

OUR LAST CAST:  
THE FUTURE OF SALMONID ANGLING IN THE AMERICAN WEST

by  
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DEDICATION

For the fish,  
And the river watchers,  
  
And for Neenee and Papa.

## ACKNOWLEDGEMENTS

I am first indebted to the ecosystems, rivers and fish that have given me life. I thank my adviser Mark Fiege for his original inspiration for this project and his guidance. I point first to him for anything good in my work. Any deficiency is my own. Thank you to my committee co-chair, Alex Harmon, and my two other incredible committee members Jamie McEvoy and Rebecca Jones. Thank you all. I want to acknowledge funders that made early research trips possible: MSU Undergraduate Scholars Program, MSU Presidential Scholarship, and the Council on Undergraduate Research Posters on the Hill. Thank you to Dan Isaak and the researchers at Boise, Idaho's Rocky Mountain Research Station for their time and kindness. I am forever indebted to my friends and mentors: Jared, Andoni, Miles, Dom, Troy, Tye, Brain J., Jacob Z. and my foremost to my partner Eliza, who edited every word I have written and supported me through this process. To my family, Ryan, Patrick, and Aimee, I love you all. Lastly, I want to acknowledge the violence of the systems that allowed me to write this thesis: my European ancestor's violent theft of land from countless Indigenous peoples, the racial violence of my government that allowed my white family to create and keep wealth while others were refused that ability, the violence of extracting the fuel and material from land and water that powers my home and car, and my own intentional violence against the fish I love. This project is an attempt to engage with and begin recuperating from these historic and on-going traumas.

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## ABSTRACT

Anglers are excellent at storytelling and have used this power to help guide the conservation of water in American West. But our stories need to be revised in the face of the Anthropocene. This thesis is a proposal for a book, including three sample chapters, that explains the stories anglers tell, assesses the effects of climate change on salmonid ecosystems, and calls for a new ethical framework in salmonid angling culture.

*Our Last Cast: The Future of Salmonid Angling in the American West* will be a short book that narrates the complexity of current relations between salmonids and human anglers in the American West and discusses the future of this relationship using history, science, and animal ethics. It will consist of a preface, introduction, six main chapters, and an afterword. Each chapter will be pithy and insightful and will quickly bring people up to speed on the state of salmonid sport fisheries in this region. The book will be split into two main sections. Part one, Fishing in the Anthropocene, will focus on the environmental history of salmonid river systems and climate science. Section two, The Salmonid Ethic, will focus on philosophical, moral, and ethical aspects of anglers' relationships to salmonid ecosystems.

By reframing the controversies over fisheries management, discussions about climate change, and anglers' ethical relations with salmonids, my book will be important for three reasons. First, there is no work that combines these three related narratives and condenses them into a series of accessible stories that challenge the dominant narratives surrounding fishing in the American West. Second, my life and work as a white male angler and fly-fishing guide places me in a position to engage with the dominant elitist culture of which I am a part. Third, and most important, *Our Last Cast* will give anglers an avenue and some language to grieve and heal together as a community.

## CHAPTER ONE

## BOOK PROSPECTUS

To Flow Free

My new-to-me used drift boat squealed as it slid from the trailer into the darkness. The sound of small waves lapping against the boat floated in the air. A headlamp beam gave a glimpse of water pouring through the drains at the back of the boat and I hollered at my brother to put the plugs in. I grinned as I parked the truck, leaving my second mug of coffee in the cup holder, unneeded, and anticipated the angst of a boat ramp fading away. I cherished that feeling on the short walk back to the water.

We got in the boat, my friend Ted and my brother Ryan laughing as they prepared fly rods. We turned our headlamps off and issued a collective sigh, slowly drifting down the Yellowstone River. Sitting in the rower's seat on one the most famous rivers in the world with good company—euphoria.

I pulled hard on the oars and focused on the water ahead, anticipating the first fish. As our lines arced through the warm morning air, I noticed something was off. I don't remember who saw them first, but as the rising sun shed its light over the valley, the first of the silvery bodies appeared—a dead mountain whitefish floating along with us, its lifeless eye lazily bobbing along in the current. I paused mid oar stroke, staring back.

It was 2016 and I had recently moved back to Bozeman, Montana for the start of the Montana State semester but was more excited about spending some time fishing on the Yellowstone River, the longest undammed, free flowing river in the Lower 48. After guiding

between and below dams on the Deschutes and Crooked Rivers in Central Oregon all summer, I appreciated, even more, the idea of a free river in a world of dammed ones.

Some of the native mountain white fish weren't dead yet. They struggled, bodies writhing with tremors, near the surface of the water. We instinctively recognized the look of panic on their faces—their eyes bulged and mouths gasped for air. Moments of silence that often fill a day of fishing were not spent appreciating the beauty around us but internally processing the scale of death we were witnessing.

Magpies, ospreys, crows, and golden eagles feasted along the banks and from the cottonwoods. They ripped white flesh, eyeing us. Some were so bloated from the abundance of carrion that they appeared unable to fly, even when the boat drew near. That space in my lower throat tightened, words melted into incomprehension—laughs cut short. At one moment near the end of the day, I found that we were drifting out of my control, the boat turned so our broadside faced downstream, Ryan's and Ted's casts ineffective. My vision had been locked on the tail of one of the whitefish. It had looked for a moment like it was moving, trying to go back beneath the surface, but it was just the current.



### The Chapters

*Our Last Cast: The Future of Salmonid Angling in the American West* will be a short book that narrates the complexity of current relations between salmonids and human anglers in the American West and discusses the future of this relationship using history, science, and animal ethics. It will consist of a preface, introduction, six main chapters, and an afterword. Each chapter will be pithy and insightful and will quickly bring people up to speed on the state of salmonid sport fisheries in this region. The book will be split into two main sections. Part one, Fishing in the Anthropocene, will focus on the environmental history of salmonid river systems and climate science. Section two, The Salmonid Ethic, will focus on philosophical, moral, and ethical aspects of anglers' relationships to salmonid ecosystems.

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Fishing for salmonid species is an iconic pastime in the American West, and for over 100 years anglers have been on the forefront of conservation efforts to steward the nation's rivers and streams. But we face a new challenge, the Age of the Anthropocene. Dramatic losses of cold water habitat are predicted to occur in the 21st century, disrupting human and salmonid

communities across the American West. The far-reaching consequences of human caused climate change already are having negative impacts on cold water fisheries in the West. Yet many anglers are mired in a narrow view of their ethical responsibility, limited to on-the-river interactions with other people or to the individual fish they pursue. It is time for anglers in the West to make a decision whether to accept the human conquest and domination worldview of the Anthropocene or imagine alternative futures that focus on kinship, reciprocity, and continuity.

Here, I find a deeper story that binds human and non-human, a story of both the finite and the infinite, which provokes people to consider their place in the drama of people and fish surviving together. Here, I begin to ask difficult questions about anglers, our community, and the systems that shape the way in which we work, live, and interact with the world around us. Anglers are storytellers at their core and this book offers new, possibly better stories that begin as questions. What does it mean to be an angler in the Anthropocene? What is it to form kinship with a non-human species? What does it mean to manage an ecosystem? How do we prepare for the loss of salmonid ecosystems? What kinds of futures are possible for salmonid ecosystems? What do we owe rivers and fish for the pain we cause, and how do we engage in a more just and sustainable reciprocal relationship with rivers and fish? How might our fishing stories shape the world around us in unintended ways? In the swirling depths of a river's pool, in the wonder that suddenly overcomes us when we connect with a fish, we grasp for a moment the ability to imagine a future where people and salmonid continue together.

### Crisis Dialogue

A consistent narrative surrounding fishing in the West has centered on crises, in which the 'enemies' range from hatcheries to agriculture, dam construction, industrial harvest, and

aquaculture. But who is deciding what is the right form of management for salmonid fisheries? Are calls to ‘just follow the best available science’ really the solution? And how should we view fisheries management debates?

In this chapter I will dissect the central discourse of fisheries management and discuss who is claiming to know what and why. I am particularly interested in the vernacular knowledge of anglers and how that knowledge preceded science and, conversely, comes into contradiction with science. With a jargon-free narrative, this chapter will give readers the tools to see the political narratives that surround the management of salmonid fisheries and to view these debates with a Latourian discussion of black boxes.<sup>1</sup> For example, hatcheries attempt to present their production of salmonids as a black box, in which the input of eggs and the output of grown fish is not questioned. But people and organizations have been working to keep the potential black box of hatcheries open, questioning the internal workings of hatchery technology and theory. There are few solidified salmonid management “facts” or black boxes, and there is still controversy around management techniques. Climate change is making these management debates urgent as salmonid ecosystems become less habitable and hatcheries become the primary conservation tool for many fish species. To discuss climate change fully, I will transition into the

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<sup>1</sup> Bruno Latour, *Science In Action: How To Follow Scientists and Engineers Through Society* (Cambridge: Harvard University Press, 1987), 131.

next chapter that will discuss the science, models, and key people working on climate change and its potential effects on salmonid ecosystems and management.

### NorWeST

More people than ever are angling as a leisure time activity, a number that continues to rise as the population in the American West grows.<sup>2</sup> People on the water all value what idealized fishing promises: solitude, reconnection with nature, an authentic western experience. But when there are 60 boats on the same eight miles of river, this idealized dream drowns with each cast. This increased social pressure deeply concerns many anglers, and we are beginning to see proposals to limit anglers' numbers on popular rivers like the Madison River in southwestern Montana.<sup>3</sup> But is this really where our attention should be focused? In an interview with the head biologist of the Madison River, Dave Moser told me that angling pressure isn't affecting fish populations, but rising temperatures and decreasing snowpack are. I argue that we cannot afford to squabble over how many people we see on the river when the vastly greater problem of climate change threatens to wipe out fisheries like the Madison river altogether. We need a shift in priorities.

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<sup>2</sup> Elliot Davis, "These Are America's Fastest-Growing States," *U.S. News and World Report*, December 22, 2020. <https://www.usnews.com/news/best-states/slideshows/these-are-the-10-fastest-growing-states-in-america>.

<sup>3</sup> Joe Moore, "Madison River Regulation Changes in the Air," *Big Sky Anglers*, June 14, 2018. <https://bigskyanglers.com/madison-river-regulation-changes-in-the-air/>.

All salmonids are ectotherms, meaning their body temperature corresponds to that of their surroundings. Each species and subspecies have a different range of temperatures that are suitable for survival and growth, reflecting the type of environment in which each evolved. Like most invertebrates, these fish find themselves stressed when outside of their narrow “goldilocks” zones. Stress from increased water temperature can lead to a plethora of problems including susceptibility to parasites, disrupted timing of their life history strategies,<sup>4</sup> and in extreme cases, death.

The beginning of this chapter will focus on the climate science and modeling that gives us a glimpse into possible futures of salmonid angling in 2100. This chapter is named after the Northwest Stream Temperature database (NorWeST) project run by the Rocky Mountain Research Station Air, Water, and Aquatic Environments Program in Boise, Idaho, overseen by the United States Department of Agriculture and U.S. Forest Service.<sup>5</sup> Dr. Dan Isaak is the lead scientist on the NorWeST project, which is currently the only large-scale model of how water temperature is expected to change in the 21st century. NorWeST is a program that collects stream data from every local, state, and federal agency in the West to create a comprehensive

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<sup>4</sup> Sally T. Sauter, John McMillan, and Jason B. Dunham, "Salmonid Behavior and Water Temperature," Seattle, WA: United States, Environmental Protection Agency, Region 10 Office of Water, *Final Report to the Policy Workgroup of the EPA Region 10 Water Temperature Criteria Guidance Project*. EPA 910-D-01-001, 2001.

<sup>5</sup>“NorWeST Stream Temperature Regional Database and Model: Air, Water, & Aquatic Environments Program - USDA Forest Service Science,” NorWeST Stream Temperature Regional Database and Model Air, Water, and Aquatic Environments Program USDA Forest Service Science, accessed April 10, 2021, <https://www.fs.fed.us/rm/boise/AWAE/projects/NorWeST.html>.)

database on stream temperatures.<sup>6</sup> Dr. Isaak and his team then use an Intergovernmental Panel on Climate Change A1B emissions trajectory model to predict changes for the 2040s and 2080s using the mean August stream temperatures.<sup>7</sup>

In addition to my interviews with Dr. Isaak and his team, this chapter draws on interviews with other climate researchers such as United States Geological Survey paleo-climatologist Greg Pederson. To conclude this chapter, I will explore potential refugia in the American West for different salmonid species. Woven into this story will be a narrative about my own experience fishing in the West.

The chapter draws on interviews with scientists and peer-reviewed papers to explain the variability and uncertainty within climate models and what they mean for salmonids. This chapter will also contain three short sections on specific regions in or related to the Western US and that will synthesize the potential climate impacts on salmonid ecosystems therein, making NorWeST the longest chapter in the book. The three regional sections are:

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<sup>6</sup> Daniel J. Isaak, et al., "The NorWeST Summer Stream Temperature Model and Scenarios for the Western US: A Crowd-Sourced Database and New Geospatial Tools Foster a User Community and Predict Broad Climate Warming of Rivers and Streams," *Water Resources Research*, 53(11) 2017, 9181-9205.

<sup>7</sup> Nebojsa Nakicenovic, Ogunlade Davidson, Gerald Davis, Arnulf Grubler, Tom Kram, Emilio Lebre La Rovere, Bert Metz, Tsuneyuki Morita, William Pepper, Hugh Pitcher, et al., "Special Report on Emissions Scenarios: Summary for Policymakers," Intergovernmental Panel on Climate Change, 92-9169-113-5, (2000), <https://archive.ipcc.ch/pdf/special-reports/spm/sres-en.pdf>

The Greater Yellowstone Ecosystem: The cutthroat pulses lightly in keeping with the movement of the water. In this, cutthroat and current are the same. High in an alpine ravine, the cutthroat is the first fish of a mighty river, drawing breath and life from water. The small pool's water is so cold that the fish grows slowly in the short summers of high elevation. Above the pool, water tumbles, clear and pure, from a small cirque cradling the remnants of last winter's snow. Above the cirque are two mountain peaks, grey and curving against the blue sky.

