

(Wellness Tips Ezine) The Story of Tinderine, a Sockeye Salmon Sheela



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I have been thinking about Wellness Tips for a while. I want it to be a useful resource, but I found it did not have the reach and therefore the impact that I had hoped when I started. Along with school, that is the reason I stopped writing. No sense spending hours of time writing when not enough people read it and act on it to make a difference. When I started, my hope for Wellness Tips was to change the world! Ha ha!

I feel that especially now, we are in a critical place. That the earth is in a critical place. The plants and creatures of the planet are in a critical place. And we need to act as one, and do something about it.

When something is not working, it is time to make a change and see if a different approach will work better. Below is a story about the plight of the salmon. I am in the process of writing a book - a fantasy trilogy that will be about many of the issues that face our world. This parable uses some of the characters of that book and may be included as part of the larger story. We will see if it makes the cut - ha ha ha. That will be decided much later.

The book is about a world called oracle that is very similar to our world, except that it is populated with elves, fairies, necromancers, guardians and talking creatures, instead of humans. In the parables I will periodically write for Wellness Tips, these characters will seem human-like. In the book you will understand how they are not human, and how they are. The term "Teşrin-I and Kânûn-I" means "year".

I hope you enjoy the story.

The Story of Tinderine, a Sockeye Salmon Sheela

I am thinking I want Salmon Sheela for dinner. I have not had that in while, and I think Judy will have fun helping me come up with a good recipe. Harvey, my Cat Shola will love the leftovers too.

I am about ready to go to the sheeler market, when I sense my Elf Father, Tuuchweetzay, at my side. He seems concerned about something, and I think he wants to talk to me.

"Paran, I want to tell you a story before you go. Do you have time?"

"Of course! There is no hurry. What is it?"

"As you know, we elves live a very, very long time. Always when the leaves turned orange, yellow and red from the time I learned to walk and for my entire life, I remember going to the river with my family to catch some Salmon Sheela for dinner. There were so many in the river I could have walked across their backs to the other side. They would be fighting their way upstream to spawn, and there were so many of them! It was a most amazing sight. I will never forget how we would be able to just pick a Sheela up with our bare hands, take it home and have it for dinner. There were more than enough salmon for us, and the Shola mammals and Shayla birds that depended on the Salmon Sheela for survival."

"When you go to the river now when the leaves turn colours, do you see so many Salmon Sheela that you would be able to walk on their backs to the other side of the river?" he asks me.

"No, not at all. I have noticed some, but not that many," I say.

"I want to tell you the story of Tinderine, a Salmon Sheela friend of mine. I met him four Teşrin-I and Kânûn-I ago when I was camping up the river in the mountains where the stream is born. The snow was melting, and the plantae were starting to grow. He was a tiny little smolt at the time, and he had hundreds of brothers and sisters that all hatched from the same batch of eggs that his mother laid the previous time the leaves were coloured."

"I will tell you his story just like he told it to me, when I met him again just recently."

"Hi Tuuchweetzay, do you remember me? Tinderine? As you know, I am a Sockeye Salmon Sheela. The last time we met was four Teşrin-I and Kânûn-I ago, when I was a smolt. A lot has happened to me since then, and it is important that you tell my story to as many heads as you can."

"When we met, my brothers and sisters are rejoicing at being alive in the waters of this river, but soon our Instincts tell us it is time for us to go, and that we need to swim all the way to the pelagia. Luckily the water of a stream flows downhill, so the swimming is easy, and we are all having fun trying to jump over stones and avoid smashing into them when the currents are strong."

"A few consciousness weeks later, the river we are swimming in is becoming very wide and much more slow moving, and in the river we begin to see these big mesh bags that have huge Salmon Sheela in them. I feel sorry for them as they cannot escape."

"I can tell they are not the same type of Salmon Sheela that I am, because the smolts that escape the mesh are so much bigger than we are, and as such, they can swim faster to get to the plantae algae and other food before we can. We are getting hungry and losing energy because of it. I later find out they are Atlantis Salmon Sheela Smolts that are double-helixally modified to grow super big."

"The water around those mesh bags feels bad. It is murky and smells like death because there is too much algae. That combined with too many Sheela trapped in an enclosed sickness mesh in a part of the river where water can't flow fast enough to wash away their feces, makes for sick Sheela that are very vulnerable to infestation."

