restore vital estuarine habitat in the lower river has given the river’s advocates hope that persistence will yield rewards across the whole watershed.

On the whole, the Eel presents a picture of mixed peril and promise. The watershed remains the best prospect for large-scale salmon habitat restoration and recovery in California, and a keystone for the success of salmon in neighboring watersheds as well. The next decade will present a series of choices that, if wisely taken, may yet lead to a lasting, biologically effective recovery for much of the watershed and many of its imperiled native species.
Is Alaska’s Susitna River Destined to be Dammed?

By Richard Leo

The Susitna River nurtures a large salmon population, even by Alaska standards, in its 19,000 square-mile watershed

The long-term impacts to habitat are well known from all the other dams that have been built on salmon rivers in the past 100 years. But the Alaska Energy Authority (AEA), the state agency charged with building the dam, insists that the project could actually increase salmon. AEA, in a document to the Alaska legislature, cited the Nisqually River as a place where salmon were enhanced by dams. [Editor’s Note: The Nisqually’s steelhead and Chinook runs are listed as Threatened under the Endangered Species Act with population numbers in the low hundreds.] Every dam that’s ever been built, including those on the Nisqually, where native salmon populations were totally extirpated by the downstream effects of dams on salmon habitat, stands as evidence that dams do not enhance natural salmon populations.

The first people to enter the Susitna Valley after the mile-thick Pleistocene ice sheet receded are still there fishing and hunting, living in and with their ancestral lands. Native land issues in Alaska are complex, the result of the Alaska Native Claims Settlement Act that the U.S. Congress passed in 1971, transferring ownership of approximately one-ninth of the state’s land to 200 local village and 12 Native-owned regional corporations. Much of the land where the dam is to be built is Native owned. The 2013 field study plans included many areas on Native Village lands. AEA was not given permits by Native corporation landowners, who cited legal conflicts over liability and AEA’s recent trespasses without permits. Those issues are contentious and unresolved.

The Susitna nurtures large populations, even by Alaskan standards, of all five species of salmon in its vast 19,000 square mile watershed. Sport fishing is a seasonal $143 million dollar business that creates about 2,000 jobs. Most, but not all, of the river’s great salmon runs are below Devil’s Canyon, ten miles downstream of the dam site; smaller numbers of Chinook salmon are known to spawn and rear far above where the river would be dammed at a point 184 miles upstream of Cook Inlet, 129 miles below its glacial source.

Andy Embick, the late, extraordinary Alaskan adventure kayaker eloquently described a river he both loved and respected in his classic book “Fast and Cold, A Guide to Alaskan Whitewater”:

The Susitna is a huge river, vast in length and in water volume. It is a river of great extremes of character, and very few people know all its stretches. In its highest reaches it is far above timberline on the southern...
This habitat would be inundated by the 600-800 feet deep with wooded banks. Canyon, the Susitna rolls powerfully through the Talkeetna Mountains. The rock, carved tortuously by the grit in the water, constricts the river in places down to about 35 feet wide and forces it into exploding waves, surging and boiling eddies, and worst of all, some of the biggest and nastiest holes one will ever see.

Downstream from Devil's Canyon, the Susitna becomes braided, fast, and flat down to tidewater at Cook Inlet.

The dam project as now planned would result in the second tallest dam in America. Only California's Oroville Dam is higher by 35 feet; Susitna is being planned for an expandable height to 800 feet — the tallest in the Western hemisphere and the 5th tallest of 800,000 dams on earth. It would be the only dam on a major salmon river in Alaska. The Susitna is the country's 15th largest river by volume.

The reservoir would refill each year from spring to fall, reducing naturally occurring flows and floods that trigger fish movements within different habitats along the river. Salmon are triggered by ice-out and by spring snowmelt to smolt and move downstream, and also by summer and fall floods to move upriver to spawn. The controlled river flow will no longer signal to fish when and where to move.

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River ice plays a vital role in salmon life history in Alaska — something that would be lost with construction of the Susitna dam. Photo courtesy Coalition for Susitna Dam Alternatives.
Continued from previous page

Sunny days of our ever-warmer summers will continue to increase water temperatures in side and off-channel sloughs and backwaters. High fall flows, those that coho salmon recognize to make their spawning runs, will be captured to top off the reservoir for the winter electric season.