In the winter, feet upon feet of snow covers these mountains creating a crisp white aquifer that feeds the river through the summer, giving life to the myriad species that dwell in it. These mountains sit near the middle of the 3,000 mile long Rocky Mountain chain. They are not the most impressive range, neither the tallest nor most rugged, but they sit within what is known as the Greater Yellowstone Ecosystem, a place of geological and ecological wonders and the headwaters of some of the most famous trout fishing rivers and streams in the world.

This section will highlight the importance of snowpack for Rocky Mountain rivers and discuss how changing snowpack regimes and drought influence salmonid ecosystems.

The Deschutes Watershed: Traveling west brings me to my home waters, to red band trout and high desert. The ancient, fractured basalt that formed millions of years ago now makes this watershed uniquely resilient compared to many others. Like many rivers in the West, the Deschutes relies on high elevation precipitation held in the form of snowpack on the Cascade Mountains. However, this snowmelt seeps into the depths of the earth here, making its way through subterranean tunnels and cracks for up to 500 years. In this chapter I will engage with deep time and the deep history of resilience that is found in salmonids and the Deschutes watershed itself.

The Pacific: The insistent current of the Deschutes bring us to the mighty Columbia and then to the Pacific Ocean, where people once thought that the fish were endless. This section will highlight the rapidly changing temperature and acidity of the Pacific due to carbon dioxide and will follow the cycle of anadromous salmonids that journey into this vast ocean to feed and grow before returning to their home rivers. The Pacific basin binds the seven anadromous salmonid species along the volcanic Ring of Fire, tying them together in common fate.

\* \* \* \*

I will conclude by discussing how anthropogenic climate change is a new crisis for some species of salmonids, though only because of how management has changed the resiliency of their genetics and habitat. This section will transition to the second section of the book, the Salmonid Ethic, which will focus on the emotional, physical, and ethical relationship anglers have with salmonids in the American West.

### The Salmonid Ethic

Many anglers are mired in a narrow view of their ethical responsibility, limited to on-the-river interactions with other people and to the individual fish they pursue. Catch and release is the primary example of this mindset as it is widely regarded as the highest form of ethical behavior for anglers to engage in. Beyond releasing fish, the ethics of sport anglers calls for respectful human social interactions while fishing and, in general, leave no trace (LNT) principles.

The Salmonid Ethic, my intervention, proposes a radical evolution in anglers' relationship with salmonid ecosystems. The webs of connections between humans and non-humans, which are entwined with cultural ideas of gender, masculinity, and nature, in



combination with the individual and species level agency of salmonids themselves, is called world building.<sup>8</sup> I propose a new ethical framework that seeks to shift the discourse of the angling community towards the recuperation of rivers and fish and away from hyper masculine, individualistic, hierarchal, violent systems of language and thought. The Salmonid Ethic imagines different ways of interacting with cold-water ecosystems in the face of ecological devastation.

The Salmonid Ethic was inspired by Aldo Leopold's "Land Ethic" but is specific to salmonid anglers.<sup>9</sup> I draw on Leopold's beautiful prose, to offer what I believe to be a more inclusive and socially aware approach to a large ethical concept similar to Leopold's by critically engaging with class, race, and gender dynamics, and the sometimes-disturbing language of anglers when talking about fish. I am concerned with many of the ecological issues Leopold wrote about, but I am also aware of the long history of white men in the "defense" of the environment, demonizing people of color and Native Americans as degraders of fisheries if those white anglers note the existence of such people at all. A just relationship with humans comes hand in hand with a just relationship with animals.<sup>10</sup> The goal is to foster new types of relationships, but I also acknowledge that a just ethic towards salmonid ecosystems could easily

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<sup>8</sup> Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton: Princeton University Press, 2015).

<sup>9</sup> Aldo Leopold. *A Sand County Almanac: With Other Essays on Conservation from Round River* (Outdoor Essays & Reflections, 1970), 237.

<sup>10</sup> Pope Francis, *Laudato Si: On Care for Our Common Home* (Huntington: Our Sunday Visitor, 2015).

ignore the larger, more insidious systems of oppression in the broader context of the United States and capitalism.

### Speaking for the Dead<sup>11</sup>

No matter our best efforts, it is very likely that we are going to lose salmonid ecosystems during my generation's lifetime, and sadly the urgency of this possibility is what will force the evolution of our ethical obligations. Speaking for the dead is as it sounds—speaking for a species that has been lost so that future generations may know about the species and learn from the memory of its life and demise. But extirpation (local extinction) and extinction are becoming complicated with current and developing technologies that are able to manufacture salmonids without the need for rivers or oceans or the natural life histories of the fish. This section will discuss the value systems we have in the West that may lead to a more complicated version of extinction than we have yet reckoned with as humans.

Speaking for the dead also offers a way to process and survive the grief of losing a connection to salmonids and their ecosystems. Adaptation to climate change is almost always spoken of in technical, infrastructural terms. But how are we going to adapt to the spiritual, emotional, and psychological damage of species extinction and profound changes to ecosystems?

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<sup>11</sup> *Speaker for the Dead* is first used by Orson Scott Card in his 1986 science fiction novel Orson Scott Card, *Speaker for the Dead* (New York: Tor Books, 1986). *Speaker for the Dead* is the sequel to Orson Scott Card, *Ender's Game* (New York: Tor Books, 1985). Donna Haraway uses the phrase as a way to think about grieving for extinct species in Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Duke University Press, 2016).

These questions are still unanswered for me, but in future drafts this section will focus more on the grief of losing a species or a river and the imagination of ways to navigate that trauma and learn from in it.

This section also will discuss what the future might look like if what we are left with are entirely synthetic habitats in which all features of a healthy ecosystem are replaced by human systems meant to mimic them enough to fool the minds of anglers. What we traditionally think of as extinction may not be an option for many species of salmonids. This is a realistic future, and we will need to think hard about what that means for us and our relationship with the fish.

### Our Adipose Fin

I began snorkeling in rivers to observe fish and see from a new perspective what was beneath the surface. From my hours letting the currents pull me downstream I began to see fish and rivers in a new way. I began to make eye contact with fish, not like the eye contact one makes with a dog, I can't say for sure if these fish look into my eyes, but I began to meet them on their terms, without the need of a sharpened hook.

Our Adipose Fin is a story about one day of snorkeling on the Salmon River in Idaho and my thoughts as I grieve for an ecosystem that revolves around salmon yet is nearly devoid of the Chinook and Sockeye that once filled its banks and lakes. Here I develop my sense of ethical navigation through the Anthropocene. The chapter is short and condenses many of the topics I engage with in the Salmonid Ethic but in a mostly narrative form.

### New Stories

For this final chapter I will find and focus on stories of people or organizations that tell stories that don't subjugate or infantilize non-humans, but instead recognize that we are

dependent on our surroundings. This chapter will also tell stories about groups and individuals already fighting for a carbon free future. The student led Sunrise Movement is one example, because they recognize that climate change cannot be separated from racial justice or health care for all or affordable housing; they refuse to buy into simple narratives. I have not yet found but hope to find examples of activism that angling communities in the West have been engaged in that go beyond simple stories. Here, I will attempt to highlight and advocate for relationships between the natural allies of Indigenous Nations and white sport angling culture among other forms of alliances.

Angling is a personal story, but not a unique one. Through the act of fishing, humans are transformed by the fish and ecosystems they engage with, while those ecosystems are transformed by people; it is part of what it means to live on this planet. Fishing is not just fishing: How, when, and why we take our last cast matters. Joseph Taylor said it well in *Making Salmon*, “Simple stories will remain valid only so long as people tolerate historical myopia.”<sup>12</sup> Nearsightedness is easy, it produces easy stories, and those stories surrounds us. We need new stories.

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<sup>12</sup> Joseph E. Taylor III, *Making Salmon: An Environmental History of the Northwest Fisheries Crisis* (Seattle: University of Washington Press, 1999), 253.

## CHAPTER TWO

## SO WHAT?

*Our Last Cast: The Future of Salmonid Angling in the American West* is significant to the literature on fishing, climate change, Anthropocene studies, American studies, environmental history, and animal ethics. There is no other book like it in these genres. No other book combines and narrates the science of climate change and the ethics of angling and places this discourse within the American West's distinctive angling communities. In my boldest moments I would say that I am trying to do for anglers in the American West what Naomi Klein's *This Changes Everything: Capitalism vs The Climate* did for climate change literature. Klein's in-depth analysis offers sweeping narratives that reach across the globe showing the complex economic system of capitalism as the cause for climate change. My book shares Klein's politics in many ways, especially with those expressed in chapter 13, "The Right to Regenerate," which is about the vulnerability of the young and the unborn in a warming planet, and in an economy that values extraction over renewal. My book, however, will not be as broadly focused on a Marxist critique of climate change and extraction as is Klein's, and it will be for readers who care about salmonids.

Paul Greenberg's New York Times bestselling *Four Fish: The Future of the Last Wild Food* expresses a similar interest in the future of some of the most iconic fish in the world. His book focuses on salmon, cod, sea bass, and tuna—the four fish that he argues are the staples of human diets. My book also is concerned with the future of salmon but in human's *relationship* with salmon and the salmonid family, a far more complex, and I think interesting and useful approach, rather than reducing a fish to simply a food stock.

Climate change writing for general audiences has exploded over the last 15 years and has been a mainstay in the media for my entire adult life. Climate change texts have evolved, and people are looking for new ways of approaching the earth's foremost ecological threat. No book discusses in depth the potential impacts of climate change on salmonid ecosystems like mine does but there are many books that I look to for inspiration in communicating such a broad and complex problem: Elizabeth Kolbert's *Field Notes from a Catastrophe: Man, Nature, and Climate Change*, and Clive Hamilton's *Requiem for a Species: Why We Resist the Truth About Climate Change*. I will look to texts like the edited collection of papers, *Climate Change in Wildlands*, and of course, the many thousands of scientific papers that engage with climate change and salmonids.

Because a section of my book focuses on specific river systems, I draw information and inspiration from the popular historical studies of major cold water river systems such as the Columbia. This discourse tends to focus on the major dam projects and their effects on the economy, people and politics, and the ecology of the Columbia watershed. Perhaps the most well-known of these texts is Richard White's *Organic Machine: The Remaking of the Columbia River*. The historical sections of my book will rely on and attempt to mirror White's crisp writing and his discussions about the metaphors we use to discuss rivers in the West—mainly the use of the word rape. In the latter half of his well-written and researched book, *A River Lost: The Life and Death of The Columbia*, Blaine Harden discusses the political and economic complexity of salmon restoration along the Columbia. Harden's focus on salmon management is akin to what I will do in my first chapter but differs in the scope of my analysis, which will be a broader

discussion of rhetoric and nodes of political power within salmonid management in the American West.

More general histories that focus on salmonid management in the American West are of special interest, since my book is deeply informed by history, though not necessarily a book on history. Jen Corrinne Brown's *Trout Culture: How Fly Fishing Forever Changed the Rocky Mountain West* is the most helpful and related work of history on which I will draw for my book. *Big Sky Rivers: The Yellowstone and Upper Missouri* by Robert Kelley Scheiders is a companion to Brown's book in discussing the manipulations of Rocky Mountains waterways by elite anglers. *Salmon Without Rivers: A History of the Pacific Salmon Crisis* by Jim Lichatowich, and Joseph E. Taylor III's more in-depth analysis, *Making Salmon: An Environmental History of the Northwest Fisheries Crisis* present a wealth of information for my chapter on the crisis dialogue surrounding the Pacific Northwest fisheries. These two texts have inspired my interest in the vernacular science of angling that is opposed to the mainstream science of which Lichatowich is a central proponent. Hatcheries and the ethics surrounding the practice of producing fish are discussed in Lichatowich's book but have been popularized by the Patagonia film *Artifishal*. I will also look to *The Fisherman's Problem: Ecology and Law in the California Fisheries 1850-1980* by Arthur McEvoy, and Mark Kurlansky's *Cod: A Biography of the Fish that Changed the World*, to help my discussion of narratives of decline in fisheries and vernacular science.

Andreas Halverson's *An Entirely Synthetic Fish: How Rainbow Trout Beguiled America and Overran the World* chronicles how rainbow trout have been disseminated around the world and how America produces these fish in order to be caught. Halverson's book primarily reports on the past and present of Americans relationship with hatchery rainbow trout, including

contradictory government efforts to eliminate the trout from rivers and lakes while at the same time poisoning entire river ecosystems in order to create ones based on rainbows for anglers to catch. *An Entirely Synthetic Fish* is a compelling book about one member of the salmonid family, and I advance Halverson's work by discussing the connection between extinction and hatcheries. My story also will focus on climate change, which Halverson does not address, as well as discuss the ethics of hatcheries in the context of angler and salmonid relationships in the American West.

Colonization is not something many of my angling peers want to be confronted with, because it implicates our overwhelmingly white community of sport anglers in the dark history of Native genocide and removal. As an American Studies scholar I must engage with Native American history, especially since colonialism is still very much a part of salmonid controversies around the West. I have not decided yet how I will engage this topic, but for now I will rely on the guidance of my advisors Alex Harmon and Mark Fiege as well as on the growing list of readings that are informing my thoughts and language about anglers' direct hand in Indian removal and anti-Indian racism. For now, these texts primarily fall under federal Indian law: Kristin Ruppel, *Unearthing Indian Land: Living with the Legacies of Allotment*; Robert Doherty, *Disputed Waters: Native Americans and the Great Lakes Fishery*; Lindsay G. Robertson, *Conquest by Law*; Robert A. Williams Jr., *Like a Loaded Weapon: The Rehnquist Court, Indian Rights, and the Legal History of Racism in America*; Larry Nesper, *The Walleye War: The Struggle for Ojibwe Spearfishing and Treaty Rights*; and articles such as Bradley G. Shreve's, "From Time Immemorial": *The Fish-in Movement and the Rise of Intertribal Activism*, and related work that focuses on tribal activism and salmonid fisheries in the American West.