"My siblings and I have not even grown scales yet, and we are beginning to feel sick. We feel swollen, and it is impacting

our ability to swim. The Atlantis smolts tell us they have a disease called 'Pelagia Newting', and we might have caught it too."

"Some of my brothers and sisters who did not get enough food because the bigger Atlantis Smolts beat them to it, are really having a hard time as they have less energy from lack of food, and are not able to swim well because of the disease. I lose many of my siblings going past those sickness meshes. My poor brothers and sisters ..."

"We know we are getting closer to the pelagia because the water is getting saltier. We pass a mesh water bag where those poor Atlantis Salmon Sheela trapped inside look like they are flopping themselves, clearly in terrible discomfort. It looks like they are trying to shake something off of their bodies. Then I see why they were acting so weirdly. They have these Pelagic Worm Shoila on their scales all over their bodies that are biting into them, burying themselves into their flesh and eating them. The thought of that happening to me makes me squirm in terror, and I flee, swimming as fast as I can. My heart goes out to those poor Sheela that cannot escape their tormentors."

"Despite trying to flee, I feel one of the Pelagic Worm Shoila suction itself onto me. I see my siblings are also under attack. I scrape my skin on a rock trying to dislodge the worm, but it has already started to bury itself inside me."

"The closer we get to the pelagia, the saltier the water gets, and the more Pelagic Worms there are with each successive mesh waterbag we pass containing Atlantis Sheela. Relatively speaking, these worms are huge on our skin compared to on the Atlantis Salmon Sheela, and I realize after watching my siblings that it takes only three worms to kill us smolts. Many more of my siblings are not going to make it to the pelagia."

"Several consciousness days later, those of us that are left arrive at the pelagia. I know I got lucky with only one worm attack, but my insides feel bad. I don't think there is anything I can do about the Pelagic Worm Shoila inside me."

"There are groups of Sholla Blackfish Whales waiting for us. They are black and white, have teeth and big pink tongues. We are terrified as they keep trying to surround us to eat us. Because they are so much bigger than us and can swim so much faster, my remaining brothers, sisters and I all split up and go our separate ways so that they will have a harder time entrapping us. Many of my siblings I never see again."

"I am alone in the pelagia now, trying to survive. I stay deep in the water to avoid being attacked from above by the Shayla Eagles, Falcons and Herons, and I am lucky to escape the predator Sheela."

"It seems to me that the water is getting warmer as the consciousness weeks go by, and I am feeling more and more tired because of it. One day I happen to swim north in the direction of the high half sun, and I notice the water is cooler. I feel better, it is easier to find food and my biology does not slow down. Because my energy improves, I decide to stay up here for a while, even though my Instinct tells me that is not where I should normally live."

"One consciousness day I am looking for food to eat with a bunch of friends, when I notice what looks like a mesh bag beginning to surround us. I instantly remember the Atlantis Sheela stuck in the sickness mesh in the river, and my Instinct fires up intensely, and my heart begins to race. I do not want to end up like the Atlantis! Which direction should I swim to get away? I can even feel the mesh moving the water towards me, and my terror rises. I had heard stories from other Sheela that often circles of mesh swoop underneath the pelagic Sheela, then lift the Sheela up out of the water into the air never to come back. The thought of my scales and eyes drying out in the air like that is horrifying, let alone what happens after. Huge numbers of Sheela that were in the water one consciousness minute, are gone forever the next consciousness minute. The pelagia always feels empty after the circle meshes come. It is as if the meshes are trying to empty out the pelagia, and I find it so, so sad."

"I swim as fast as I can towards where the mesh is not. It is like the mesh is encircling and closing in on me. I know I am in trouble, and it is possible I will not see another consciousness day. My fear makes me swim faster than I ever have, trying to stay ahead of that mesh. Then I hear a swoosh, and by some stroke of luck, the mesh lifts behind me, and I am okay. But my friends are not! I hear them scream in fear and panic as they are lifted away. Their screams still haunt me to this day, my Instinct turns over and I feel sick every time I remember that moment."

"That is not the only day I encountered mesh circles, but that is the closest call for me. I lose many friends to the mesh circles during my time in the pelagia. I miss them..."