In winter, water will be released from the dam to meet electrical needs from Fairbanks, through Anchorage to Seward. Release of water in winter will increase the naturally low, steady, under-ice flows with peaking releases up to ten times above normal. The river will be cranked up and down to follow daily and hourly electrical use — powering lights, coffee pots and microwaves in morning, tapering in mid-day, peaking again as televisions, video games, and space heaters snap on in the evening. At night the river will be turned down as people turn in.

From juvenile salmon in side- and off-channels to resident species like whitefish and burbot in deep mainstem pools, fish in winter northern rivers are adapted to slow waters under protective ice cover. Under proposed dam operations, they would experience rapid flow fluctuations as the winter flows oscillate wildly. At least 30 miles of the river below Devil’s Canyon would lose the ice cover that provides stability to both the main channel and to side- and off-channel habitats that are so important to over-wintering fish.

It is obvious that the towering dam itself will block migrating adult fish. It is much more difficult to comprehend the greater impact that a dam has on the entire down-river ecosystem. Off- and side-channel habitat is created and maintained both by river’s annual floods and by ice scour. High water blasts the river over its banks, cuts through the forest and brings new gravel and food. In most salmon rivers outside Alaska, high water is in winter and spring when rain and snowmelt swell the river over its banks. In Alaska, rivers are frozen from November to May with steady low flows moving under thick ice.

Ice has another critical role in northern rivers best illustrated by the most anticipated river event of the year: breakup. At breakup the river throws winter violently aside. Ice moves, jams, and scour. The drama and power of it is on the order of earthquakes and hurricanes. It resets the riverbanks, gouging out soil and swallowing giant trees. It also resets riverside plant communities, reshaping the backwaters and side channels of fish habitat. That the project will change ice dynamics is certain; how it will do so is beyond even the most sophisticated modeling capabilities.

The push to build the dam as quickly as possible began in 2011 when Gov. Sean Parnell announced Susitna as the only option that could get the state to a 50% renewable energy goal by the year 2025, a non-binding policy established in no small part to justify the dam (which was scheduled to be completed by 2024).

The only reason for the dam is electricity. If operated at levels AEA projects, an average of 300 megawatts would be generated. But it isn’t likely to operate even at this low level, which does not consider requirements for environmental flows that won’t impact salmon. By comparison, Grand Coulee, at 550 feet, generates an average of 2,300 megawatts. Susitna: a lot of money, huge impacts, and little power.

The likelihood of cost overruns on such a massive project is clear. Even the current $5.2 billion estimate does not include upgrades to power transmission line infrastructure that are required to move the power to users. Funding is uncertain. Due to Alaska’s vast distances, the extremes of Alaskan weather, and the rugged terrain, there will still need to be back-up power at towns and cites. And, there are earthquakes: in 2002, a 7.9 magnitude quake split the ground only 40 miles from the dam site. It was a previously unknown fault.

AEA is currently doing 58 separate studies to measure baselines of habitat and to estimate the potential impacts and changes to anadromous and resident fish, wildlife, changes in glacial hydrology from climate change, and cultural resources, including many studies on salmon. Salmon studies include escapement and harvest estimates, as well as habitat-based estimates of abundance. A study of radio-tagged Chinook salmon is yielding information on the numbers of fish swimming upstream of the dam site for use in determining the extremely expensive feasibility of constructing fish passage; genetic samples are being collected to determine if these fish are unique. All those studies require both data and interpretation of the data. Study reports from first-year studies, estimated to be 20,000 pages, will be provided in February. Review agency staff and the concerned public will have only 60 days to review, to comment and to recommend changes.

The public is being informed, without scientific basis, that the project is expected to “enhance” salmon production. This Mad Men-esque claim is based on two unsupported theories: 1) warmer waters from the dam will increase primary productivity and result in more fish, and 2) reduced turbidity in the river below the dam will somehow result in improved spawning success. It is certain that the waters released from the reservoir will be warmer, which is why an extensive river reach would no longer be ice-covered. But increased temperature and reduced turbidity of river water are highly unlikely to compensate for the harms to incubating and rearing salmon from the loss of ice cover and exposure to maniacal winter flow rates and the dam’s certain long-term effects on habitat.

Alaska plans to complete all studies in two short field seasons, though such an abbreviated timeline cannot return conclusive data for highly variable populations of anadromous fish whose complex life histories span from four to seven years. The speed of the study process ensures that an incomplete assessment will be done. Regardless of either hastily managed science or what AEA’s “vetting” of the science suggests, fishermen familiar with the salmon on any river and especially the Susitna River have no doubt that salmon will be dramatically reduced, as has happened in every other dammed salmon river on the face of the earth.