My book is about fishing, but it will contain very few scenes of fishing for a reason. There is an ocean of popular fishing literature and much of it, I regret to say, is not very interesting, perhaps especially to those who fish. To narrow it down somewhat to fly fishing only helps to make the ocean smaller, but I look to the few who do it well. Fly fishing author John Gierach is perhaps the most prolific and most enjoyable fly fishing author (an unusual combination). Three of Gierach's books, *Trout Bum*, *All Fisherman Are Liars*, and *Sex, Death and Flyfishing* have most influenced me with their humor and creativity. I will also look to Chris Dombrowski's excellent *Body of Water: A Sage, a Seeker, and the World's Most Alluring Fish*; Roderick Haig-Brown, *Fisherman's Spring*; and Paul Quinnett, *Pavlov's Trout: The Incomplete Psychology of Everyday Fishing*; Paul Quarrington, *Fishing With My Old Guy*. For naturalist writing about salmonid, I look to Lee Spencer's *A Temporary Refuge: Fourteen Seasons with Wild Summer Steelhead*, and Kurt D. Fausch's *For the Love of Rivers: A Scientist's Journey*. A book that, on the surface, may seem similar due to its name is Paul Guernsey's *Beyond Catch and Release: Exploring the Future of Fly Fishing*. However, I take a very different approach to discussing catch and release fishing, critiquing the practice instead of the pro-catch and release narrative that Guernsey writes, among other differences. David James Duncan's novel, *The River Why*, has deeply influenced my thinking about the Salmonid Ethic. Duncan is also trying to ethically relate to salmonids through his fictional character, Gus, but relies heavily on Christian theological references and Native American tokenism where I do not.

My book will fit within a long tradition of conservation writing about sport fishing, salmonids, and river ecosystems in the American West. However, my book will challenge and go beyond the traditional conservation themes of dams, agriculture, riparian restoration, mining, and

hatcheries. In addition, I will engage with broader systemic issues and what Rob Nixon calls “slow violence”: “A violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is not typically viewed as violence at all.”<sup>13</sup> My discussion of slow violence and salmonids will be a new addition to the field.

### Audience

The audience I envision for *Our Last Cast* is academic and general. My book will appeal to scholars—especially environmental historians, American studies specialists, and political ecologists—interested in world building between humans and non-humans, the language of power and gender, kinship, climate change communication, Anthropocene studies, and relationships between salmonids and people in the American West. My book will be ideally suited for college courses in animal studies, fishing related courses, gender studies, courses on public lands, and other fields. The absence of such a critical but inviting book, which I would like to see taught in the college courses of a school trademarked as “Trout U” is a part of my motivation for writing it. An ideal scenario would be if a number of organizations or

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<sup>13</sup> Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011), 9.

corporations like Patagonia, Simms, Trout Unlimited, and American Rivers would adopt the book and promote the discussions I generate.

I see, and am embedded in, a rapidly growing sport of fishing for salmonids. The industry of sport fishing is enormous, and with people flocking to fishing destinations like the Madison River in Montana where I guide, I am concerned that there is very little critical discussion beyond “controlling the crowds.” As the global climate becomes less habitable for the species people desire to connect with, the need for a more in-depth discussion about that relationship’s present and future is greatly needed. Most importantly, my primary goal is to write an accessible book that speaks to the community of anglers that has shaped me. My love for its members and for the fish that bind us flow through these pages.

I see an important divide, however, between the belief systems of my parent’s generation and those closer to my own. My generation has grown up in a post 9/11 world filled with more extreme forms of media and technology. We have grown up seeing every day the endless injustices of modern capitalism and climate change and were sick of it, we’re angry. I am writing for anyone who cares about salmonids, but I am speaking most directly to young people.

### Narrative Strategy

For narrative structure I plan to use Randy Olson’s ABT method—the And, But, Therefore structure in telling stories (x And w happened, But y, Therefore z), which he outlines in his book *Houston, We Have a Narrative*. I will also look to how Elizabeth Kolbert makes stylish transitions and whose interviews help the reader enter the story.

For style I will attempt to shoot high and fall somewhere between Leopold’s calm and beautiful prose and Hunter Thompson’s countercultural self-demonization—I use myself to

critique salmonid angling culture. At times my writing is blunt. There are themes, especially surrounding the salmonid ethic, where my narrative strategy is to shock. There is an anger in young authors that I hear from Clare Vay Watkins and Tommy Orange about living in the 21<sup>st</sup> century that I don't hear in most older authors. Watkins and Orange have vastly different life experiences than me, but I look to them for channeling my anger at a world in constant crisis.

Clear concise writing is paramount. Yet, I value and at times attempt to mimic Donna Haraway's writing in *Staying with the Trouble*. Her writing is strange and poetic, sometimes doing away with commas, and she finds a rhythm in relentless sentences that can be stunning when done right. Haraway's writing is often too strange, however, for the general audience I speak to.

I will write with a conversational tone that might be heard among people sitting on the bank of a river and talking. There are parts of my book that could easily come across as preachy, especially when I discuss the salmonid ethic. I hope to avoid this, in part by critiquing my own actions and thoughts as a proxy for the larger salmonid angling culture in the West, and also by treating those discussions as I would with a friend over a beer. Many anglers in the West value sarcasm and wit, perhaps to a fault. I use both. Many of my closest friends are embedded as guides in the salmonid angling industry or are committed anglers or both, and they are foremost in my mind.

### Theory

This book is for a non-academic audience, and I will remove the theory from the narrative like removing the scaffolding from a building; the theory should be invisible once the

project is complete. However, here I will explain the theory that, for now, underpins and guides my writing.

The book is about the changing relationship between salmonid ecosystems and people in the American West in the Anthropocene. To discuss climate change without also discussing fossil fuel hegemony and the political ecological systems that are leading to the sixth extinction would be like treating for a fever without acknowledging the existence of Covid-19. Therefore, Marxist analytical theory is one very helpful tool when thinking about the content of my narrative. I plan to further investigate the analytical tools of Marxist theory by reviewing the work of Ian Angus, Andreas Malm, John Bellamy Foster, E.P Thompson, and David Harvey.

Because the important sub-themes to this story include non-human agency, class/race/gender dynamics within angling communities, impacts of colonialism on salmonid/human systems, grief, and imagining a future in which partial recuperation is possible, I also rely on eco-feminist theorists like Val Plumwood and Donna Haraway.

### Sources

I am in an ideal place and work an ideal job to research and write *Our Last Cast*. I work on the Madison River as a fly fishing guide. The Madison and Southwestern Montana rivers in general, are the top of the list for most fly anglers in the world, and present a teeming laboratory of angler language, ethics, and thought. Furthermore, I have long term connections to, and experience guiding on, the Salmon River system in Idaho and the Deschutes Basin in Central Oregon. These places offer slight variations on fishing culture and thought because of their geographical differences and the salmonid species they interact with daily. My connections and proximity to Montana State University in Bozeman, Montana, allows access to the largest

archival collection of salmonid-related writing in the world, as well as many scientists whose work directly connects to my research interests. Bozeman is a hot bed of trout culture and my time working for fly shops there allows me to interact with various ‘sub-cultures’ within the fly fishing community.

Aside from fishing cultural sources, my work relies on the scientists and their stories and research that is being performed in fields and in labs all across the West. I have begun to establish my web of connections in this world, including the team at the Rocky Mountain Research Station in Boise, Trout Unlimited managers like Matt Green, and the retired Central Oregon fisheries biologist Dan Ratliff.

#### Length, Maps, Illustrations

I anticipate the manuscript draft to be relatively short, around 120-150 double-spaced pages, or 30,000 to 40,000 words. The introduction and five main chapters will vary between 10-30 pages each.

Though my goal as a writer is to produce enough descriptive power without needing to rely on visuals, anglers are, in many ways, visual learners and there are some particularly interesting visuals that I believe would help my story. The first set of visuals I could foresee using are the GIS maps created by Dr. Isaak and his NorWeST project. These would require color, as they show the progressive warming of the West’s rivers and streams. I have used these maps on many occasions, including when presenting to staff of Montana and Oregon senators on Capitol Hill, and I have found that they provoke the imagination. Other maps, whether or not color is an option, would be helpful to ground the readers in each place I take them. I also

envision the more subtle art that appears in naturalists' texts like Spencer's *A Temporary Refuge* and Fausch's *For the Love of Rivers*.

I believe there is a lot of potential for creating an imaginative space through the combination of narrative and illustrations. On page 132 of Leopold's *A Sand County Almanac*, the Round River edition, there is a full-page drawing depicting a bird, what looks like a grey jay, making eye contact with the reader as it shelters from a spring thunderstorm. Surrounding this image is Leopold's description of White Mountain in Arizona and the terrible storms he witnessed upon its flank. In the latter half of my book especially, I am asking the reader to imagine a different type of future in which the world has changed but salmonids and humans have persisted through cooperation. What an amazing opportunity for artwork to appear in the text.

### Marketing and Promotion

Because of my job and roots in the fly fishing community I mostly speak to my experience in this industry, though there are many parallels to the conventional 'gear' angling industry. I plan to promote the book through a number of avenues, first through social media. Instagram is the primary social media destination for anglers in the American West. From 2014-2018 I had a very successful Instagram account, @thedrift\_, which boasted over 4,000 followers, and where my posts continuously attracted 300+ likes. I deleted the account because I found that it was too distracting. However, I am very aware of the fishing community on Instagram and its cultural influence. I have created another account @ourlastcast\_, on which I will begin to gather followers in preparation for my book's publication. My previous success at Instagram was

derived from the fish and fishing stories and pictures composed throughout the year, and my understanding of what the angling community values.

Angling culture in the US today is heavily commodified, advertised, and can feel overwhelming with the amount of gear “required” to be on the river. Due to this hyper-commercialized industry, a light touch is required when advertising a book like mine. Magazines such as *Hatch*, *American Angler*, *Gray’s Sporting Journal*, *Field and Stream*, *Sport Fishing*, and *Fly Fisherman* are still important, and I will write articles for and give interviews to these publications. Also, since my chapters are short, serializing chapters like *Our Adipose Fin* and *The Deschutes* section would be easy. Lastly, the *Salmonid Ethic* has a potential to become part of conservation language surrounding trout, salmon, and steelhead making my book a prerequisite for engaging in these discussions.

One major opportunity is to produce a film that will run alongside the release of the book. I have connections to various film makers, most notably a close and accomplished friend Dominic Oakes, who have the skills to produce a high-quality film for a number of events like the *Fly Fishing Film Tour*. This event, and others like it, are widely viewed and would be an amazing way to promote the book. Also, through a mutual connection, I could make a short video with fly fishing character Hank Patterson (really Travis Swartz) one of the most popular fly fishing personas around, and someone deeply concerned about climate change.

Because of my position as a fishing guide there are opportunities for promotional events that relate to my work. One example is a donation of a day of being guided by me for a related event, like a raffle for a film screening. Another example would be hosting events through the outfitter I currently work for, *Madison Double RR*, where I could host private groups and give



private readings. There is also an organization I have connections with, the Freeflow Institute, that takes paying writers out on multi-day river trips around the West and brings along writing instructors to host the trip. These types of trips are ones I would be especially suited for given my background.

Ironically, an important part of the promotional power I retain is how I look and dress, a tall, fit, white male wearing beat up fishing clothing. Many of these characteristics, and their popular associations, are things I critique in my writing and in my everyday conversations with fellow anglers and clients. Yet, in our time, those traits are still valued and respected by the community.

This book, and my work experience, give me the credentials to speak at a number of venues and events. These include but are not limited to, fly shops, non-profit events, outdoor retail stores, business retreats, and ‘trout opener’ events held around the West. Lastly, I believe I could get blurbs from April Volkey, David James Duncan, Chris Dombrowski, Jim Lichatowich, Lee Spencer, Paul Schullery, Gary Ferguson, and others depending on the publisher’s preferences.

### Schedule

Since I began work on this book, I have felt a sense of urgency to complete it. That urgency is fueled by the signs of change I see in the rivers and fish I love. Some of these signs are broad: warmer winters, less snow, hotter August days, and consistently lower water levels. Some of the signs are more subtle, individual, like the steelhead whose eye was deformed so that its raindrop shape was turned straight down, or the trout that swam up and tapped my leg with its snout before swimming away towards a blood red sunrise. This is the type of urgency that runs

through my writing. Therefore, I can see two trajectories in completing the manuscript. Because I have been working on this project since 2016, I have gone through two other iterations of this current proposal and have already done extensive reading and research on the topics I discuss. The first timeline is an accelerated one, which would have me completing the book by fall of 2022. One chapter during each summer season and the remainder completed during the winter of 2021-2022, my off season as a fishing guide. This timeline would be realistic only if the book manuscript was accepted, and a deadline was given. This first timeline is preferred. The second, more reasonable schedule has the book completed by the spring of 2023, giving me ample time to conduct extensive interviews and time with scientists in the field.

### My Fishing Story

In fifth grade our final class project was to learn about a job that we wanted to do, draw a picture to represent this dream, and share it with the class. I was a chubby kid who hit his growth spurt before everyone else and always had a crew cut because my dad did when he was a kid. The classmates I remember chose some of the classic dreams of children, astronaut, doctor, school principal, and star football player. I decided that I wanted to own a fly shop, which I named Jumping Joe's Fly Shop. An exciting but humble life I thought at the time. The picture I drew of a rotund orange fish was stowed away in my parents' files

I ended up following that dream near enough. I worked in fly shops and found out I didn't want to own one, instead finding my passion for guiding. By the summer of my 20<sup>th</sup> year, I could see my trajectory as a fishing bum and was elated. Then I was confronted by the dead mountain whitefish floating along my boat on a hot August day. The shifting seasons, decreasing snowpack, and hotter days that climate scientists warn of, and we all feel, became a physical fear

for me that day. My memory of those whitefish's dead eyes still convey a warning to me of a possible future where fish-kills such as this one are no longer an anomaly in the American West, but a constant.

On that bright August afternoon, the three of us quietly pulled the boat onto the trailer, stowed our gear, and drove away. As the truck pulled onto highway 91 heading west, we realized that we hadn't been fishing a free Yellowstone River, but the River Styx, a river of death. The future was no longer certain, and the river spoke: It is time to change.

