

Ten Recommendations for Sustainable Fisheries on the B.C. Coast

SEAS OF CHANGE



Report Summary

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The Pacific marine environment, and the rich fishing tradition that it supports, are a fundamental part of British Columbia's culture. This is for good reason – the unique properties of the Pacific Ocean produce a level of biodiversity unparalleled in other Canadian waters. This biodiversity has supported vibrant fishing communities for millennia.

Despite this powerful history, the ecological integrity of Canada's Pacific Ocean continues to decline. Important fish species continue to be listed as threatened or endangered, under severe pressure from a complex mix of habitat destruction, industrial pollution and unsustainable fisheries practices. Clearly, a new direction for Canada's Pacific fishery is long overdue.

Until now, management of Pacific fisheries has been on a species-by-species basis. There has been little thought about the impacts of removing a species on the surrounding ecosystem, or on the development of strategies to ensure the needs of the species are met by the ecosystem. Although the management plan has been billed as an integrated, ecosystem-based one, the vast majority of Fisheries and Oceans Canada's dwindling research and enforcement budget is spent on only a few fisheries. The current status quo is definitely not an integrated, holistic approach to fisheries management.

The David Suzuki Foundation believes that a better approach is very possible, and highly critical. Responsible ecosystem-based management must understand and integrate the ecology,

economics and social issues of the fishery in order to be successful. Following are ten essential requirements for workable, sustainable solutions that will manage our fisheries for the future.



Recommendation One

Manage the ecosystem, not individual stocks

To truly understand our fisheries and to make ecologically-sound decisions about them we must think at the level of the ecosystem. Adopting an ecosystem approach to fisheries management includes incorporating many of the principles

listed below, such as caring for habitat and ensuring diversity. Beyond this, it also means understanding the give-and-take relationship between any individual fish species and the rest of the marine food web.

All of the components of this marine food web, even those that are 'non-commercial', must be managed for the health of the ecosystem, rather than the benefit of single fish stocks.

Recommendation Two

Adopt a precautionary approach to management

In fisheries management, nothing is certain. What we do know after decades of mistakes, is that we must err on the side of caution. The need for this caution was affirmed in 1992 when Canada and 177 other nations signed the Rio Declaration, which bound the signatories to adopt a precautionary approach to management. Principle 15 of the Rio Declaration states:

"...Where there are threats of serious or irreversible damage, lack of full scientific

What we do know after decades of mistakes, is that we must err on the side of caution



certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”

Although it sounds simple, this represents a radical shift in the way we think about how to fish. It means that we must manage cautiously and take less, to ensure the survival of the fishery over the long term.

Recommendation Three

Give those who care most about the fishery a say

Worldwide, we are faced with the failure of centralized, government-based fisheries management. A global examination of fishery management models reveals that in many cases, those that are sustainable allow the community of interest



surrounding a fishery – including fishermen, First Nations, scientists, conservationists, and processors – to actively participate in the decisions that govern it. Not only can this bring otherwise unavailable traditional and local knowledge to the decision-making process, it also gives legitimacy to rules governing the fishery in question and is more likely to result in benefits that stay in local fishing communities.

Recommendation Four

Decrease capacity and plan for stock fluctuations

In addition to allowing fisheries to be managed at the local level, we must also ensure that we are killing fewer fish. On the one hand, we know that



stocks fluctuate. This occurs naturally even in the absence of human intervention. In order to fish sustainably, we must plan for and respect these natural cycles. On the other hand, ever-improving technology means we are able to fish a greater and greater proportion of the world's oceans. Although programs to buy back salmon licenses in the early 1970s and again in the late 1990s did decrease the number of people fishing, they did not solve the over-capacity problem. Instead, they concentrated ownership into a smaller, more technologically



advanced fleet with as much, or more capacity as before. We need to kill less fish in the short-term in order to have more fish on a longer term, sustained yield.