Dammed the Susitna River is a state, Native Alaskan, and national issue. But fundamentally this is an issue for everyone who knows and cares how salmon fare when rivers are dammed, or dammed, or both.
**Liquid Natural Gas Industry Sets Sights on Skeena River Estuary**

By Michael Price  
— SkeenaWild Conservation Trust —

Commercial fishing still occurs for sockeye and pink salmon throughout the Skeena estuary in years of sufficient returns. However, salmon canneries have long been replaced by pulp- and saw-mills, cargo ports, and shipping terminals; forest removal, mining, rail lines, roads, and pollution have all left their mark on the Skeena. But industrial development pressures have not abated. Two of the most pressing issues for the Skeena currently are: the proposed twin pipeline across the Skeena watershed for tarsands oil from Alberta and condensate from China; and liquefied natural gas (LNG) pipelines from northeast BC and associated LNG marine terminals in the relatively undeveloped Skeena estuary. Although the latter proposed project is certainly the most welcomed by our provincial government, it is perhaps the least understood in terms of its potential impact.

Liquefied natural gas is as its name implies: a naturally occurring hydrocarbon gas (predominantly methane) that has been converted to a liquid form for ease of storage or transport. Natural gas is an energy source often used for cooking, heating, and electricity generation, but is also used in the manufacture of plastics. The global trade in LNG increased by more than 7% per year during 1995-2005, and it is predicted to further increase per year at roughly this rate until 2020. British Columbia is quickly maneuvering to become the world's next international LNG exporter, with a port facility planned for Kitimat on our north coast, and over a dozen other projects proposed; China, Japan, and South Korea are our primary export targets.

Clean energy? Our current provincial government states, “BC exports of LNG will significantly lower global greenhouse gas production by replacing coal-fired power plants and oil-based transportation fuels with a much cleaner alternative”. Although natural gas emits less carbon dioxide per unit electric power than coal, higher methane emissions cause natural gas to increase global warming relative to coal, particularly on the 20-year time scale. This time frame is important, because Arctic sea ice is predicted to disappear in 20 to 30 years unless global warming is abated. And a reduction in sea ice is predicted to accelerate global warming through positive feedback mechanisms as the area of sea ice declines, the warmer the climate becomes. When used as a transportation fuel, the methane plus carbon dioxide footprint of natural gas is greater than that of oil, because the efficiency of natural gas is less than that of oil as a transportation fuel. Not to mention that the production and transportation of LNG is one of the most energy intensive industrial processes known. Thus, natural gas is not the “low” greenhouse-gas alternative for the next generation, as promised.

There are currently five LNG pipeline, storage, port and facility projects proposed for the Skeena.

By M ichael Price

Michael Price is an ecologist with SkeenaWild Conservation Trust. His research interests are salmon-centric, and include: mechanisms that influence early marine survival, historical run-reconstructions and current habitat capacity of the Skeena, sub-lethal effects of metal toxicity, and foraging ecology.

SkeenaWild Conservation Trust is a regional conservation initiative whose goal is to make the Skeena River watershed and nearby coastal communities a global model of sustainability. Their web site is www.skeenawild.org.

High in the Coast Mountains of northern British Columbia (BC), amid the shared birthplace of the Nass and Stikine rivers, begins the nearly 600 km journey of the Skeena River to the Pacific Ocean. The Skeena is one of the longest un-dammed rivers in the world, and it remains relatively intact. The watershed has the largest population of steelhead anywhere, and, measured by abundance, diversity, and integrity of habitat, is one of the most important wild salmon and steelhead systems on Earth.

This enormous abundance of salmon enticed settlers to travel to the Skeena by steamship in the mid-1800s. The first salmon cannery was built in 1876 and operated at Inverness Slough on the Skeena estuary, processing only Chinook salmon. Sockeye soon became the preferred target species for canning. The city of Prince Rupert on the north end of the estuary was planned and incorporated by 1910, and the Grand Trunk Pacific Railway united this remote place with Vancouver in 1914. By 1919, there were 15 canneries operating at the mouth of the Skeena River, and more than 1,000 oar-and-sail Gill-net vessels harvesting the five salmon species and steelhead at rates that were only limited by the speed of processing.
rated the 68th largest company in the world) for the development of Lelu Island and adjacent waterways (Figure 2). Most of Lelu Island’s terrestrial and foreshore habitat is proposed to be converted to a LNG storage plant, and ancillary development will include a pipeline from northeast BC to deliver natural gas, an electric power plant to burn natural gas, removal of most native vegetation on Lelu Island, physical disturbance of more than 2 ha of foreshore habitat, the dredging of 1.5 million m³ of ocean floor in Porpoise Channel, a marine terminal with a 2.7 km-long elevated causeway to berthing docks positioned on the edge of Flora Bank, and numerous access roads and bridges. The federal government is currently considering whether or not this proposed project should undergo an Environmental Assessment, and the public comment period has been extended until September 20, 2013.