"Then there is another kind of invisible mesh that is usually right where the best food is. You can swim partially through it without noticing, and then you find yourself stuck. You try to swim backwards, the mesh goes into the gills, and you are be trapped. I am told that it doesn't hurt, which surprises me. I would have thought it would be awful. Then, like the mesh circles, this mesh is lifted up, taking the Sheela out of the water and into the air, not to ever come back. Because these invisible meshes are usually by the good food, I choose to eat less healthy food and stay safe."

"During the fourth Teşrin-I and Kânûn-I, when the pelagia water gets hot in the summer, my hormones tell me it is time to go back to my hatch river to meet with other Sockeye Sheela and fertilize the eggs of the female Sockeye Sheela."

"After many consciousness weeks of swimming, I get to the river funnel. There I notice lots of circle meshes and also hooks with food in the water. I know the hooks are traps, but the circle meshes are tricky to avoid. There are lots of us Sockeye Sheela there, trying to get by the meshes and hooks, and into the river itself. I think the meshes must have caught most of us because by the time I get to the river there are not very many of us left."

"The river funnel has many shallow parts which I know to avoid, because I do not want Shayla Eagle talons poking holes in my back. I saw many of my Sheela mates stabbed and carried out of the water by the Shayla Eagles, their tails still waving like they were swimming in the air. Seeing that left a big impression of fear and deep sadness on my heart. Their consciousness days are over."

"I join the other Sockeye Salmon Sheela that avoided the meshes and the Shayla to swim upstream against the current. The river water is very warm which saps my energy. I find it very hard to jump the rock obstacles in my path, especially as the water current is pushing me back towards the pelagia. In places the water is also uncomfortably shallow yet fast moving. I do not feel safe, and I have to work hard just to stay still against the strong current. The Shayla Seagulls are everywhere stabbing us in the back with their beaks. They take bits of flesh out of my back. I guess everyhead likes to eat us. I try and find the deep parts of the river, but in some places I can't escape. Swimming is becoming even more difficult because I am so injured."

"The river funnel narrows into the deep, slow-moving river itself. I am nervous about the sickness meshes that killed so many of my brothers and sisters on our way to the pelagia. A little while later the water becomes murky, begins to smell from the algae. The holes in my back burn, from where the Shayla Gulls stabbed me. We are approaching the Atlantis meshes again, which to my surprise, are empty of Sheela. I have been dreading this part of the journey, but maybe if the Atlantis Sheela are not there, we will be safe from the Shoila Pelagic Worms."

"It does not take long for that idea to be proven wrong. Soon some of my Sockeye Sheela friends and siblings are flipping themselves around in the water trying to rid their bodies of the Shoila Worms that have suctioned onto them. I can see the Worms aiming for our wounds. It is as if the Shayla have started the job, and the Shoila Pelagic Worms are going to finish it and kill us."

"I realize the Worms are attacking me too. My whole body is riddled with them and I can feel them wriggling into the deepest holes left by the Shayla and deepening them. I feel like I am being eaten from the inside out. There are so many

on the surface of my scales that I look for a rock to rub against to hopefully scrape them off. I am in a total panic. We are all desperate for relief, and like when we were swimming to the pelagia, we can't decide whether it is better to swim fast to get out of the area, or to rub them off first. We find ourselves darting forward, finding a rock to rub, then darting forward again as fast as we can manage, considering how injured and low on energy we are in this hot summer water."

"We leave this Atlantis worm-infested mesh area only to come to another, a short distance further. In the river but still close to the pelagia there seem to be many more clumps of Sheela meshes than I remember four Teşrin-I and Kânûn-I ago. We are frantic from feeling unable to escape the Pelagic Worms near these meshes. Thankfully, as we make our way upriver, there are fewer Worm Shoila, probably because they don't like fresh water. However, all said and done, the worms on this part of the voyage takes their toll on us. So many of my Sockeye Salmon travel-mates don't make it. I am so, so sad."

"Suddenly I feel extreme pain in the side of my belly. What is that? What is happening to me now? I feel myself being lifted up - I flap my tail and try to roll over onto my back to escape. The pain of moving my injured areas makes it hard, but I know I better if I want to live. As I roll over, I am looking into the face of a Grizzly Bear Shola. Her teeth look huge, and I don't want to be her lunch. Not after all I have been through. I need to spawn. I flap and roll again, and I roll off her paw and splash back into the water, hitting a rock hard on the way. Thankfully her claws only scraped my scales and did not stab me to the point of no escape, but now I have a gash in my side in addition to holes in my back, a digestive system that has been eaten by Worms, and broken ribs from hitting the rock. I can't tell you how much pain I am in. Swimming is next to impossible, but I have a bit further to go upstream before I can spawn."