## CHAPTER THREE

## SAMPLE CHAPTERS

The Salmonid Ethic

The salmonid ethic is named for a family of ray-finned fish that people in the American West know about, sometimes love, depend upon, fish for, imagine, dream about, and live within a vast landscape. The ethic maintains open borders and boundaries of acknowledgement and care, including all the living and nonliving organisms and processes that nurture salmonid, just as they nurture people. But with so many species and processes and places and people at risk of collapse, or in the many motions and acts of collapsing, this ethic is an effort to focus on something. For those who care about fish, it's at least a place to start, else we fall into despair and fail to act and think in this time of greatly needed action and thought.

This ethic is inspired by the famous conservationist and ecologist Aldo Leopold and the urgency he felt when he witnessed the unthinking treatment of the agricultural lands of his home in Wisconsin. He felt a deep concern for game birds that were becoming scarcer, and the eroding soil of agricultural fields. He felt that there was something amiss in how his white neighbors were treating the land. In his book *A Sand County Almanac* he wrote what he called the "land ethic," which was intended to guide the minds and actions of his peers towards an ecological

consciousness.<sup>14</sup> He wanted to value the land, in the most holistic definition of the term, as a system not only thought of in economic terms.

The salmonid ethic is similar to Leopold's, but also about the unthinking treatment of the salmonid ecosystems so many profess love for yet undermine in their daily lives. The salmonid ethic takes a look into the current ethics of our sport: catch and release, on-the-water respect of fellow anglers, and the way we think and speak about salmonids. There is an urgency to understanding our ethical obligations to salmonids in the American West as the ecosystems that sustain these fish are destabilized by the very fossil fuel-based system that sustains our sport fishing industry. Leopold wrote about coming into right relations with the land, and we are still struggling to obtain that goal 60 years from when his land ethic was published.

An ethic is social, cultural, and deeply historical; it is relational. The goal of the salmonid ethic, the right relations, is human reconciliation with a family of fish and the vast ecosystems that support them. Unfortunately, cultural forces in America tend to put off this type of reconciliation even with our human kin, let alone the animals we subjugate as our food or for sport. We wait until the prognosis isn't looking good before realizing that perhaps we were in the wrong and that maybe we should make amends. Climate change is our bad prognosis, and our

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<sup>14</sup> Leopold, *A Sand County Almanac*, 237.

time to make amends may be running short. To begin thinking about what the salmonid ethic is we turn to one of Leopold's definitions of an ethic:

An ethic may be regarded as a mode of guidance for meeting ecological situations so new or intricate, or involving such differed reactions, that the path of social expediency is not discernable to the average individual. Animal instincts are modes of guidance for the individual in meeting such situations. Ethics are possibly a kind of community instinct in-the-making.<sup>15</sup>

Our reactions to these events, and ways of thinking—what is new and intricate—involves not only anthropogenic climate change but also social and racial justice, decolonization, and a realization that our capitalist economy destabilizes human and non-human health and existence. These issues are a part of angling in the West. Fishing is not just fishing.

We will explore this knot further, but first we must understand what the average individual in the angling community is likely to believe and how that person is likely to act. I am a member of this community. I have worked in fly shops and as a fly fishing guide, so I'll use myself as an example, as an embodiment of this culture, because I have been immersed in it for enough of my life to know it. We need a new kind of community instinct. In this story we find how the salmonid fly fishing community shaped my ethical instinct in-the-making.

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<sup>15</sup> Leopold, *A Sand County Almanac*, 239.

“Just a little longer” echoed in my head as I watched a fishing pole that wasn’t mine, willing a fish to bite. I had seen salmon before, but I had never caught one and never had a chance to either. I didn’t know why I wanted to catch one so fiercely. I wasn’t hungry; I didn’t need to catch a fish for food. But the idea of the connection of something other, bigger in some way, pulled at me.

The pool under the bridge was mysterious; the bedrock gaped open, creating an abrupt drop-off and the allure of an unseen depth. The boiling currents offered glimpses further into the hole, and my eyes moved to the large rocks in the tail out. I’ve stood staring into the unknown many times on this bridge overlooking the Salmon River, imagination run wild.

To get to the River we had driven west, away from the High Desert of Central Oregon and towards the coast for the weekend. As my mom’s red Euro van made the descent over Santiam Pass, my brother, Ryan, and I noticed a shift in the air. Thick, moisture-laden clouds obscured the mountaintops and the comforting squeeze of the compressed horizon calmed us.

Before the trip my mom had bought me a new pair of shoes, the ones that light up with every step. I had quickly destroyed the last pair in a series of puddles, rivers, and rocks. It had been a while since that happened, so I was allowed another chance. As we passed through the urban sprawls on the way to the ocean, I stomped my feet to watch the red flashing lights on the soles of my shoes dance across the floor. They were black on top with red plastic slashes, as macho as you can get for a six-year-old. Mom turned around to remind me that I would wear them out if I used them too much, with Dad adding something like “Listen to your mother.”

Looking back, they balanced each other well as parents. My dad was more likely to say no to unwarranted requests, but eager for a well-researched argument or observation. Mom, more easygoing with perceived needs, supported us with the type of love that could melt a snowball in February. Ryan and I knew our boundaries with them, both when they were together and when we had each of them to ourselves.

Dad was driving. He liked to drive and still does. Mom was knitting socks for a Christmas gift even though it was only September. We were getting close; the temperate forests of the Pacific Northwest surrounded us, bringing my thoughts closer to the ocean, the sand, and the salmon.

My shoes, and probably Ryan, had taken a beating by the time we saw the Salmon River and patience grew thin in the car. Fortunately, we were almost to the hatchery, the road now wet with a light rain. We made the familiar turns, getting a glimpse at the small river as we crossed a bridge spanning it. Ryan and I strained against the seatbelts to get a better glimpse. I think I strained the hardest.

We parked next to the “Salmon River Hatchery” sign and burst out of the car, sprinting to the concrete pens where the returning Chinook were found beating their heads against a wooden board in a vain attempt to gain passage. My dad, a recently retired middle school science teacher, explained the salmon’s migration and life cycle to us. The magical transformation of the salmon, from a tiny egg to the massive adults we saw below us. He told us of the epic cycle of ocean and rivers, of life and death, and of the importance of the fish for the whole ecosystem. But as we



watched the giant dark backs swim anxiously in the imprisoned water below, we felt something deep inside us that whispered something was wrong.

After a quick dash to pay our respects to the river, Ryan and I hopped back in the car, eager to see the fishermen upstream. We headed up the road and our eyes widened as we saw how many cars were parked at the bridge. We were excited because we knew the deep pool under the bridge had fish not destined for a concrete pen. These fish, there under the bridge, were *wild*. And Ryan and I knew that at some level, we wanted to be wild too.

We parked on the left side the bridge and I walked calmly across with Dad. We paused for a moment above the river, and I analyzed the congregation of fisherman, all waiting patiently for their lines to come tight and to feel the power of the Northwest's King. I wished I could spend my days there with them, communing with the river and plying the waters for the creatures that dwelled there.

On the other side of the bridge, we scrambled down the muddy embankment. I was careful to avoid dirtying my new shoes, or, more accurately, tried to escape the stern look and frustration of my mother if she saw my shoes muddy and soiled. After a few minutes, I was told it was time to go. "Just a little longer," I pleaded. "Five minutes," Dad said, and walked back to the car. Although only a short distance separated us, and I was in an easy line of sight, I had my freedom.

It appeared to be a slow morning, but the anglers here below the bridge knew they were down there; we all pictured the dark streamlined bodies sitting at the bottom, returning to their home after years in the vast Pacific. Though I hoped to see one of these large salmon, I knew that

the fish weren't there for us. They had their own purpose, one that I could not know, and I was ok with that.

I wasn't sure how long-ago Dad had left me. I didn't have any sense of time when I was near a river, and as a six-year-old I didn't have the slightest care. I stood near the water and concentrated my gaze on the unattended fishing pole in front of me. I second-guessed myself at the pole's first twitch, the slightest movement that the owner of the pole didn't notice as he talked to his friend a few paces away. My whole body tensed, my young, developing mind spinning its wheels. The pole sat on the edge of the pool's precipice. But between the rod and me was a puddle—not massive, but large enough that my shoes would likely not make the journey through it.

The rod twitched again. My voice was lodged in my throat, unable to yell at the pole's owner and unsure of my place to do so. Then it sprang to life, this time not pausing at it headed towards its watery grave. My mind reached a crescendo at that moment, the urge to grab the pole and save the day versus the thought of my light-up shoes meeting their fate. I was too slow. The pole was dragged into the pool, vanishing into the green water. My eyes met the pole's owner and they searched mine for an answer as to why I didn't do something. Lacking a good one, I walked up the embankment and went back to the car where my family was waiting.

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That memory is my first regret. I felt a change in my brain's chemistry as I played the moment over and over in my head walking back to my parents. I still wish I would have grabbed the fishing pole and saved the day. I would have been a hero. I imagine the group of men

cheering for the six-year-old me, and I still long for that approval. This is the moment I point to for the start of my relationship with salmonids and the anglers that pursue them.

As a six-year-old I was still unsure of my relationship with fish, but I was learning about my relationships with other parts of my world. I knew that it was wrong to hurt others, though at times I pretended Ryan didn't count. I knew how to treat adults and the appropriate way to speak with an elder, yes please, thank you, no thank you, smile, eye contact, firm handshake. I was also being taught, both in school and at home, how to relate to the material world. The computer was expensive; don't break it. Those light-up shoes are yours, so take care of them. And I was also taught how to relate to other life. I could chase the geese at Harmon Park along the Deschutes River, but if they chased me back it was my own fault. I had to ask if I wanted to touch an animal someone owned, but I could run through the still empty lots in the neighborhood and catch any lizard, snake, or frog I wanted and even bring them home to a glass cage.

I was learning the form of conduct and set of principles as they applied to various groups. I was learning ethical relations. I made mistakes. I bullied others. I was disrespectful to a couple teachers in grade school. I lied a lot. I cheated at board games. I grabbed the tail of a blue skink before I learned that their tails detach rather easily to escape predators. I hurt my brother. I wrecked a pair of shoes.

Along with the ethical and appropriate social relations, I was also learning the silent hierarchy of the world, the complex social rankings of worth for people, animals, and objects. It wasn't ok to kick a dog, but it was fine to slice open the belly of a still living whitefish. I wasn't condemned for wantonly killing insects, or when I tried to kill the neighborhood birds, but I

couldn't kill the chickens we owned. I could hit other boys, but I could never conceive of hitting a girl. It was totally fine to catch lizards and frogs and snakes and keep them confined in a tiny cage, but not a person, unless they had done something bad, and especially if they weren't white. I could trust people who looked like me but not those who looked like the folks on the TV after that September 11 day in 2001 when I got to go home from school in first grade. Some shoes were ok to get dirty, to grind into the filth. Other shoes were meant to be kept clean to present to the anonymous, judging congregation of safe citizens. I can't recall questioning any of this, and many of these hierarchies were subtle things, hidden beneath banal words and uneasy glances.

Slowly, since my parents aren't anglers, I had experiences that shaped my views on the acceptable ways to treat and think about fish; I would stare through goggles for hours, mesmerized by the trout swimming up to my feet on hot summer days while the other kids frolicked in the cool water of the Deschutes. There was that trip to the South Fork of the Crooked River where Ryan and I dissected a mountain whitefish on the bank, which was maybe the day I caught my first fish on a fly rod. The awe and curiosity of the old man fishing under the foot bridge at Drake Park who gave me a rainbow trout he had caught using the tail meat of a crawdad; the pride I felt when I brought my parents the two dead and dirt covered rainbows pulled from beneath the dock at Clear Lake right next to the No Fishing sign with a purple soft plastic jig while they were still unloading my grandpa's drift boat at the boat ramp. And the intense sadness and guilt when I ripped the mandible off a small rainbow trout with a treble hook of a lure below the dentist's office off of NW Newport Ave in downtown Bend, Oregon.

In high school, when my dad bought me my first fly rod and I remembered again the curiosity I had felt towards fish and the unseen depths of the Salmon River, I grew obsessed. The summer of my junior year, Ryan's freshman year, our parents took us around the American West to bike, hike and give us an incredible introduction to the region's vast landscapes. I fly fished nearly every day on famous trout rivers and roadside canals. I still owe them for that.

On returning from the trip, I worked quickly to consolidate my identity as a legitimate fly angler. It was becoming a cool thing at my high school so I diligently began absorbing every scrap of information I could about how to catch fish, tie flies, and the like. I was offered, and accepted, my first real job at a local fly shop that was opening up. And most critically, I quickly began adopting and imitating the garb, demeanor, language, and belief systems of the all-male community of anglers I was surrounding myself with. I wanted desperately to fit in.

For my seventeenth birthday my parents gave me a fishing journal. In its pages, I began the work of a scientific angler, writing down all the details I thought necessary to improve. These are the first four entries:

#### Will Griffiths Fishing Journal

May 19, 2013 – fished for 6 hours on lower-D at Mecca (first time there), Salmonfly hatch was going strong, 65 and partly cloudy made for comfy fishing, went with dylan --- and I only caught 1 14" rainbow, fish seemed very selective even for large salmonfly patterns. It was a great birthday trip. I'm now 17 ☺

May 20, 2013 – went from 7:30-9:00 at tumalo state park and Shevlin park, caught 1 6' on a salmon fly Pattern, went w/ dylan ---- and it was fun talking.

May 22, 2013 – went to tumalo falls from 5:30-8:00. 34 + wind chill, snowing, caught 1 fish on a red chromanid w/ a white head. A little slow but fun and beautiful!

May 23, 2013 – went w/ Eli ---- from 3:45-8:00, I caught 20+ fish on a salmon fly + dropper I tied, Eli caught 10-15 on same thing (I outfished him by a lot!!), I got 1 16” incher and lots of little guys, it was mid 50’s and overcast which made it good. Great day!!

I was slowly increasing my knowledge of salmonid ecosystems and paying attention to all the variables I could think of; I was beginning to use the language of a modern salmonid angler. I was also competitive and saw my own skill only in relation to others with whom I was fishing.