The Skeena estuary is the most important ecologic, socio-cultural, and economic zone on BC’s north coast. The 2,500 ha of wetlands are of enormous biological importance, because they provide a diversity of food sources and habitats that support large populations of fish and wildlife in a concentrated area, and play a critical role in carbon sequestration known as “Blue Carbon” (carbon sequestration by coastal vegetated habitats exceeds the carbon fixed and stored by land plants) [10]. Of particular importance throughout the Skeena estuary are the intertidal and sub-tidal eelgrass beds and meadows, which are critical and sensitive habitats. Eelgrass meadows serve a foundational purpose in estuarine food webs via primary productivity, the micro and macro-invertebrate fauna that they support, and as shelter for extensive juvenile salmon populations. Flora Bank, located between Lelu and Kitson islands, is recognized as one of the largest eelgrass meadows in BC, supporting up to 60% of the total Skeena estuarine eelgrass. Previous studies performed during a wave of pressure for industrial development of the Skeena estuary reported that zooplankton abundance was particularly high on Flora Bank. Amphipods and isopods, important foods for juvenile salmonids, were specifically found only on Flora Bank.

The Skeena estuary is a critical rearing area for juvenile salmon. The transition from freshwater to the marine environment is one of the most challenging phases for salmon, and they encounter a suite of new predators and prey; estuaries provide the necessary transitional habitat. Juveniles must grow rapidly to avoid the initial risk of predation, and reach a size and condition that will increase their chances of surviving the first marine winter when food resources are considerably reduced. Factors that slow growth may include: increased predation, competition, reduced food quantity or quality, and pathogens. Reduced habitat quality can enhance the negative effects that these factors have on juvenile salmon, and each of these factors, in turn, reduces the quality of habitat. Importantly, fish that are sub-lethally stressed (by polluted waters or food limitations) may be more vulnerable to predator and pathogen attacks, and less tolerant to additional stressors.

Coastal seas are predicted to warm by 2.5 °C or more over the next century, and this degree of warming will have uncertain but potentially devastating effects on salmon and their ecosystems. Wild juvenile salmon may be particularly vulnerable to temperature increases during their transitional period in estuaries. For example, zooplankton abundance is expected to shift northward and peak earlier under warmer conditions, which could lead to poorer feeding conditions for juveniles, and this pattern may already be underway on BC’s south coast. The abundance and distribution of predators and pathogens may also change with warmer seas, resulting in increased mortality of juvenile salmon.

Exacerbating these general threats to Skeena salmon is the current low abundance of many populations. The early commercial fishery undoubtedly hit Skeena salmon hard. The catch of sockeye peaked in 1910, chum catch peaked in 1926, steelhead in 1927, pink in 1930, Chinook in 1932, and coho in 1938; this, despite vast improvements in fishing technology over the decades. A recent study estimated the average annual abundance of Skeena chum during 1916 to 1919 (the initial period when chum became

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a commercially-marketable species) at between 267,000 and 470,000, which compares to less than 9,000 that are estimated to have returned annually since 2007. Skeena chum have thus become a species of high conservation concern. Additionally, Skeena sockeye returned this year in the lowest numbers observed since modern record keeping began in the 1950s, and even-year pink salmon appear to be trending downward. By-catch in mixed-stock fisheries, competitive interactions with hatchery fish, loss of genetic diversity and spawning habitat, possible changes in the magnitude of marine productivity, and reduced riverine and estuarine fertility due to fewer returning spawners, are all likely contributors to the more recent decline in Skeena salmon.