"The few of us that are left, struggle up the stream fighting against the current as best we can, considering our injuries. Suddenly it is as if the stream just ends. It seems the side of the mountain has slid into the stream, resulting in a huge wall of rock and dirt blocking our way. I try jumping to see if we can get to the other side of the blockage, but it is too far. What are we going to do now? We can't spawn here because the water is too deep. I am crushed. After all we have been through, we won't be able to spawn. It seems that this four Teşrin-I and Kânûn-I Salmon Sheela run in this river is done forever."

"All of us are right up against the wall of rock, wondering what to do now, when I see you, Tuuchweetzay. I remember you from when I was a smolt. I am so glad to see you. A friendly face. You tell me you are going to carry me and my Sockeye Sheela friends to the other side of the slide so we can continue upstream, and you tell us to not be afraid. You and some of your elfyn friends scoop us up in hand meshes, put us in buckets of cool water, put the buckets onto the back of a truck, and drive us upstream past the slide. Then you very gently set us free in the stream again. You tell me you will meet me at the spawning grounds in a few days, and that you will make sure the slide is cleared before the plantae grow in the spring, so the smolts can make it to the pelagia. I cannot believe your kindness. To say I am grateful is an understatement."

"A few consciousness hours later of painful struggle against the current, the few of us that are left finally make it to where we are born. I think it is a miracle. It is so good to see some of my brothers and sisters again. We all look terribly beat up, with chunks of flesh missing, scales missing, some have fins half torn off, yet here we are. It is time to spawn."

"The females move the pebbles around at the bottom of the stream to create a bit of a dip, and lay their eggs. I notice lots of bubbles coming up as the stones and pebbles are moved, and the water feels fresher - like it is aerated. After the eggs are laid, it is my turn to inseminate them."

"And here we are, Tuuchweetzay. The end of my story, and the end of my life. I have spawned, so I can die now. I don't know how many more Teşrin-I and Kânûn-I we, the Salmon Sheela will survive. I made it back here to my hatching grounds to spawn against all odds. Those of us that are here are the only ones left for this year. Our numbers would not be so critically low if it were only the Sheela, Shayla, and Shola predators that come after us. That is to be expected. We are okay with that. We all have to eat."

"The mesh and hooks at the river funnel don't help, but the biggest problem is Pelagic Newtling disease that kill so many of the smolts going down to the pelagia, and four Teşrin-I and Kânûn-I later on the way back upriver to spawn, the Shoila Pelagic Worms that kill many of those of us that are left. It is a disaster, and we will go extinct within a few years if nothing changes. If on the other fin, things do change, we can hope that a larger percentage of the smolts that hatch when the snow melts and the plantae grow, will make it back here successfully to spawn, and our numbers will grow again."

Tuuchweetzay looks at me and says, "That is the end of Tinderine's personal story. He did his bit. He was one of the lucky ones that despite all odds, managed to make it back to spawn. But there is much more to the big story of the Salmon Sheela. I want to tell you about how the lack of Salmon Sheela has impacted the Sholla Blackfish."

"You remember how Tinderine said that when they first got to the pelagia, a group of Sholla Blackfish tried to surround them to eat them? Well, the Salmon Sheela, particularly Chinook Salmon Sheela, are a key part of the Blackfish diet. Salmon Sheela have nutrition in them that is not found in other species of Sheela in as large amounts. So, if the Blackfish cannot find enough Salmon Sheela to eat, they have trouble reproducing, often losing their calves late in their pregnancy or just after their birth, which is especially hard on them."

"So, unfortunately, the Sholla Blackfish are not maintaining their numbers either. Calves are celebrated and looked after by the entire pod, but they are often sickly and don't make it despite the pod's best efforts. The Blackfish are now also threatened with extinction, largely because of the huge decline in Chinook Salmon Sheela," says Tuuchweetzay.

"I find it extremely sad. The Sholla Blackfish have always been iconic in the pelagia. Seeing their dorsal fins when they spout always fills my heart. And if one is lucky enough to see one breach - wow. I am thrilled. Like the Salmon Sheela, they used to be a common sight. Now they are rare, and my heart cries for them."