Recommendation Five

Protect diversity

The Pacific ecosystem is a complex one: scientists know that we are not even close to under-



Recommendation Six

Protect habitat

To maintain diverse, healthy marine populations, it is crucial that we work to preserve the habitat that sustains them. This means keeping the riparian zones of lakes and streams forested, and the waters free-running and unpolluted. It also means keeping estuaries, nearshore habitats and the ocean healthy and unpolluted. In the open ocean, bottom trawling is one of the greatest destroyers of habitat. Because of how a trawl operates – scraping along the ocean floor to ‘scoop up’ everything in its path – it collects more than just the targeted species: the plants, mud and rocks that form ideal habitat and hiding grounds for young fish are also damaged, or removed from the ecosystem.

Recommendation Seven

Create marine reserves to protect representative habitats

Marine reserves are one key tool that can help to protect the ocean from the effects of fishing. In the past, there were always parts of the ocean in which we were unable to fish. Today, with ever-increasing technology, these hiding places, or refugia, have disappeared. Refugia are crucial because they act



standing all the links between the plants and animals of this system. Because of this, the only way to ensure the continued health of this ecosystem is to consciously work to preserve all of its components. By preserving biodiversity we preserve these important links, and make the Pacific ecosystem more resilient to the stresses it faces. Another less

obvious type of diversity is genetic diversity. It is genetic diversity that allows salmon to know what stream to return to when it comes time to spawn. Genetic diversity also allows populations to survive in times of stress, such as low food availability or adverse water conditions. Unfortunately, some of our management practices – such as hatcheries and non-selective fishing – can destroy this important component of diversity. Critically reforming B.C.’s hatcheries and moving towards more stock-selective fishing are two critical components of preserving genetic diversity.



as secure breeding areas to replenish our oceans. By protecting productive habitats we can help to ensure the continuation of our fisheries, and the health of ocean ecosystems.

Recommendation Eight

Manage for and minimize bycatch and discards

Bycatch, or the catch of non-target species, poses an immense threat to the continued viability of our marine environment. When vessels catch non-target species, this additional harvest can put the catch levels of the unintended species over the edge of sustainable harvest. When non-commercial species are caught, we lose species that are invaluable to the marine food web, inevitably



weakening the marine ecosystem. Some fisheries – such as the trawl – incur worse bycatch than others. Although some fisheries have gone a long way to reducing their bycatch, those that cannot are clearly unsustainable. Such fisheries should either cease to exist, or be reduced greatly and made to keep the full catch.

Recommendation Nine

Make aquaculture sustainable

Although it may seem that aquaculture – farming fish – is an easy answer to the ever-increasing worldwide demand for seafood, experience from



most countries that practice aquaculture tells a different story. Fish farming practices on the B.C. coast have led to escaped fish, disease transfer to wild salmon, and ocean pollution, while the vast amount of food needed to raise these carnivorous fish means that we are effectively depleting the oceans to raise this luxury food item. While the depletion of the oceans is not a problem for shellfish aquaculture, caution still must be used to ensure these practices do not harm nearshore environments. Finding ways to make aquaculture sustainable is critical to ensuring healthy oceans.



Recommendation Ten

Invest in monitoring, enforcement, and data acquisition

Research is an integral part of making decisions about how marine resources are managed. Monitoring and enforcement are critical to ensure that management decisions are carried out. Despite this, resources continue to be drastically cut from the regulatory bodies that manage B.C. fisheries, and their ability to collect the necessary data

continues to decline precipitously. The research conducted on Canada's Pacific coast focuses largely on a few high-profile species. More resources are needed for data gathering and unbiased, transparent data analysis that allows research conducted in the public interest to be available to all.

Conclusion

We are at a turning point for B.C.'s marine fisheries. British Columbians are looking for solutions. They want a healthy marine environment that also allows the people who have long depended upon it to support themselves and their families. The ten principles outlined above can start us down this road. Ultimately, all Canadians have a role in ensuring that governments, which manage this essential public resource, do so in a way that keeps marine ecosystems healthy for generations to come.



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