

TURQUOISE BELT SEAFOOD ALTERNATIVES





WHY Vegan Seafood?



THE EARTH'S OCEANS are vital for sustaining a thriving environment. They play a critical role in regulating Earth's climate, absorbing carbon dioxide, generating oxygen, and providing a habitat for an incredibly diverse range of life forms. However, human activities have significantly impacted our oceans, resulting in serious environmental challenges.



OVERFISHING has caused many species of fish and marine life to become depleted. Declines in fish populations are resulting in the disruption of marine ecosystems.



BYCATCH refers to the unintentional capture of non-target species including marine mammals, seabirds, and unintended fish species. Rates of bycatch can vary but all are contributing to the loss of biodiversity. **Ghost fishing** occurs when sea life is trapped in abandoned fishing nets, lines, traps, and other gear.



DESTRUCTIVE FISHING techniques encompass activities such as trawling the sea floor and using dynamite and cyanide poisoning. These unsustainable practices are adversely affecting ocean ecosystems.



MARINE PLASTIC POLLUTION: It is estimated that 8 million tons of plastic garbage enters the ocean each year. Plastic waste is a significant concern because of its enduring persistence in the environment and the potential harm it can cause to marine organisms, ultimately affecting humans as well.



HEAVY METALS can accumulate in fish and shellfish when they ingest food containing them or absorb them directly from contaminated water. Human activities including industrial discharges, wastewater runoff, mining activities, ship-borne pollution, and oil spills are identifiable sources of heavy metal contamination in aquatic ecosystems.



BIOACCUMULATION occurs when smaller organisms ingest contaminated materials, and subsequently, larger fish consume them. The process leads to the concentration of heavy metals and plastics escalating along the food chain, a phenomena known as **biomagnification**. The higher a fish is in the food chain, the higher the levels of heavy metals and plastics it is likely to accumulate.



WASTEWATER DISCHARGE can exert substantial adverse effects on marine environments. Not all countries possess the economic and technological capabilities necessary to treat wastewater effectively, resulting in consequences such as algal blooms, oxygen depletion, habitat destruction, chemical contamination, and the introduction of pathogens, leading to disease transmission.



“DEADLIEST CATCH”

is a television series that chronicles the hazards and challenges of crab fishing in the Bering Sea. Vessel disasters, equipment failures, harsh weather conditions, fishing-related accidents, and on-the-job fatalities collectively contribute to making commercial fishing one of the most dangerous occupations on earth.



AQUACULTURED fish, shellfish, and crustaceans are cultivated in ponds, tanks, cages, or other enclosures, in marine environments or fresh water. In these confined spaces fish swim in repetitively painful endless circles. The close proximity of marine organisms in aquaculture facilities can create conditions conducive to the spread of diseases, infections, and parasites. Pollution resulting from concentrated waste, antibiotics, and chemicals used in fish farming pose a threat to local ecosystems. While some advocate for aquacultured fish as a positive contribution to our food system, it's crucial to address the ethical and environmental concerns associated with this practice.



AQUACULTURE AND SOY: Renowned for its high protein content and cost effectiveness, soybean meal is fed to aquacultured fish and crustaceans as an alternative to wild caught fishmeal. Rather than growing soy, then filtering it through marine organisms to create food, soy can be grown organically, then transform itself into limitless plant-based seafood alternatives. **Just grow organic soy and feed the people!**



ANTHROPOCENTRISM is a term that captures the human tendency to prioritize life forms based on their resemblance to us. The less a species mirrors our own, the lower the concern for its well-being. Fish and many other sea life forms silently endure suffering, yet scientific evidence compellingly affirms their sentience and capacity for experiencing distress. Billions of fish and marine life are slaughtered at the hands of humans each year.



WORMS, PARASITES, AND HARMFUL BACTERIA in seafood can be transferred to humans and pose serious health risks leading to severe illness and even the possibility of death. Warnings on restaurant menus along with safe handling instructions on raw seafood products are provided to warn and protect consumers of the risks associated with consuming seafood.



RADIOACTIVE WASTE dumping and nuclear fall-out from power plant melt-downs have disrupted both ocean and fresh water ecosystems. The bioaccumulation of radioactive materials in fish and other aquatic species travel up the food chain and can be very dangerous and harmful when ingested. Radioactive materials can cause mutations in DNA and damage cells leading to various health problems including cancer.



WHY Vegan Seafood?...continued

OCEAN OIL SPILLS have devastated marine environments, releasing toxic compounds, heavy metals, and other dangerous chemicals that accumulate in the tissues of exposed fish, shellfish, and crustaceans.