"There are Shola like bears that also rely on the Salmon Sheela. When I was moving Tinderine and his Salmon Sheela buddies past the slide, I noticed a bunch of bears at the water's edge below the slide, trying to catch the few Sockeye that were there. They looked so emaciated. Their skin was hanging off their bones. I have not seen bears looking that thin before, and I wonder if they will survive their winter hibernation as they will have no bodyfat to live on and may just die in their sleep."

"I watched them for a while. They would plunge their heads into the water to catch a Sheela in their jaws, but they seemed to keep missing them. It was as if they were not able to see them well. I have never seen Shola bears miss Sheela that are swimming between their legs."

"I think their vision must have been impaired due to a lack of omega 3s in their diet. Sockeye Sheela are their best source, so when they do not eat enough of them, I suppose it is not surprising that their vision would be compromised."

Tuuchweetzay continues. "And we can't forget the carnivore Shayla, like bald eagles. They are an iconic Shayla in Salmon Sheela territory. After the snow melts when their chicks hatch, Salmon Sheela are one of their favourite foods to give the babies. One used to see Bald Eagle Shayla swoop down and catch a Salmon Sheela in their talons, and fly off to their huge nests very frequently. Not so much anymore. Not like when I was a young elf when there were lots of salmon. Salmon have lots of flesh compared to other types of food, like Squirrel and Mice Shola or Smelt and Herring Sheela. So, for the energy effort, salmon provides more food and can give lots of nestovers, feeding them for days. The lack of Salmon Sheela means huge amounts of energy expenditure finding enough Shola or smaller Sheela to feed the chicks and themselves. The Bald Eagle Shayla have been increasing in numbers since we elves and fairies removed lead from

buckshot that the Eagle Shayla were eating thinking it was food, but the lack of Salmon Sheela may decrease their population again.”

I ask, disappointed, “Are you saying we should not be eating Salmon Sheela at all?”

“We can still eat Salmon Sheela, but we need to be very careful. We need to choose with our treasureboxes by supporting the elves and fairies that sheel with their protection in mind. The only type of Salmon Sheela that is sustainable now is Pink Salmon Sheela. So only buy Pink Salmon Sheela. Avoid Sockeye, Chinook, Coho, Chum and Steelhead Salmon/Trout. We need to give them at least eight Teşrin-I and Kânûn-I to recover their numbers before we sheel them again,” says Tuuchweetzay.

“I would worry about not getting enough omega 3s if I chose not to eat them in order to help them recover,” I say.

“Yes, that is a concern although there are other good sources of omega 3. Krill Shella, for example. But they are now being oversheeled to make supplements, so I don’t really think they are a good idea either. Mackerel and Anchovy Sheela would be great options. They are not oversheeled. Flax Plantae can work for some heads if they have the enzymes to convert it into a useable form in their bodies. If after 12 consciousness weeks the skin does not improve, most likely plantae sources won’t work. Sheela or Shella sources of omega 3 generally work better,” explains Tuuchweetzay.

“Is there anything else you wanted to tell me? May I head down to the market and buy some Pink Salmon Sheela for dinner now?” I ask.

“No, that is all. I will see you later,” he says.

I head down to the Sheel Market and since the sheeler is not busy, I decide to ask him how he sheels.

“I use the seine meshes in the middle of the pelagia. I think it is unfair to the Salmon Sheela to lie in wait for them at the river funnel. They don’t stand a chance. And to sheel at a river where the Salmon Sheela returns are predicted to be low is unconscionable in my opinion. We try to be fair to the Salmon,” he says to me.

“If you are sheeling for salmon in the middle of the pelagia, how do you know which runs the Sheela will be returning to?” I ask. “Is it not true that the Sheela you catch in the pelagia might be returning to endangered rivers? How do you know?”

“Sometimes smolts are tagged as they leave the rivers, and we can tell that way. Most of the time we don’t know. I agree, that is a problem. But I need to sheel to feed my family. I am doing the best I can – I can’t afford to stop sheeling. What would you suggest I do?” asks the sheeler.

“My understanding is Pink Salmon Sheela are doing okay. Maybe you can only sheel Pink?”

“I suppose we can change our location to catch Pink only ... but that will severely limit our catch and the treasureboxes I will earn from selling the Sheela. My family will struggle. I don’t think that is a perfect solution. We need more than just Pink Salmon Sheela.”