Chum and other salmonids of the Skeena clearly need all the habitat available to them, in as healthy a condition as possible, so as to recover at least some of their former abundance. Flora Bank is one of the most important habitats for salmon in the estuary, and it is a highly sensitive area for development. A report written in 1973 by the Department of Fisheries and Oceans in response to a development proposal for Flora Bank declared that, “the shallow estuarine areas between Porpoise Channel and the mouth of the Skeena River are of high biological significance as a fish (especially juvenile salmon) rearing habitat. Inverness Passage, Flora Bank and De Horsey Bank, in that order, are habitats of critical importance for the rearing of juvenile salmon. The construction of a super port at the Kitson Island - Flora Bank site would degrade much of this critical salmon habitat”. But here we are again. The proposed 2.7 km-long elevated causeway from the LNG marine terminal to berthing docks will cut across a portion of Flora Bank. Dredging of Porpoise Channel will likely re-suspend extant pulp mill contaminants (dioxins and furans) now buried in adjacent sediments. Piling construction will physically alter eelgrass habitat, create noise disturbance with unknown consequences for rearing salmonids, and compromise the stability of Flora Bank. Finally, intensified ship traffic will likely increase sediment re-suspension, which could cover eelgrass leaves and cause shading and die-off, and produce chronic oil pollution. The BC provincial marine park of Kitson Island, Kitson Islet, and adjacent waters within 100 km, is also at risk. The specific conservation mandate of the park includes the protection of habitat for salmon, migratory waterfowl, humpback whales (high annual concentrations during spring), harbour and Dall’s porpoises, and northern resident orca whales. All of these protected area values will be at high risk to adverse air emissions, alteration of physical habitat, contaminants, and noise and water pollution if the Lelu Island LNG marine terminal proceeds as proposed.

In a diverse region marked by competing agendas, wild salmon are a thread of shared experience that runs through all of our communities. What has sustained abundant wild salmon populations in the Skeena compared to the once productive rivers of Washington, Oregon, and California has less to do with some unique capacity of Skeena salmon to withstand the same degree of human influence, but rather that the human footprint has not been as large; at least not yet. We at SkeenaWild Conservation Trust are striving to ensure wild salmon and steelhead have a place in perpetuity. We have much work to do: applying rigorous research to monitor impacts, designing new governance systems, and building new economic ventures based on a wild salmon economy.
Around the Campfire: Peter W. Soverel

An excerpt from Wild Steelhead, The Lure and Lore of a Pacific Northwest Icon

By Sean M. Gallagher
— Wild River Press —

You know what I wish right now?” I said. “What’s that?” asked Soverel. “I wish we had some ice. A stiff drink on the rocks would be nice right now.”

I was still feeling a little guilty. It was the fourth day of an exploratory trip down Kamchatka’s upper Zhupaova River. We were in search of its legendary steelhead-size rainbows. The day before, our little armada including four boats and eight people came to an abrupt halt, when the new river channel we were riding suddenly veered into a jungle. Wielding a chainsaw, bow and ax, we spent the better part of the day cleaving our way through the jumbled mess. Late afternoon after breaking out of the jungle, the clouds opened and it began to pour. Time to set up camp.

We found a gentle sloping gravel bar, pulled the boats into shore, and busily went about unloading gear and building camp. That night, with full stomachs and tired bones, everyone snuggled around the fire. I went down to check the boats. It’s a habit. Shining my lamp along the bar, I found them all in a line and counted three painter ropes stretching into the trees. The last inflatable, a large Russian gear boat, was partially obstructed from view, but appeared secure. The rain was unrelenting. I went to bed.

The next day my stomach turned over when I counted only three boats at the beach. It was the Russian barge. The water came up—it had never been secured. It floated away. We decided to spend an extra night. Pete and I were now sorting through gear figuring out how to divide up the load and what to leave out.

He said, “I don’t understand why the Russian scientists carry liquid nitrogen in these giant genie bottles, and cap them with only a cork.” The nitrogen was for collecting DNA samples.

I loved fishing the Toutle in March or April when you could never predict what you would hook — a kelt, late winter-run or ‘springer.’

“This stuff is nasty. If this tips over in the boat it is going to be a disaster.” He then looked up and said: “Sean, go grab a pan. Were making ice, baby!” My wish came true.

That is one side of Peter W. Soverel: finding the humor and then turning misfortune into opportunity. If you are planning a trip into the wilderness, this is the guy you want along—just ask Greg McDonald, his Dean River partner for more than 25 years.

Our friendship goes back nearly 40 years to when he was still a Young Commander in the U.S. Navy. After becoming captain, one of his many duties included a stint as Special Assistant to Ronald Reagan for Iran-Contra. Pete hopped off the admiral track when he was diagnosed with cancer about the same time we won the cold war. But that was not a misfortune. The cold warrior became a warrior for the steelhead resource.