On the sixth day of journal ownership, I had an experience universal for anglers—the big one that got away.

May 24, 2013 – I will never forget this day for as long as I live. Today I hooked a 25+ brown at the 1<sup>st</sup> spillway w/ Blake ---- , I was using a chubby Chernobyl with a dropper I tied and when I started I wasn’t catching anything, not even small ones, then I cast about 10-15 feet off of river lefts bank (right along the spillway and the fish came from a few feet away and ate it, I reacted to quickly and pulled the fly out of its mouth but the dropper snagged the fish (Im not sure where) and it was “fish on” we sat for awhile while I screamed at Blake to “get the net,” then started he started moving downstream past the overhanging tree, blakes net was about 10” to short to even measure the fish on but it was more of a mental safety thing, he started another run and went all the way down to the park, me and Blake had to manuever around the large log in the water and it was good teamwork, when we got it down to the park I kind of thought we had it and looked at Blake, then it shook its head and the fly ripped off. That moment felt like losing something that meant more to me then life itself, that fish was a symbol for me, a fish of a lifetime. I cussed and cussed and creid and screamed and cussed some more. Nothing matters anymore, every fish seems weak and small to me now. I have found my Moby Dick, though he did not take my leg, he took my soul, and I promise to get it back. I just don’t know what pattern it will be on. (Partly cloudy, high 50’s, No small fish = 1 huge fish)(Also caught 1 10” rainbow after, felt really small...).

I was also a little dramatic. I cringe sharing this entry, and its misspelled words, run on sentences, and references to books that I had not read. The words sound like an attempt to impress, but they were genuine. I was an excited child writing with the hands of a teenager.

By this early stage in my fishing, I would have released that brown trout even had I landed it. I had almost fully adopted catch and release, not as a management tool or because of some ecological awareness, but because all the guys at the fly shop did. I would recite the platitudes: They are too valuable to be caught only once. They will live to fight again. Let them go so they can grow. I release fish as a gift to the next angler who might get a chance to catch it. And (from the guides): They are our business partners. I would repeat these remarks with all their implied moral content removed of meaning.

In many ways I achieved all my newfound fishing goals in my last two years of high school. I was that guy who fished at my high school, which I liked because it at least meant people knew who I was. I started the fly fishing club, caught some big fish, and won a trip to the Florida Keys where I landed a really big Permit and a Tarpon. By the time I was heading to my freshman year at Montana State University in Bozeman I thought I was pretty hot shit.

I moved to Bozeman and started school, skipping classes to fish with my new friends. That first summer I had two jobs. One at a fly shop in town where I worked mornings, then an evening shift washing dishes at a fancy restaurant and bar downtown. Four days a week I worked 16-hour days, but for three days in a row every week of the summer I could fish. And I used the time well. As we were both boatless and new to the area, one of my fly shop co-workers and I would head to Yellowstone National Park and learn the rivers there. We fished aside bison, saw grizzly bears, and became proudly jaded towards the long lines of tourist's vehicles stopping to see the wildlife. We roamed a bit but found fishing the Lamar River and its tributaries hard to pass up. The cutthroat trout were plentiful, big, and beautiful.

But one day, the morning after one of those amazing trips into our country's first national park, I parked my truck at the shop and went in to open it up for the day's clients. There were a few of us there and someone asked me how the fishing was during my days off. "We raped 'em!" I replied, and told them how good the fishing was and how lucky we are to have such amazing fishing so close by. They all laughed and smiled, unphased by my words.

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How could someone so enamored with rivers and fish use those words? I knew what rape was. And yet I probably said that exact phrase numerous times and heard it as often. It was an uneventful enough phrase that I can't even remember the exact day or time of year; it was commonplace. We fucked em up. We nailed them. Fucking wrecked them boys. Fuckin' nailed 'em. Whacked the shit out of them. We caught the shit out of 'em. All pretty standard phrases for a good day of fishing that I have heard and said in three Western states.

This language is so easy to ignore. Had I read that sentence a few years ago I may not have even noticed the use of the word rape. To admit it is not to forgive myself, and I'm still ashamed to have said those things. And I wish I could say that I am alone in using this type of language to describe a day of fishing. But this was not simply an isolated event where one unthinking young man used a horrible metaphor. I still hear that language, and see it written, not necessarily the specific word or phrase but the same type of sexual and violent language used in casual conversations about catching and releasing salmonids, especially trout. It's an uncomfortable topic. Some of my angling friends that I've shared this story with have repeated the use of the word rape to me in an effort to make a joke out of it, to make the use of the term seem somehow less awful. It doesn't work, and it shouldn't.



For a long time, I never even considered my language, never thought hard about my words, or what they imply. Until one day when I was speaking with my partner and in a moment of clarity admitted to her the language I had used to talk about a good day of fishing. In a burst of realization, I registered that I had chosen to express how great a day I had catching fish using the most awful, vile, violent form of sexual assault and manipulation as my language of choice. Again, how could I use that language? I also believed that these rivers were literally and spiritually inside me. I loved those fish. And I still do. So what happened?

The type of language I learned to use in the fly fishing communities of Bend and Bozeman is hyper-masculine. All the fly shop employees and guides I worked with, tried to impress, and fit in with were male. The construction and maintenance of masculine identity through the act of fishing and recounting of fishing is a common way for male anglers to relate to one another. In an ethnography of white anglers in Ohio, Timothy J. Adkins found that:

When describing days in which they caught many fish, men online and in-person frequently use lines such as “We slayed them.” Often, they replace “slayed” with “killed,” “clobbered,” “annihilated,” or a host of other words connoting mass-murder or total destruction. Perhaps ironically, these words are used even by those men who do not keep their fish. Even though they carefully release their fish alive, they present the act of tricking and fighting fish with rod and reel as a dominating and even murderous act. The effect, intentional or not, maintains fishing as a manhood act, an act of control and power, that reinforces the conception of fishing as the domain of men.<sup>16</sup>

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<sup>16</sup> Timothy Joel Adkins, "Fishing for Masculinity: Recreational Fishermen's Performances of Gender," (M.A. Thesis Kent State University, 2010), 22. [http://rave.ohiolink.edu/etdc/view?acc\\_num=kent1282173124](http://rave.ohiolink.edu/etdc/view?acc_num=kent1282173124)

The language Adkins finds prevalent in Ohio recreational fishermen mirrors that of fly fishermen in the Rocky Mountains, and sheds light on the how the industry is geared towards male anglers. “Fishing is generally marketed to men and cultivates a particular masculinity around control, domination, and technical competence,” Adkins writes.<sup>17</sup> A popular lure company is “Bomber,” the tagline of its new heavy-duty lures reads “Built to Dominate,” and the Sex Dungeon is an extremely popular fly fishing streamer pattern.<sup>18</sup> The masculine, often sexual, and dominating language is not only commonly used to describe a day of fishing, but is also used to promote and advertise fishing equipment sales. Adkins also discusses how “Fish are the proof of masculine accomplishment,” which is a common trope about angling in general.<sup>19</sup> To explore this language more deeply, and perhaps get a step closer to finding the core of this type of mindset, we turn to Val Plumwood and her book, *Feminism and the Mastery of Nature*.

Plumwood discusses the western conception of the human/nature dualism, in which nature is conceived of as the “Body, passion, emotion, the visible world (senses), animal, wild, non-human landscape and beings, feminine, [and] reproductive nature” among others.<sup>20</sup> These conceptions are separate from the human, which is “Culture, reason, male, mind, master, rationality, spirit, [and] freedom” among others, all separate from feminine nature.<sup>21</sup> “These

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<sup>17</sup> Adkins, "Fishing for Masculinity," 21.

<sup>18</sup> Adkins, "Fishing for Masculinity," 21.

<sup>19</sup> Adkins, "Fishing for Masculinity," 31.

<sup>20</sup> Val Plumwood, *Feminism and the Mastery of Nature*, (Abingdon: Routledge, 2002), 80.

<sup>21</sup> Plumwood, *Feminism and the Mastery of Nature*, 43.

dualisms are key ones for western thought, and reflect the major forms of oppression in western culture.”<sup>22</sup> In western culture a relationship with nature has been construed as feminine, men’s (or male anglers) masculinity is therefore threatened when seeking and valuing this relationship. Could it be that this is why a large part of male angling culture is driven to use violent, destructive, sexual language to legitimate their ‘feminine’ connections to nature? It seems possible.

So, is fishing for salmonid inherently bad? Is it not a peaceful, spiritual, zen-like recreational opportunity, allowing one to get closer to nature and connect with an ecosystem? It is presented that way, yes, and perhaps it is all these things and more. The practice of fishing can be healing. There are organizations that use fishing as a way for combat veterans to heal both mind and body, and it works.<sup>23</sup> The practice of fishing is a way to connect with an ecosystem and our non-human kin. I am not trying to dismiss that there are many positive aspects to catching fish. But who or what is actually benefitting from these positive attributes of fishing is a far more interesting question. How we think about the practice of angling matters and right now I’m not convinced we are thinking enough.

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<sup>22</sup> Plumwood, *Feminism and the Mastery of Nature*, 43.

<sup>23</sup> Jessie L. Bennett, Jennifer A. Piatt, and Marieke Van Puymbroeck, "Outcomes of a Therapeutic Fly-Fishing Program for Veterans with Combat-Related Disabilities: A Community-Based Rehabilitation Initiative," *Community Mental Health Journal* 53, no. 7 (2017): 756-765.

Thinking about how to catch the fish, or which fly to use, or what knot to tie are internal types of thought; they are the ego presented with the most minor of challenges, like a puzzle or a video game—they endlessly gratify but are ultimately meaningless outside of a larger system of value. Most types of thinking while fishing are purely selfish: How do I catch the fish? How do I catch more fish? How do I catch the biggest fish? To know something of the fish and ecosystem is required to make these acts possible. This type of thinking has no real consequences for us, or for me. Unthinking, to behave or act or speak without truly thinking about context or impact or effect, is dangerous. It can be healing and wonderful too, but it can also lead to someone using the word rape in a positive way. Unthinking led soldiers in WW2 to believe that there was a “type” of human that didn’t deserve to live. The choice to think is a paradox: we must, yet we try to escape it; too much of it paralyzes action, not enough can immobilize; it is a necessary part of our lives, and the most dangerous thing we can do; it is our own, yet shaped by everything around us. Thus thinking, perhaps, is where ethics exist, and I believe our relationship with salmonids is a worthy thing to think about. To think critically about how we think is the next step in thinking beyond the self.

Again, we can turn to Leopold. “An ethic, ecologically, is a limitation on freedom of action in the struggle for existence. An ethic, philosophically, is a differentiation of social from

anti-social conduct.”<sup>24</sup> A salmonid ethic, therefore, combines the ecological with the philosophical, the limitation of action with the social.

My use of rape as a positive metaphor is not socially acceptable in nearly any social setting and it shouldn't be in any; it should be one of the most anti-social things that could be said, but it is accepted, and 'lesser' forms of that metaphor still are in salmonid angling culture. “Cancel culture,” in which people are ostracized and excommunicated from the community as punishment for a violation, will not solve this. Canceling that language, policing every word, will only bury the toxicity further. The same type of fear that one feels from the social pressure of being expected to speak and act in a certain way is the same type of fear that leads to all this, the type of fear of wanting to fit in. That fear is what drives the language I used, and why that kind of language is used in the first place by male anglers.

Our language, our metaphors and analogies, give us insights into view social and cultural beliefs within a group of people. Fishing is an inherently violent action, sure, and not every single angler uses this language. But many do, especially at the core of the sport, the guides and outfitters like me. The worst of it is not in front of just anyone, of course, but in the inner sanctum these most disturbing of thoughts emerge. These days I try to analyze and think

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<sup>24</sup> Leopold, *A Sand County Almanac*, 238.

carefully about my language, yet still, like a faucet that is shut off but can't stop leaking, I find myself saying or thinking in these terms; sexual, violent, and masculine language is embedded in angling language in the American West.

Socially, on the water and off the water angler interactions are as complex as any other social setting. The tone of voice suggesting that the 25 fish you caught were no big deal, the jargon and reference to local place names, how to hold a fish for a photo that will be posted on Facebook, the way in which a fishing pole or rod is carried, the comradery of making fun of the “other” that the community has chosen to pick on for the season, and the space given to a fellow angler on a river out of respect—these subtle, nuanced interactions and performances are what define the community and who is in vogue at the time.<sup>25</sup>

So, what does it mean if there is a large part of the community where it is socially acceptable, ethical even, to use language that strongly suggests fish are objects to dominate, to control, and to use as they see fit? I am not sure. But it seems to contradict what many of us say about conservation or protecting fisheries. And if it doesn't contradict those lofty sentiments, then that is worse, because it means we care about salmonids only to dominate, control, and use

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<sup>25</sup> The Madison River is the most heavily “policed” river I have witnessed regarding social norms and masculine posturing.

them as we see fit. No matter that they are living beings, no matter that we say we love them.

This type of relationship cannot be ethical.

What of our ecological ethic? Most generally, we have a few modes of limiting our actions. Among them the most obvious is our methods, such that dynamite, for example, is no longer allowed in the pursuit of steelhead or trout. Now variations of rod and line fishing equipment are the primary way people interact with salmonids in the West. We also limit the number of fish that can be kept and the time of year they can be targeted. Our state fish and game departments set these regulations. Basically, regulations are created with consent of the popular will among angling communities, which in the West, holds a balance between the ability to catch fish for fun and fish for dinner. Catch and release (C&R) is mandatory in some places and for some species if populations are lower than what fisheries biologists say are “healthy,” but also because that is what anglers have called for. Even in places where fish can be kept, many salmonid anglers choose not to, and this is where C&R becomes a part of our ethic, the choice to restrain our actions.