I remember a story Tuuchweetzay had told me a long time ago about Oolichan Sheela, which were also a staple for his family, growing up. “Maybe you can sheel the other kinds of Salmon Sheela after they spawn, way up where the rivers are born? The Oolichan Sheela are sheeled that way – after they spawn. You can probably just go and pick up the Salmon Sheela out of the rivers. Don’t Salmon Sheela turn a different colour after they have spawned?”

“Yes, they do. But they are so beat up and very unappetizing at that point. No head would want to eat them. And the Salmon Sheela don’t eat once they are in the river so they use up all their fat, including their omega 3s, so they would be less healthy also. So for those reasons I am not sure I would make us enough treasureboxes to make a good living,” replies the sheeler. “Besides that, I live by the pelagia. I can’t really move to the mountains for part of each year.”

“Okay, so that idea doesn’t work. What about this one. Don’t sheel the Sockeye Salmon Sheela at all, take a small number of Chinook Sheela, a small number of Coho Sheela, a small number of Chum Sheela, a small number of Salmon/Trout Sheela and a larger number of Pink Sheela. Bias towards the Pink. Say take 10% Chinook, 15% Coho, 15% Chum, 15% Steelhead Salmon/Trout Sheela blend and 50% Pink? Would that work? The Chinook are in real trouble also and the Blackfish in particular, really need them to thrive,” I suggest.

“That is a more realistic solution, except that it would involve us having to go to different locations to sheel for the different species of Salmon Sheela which will raise our expenses. We would have to raise our treasurebox prices. I don’t know if the elves and fairies would be willing to pay more. And for such a solution to work it would only be fair if all sheelers sheeled that way, not only the ethical ones. The industry should put a law in place regarding those percentages, and no sheeler should be permitted to sheel at the river funnels,” replies the sheeler.

“The way I see it, if the industry does not shift now, you won’t have any Sockeye or Chinook at all to sheel in a few Teşrin-I and Kânûn-I. Isn’t it better to change how you do things now, and still be able to sheel them in the future? If things stay the same, they will go extinct. What will your family do then? You will only have the Pink to sheel, and then they will be oversheeled, and well ... to me, this is important. I want to be able to eat Sockeye and Chinook well into the future.”

“Yes, so do I. Absolutely. Look. I will talk to the Salmon Sheeling Directors. Your species-percentage idea is an interesting one. Enjoy your Pink Salmon Sheela dinner,” says the sheeler, as he turns to help a fairy with his purchase.

I walk home thinking about the problem, and the hugeness of it. How the frick does one change an entire sheeling industry, as well as the shopping habits of the majority of elves and fairies in a short enough timeframe to save the Salmon Sheela?

Definitely the quickest way to change an industry is to choose carefully how one spends one’s treasureboxes, and only buy sustainable food and products. Business listens to treasureboxes more than anything else. If they can’t make enough treasureboxes one way, they will change so they can make treasureboxes another way, or else the business dies.

Besides choosing carefully how I spend my treasureboxes, the only other thing I can think of that might improve the plight of the Salmon Sheela and the other important issues on oracle, is to spread the word. Heads need to know and understand the problem so they will care about it.

I will do my best to tell Tinderine’s story to as many heads as I can. I will write his story down and share it on my televisual, and hope they will share his story too. The more heads that share his story, the more chance heads will change, and the more hope there is for the Salmon Sheela. I really really hope we can do this in time and save them. It would be tragic to lose the Salmon Sheela forever.

Please do keep the comments coming on my [blog](#). If you want to share this article, pass it on through email, or scroll to the very bottom of the blog page and click the "share" icon to post on Facebook, Twitter etc. If you want to subscribe or search for other posts by title or by topic, go to www.wellnesstips.ca.

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Coastfunds.ca. [The Saviour Fish. Protecting Nisgaa Connection to Oolichan.](#)
Go Wild, BC Salmon. [How We Fish](#)

Outdoor Recreation Council of BC [Threats confronting the Fraser River reach the highest point.](#), Dec. 3, 2019.

Pollon, Christopher, [Blasting Wasn't Enough. Salmon Again Will Be Blocked at Big Bar](#) The Tyee, April 2020.

Alexandra Morton et al., [The effect of exposure to farmed salmon on piscine orthoreovirus infection and fitness in wild Pacific salmon in British Columbia, Canada.](#) doi/Plos One, Dec. 13, 2017.