When humans consume contaminated seafood, they may be exposed to these harmful substances, which can pose serious health risks, including cancer and reproductive issues.

OCEAN ACIDIFICATION is the result of carbon dioxide emissions from activities such as animal agriculture and the burning of fossil fuels being absorbed into the ocean.

This process leads to a decline in the pH level essential for sustaining marine life.

Zooplankton and smaller organisms at the base of the marine food chain are the first to be impacted, causing a harmful cascading effect on fish and other marine organisms.



MELTING GLACIERS and rising sea levels pose a significant threat to marine ecosystems. The interconnected effects of factors including changes in salinity from an influx of freshwater into our oceans, the thermal expansion of seawater due to rising temperatures, the submergence of low-lying coastal areas, and the extreme weather events brought on by human-induced climate change, all threaten the well-being of our oceans.

LEGAL DISCLAIMER

Consumption of raw or undercooked seafood increases the risk of foodborne illness.

SEAFOOD CONSUMPTION can cause foodborne illnesses such as norovirus, salmonella, listeria, and ciguatera poisoning. Symptoms from these illnesses can persist for days, weeks, or even months and can be fatal. Warnings are placed on restaurant menus to protect both consumers and food service providers from legal liability.

APEX PREDATORS: Our impact on marine ecosystems has raised ethical, ecological, health, and conservation concerns, highlighting the importance of responsible stewardship of marine environments. While humans may not have evolved specifically to be marine apex predators, our evolutionary history has enabled us to exploit many marine species to the near brink of extinction.



NUTRITIONAL VALUES in seafood are significant. Its high in protein, rich in Omega-3 fatty acids, and a source of essential vitamins and minerals. Additionally, its generally low in saturated fat. Seafood can provide a range of essential nutrients; however, it's important to consider factors such as sustainability, mercury content (especially in larger predatory fish), the risk of foodborne illness, parasites, and the many other possible hazardous contaminants.

The good news is that organic tofu is also high in nutritional value. It's environmentally friendly, free from toxic contaminants, and can transform itself into an infinite number of alternative creative seafood culinary applications.



TOFU VS SEAFOOD

Estimated range of nutrients in three ounces of firm to extra-firm tofu, compared to the nutritional range of three ounces of the following seafood selections: scallops, halibut, tuna, lobster, and crab

CALORIES

Tofu 60-80
Seafood 70-120

PROTEIN

Tofu 11 - 15 grams
Seafood 10 -19 grams

CARBOHYDRATES

Tofu 2-3 grams
Seafood 0

CHOLESTEROL

Tofu 0
Seafood 20 mg. - 124 mg.

FIBER

Tofu .5 - 2.0 grams
Seafood 0

SATURATED FAT

Tofu .5 - 1 gram
Seafood .3 grams - 1 gram

CALCIUM

Tofu* 230 - 580 mg.
Seafood 5 mg. - 98 mg.

IRON

Tofu 2.25 - 2.35 mg.
Seafood .20 - .90 mg

* Tofus prepared with calcium sulfate as a coagulant are the highest in calcium



REFERENCES & RESOURCES

National Geographic: All About The Ocean Cleanup
<https://education.nationalgeographic.org/resource/all-about-the-ocean/>

Plastic Pollution Coalition
<https://www.plasticpollutioncoalition.org/>

Monterrey Bay Aquarium Seafood Watch
<https://www.seafoodwatch.org/seafood-basics/sustainable-solutions/avoid-overfishing>

Smithsonian National Museum of Natural History Ocean Find Your Blue: Marine Plastic
<https://ocean.si.edu/conservation/pollution/marine-plastics>

United States Food and Drug Administration: Seafood
<https://www.fda.gov/food/resources-you-food/seafood>

United States Department of Agriculture: Foodborne Illness and Disease
<https://www.fsis.usda.gov/food-safety/foodborne-illness-and-disease>

Defense Council, Water Pollution: Everything You Need to Know
<https://www.nrdc.org/stories/water-pollution-everything-you-need-know#whatis>

Sea Shepard: Catch of the Day 2050
<https://www.youtube.com/watch?v=iswaHOYJSQU>

The Humane League: What is Bycatch
<https://thehumaneleague.org/article/what-is-bycatch>

Captain Paul Watson Foundation
<https://www.paulwatsonfoundation.org>

VCOP #15: Sea of Change
<https://shorturl.at/aNRZ7>

Seaspiracy
<https://www.seaspiracy.org/fact>

My Food Data
<https://www.myfooddata.com/>

Chat GPT 3.5 Open AI
<https://chat.openai.com>