In a reversal of the thousands-year-old reason for fishing (eating), to keep a trout now is to offend the sensibilities of a large, vocal, wealthy, primarily white, and growing contingent of people who recreate by fishing for salmonids. The history of C&R has been widely written about so I will summarize it briefly. The practice began as an elite European tradition, “The mark of a

gentleman,” that went hand in hand with preventing the English peasantry from fishing.<sup>26</sup> The practice shifted around a bit for the next 600 years, was imported to North America by Europeans, and was legalized and popularized in the U.S by the mid-20<sup>th</sup> century. Famous fishing guides like Montana’s Bud Lilly, who’s clientele included former presidents, began a campaign to legitimize C&R as an honorable and masculine way to continue catching fish while preserving trout populations for the benefit of the outfitters, guides, fly shops, and other businesses that profited from them.<sup>27</sup>

Today C&R is presented as a scientific management tool, an economic necessity to maintain the sport fishing industry, and as an ethical obligation to the fish. The economic claim, that C&R is necessary for the sport fishing industry, is commonly found on most fly shop web pages in popular trout fishing destinations like Bozeman, Montana: “People also ask if they can just keep one, for dinner. Unfortunately, we do not make any exceptions on our policy of catch and release. There are over 300 guides and outfitters in our area, and many work at least 100 days a year. If we just kept one trout a day we would deplete our trout populations and decimate

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<sup>26</sup>Robert Arlinghaus, Steven J. Cooke, Jon Lyman, David Policansky, Alexander Schwab, Cory Suski, Stephen G. Sutton, and Eva B. Thorstad, "Understanding the Complexity of Catch-and-release in Recreational Fishing: An Integrative Synthesis of Global Knowledge from Historical, Ethical, Social, and Biological Perspectives," *Reviews in Fisheries Science* 15, no. 1-2, (2007): 75-167.

<sup>27</sup> Keith McCafferty, “Hooking Up with Bud Lilly,” *Outside Bozeman*, October 24, 2017. <https://outsidebozeman.com/culture/people/hooking-bud-lilly>. Also see, “Bud Lilly.” *Wikipedia*, December 21, 2020. [https://en.wikipedia.org/wiki/Bud\\_Lilly#cite\\_note-AP-10](https://en.wikipedia.org/wiki/Bud_Lilly#cite_note-AP-10).



our livelihood in a very short time.”<sup>28</sup> I’ve used this very same logic to tell clients why I won’t let them keep a fish, and have heard it taught as a guiding principle to a fly fishing 101 course for Montana State University students. On its surface it is a rational, logical argument for a tourist-based industry. It also reveals that salmonids are a commodity, worth more money in some places when they are allowed to live.

It is clear that C&R angling is the pinnacle of the current ethical relationship between angler and salmonids. There is some nuance to it: one cannot mishandle a fish prior to releasing it or risk being reprimanded by any witnesses; some salmonids are produced by hatcheries to be killed, killing those is ok, and mishandling them isn’t quite as bad as a wild fish; a large salmonid, or the higher a species is on the cultural hierarchy of species at the time and place, should be treated with the utmost care and respect: keep their heads in the water as much as possible (except for a quick photo) while the hook is gently removed; small or common fish can be unceremoniously tossed back; undesirable fish, usually not salmonids (“trash fish”), should be thrown on the bank to die. Even state fishing regulations imply the socially and culturally mature way to fish is to release trout. On the Madison in Montana, only one rainbow trout under 14

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<sup>28</sup>Dane Huzarski, “Why Do We Practice Catch and Release?” Montana Trout Wranglers, Accessed April 3, 2021. <https://www.troutwranglers.com/about/blog/why-do-we-practice-catch-and-release>.

inches may be kept by an individual under the age of 14.<sup>29</sup> It is childish to want to kill a trout, and children are ethically undeveloped, so they should be given the chance to keep a single fish from the Madison.

We release the fish; we spare their pitiful lives, but only for the pleasure of being able to dominate them again. For feminist scholars like Donna Haraway, this discussion would not at all surprise. For Haraway, the story we tell about C&R can be thought of as the story of Anthropos, of man, as “A tragic story with only one real actor, one real world-maker, the hero, this is the Man-making tale of the hunter on a quest to kill and bring back the terrible bounty.”<sup>30</sup> The story of angling in the West is male centered and focused on conquering and domination, where all others in the tale are ‘Props, ground, space, and prey.’<sup>31</sup> This Anthropos story is how we speak as anglers, but we’re not the only ones, as the same thing could be said about almost any outdoor recreation performed or spoken about in the West.

When discussed at all, the controversy around C&R centers on pain. Do fish feel it? If so, how much? Is their pain like ours, or perhaps that of a dog? It seems reasonable that if trout felt the same type of pain as humans, C&R, or all types of fishing, would cease to exist or at least be rethought. In a recent article in *Outside* magazine, titled “Fish Have Feelings. Does That mean

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<sup>29</sup> Montana Fish, Wildlife and Parks, “Madison River,” 2021 Montana Fishing Regulations, Final for Web, February 26, 2021, 65. <https://myfwp.mt.gov/getRepositoryFile?objectID=100616>

<sup>30</sup> Haraway, *Staying with the Trouble*, 39.

<sup>31</sup> Haraway, *Staying with the Trouble*, 39.

We're Torturing Them?" the author posits, based on emerging animal neuroscience, that it is very likely fish feel pain.<sup>32</sup> The article concludes with an interview of a man who has been fishing his whole life, been inducted into a fishing hall of fame, and worked a long career managing fisheries in the Pacific Northwest. This "fisherman's fisherman" assumes that fish, like deer and other critters, do experience pain (opposing most people's view of fish's ability to feel pain). Unfortunately, he "is unwilling to tell anyone how to live their lives, but for his part, he feeds his family with the fish he catches and takes solace in knowing the money he spends on permits goes toward conservation in his state." A true American, never wanting to suggest to his fellow Americans that their God-given individual freedom to do whatever the hell they want is just maybe premised on the oppression of other life.

Another way to view the ethics of our sport is by examining what we call conservation. Though 60 years have passed, Leopold summed up modern conservation pretty well. He critiqued the content of conservation ethics in the U.S. that is still current today:

The content is substantially this: obey the law, vote right, join some organizations, and practice what conservation is profitable on your own land; the government will do the rest. Is not this formula too easy to accomplish anything worth-while? It defines no right and wrong, assigns no obligation, calls for no sacrifice, implies no change in the current philosophy of values. In respect to land use [and fishing], it urges only enlightened self-interest.<sup>33</sup>

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<sup>32</sup> David Ferry, "Fish Have Feelings. Does That Mean We're Torturing Them?" *Outside Online*, August 17, 2016. <https://www.outsideonline.com/2106421/fish-have-feelings-does-mean-were-torturing-them>.

<sup>33</sup> Leopold, *A Sand County Almanac*, 243-244.

He never says that we are selfish; that would dismiss our ability to change. Yet, three generations after these words were written, *by the most influential conservationist of our time and father of conservation biology*, what has changed? We passed legislation protecting more land and making rivers wild and scenic in vast swaths of the US—all to the good—but our ecological conscience as individuals hasn't budged. I have only ever seen propaganda. We have used our power to deny Native people's rights to land that was not ceded in treaty. But can you think of any place that we cannot fish? I cannot. Our current ethics do not sacrifice anything, but they do demand the sacrifice of the dignity of non-humans, and they do demand the continued removal of Indigenous sovereignty. Leopold wouldn't say it, but all the evidence suggests that we are a deeply selfish group of people and there hasn't been a single event that has changed since my ancestors stole this land. "The conqueror role is eventually self-defeating."<sup>34</sup>

It's not really about pain. We can pretend it is, and it probably does matter if we are torturing animals for fun—that is deeply concerning. The ethic could easily be about pretending to fix the problem by treating a symptom. It's not really about language. We could have a huge community debate about it, and we could all shift our practices towards speaking and thinking about salmonids with respect; we can think critically about our practice as guides and anglers

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<sup>34</sup> Leopold, *A Sand County Almanac*, 240.

and discuss endlessly the social and ecological ethical course that most benefits the fish and each other. But so what? What story are we actually telling? What are our stories hiding? And what practical, material, physical consequences will they have?

The salmonid ethic should engage with our language and actions, but not just while we're on the water; this is not enough. What about how much CO<sub>2</sub> we are dumping into the atmosphere? All of the science says that will most likely wipe out our fisheries if burning fossil fuel continues at anywhere near the rate it is today. No, that's too big, it's been tried in thousands of books and someone else will handle it. What about all the food we waste? I compost. What about the cows farting methane? I hunt for my meat; I buy organic or eat vegetarian. What about the big diesel trucks those assholes like to spurt black smoke out of? There! Let's tackle that one in our ethic. We'll create legislation that reduces car emissions and an educational program about our responsibility as consumers to be responsible and maybe buy an electric car. Oh, and we'll get billionaires like Bill Gates to fund "technology" that maybe will save us from giving up anything, especially our drift boats and sweet new fly lines. But wait, did you know that the organic, name brand cat and dog food that you buy for that amazing pet of yours has a really

good chance of containing fish caught by modern day slave labor in the South China Sea?<sup>35</sup> Oh, huh. That's not related to the salmonid ethic, is it?

Let's pretend for a moment that we all fully accepted C&R as a practice, knowing full well that our actions are cruel and inhumane. Wouldn't that at least be more honest than a PETA advocate that flies a jet around the world to see a polar bear before they go extinct? To proclaim with euphoric bliss that you raped the fish and the river and the ecosystem that you so dearly love would be far more honest than the billionaires who fund "solutions" to climate change because those richest and most powerful are the ones that have profited the most from the metric tons of pain, injustice, and cruelty that we all pretend not to notice. There is too much. There is too much awfulness in the world, and our lives are far too short and there have been millions of people "chipping away" at all these problems for thousands of years in different variations. Hope is not *the* lie, it's just one of the lies that has allowed us as a species to do so extremely well in such a short time. A time that we are naming after ourselves. We're too tightly wrapped up in a system that cannot and will not allow these infinite abuses and traumas and unethical present day dystopias to stop.

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<sup>35</sup> "Fishing: Global Slavery Index," Global Slavery Index, Accessed April 12, 2021, <https://www.globalslaveryindex.org/2018/findings/importing-risk/fishing/>.

My parents' generation does not understand any of this. I hope they try, but they have not yet proven it and their time is quickly running out. I'm speaking to the younger among us now. As white Americans we were taught that it is ok to grind some shoes into the filth and pretend we didn't do it, didn't know it was going on, as long as we have another pair that we preserve to present to the civilized, prude people all around us in imagined peace. We all feel this anger, because it has been with us all our life in America. For all our lives it's always been war, mass shootings, cancer in our mothers and grandmothers, images of broken dead-eyed children, black fathers necks crushed into cement with police knees, little tiny kids sitting in a detention center with armed white men intimidating them because they are Mexican because our country is built on racism and hate and greed. That is the salmonid ethic. That is the land ethic that Leopold wrote in all its beautiful prose. When we try to separate them, they become all the fake bullshit that we are taught, sold, and worship.

Yet, it's also all we can do.

Despair is the easiest thing to do.

And this is still a book about the future of salmonid angling in the West. But let's not pretend any longer that recreational fishing is harmless. Let's stop pretending that "Leave No Trace" and "Follow Posted Signs" and "Stay on Trail" are anything but the barest of pathetic minimums. It is impossible to "Recreate Responsibly."

On an economy based on our ability to choose, we don't really have a choice, and we all know it. What and where do we suppose our endless amount of equipment and gadgets come from? Most are made from substances and processes that have destroyed and continue to destroy

ecosystems and people's lives around the world. That artful, mesmerizing fly-casting competition is based on petroleum. Let's not pat ourselves on the back for releasing a single trout back into the river so that we can torture it again. I refuse to believe that that is where our morality begins and ends. We can do better; better we must.

### Speaking for the Dead

"Just a little longer" echoed in my head as I watched a fishing pole that wasn't mine, willing a fish to bite.

I was guiding two young boys, best friends, both 10 years old, on the Salmon River in Idaho. I don't remember their names. As we drove to the river I felt like the cool older brother when their eyes got big from my stories about the cutthroat trout we were hoping to catch that day. Their parents could afford to pay me to take them fishing for a whole day, and they were tense with the excitement of their small freedom.

They had seen cutthroat before, but only one had ever caught one, and the other never had a chance to, either. They didn't yet know why they wanted to catch one so fiercely. They weren't hungry; they didn't need to catch a fish for food. But the idea of the connection of something other, bigger in some way, pulled at the three of us as we drove, with boat in tow, towards a future that was no longer certain. I was only 12 years older than these young boys and I don't know what type of world theirs will look like in that amount of time. But I know that they were both in love with fishing. They didn't need me to will a fish into existence, they were good, better than most of my clients, and they caught fish. "Just a little longer" wasn't echoing in my



head for their success that day, but for the days to come when the three of us might have to say goodbye to those cutthroat trout.

Might.

The last North American Passenger Pigeon, Martha, died on September 1, 1914 in the Cincinnati Zoo. At the same time, across the Atlantic, millions of young men were killing each other in World War One. The greater tragedy depends on your perspective. The avid bird watcher with no family military history might feel differently than the family with two children deployed in Afghanistan. It's not so much a competition between tragedies as it is a way to determine values, and our values determine how we think of and mourn an ending.

The extinction of the Passenger Pigeons is probably the most discussed contemporary extinction because of the dramatic scale and timeline on which the species declined. From the most abundant bird in North America to a single bird in a matter of decades. Martha's taxidermal corpse is still displayed as one of the "most treasured possessions of the Smithsonian Institution."<sup>36</sup>

Speaking for the Dead is as it sounds—to tell stories in the stead of a lost species or lifeway. The Smithsonian, among others, speaks for the Passenger Pigeon and tells its story; it is

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<sup>36</sup> "Martha, the Last Passenger Pigeon," Smithsonian National Museum of Natural History, Accessed April 5, 2021. <https://naturalhistory.si.edu/research/vertebrate-zoology/birds/collections-overview/martha-last-passenger-pigeon>.

a story of warning. We are all familiar with Dodo bird and the Tasmanian wolf. To speak for the dead is an honorable position, to be the keeper of stories about a species' lifeway, about its history and its fate.

Of course, we will try everything we can to avoid complete extinction of the species of the salmonid family, but extirpation—the excision of a salmonid species from a specific, or local, ecosystem or watershed—seems likely. The point is, we could fail. In either case, how will we speak for them? How should we remember them?