In addition to teaching war strategy and diplomacy at the University of Washington, Pete has since gone on to do some impressive things: Chairman of the Federation of Fly Fishers Steelhead Committee, a member of the Washington delegation to the North Pacific Anadromous Fish Commission, founder of the Wild Salmon Center and Wild Salmon Rivers, to mention just a few. And when it comes to wild steelhead, no one on the planet has lived the steelhead experience like Pete Soverel. Listen carefully when you sit in on our conversation. You will be dazzled.

When you become friends with Pete, you become friends for life. Not just with Pete, but with the whole Soverel family. This summer we will celebrate Pete and Marion’s 50th wedding anniversary. I am honored to be considered among their closest friends.

Have you always fished?

Pete Soverel: From my earliest memories, I have been a predator. The first fish I recall catching was a tinker mackerel, fishing with a handline in Winnapaug Pond in Rhode Island. My dad used the mackerel as bait for stripers in the Weekapaug Inlet, where we lived in 1944. Years later, I learned how to fly fish for stripers. My mentor was an iconic Yankee—Herb Chase of Portsmouth, Rhode Island.

That’s a long way from the Pacific Northwest—what drew you to steelhead?

Soverel: I was introduced to steelhead in, of all places, Vietnam. As a young
Naval officer I was sent off on my senior trip to Vietnam where for Christmas my mother sent me A.J. McClane’s Standard Fishing Encyclopedia. The unit I commanded was involved in some very heavy fighting during 1967 and 1968. When I was not on mission, I was reading this giant tome. One of the longest sections was on steelhead and included a watercolor of an incredibly beautiful 12-pound Klamath River winter-run steelhead. I was smitten instantly. Viewing that illustration, I promised myself, “If I survive here, I am going to meet one of those things.” So I fell in love with steelhead before I actually ever saw one. At the end of my tour, the Navy was going to send me to graduate school. I could go to Tufts in Boston—where I was from. I didn’t want to go back to New England. I could go to Georgetown in Washington D.C.—and I knew there were no steelhead there—or I could go to the University of Washington. It was a no brainer. I picked Seattle.

**Did you bring your striped tackle?**

**Soverel:** Yes. When I arrived in December 1968, I had an Orvis impregnated cane rod called the Shooting Star. It was about a 9- or 10-weight rod. It was heavy. It probably weighed, oh, I don’t know, three-quarters of a pound or something—I still have it. It could throw a heavy line from here to China. Or something— I still have it. It could throw a heavy line from here to China. I remember I had just purchased a station wagon. On arrival in Washington, I immediately realized the station wagon was a big mistake. I traded it in for a 1956 GMC three-quarter-ton truck and a camper. Our first trip was to the Sauk River, in March 1969—wife, three kids and two dogs.

**How did you decide to go there?**

**Soverel:** The Game Department published catch records that showed that the Sauk had a strong run of fish in January and then a big bump of fish in March. I had no idea where to fish the Sauk or even how to steelhead fly fish. Nonetheless, we all piled into the camper and headed for the Sauk in the pouring-down rain. We crossed the bridge at Darrington and went up the Mountain Loop Road on the East side of the Sauk for about a half mile. We pulled out on a gravel bar there. Later I learned the locals called the run the Garbage Dump Hole. I prefer to refer to it as the Glide. It’s still there. It was perfect fly water—moderate current, two to four feet deep over big rocks.

**How did you know what fly to use?**

**Soverel:** I had a friend, Commander Younglove, U. S. Navy retired, who worked for Eddie Bauer downtown. In those days they were a real sporting-goods store. Anyway, he handed me a half dozen or so General Practitioner flies, which to this day is still my favorite steelhead fly. The pattern originated in Britain for Atlantic salmon and was relatively new. He said: “I’ve heard these are good—give them a try and let me know how you do.” So that’s what I had on when I waded out to the gravel bar. Almost immediately I hooked a steelhead. I couldn’t believe it—I had been steelhead fishing for about 15 minutes and had one on! But since I had never played such a large fish in a river before, I had no idea how to land it. I had a giant net back in the camper and I am shrieking at the top of my voice: “Bring the net! Bring the net!” Well, by the time they heard me, I had gotten the fish in close. So here’s this 10- or 12-pounder thrashing in the shallows. And you know what’s going to happen. The fly popped out. I chucked my bamboo rod up on the rocks and dove on top of that fish—his head sticking out near my butt as I tried to hold onto its tail between my legs. Naturally, this didn’t work. The fish squirmed out of my grasp. I was just crestfallen. My depression was only deepened when I promptly hooked a second fish in the tailout, which made a single jump before saying goodbye.