Miller, Kristina et al. [Infectious Disease, Shifting Climates, and Opportunistic Predators: Cumulative Factors Potentially Impacting Wild Salmon Declines.](#) doi, Evol Appl. 2014 Aug;7(7):812-55. Epub 2014 May 27.

Myhre Jensen, Elena et al., [A selection study on a laboratory-designed population of salmon lice \(Lepeophtheirus salmonis\) using organophosphate and pyrethroid pesticides. Population growth is limited by nutritional impacts on pregnancy success in endangered Southern Resident killer whales \(Orcinus orca\).](#) Plos One, June 29, 2017.

Gill, Ian. [War on the waters: salmon farms losing battle with sea lice as wild fish pay the price.](#) The Narwall. Sept. 13, 2019.

Omid, Nekouei et al. [Association between sea lice \(Lepeophtheirus salmonis\) infestation on Atlantic salmon farms and wild Pacific salmon in Muchalat Inlet, Canada.](#) Scientific Reports, volume 8, Article number: 4023, Mar. 2018.

Bateman, A. W. et al. [Recent failure in control of sea louse outbreaks on salmon in the Broughton Archipelago, British Columbia.](#) Can. J. Fish. Aquat. Sci. 9, 1-9 (2016).

Martin Krkošek et al. [Effects of parasites from salmon farms on productivity of wild salmon.](#) DOI Proc Natl Acad Sci U S A. 2011 Aug 30; 108(35): 14700-14704.

Martin Krkosek et al. [Declining Wild Salmon Populations in Relation to Parasites From Farm Salmon.](#) DOI. Science. 2007 Dec 14;318(5857):1772-5.

[Crozier, Liza et al. Climate vulnerability assessment for Pacific salmon and steelhead in the California Current Large Marine Ecosystem.](#) PLOS ONE. July 24, 2019.

[Marushka, Lesya et al. Potential impacts of climate-related decline of seafood harvest on nutritional status of coastal First Nations in British Columbia, Canada.](#) DOI PLOS ONE. February 27, 2019.

Marlene A. Wagner, John D. Reynolds. [Salmon increase forest bird abundance and diversity.](#) DOI PLOS ONE. February 6, 2019.

Lindsay, Bethany, [Salmon or Trout: What the heck is a Steelhead anyway?](#) CBC.ca, Dec. 23, 2017.

Garver KA, et al. [Piscine reovirus, but not jaundice syndrome, was transmissible to Chinook Salmon, Oncorhynchus tshawytscha \(Walbaum\), Sockeye Salmon, Oncorhynchus nerka \(Walbaum\), and Atlantic Salmon, Salmo salar L.](#) Journal of Fish Diseases 39:117-128. 2016a.

GD, Marty et al., [Piscine reovirus in wild and farmed salmonids in British Columbia, Canada: 1974-2013.](#) Journal of Fish Diseases 38(8):713-728. 2015.

Miller, K.M., et al., Survey of infectious agents detected in juvenile Chinook and sockeye salmon from British Columbia and Washington. NPAFCDoc. 1718.16pp. Fisheries and Oceans Canada, Pacific Biological Station, Cooperative Resource Management Institute, and St. Andrews Biological Station. 2017.

Miller KM, et al. [Infectious disease, shifting climates, and opportunistic predators: cumulative factors potentially impacting wild salmon declines.](#) Evolutionary Applications 7(7):812-855, 2014.

Morton A, et al., [The effect of exposure to farmed salmon on piscine orthoreovirus infection and fitness in wild Pacific salmon in British Columbia, Canada.](#) PLoS ONE 12(12): e0188793,(2017)

Polinski MP, et al. [De novo assembly of Sockeye salmon kidney transcriptomes reveal a limited early response to piscine reovirus with or without infectious hematopoietic necrosis virus superinfection.](#) BMC Genomics, 17:848 2016.

Purcell MK, et al., [Molecular testing of adult Pacific salmon and trout \(Oncorhynchus spp.\) for several RNA viruses demonstrates widespread distribution of piscine orthoreovirus in Alaska and Washington.](#) Journal of Fish Diseases 00:1-9, 2017.

Takano T, et al. [Full-Genome Sequencing and Confirmation of the Causative Agent of Erythrocytic Inclusion Body Syndrome in Coho Salmon Identifies a New Type of Piscine Orthoreovirus.](#) PLoS ONE 11(10): e0165424., 2016.

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