Almost every week I see a report about the extinction of anadromous Pacific salmon being imminent. Just yesterday I saw a headline reading “Salmon Remain on the Brink of Extinction.”<sup>37</sup> It seems like they have been going extinct my entire life. Donna Haraway says that “Extinction is a protracted slow death that unravels great tissues of ways of going on in the world for many species, including historically situated people.”<sup>38</sup> For Pacific salmon it has been slow, and the torn tissues of the Pacific Northwest's cultural, ecological, and economic are legion. But inevitably the articles I see about salmon extinction end with a line of hope (or blame), “If we only do X or Y, then they might have a chance.”

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<sup>37</sup> Tara Lohan, “Study: ‘Salmon Remain on the Brink of Extinction. And Time Is Running Out,’” *In These Times*, March 28, 2021. <https://inthesetimes.com/article/west-coast-salmon-extinction-dams-warming-waters>.

<sup>38</sup> Haraway, *Staying with the Trouble*, 38.

We obsess, even fetishize extinction but rarely if ever talk about what that actually feels like, what it would mean for salmonid culture. Nowhere in the Smithsonian did I find anything on what communities across the U.S. felt about the Passenger Pigeon's extinction, what individuals felt. Ever heard anyone discussing the spiritual or emotional adaptation to extinction?

How do we cope with what Elizabeth Kolbert wrote about in her book, *The Sixth Extinction*, where species are snuffed out forever? What of our spiritual adaptation to a world in which wild salmonids no longer exist? We are told that it is very likely we are going to lose salmonid ecosystems in the West as we know them today, but so what?

But will salmon actually go the way of the Passenger Pigeon and Martha? Or will it be more complicated than one final, lonely fish swimming in a tank waiting to die? It's not clear. I argue that the exact and conclusive fate of the Passenger Pigeon will not befall the salmonid family, nor most of the individual species. There are two reasons for this. First is the fish themselves. Each species of salmonid, and perhaps especially the pacific oceans most abundant anadromous ones—Sockeye, Coho, Chinook, Chum, Pink, and Steelhead—have evolved strategies to survive massive extirpation events.<sup>39</sup> Indeed, all salmonids are incredibly resilient,

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<sup>39</sup> 50% of salmon have been extirpated from the Columbia, see "Habitat," Northwest Power and Conservation Council, Accessed April 11, 2021. <https://www.nwccouncil.org/reports/columbia-river-history/habitat>. The near extirpation of Sockeye salmon from the Salmon River in Idaho became evident in 1991 when a single sockeye returned where decades earlier there were millions. The daughter of a Sawtooth Hatchery technician named him Lonesome Larry. A few Sockeyes still return every year. They are captured, killed and artificially bred by the

or plastic—as scientists call them—the ability to change and grow in rapidly shifting environments.<sup>40</sup> The fish keep swimming and surviving. Second, as long as there is some semblance of a civil society in North America, recreational fishing will never be taken off the table; if climate change destroys too many salmonid ecosystems, recreational fishing will become the primary reason most salmonid species exist in the West. The excitement, desire, and idea of catching a fish is far too appealing and profitable to let extinction interfere. Angling will fund it.

The evidence for this claim surrounds us. Hatcheries, with all their ethical, ecological, and biological flaws, are going to stick around, and are already the main tool for manufacturing fish as a conservation measure. Take for example a couple of small coastal creeks on California's North Coast where Coho salmon are so few that they are susceptible to inbreeding. The California Department of Fish and Wildlife and conservation organizations like the Nature Conservancy partnered in a program called "Conservation Rearing," which they call a "Dating

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Sawtooth Hatchery as a conservation effort to restore the run. See, Dan Klotz, "Lonesome Larry: An Unsung Hero," National Geographic Society Newsroom, December 14, 2017.

<https://blog.nationalgeographic.org/2012/08/06/lonesome-larry-an-unsung-hero/>. For a great book about the mega floods that extirpated salmon and steelhead populations in the Columbia repeatedly as the Missoula Ice sheet retreated see, John Eliot Allen, Marjorie Burns, and Scott Burns, *Cataclysms on the Columbia: The Great Missoula Floods* (Portland: Ooligan Press, 2009).

<sup>40</sup> For a relatively recent, and dramatic, example of salmonid plasticity see, Steven A. Leider, "Increased Straying by Adult Steelhead Trout, *Salmo gairdneri*, Following the 1980 Eruption of Mount St. Helens," *Environmental Biology of Fishes* 24, (1989): 219–229. <https://doi.org/10.1007/BF00001225>

service for salmon.”<sup>41</sup> The video portrays scenes in which biologists and hatchery technicians capture as many baby Coho from these streams as they can, raise them in a hatchery and then release the fish back into these small streams as adults, *without the fish ever migrating to the ocean*.<sup>42</sup> This type of extreme, life support level conservation is presented as a totally normal, a routine exercise in saving a species from extirpation. In the Nature conservancy video about this salmon dating service, the process is presented as neat, innovative, gee whiz, that’s pretty cool science. And it’s a glimpse into a possible near future in which the oceans—acidic, toxic, choked with plastic—are no longer needed to produce salmon for sport anglers.<sup>43</sup> For now, of course, anglers aren’t allowed to catch these (extremely expensive) fish, but they could be. Most salmon that are consumed by the U.S market today are farmed.<sup>44</sup> What does this look like, though?

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<sup>41</sup>Jennifer Carah. “Notes from the Field,” The Nature Conservancy in California, YouTube, March 31, 2021. <https://www.youtube.com/watch?v=kB7gnn4Fa-Q>.

<sup>42</sup>This type of conservation muddles anglers’ lexicon and the conventional cultural hierarchies imposed on salmonids. These fish spawned in the wild, meeting the basic definition of what most consider wild fish. See definition of wild fish in Anders Halverson, *An Entirely Synthetic Fish: How Rainbow Trout Beguiled America and Overran the World* (New Haven: Yale University Press, 2010), 115.

<sup>43</sup> *Salmon Without Rivers*, by Jim Lichatowich, may have it backwards; salmon will be in rivers because that is where most people like to catch them.

<sup>44</sup> “Where Does Salmon Come From?” Superior Fresh, April 21, 2020, <https://www.superiorfresh.com/blog-reference/whats-the-story-behind-your-supermarket-salmon>. For a peer reviewed article discussing the risk of consuming wild versus farmed salmon see Jeffery A. Foran, David H. Good, David O. Carpenter, M. Coreen Hamilton, Barbara A. Knuth, Steven J. Schwager, “Quantitative Analysis of the Benefits and Risks of Consuming Farmed and Wild Salmon,” *The Journal of Nutrition*, Volume 135, Issue 11, (2005): 2639–2643. <https://doi.org/10.1093/jn/135.11.2639>

When will we know when salmon are truly gone? Why does it matter what salmon do during their lives as long as they are still around?

At first the debates will become familiar. One side will say “Hey, let’s be reasonable. Look at this science, the true wild fish are gone, it’s over.” And they will make pleas to the morality of humankind to feel just one ounce of kinship with a family of fish that have suffered insult after degrading insult. But what is wild anymore? These fish spawn in the rivers, fitting the definition of wild fish for salmonid anglers today. So, the other side will say “Hey, let’s be reasonable, calm down, and look here. Aren’t these fish here in this stream Coho? Don’t they hammer a pink streamer and a plug and leap from the water in marvelous aerial displays just as their ancestors did?” The argument sounds familiar because variations of this back and forth are already happening about hatcheries and climate change. The two sides are not debating about physical reality, but our value systems. They are debates about who gets the power and the money.

Imagine a river valley, maybe the one you live nearby. In many places a deep well could provide the cold water that the snowpack can no longer furnish. Think of the jobs that would be created for folks to maintain the trees and riparian area, protecting the plants from the worst of the ever increasing summer heat—there probably wouldn’t be cottonwoods though since they need too much water. We can engineer what looks like a salmonid ecosystem, we can engineer the fish, and there would be plenty of people willing to pay to enjoy such an experience.

Why does that conjure up a dystopian scene for me? Values, power, and money. Most of my old white rich clients don’t want to think about extinction or climate change; they don’t want

to be confronted by anything that makes them uncomfortable. They just want to relax, and appreciate the beauty, and maybe catch a fish with a nice young man at the oars. There are enough of these people to support this imagined future. I can't blame them really, I want to, but I can't; they cannot understand because they have been trained their entire lives to think and behave that way, and I have, too. Our hope lies in the current generation of anglers who can think in new ways.

Aldo Leopold, and others, have used the word "Wild" to describe what a healthy and biodiverse ecosystem looks like to a well-informed human observer. Wild is a central part of the angling lexicon; a wild trout reproduces in a river or lake. People value wild fish over hatchery fish. Leopold's classic line, "There are some who can live without wild things, and some who cannot," so touted in the modern conservation movement, is a lie. The "wild" that Leopold spoke of was a fantasy of European colonizers. Land, rivers, and fish in North America have never been without humans, never been without the influence of people. Euromericans like Leopold (even today) are quick to erase Native people's footprints in these idealized places.

This is not a new revelation. It's at the core of environmental debates. What is wild or natural are human constructs. It's our choice to think of a place or a fish as wild, though it is not always seen as a choice. As anglers we choose how to value rivers, and fish, and the majestic mountains we float beneath. Many choose to erase the history from these places and ignore that that history is still in the present. It, they, those people, those ideas, they haven't gone away. Many choose to value wild fish over hatchery fish because they believe that a fish that has been manipulated by people is not as worthy as one that has reproduced and lived "naturally" in a

river in which almost all the predators are removed, including humans. I think and act that way too.

So, the future is as uncertain as always, and our narratives about extinction are too simple for salmonids. But what does that mean for how we speak for a dead species that is also literally alive? I'm not sure but maybe the most interesting question to consider is this: to truly honor and respect what we think of as wild salmonids, as we say we do, should we let them go extinct?

I don't have the answer, and it is not one I can decide alone. All of this is a choice on how to see and think, but more, it is choosing to see and think beyond the self, beyond the all-consuming ego. I think of that six-year-old me that stood on the banks of that small coastal river with his ounce of knowledge, and his miniscule life experience and his sense of awe, his human desire to connect to those around him: fish, river, and people. I think of those two 10-year-old boys that were ecstatic at the chance to fish together with me for a day. I think of the photo of my grandmother fishing in her night gown on the Deschutes River, not for some fantasy of past fishing now gone, but because she is my best friend, who I am happy has dementia because she is the only person with whom I can pretend with that everything is fine and feel ok about it.

I speak for the dead of an idea, an illusion. The idea that we can "solve" any of this, the illusion that fishing is just fishing.

And yet. The fish we love are still here. We have to try because that's all we can do, and there are still better answers to better questions that I don't know. So, to end, for now, I look to an allegory that I first heard in a YouTube video of a speech given by the late David Foster Wallace given to the graduating class of Kenyon College in 2005 and titled *This Is Water*.



“There are these two young fish swimming along, and they happen to meet an older fish swimming the other way who nods at them and says, “Howdy boys, how’s the water?” And the two young fish swim on for a bit and eventually one of them looks over to the other and goes “What the hell is water?”<sup>45</sup>

Know why you listen to fish. As anglers in the American West, this has always been water. This is water, too.

### Our Adipose Fin

To the human observers driving by on Highway 75 and those floating by in rafts, I probably look like a cross between an alien and one of the Teletubbies—Dipsy perhaps. The Chinook, Cutthroat Trout, Rainbow Trout, and Mountain Whitefish that I’m snorkeling with in the crystal clear waters of Idaho’s Salmon River didn’t grow up watching a British television series for children, but they certainly give me a curious look as I float by.

I’m standing on the river’s cobbled bank trying to warm up. It is a classically beautiful sunny August day just a little downstream of Stanley, Idaho--80 degrees with a light breeze. I’m wearing my winter down jacket, long underwear, and puffy pants under a full body orange and black dry suit with a bright blue full-face snorkel mask. I’m a fly fishing guide here in Stanley, and I’m trying to learn new ways of seeing an ecosystem I love.

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<sup>45</sup> To listen to the speech on YouTube see, Lynn Skittle, This Is Water - Full Version-David Foster Wallace Commencement Speech, YouTube, 2013, <https://www.youtube.com/watch?v=8CrOL-ydFMI>. To read the full transcription of the speech see, David Foster Wallace, “This Is Water by David Foster Wallace (Full Transcript and Audio),” Farnam Street, January 14, 2021, <https://fs.blog/2012/04/david-foster-wallace-this-is-water/>.

I'm snorkeling through a stretch of the Salmon River the whitewater guides call the 'scenic float,' which is aptly named. The float gives changing views of jagged Sawtooth Mountains scraping the sky to the southwest, and the river is calm. It's the stretch directly below Stanley, a shallow section with a few deeper pools that slowly transitions into a whitewater filled canyon where I take people fishing most days. In August, the river is at its lowest flow and the riffles I pass through are just barely deep enough to make it through without walking. I have to point my feet downstream and tuck my butt in, making a plank, so that I don't bounce off the algae and caddis covered rock. Once I come up to where the water is over two feet deep or so, I flip over facing downstream, watching for the aquatic denizens that make their living here year round.

I'm all warmed up, so I wade back into the river. I lie down on my belly and push out, with my feet letting the current take me. I enter a world that I am deeply familiar with, but from above while floating or wading. When I break the surface, the dull echoing sounds of turbulent water buffets my ears, and I move my arms and hands in a synchronized waving motion, slowing myself down enough to scan the water around me. As I move weightlessly through the bright water, I can easily imagine the writing of the water's surface; I spend a lot of hours thinking about these currents and where fish will be holding beneath them. However, those currents that I see from above are felt down here, the eddies and seam lines and current speed becoming three dimensional, and I smile—a riverine ecosystem is an infinitely intricate mosaic and seeing beneath the surface helps me feel like I can understand some other piece of it—I smile because I know there is still so much more to learn.