**That must have got you going!**

**Soverel:** With a vengeance! A few weeks later, I was fishing on the Pilchuck River, at a place called the Tavern Hole. There were five or six bait fishermen there. The only place I could fish was at the very top of the run. I was so inexperienced I didn’t realize that this was actually one of the best places to catch a steelhead on a fly. I had made eight or 10 casts—and you remember with the shooting heads and stripping line, when you finished your drift you’d put the fly rod under your arm and then hand-over-hand the line into the stripping basket? The fly was a few inches under the water, when all of sudden a wake arrowed across the top of the water, crushed my fly and made a giant jump. From way down near the tailout I hear: “I can’t f—ing believe it. He’s got one!” I’m trying to act like this is an everyday experience. Somehow or another I got the line cleared out of the stripping basket and landed a beautiful 12-pound hen, which I promptly whacked on the head. That was the first steelhead I landed.

Very few steelhead anglers were fly fishing back then. No wonder those
Continued from previous page

guys were surprised to see you hook one.

Soverel: Between 1970 and the mid-1980s, when catch-and-release seasons came to the Skykomish, Stillaguamish, Sauk and Skagit, I went years between seeing another fly fisherman—in the wintertime, anyway. I had recently joined the Steelhead Trout Club and met two of its iconic founders, Enos Bradner and Ken McLeod, who later took me under his wing to help teach me how to fly fish for steelhead. My son, Greg, and I were floating the Sauk in March of 1971 or 1972. Bradner was easily recognizable from a mile away. His glowing white hair was like a beacon. I thought, oh, boy, Enos Bradner—let's go down and I'll introduce my son, who at the time was seven or eight. So we rowed down there and pulled in. I saw that, in fact, it was Enos Bradner and he was with Ken McLeod. I’m stunned to discover that they both are packing casting rods, Pflueger Supreme reels, bait boxes, cured salmon eggs and towels. It was a real eye-opener. I had been explaining to my son as we rowed down to them that these two guys were famous fly fishermen. They were—but it illustrates actually how few people tried for winter steelhead on a fly. In fact, most of the people you encountered would ask you if you'd ever caught one on a fly rod.

Are they more difficult to catch than summer-runs?

Soverel: I pretty quickly determined—and it's a belief I hold to this day—that fresh-run winter steelhead are easier to catch on a fly than summer steelhead, in most circumstances.

I’ll bet many experienced steelheaders would disagree.

Soverel: I have fished for summer-run steelhead in or near the tide in only two places: the Dean River in British Columbia and in Kamchatka. There is no question that these near tidal summer runs are extremely aggressive. But the typical summer-run that we're fishing has been in the river a long time—one month, two months, three months, sometimes longer and has typ-

ically migrated scores, even hundreds, of miles upstream. Those fish can be pretty dour and sour. Most winter runs are pretty fresh and are often caught near the tidal sections of their natal rivers. If you show them a fly, they'll bite it.

Did you ever try bait?

Soverel: I did fish on the “dark side.” [laughs] In those days, I had three young children, the eldest of whom was six years old. There is no way young children can fly fish in rivers without being swept away. So I bought a drift boat, one of the very first drift boats made by Glen Woolbridge when he opened his shop in Seattle. I bought it in 1971, for $395. I still have it. The children fished with level-wind reels and usually a float. We would thread a coon or a spotted shrimp onto the hook and wire its feelers to the leader so it laid out with a slight curve to it. You held the float slightly against the current, which caused the shrimp to swim across current, spinning slowly. The fish couldn't resist this bait. It was deadly—still is.

Did you learn anything that made you a better fly fisher?

Soverel: The bite on the spinning shrimp was invariably on the swing, which is exactly where you would catch them on a fly. Unlike gear or bait drifted on the bottom, where the bite can be quite subtle, the bite on a spinning shrimp is a terrific yank—just like on a fly. All three of my children learned how to fish steelhead with this method. Later, it was an easy transition for them to flies. The presentations are virtually the same. Today, all three of them are all totally committed to fly fishing and are very good at it.

Did you have an early mentor in steelheading?