I float legs pointed downstream and pass by the extremely shallow right bank with all the dead trees in it, ahead is the deepest pool in this stretch of river. Anglers call it ‘Ice Shelf,’ and it has a cliff running along the bank. As the water deepens, I roll forward and begin searching for whatever fish are residing here today. I stop blinking, trying to see as my eye-lidless salmonid teachers do. The water is nearly devoid of particulates and my vision is only limited by my snorkel mask. My periphery catches movement in the eddy to my right from which one of my clients caught a fish a couple days ago. There are three hatchery-raised rainbow trout there today, and they slowly flush towards the rocky bank, eyeing me with suspicion. As the pool deepens there's a pod of native mountain whitefish straight ahead. They are the same blue-grey that I associate with looking into a crystal ball, but the optical depth of their beauty only shows when you look at them underwater; the pod moves casually out of the way, and I dart my eyes forward to the deepest part of the pool. There in the only chunk of shadowed substrate sits a survivor of human folly the world over, but maybe more so here in the river that shares its name--a chinook salmon. We make eye contact, and for a moment the current pushing me downstream stops, my hands freeze in their waving motions. The clarity of the water deepens and all I see is the chinook's eye.

Their pupils are shaped like fat teardrops that point upstream. At the tip of this teardrop, salmonid can focus on the most minute detail while still seeing the wider refracted underwater world. I am trying to see this way too.

The moment returns and the fish explodes upstream past me in a burst of speed, stirring up a little silt. I blink.

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To the human observers driving by on Highway 75 and those floating by in rafts I am probably just another recreator. It doesn't matter that I am a fishing guide, and it doesn't matter that I am wearing a dry suit and snorkel. The people who visit this place are tourists and I am as well, just a tourist who makes a little money helping others catch fish. The chinook, cutthroat trout, rainbow trout, and mountain whitefish that I'm snorkeling with in the ever-changing waters of Idaho's Salmon River are perhaps slightly more bothered by my presence than the thousands of rafts that have floated over their heads in their lifetimes in this river.

I'm snorkeling the scenic stretch and it is a beautiful August day. The water is nearly devoid of particulates and my vision is only limited by my snorkel mask. As I drift into Ice Box my periphery catches movement in the eddy to my right. There are three hatchery-raised rainbow trout there today and they slowly flush towards the rocky bank. I look forward and briefly make eye contact with a lone chinook before it jets upstream in fear.

I'm trying to learn to grieve for the crippled ecosystem I swim in and guide on. The chinook salmon I see while snorkeling is a reminder of the fish's relatives that aren't there; every August day I float over the ghosts of the one the largest salmon runs ever to pulse into the North American continent. As a guide on the Salmon River, I feel a deep responsibility to inform my guests about the history of the river we float on, but there is only so much time, and people only have so much bandwidth. But I try.

My normal day begins by greeting my clients at the fly shop in upper Stanley at around 8:00 am. They pay for the trip and I drive them down to the day stretch, a winding seven mile stretch of some of the most beautiful water I've ever fished. Deep clear pools, long boulder

strewn flats, dry fly fishing, and the opportunity to catch a lot of fish without much skill. A beginner angler's heaven, as most of the people I take fishing are first timers.

Almost every morning I slide the raft into the river at Elk ramp and park the company truck. I show my guests how to cast a fly rod; then we climb in the raft and set off. The float is exhilarating to guide; 300 hundred yards below the boat ramp there's a class III rapid called Piece of Cake. One of the marvelous things about the Salmon River is that it no longer has any major dams obstructing its course, so the whitewater is constantly changing in relation to the water levels.

A little further downriver my guests have had fish eat their dry flies, and usually they are trying hard to learn the difficult act of casting a weightless fly with a weighted line on a graphite rod. There is one more class III rapid called the Narrows, which is a long rapid that is a blast to row through. Halfway through the rapid we pass the confluence of Warm Springs River and I row hard in the current to give my guests a moment to take in the power of two rivers joining and to smell the sulfur from the hot springs that give the Warm Springs its name.

For lunch I set up a folding table with a tablecloth and serve make-it-yourself chicken and veggie wraps, the ingredients of which some of the raft guides put together the night before. I try to make conversation about whatever comes to mind. After lunch I get excited because many days in August, I convince my guests to go snorkeling in what I call the Salmon Pool, with the guarantee they will see a chinook.

I pull the boat onto a tiny sand beach. The highway is as far away as it gets from the river at this point in the float, and the feeling of where we are often settles into the group. I proffer the full-face mask snorkels and urge my clients to look for big dark silhouettes at the bottom of the

pool. Some days I join them; some days I watch from shore. Some people see the fish; some people don't. Some people listen with genuine concern when I tell them about Lonesome Larry, the single Sockeye that returned to the Salmon river in 1994, when over 200,000 should have been with him; some people are interested when I tell them that they are seeing chinook salmon in this pool, and how they are nearly extirpated. Some people sit on the dark green tube of the raft and make eye contact with me when I tell them about climate change and how the future of these fish is less and less certain. People don't like to hear about extinction, but I invite them to put a snorkel on and witness its edge.

The salmon and I make eye contact. For a moment the current pushing me downstream stops, my hands freeze in their waving motions. The clarity of the water deepens and all I see is the chinook's eye. All I see are the thousands of eyes I don't see.

Their pupils are shaped like fat teardrops that point upstream. Always upstream, but always carrying the weight of the past. I am trying to see this way too.

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To the human observers driving by on Highway 75 and those floating by in rafts I don't look out of place here; I'm a white male consuming the experience of a Western river. I am very close to the marketing images every tourist sees when they visit places like this one. (I once asked a friend if he had any thoughts on fishing ethics, and he responded that he didn't like seeing ethnics fishing). True, I am wearing a snorkel and dry suit, but this outfit doesn't take me too far outside the norm; the gear I don is expensive, the garb of the elite river consumer. The salmonids that I'm snorkeling with in the crystal-clear waters of Idaho's Salmon River don't

know of my class and racial privilege, nor the colonial history in which I am complicit. They are suspicious all the same.

I'm a fly fishing guide here in Stanley, Idaho and I'm trying to learn how to catch fish in new ways—I'm trying to form kinship without physical violence and without the narratives and language of domination in the industry I work in. I am snorkeling because it's the only way I have thought of so far to help me with these things.

My normal day begins by greeting my clients at the fly shop in upper Stanley at around 8:00 am. They pay for the trip, and I drive them down to the day stretch, a winding seven mile stretch of some of the most beautiful water I've ever fished. Deep clear pools, long boulder strewn flats, dry fly fishing, and the opportunity to catch a lot of fish without much skill. A beginner angler's heaven, as most of the people I take fishing are first timers.

Almost every morning I slide the raft into the river at Elk ramp and park the company truck. I show my guests how to cast a fly rod, but as we stand on the sandy beach strewn with large granite boulders, I make my voice deep and serious, and I tell them that most important aspect of catching a fish today is setting the hook, a quick lift of the rod to get the hook in the fish's mouth. Saying this has begun to feel strange, and sometimes not truthful. Fishing is a violent sport of course and to some extent it makes sense that our language would reflect that, but within the fly fishing community the language seems to have two faces—one side of the mouth speaks with pleasure in enacting sexualized violence against fish—the other side speaks in gentle terms with love, often referring to rivers as mothers and places of worship. Like when I tell my guests about setting the hook--on one side there is an action, on the other there are the repercussions. I have spoken out of both mouths, and I am confused.

Every day I look into my guests' eyes with a beautiful river behind me, and I make my language as tame as possible--I work in a service industry, and people don't like to hear about the pain they cause. But some days there's a man who gets in my boat and speaks with derision of the fish I help him catch. It's always white men who act this way, and it's always a man who has fishing experience. Inevitably at some point in the day these men tell me stories of their past fishing experiences—to them each catch is a sexual conquest, each fish exists in their story for him to dominate.

These are days that I want to speak quietly, with the anger I suppress straining my voice, and tell them that each time we set the hook we are taking pleasure in torturing a living creature. I want to spin the boat violently and eject the cancer in it. I want to toss them into the water and grin as I row away. I don't of course. My words wouldn't change them, and my violence wouldn't help them see their own. And I know that my anger is actually about my own thoughts and actions that have, in the past, mimicked these men.

So, I snorkel today in the 80-degree heat in my expensive dry suit, and I see trout and whitefish and a single magnificent chinook salmon, and I apologize to them. I lay on my back in a plank skimming just over the tops of the algae and caddis covered rocks looking at the classically beautiful August day, and I forgive myself again for being one of those men.

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I ignore the human observers driving by on Highway 75 and those floating by in rafts. The chinook, cutthroat trout, rainbow trout, and mountain whitefish that I'm snorkeling with in the ever-changing waters of Idaho's Salmon River are why I'm here. I see a magnificent, lonely chinook who flushes from the pool. I see the misty blue hues of a group of mountain whitefish.



But when I see the hatchery raised rainbow trout, I feel different about them, a strange mix of pity, loathing, respect, and anger. These fish have been mutilated by the Sawtooth Hatchery fisheries technicians, whom I have heard speak about wild Salmon River salmonid with disdain. The rainbows have had their adipose fins cut off, the small fleshy fin on the tops of their backs just up from their tails. This unassuming fin has become a symbol for the angling communities in the West, representing wild fish. But it turns out that this adipose fin is a far deeper metaphor for salmonid management than many think.

The practice of fin removal began at a hatchery in Oregon in the late 1890's. Salmon runs along the Pacific coast were failing and being extirpated due to resource extraction (logging, mining), pollution, dams, and overfishing. Artificially rearing and releasing fish into the wild began as a way to mitigate for rapidly diminishing returns, but the system was running into problems. Even with the expansion of hatchery systems and a massive increase in the number of fish released, the number of adult fish returning wasn't increasing. This uncertainty led to fish culturists at hatcheries removing the adipose fin as a way to measure how successful the hatchery fish were at surviving at sea and returning to spawn. They found consistently low returns—their efforts in producing and releasing salmonids were failing.<sup>46</sup>

The removal of the adipose fin slowly became a way to mark fish for anglers, allowing state fisheries managers to differentiate between wild and hatchery fish. In most cases wild fish

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<sup>46</sup>Taylor, *Making Salmon*.

were to be released by anglers and hatchery fish harvested. Because of this distinction, the adipose fin is a symbol for many anglers—with a higher social value placed on wild fish. Debates became heated between wild fish advocates and hatchery proponents, but the science is clear that the wild fish had a higher fitness level living in natural environments than hatchery raised fish.<sup>47</sup>

Hatcheries are still operated throughout the US and they continue to fail in supplementing wild populations. Yet “In 2004, former Washington Rep. Norm Dicks (D) tacked language onto an Interior Department appropriations bill, mandating that any hatchery receiving federal dollars must clip fins.”<sup>48</sup> The same year a small team of researchers discovered that the adipose fin, which was being pruned from billions of fish along the Pacific Rim, was an essential part of salmonids physiology. The authors of this study, Reimchen and Temple, found that the adipose fin was a sensor of turbulent flow—it helps fish navigate strong current. By removing the adipose fin, the steelhead smolt performed 20-30% worse in swift currents than the fish whose fins remained intact.<sup>49</sup> This was shocking because “The adipose fin[s] of hundreds of millions of salmonids [are] removed for marking purposes annually.”<sup>50</sup>

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<sup>47</sup> Hitoshi Araki, Barry A. Berejikian, Michael J. Ford, and Michael S. Blouin, "Fitness of Hatchery-Reared Salmonids in the Wild," *Evolutionary Applications* 1, no. 2 (2008): 342-355.

<sup>48</sup> Dylan Brown, “SALMON: Tiny Fin Is Key in Hatchery vs. Wild Fight,” *E&E News*, August 26, 2015. <https://www.eenews.net/stories/1060023973>.

<sup>49</sup> T. E. Reimchen and N. F. Temple, "Hydrodynamic and Phylogenetic Aspects of the Adipose Fin in Fishes," *Canadian Journal of Zoology* 82, no. 6 (2004): 910-916, <https://doi.org/10.1139/z04-069>.

<sup>50</sup> Raphael Koll, Joan Martorell Ribera, Ronald M. Brunner, Alexander Rebl, and Tom Goldammer, "Gene Profiling in the Adipose Fin of Salmonid Fishes Supports its Function as a Flow Sensor," *Genes* 11, no. 1 (2020): 21.

Since then, there has been a minor flood of studies identifying the function of the adipose fin in salmonid, confirming and furthering Reimchen and Temple's initial findings. Another research team looked at the physical structure of the nerves within the adipose fin and found a complex neural network. Four or five large nerve endings enter the fin, branching out towards the edges of the fin. The branching nerves look like the river systems that the fish evolved in, neural networks that look like river systems, collecting information from the edges of the fin and condensing until only thick channels remain. These channels carry the energy of the fins' movements in the current, bringing them to the nerves to the brain, ultimately helping the fish swim efficiently.<sup>51</sup>

Now, as I swim past those three hatchery rainbow trout, the emotion that wins out is mostly anger. I am angry because there are community events that bring volunteers together to 'clip' the fins of salmonid par and smolt up and down the Pacific Coastline.<sup>52</sup> The language is so deceiving. Maybe the convenience of mutilating animals is the ethical price we must pay to manage fisheries.

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<sup>51</sup>J. A. Buckland-Nicks, "New Details of the Neural Architecture of the Salmonid Adipose Fin," *Journal of Fish Biology* 89, no. 4 (2016): 1991-2003.

<sup>52</sup> Cecily Baptist, "Fin Clipping: What's It All About?" Mossom Creek Hatchery, October 21, 2015. <http://www.mossomcreek.org/fin-clipping-whats-it-all-about/>.

I am angry because earlier this season I took out the new manager at the Sawtooth River Hatchery and his wife, super nice people. His career prior to this new job consisted of raising catfish for food.

I am a fishing guide here in Stanley, Idaho, and I'm trying to learn how to steer through the turbulence of our time—I am trying to regrow my adipose fin.

\* \* \* \*

I swing my legs around in the swift current of a tail out and place my feet on the uneven cobble. I stand for a moment regaining my balance, then walk towards the bank, done for the day. I remove my mask and awkwardly slip out of the upper portion of my dry suit feeling tired and content. I walk to the road and stick my thumb out wondering which version of my day I'll share with my fellow guides this evening.

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