Soverel: About 1970 or 1971 three things came together that had a big influence on me. First, I met Wayne Gibbs, who was the Postmaster in Woodinville, and later became a close friend. Wayne took me under his wing. He really taught me how and where to steelhead with gear. We fished the Skykomish, the Tolt, the Pilchuck and the Sauk. After we'd been fishing for perhaps a year or so he came by to pick me up one day. Instead of my gear rod, I had my fly rod. He said, “Are you going to fish with that all day?” And I said: “Yep. Here are the rules—I go first.” He said: “Yeah, sure. No problem.” That day we went to the Tolt and I hooked three and got two; Wayne hooked none and got none. So for the next several months, Wayne put up with me going first, but it became pretty clear that if you got to go first, even if the other guy was fishing bait, you had a pretty good chance of catching more fish.

What if the guy fishing bait had first water?

Soverel: If he got to go first with sand shrimp or spinning shrimp, I might as well have been home having a cup of coffee. They were going to crush those baits. Anyway, the second important thing that happened was Wayne introduced me to the North Fork of the Toutle River. It was late June. Although I had caught a couple of summer-runs on the Skykomish before this, I was completely unprepared for the experience down on the Toutle. In the 1970s the Toutle was the best summer steelhead river on the Planet Earth—period. I mean, it had everything: a very strong run of winter, spring and summer steelhead; lots of big fish of 12, 14, 16 even 20 pounds and wonderful fly water. One of my favorite spots was the water near Henry Morgan State Park at the junction of the North and South Forks. I loved fishing there, especially in March and April, when you could never predict what you were going to hook—a kelt; a chrome-bright, late-winter-run; or what we called a “springer,” which was a summer-run that started entering the Toutle as early as mid-February. These springers were the most explosive fish you could imagine. They'd break a 12-pound leader against the water friction drag on your fly line. For several years I fished a big log jam opposite the park. From the park side, it didn't look that interesting as the jam was in the middle of long, strong rapids. However, from the other side, the jam formed a small slick maybe a dozen

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feet wide and maybe 40 feet long. That place was the most automatic steelhead lie I've ever fished. Getting out on the log jam without falling in was an adventure, but I never went there without hooking a fish.

I can picture you perched out there precariously. [laughs]

Soverel: Before I tell that story, the third significant thing that happened was that my family decided we were not going to kill wild fish anymore. It was kind of hard to tell exactly which was a wild or which was a hatchery fish before the Game Department began marking. So we set two arbitrary standards. Arbitrary standard No. 1 was if it had beat-up fins, it was a hatchery fish. Rule No. 2 was that if it weighed more than 12 pounds it was wild and we were going to let it go. Over time it become easier to distinguish wild from hatchery fish. Actually, my children brought up this idea—it wasn't even me. On my own I was already releasing steelhead I thought were wild. But they said, “We should have a family compact to release all wild steelhead.” So for 40 years now that's been the Soverel family compact: let the wild fish go.

Back at the log jam....

Soverel: Okay, so it's April 7, 1973—a frosty morning. Which made clammering out on the log jam pretty exciting. If you fell in there, you might die. So I'm still fishing with my single-handed Orvis cane rod. I got out there and stripped off maybe 30 feet of line and made a little short cast. The fly swung about four inches before there was this tremendous yank. The fish would always do the same thing when hooked in this spot—blast off into the current and start jumping like crazy. If it was a springer, the fish would usually take off into the fast water and before you could get off the jam, they would have worked you. Once you got to the gravel bar below the log jam, things would settle down. Usually what happened is the fish either broke off or came off before you could get off the log jam. Well, with this first fish, I was able to get off the log jam and landed a fine 17- to 18-pound springer after a great fight. That was the smallest fish that I hooked there. I made nine more casts. I hooked fish on eight casts and landed three more—so I landed a total of four for nine fish hooked. Each of the last three that I landed was well over 20 pounds. The last fish I hooked was in the high 20s. Instead of running downstream, it actually ran up into the Coal Bank Hole, jumped and carried on there. This gave me enough time get off the logs. When the fish ran back into the Camp Hole, it made kind of a cartwheeling jump toward me. Actually landed on my fly line and broke off.

What a remarkable day!

Soverel: It was so much fun going down to the Toutle. The whole drive down you knew you were just going to smoke them at the log jam. I never saw anyone else fishing it. Anyway, maybe two months after my epic day, I arrived at the jam to find it completely GONE. I couldn't believe it. There were bulldozer tracks all over the gravel bar and the jam and its associated slick were gone. The U. S. Army Corps of Engineers and various state and county agency jackasses where demolishing log jams as “flood control" measures all over the state. They destroyed my fishing and they destroyed critical habitat. They did it on the Tootle; they did it over on the Hoh River; they did it everywhere.

Compared with the diminished runs anglers are left to fish over today, those really were the golden years.