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## Sustainable seafood

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### Health of the Oceans

We are currently in the middle of, and responsible for, the largest mass extinction of species on Earth since an asteroid wiped out the dinosaurs nearly 65 million years ago. Expert scientists estimate that 50% of Earth's species will have vanished within the next 100 years. Nowhere is this trend more evident than in the oceans.

National Oceanic and Atmospheric Administration statistics indicate that each quarter since reporting began in 2005 our fisheries have become more overfished and less sustainable. Yet regular fish consumption is recommended by medical and health practitioners to reduce risk for a number of chronic diseases.

Growing concern over the health impact of mercury contamination in wild and farmed fish has stimulated questions about the risks and benefits of consumption. It is the most toxic non-radioactive material on Earth, and poisoning results in impairment of vision, touch sensations, lack of coordination of movements, impairment of speech, hearing, and walking.<sup>1</sup> Mercury concentrations within wild and farmed fish differ by species and method of production or harvest. Carnivorous species are most highly contaminated, while those species lowest on the food chain are least concentrated in mercury. As a result, optimal health benefits accrue to those individuals making choices that minimize intake of highly contaminated species and consume lower on the aquatic food chain.

### Health of the Consumers

Studies of the costs and benefits of fish consumption reveal that moderate intake of 1-2 servings per week reduce the risk of heart attack, stroke, coronary death and total mortality.<sup>2</sup> Numerous epidemiologic studies have also reported that fish consumption may protect against some cancers, asthma, diabetes, rheumatoid arthritis and other inflammatory diseases, Alzheimer's disease, depression, and macular degeneration.<sup>3</sup>

### Seafood Watch: Monterey Bay Aquarium

The Monterey Bay Aquarium has targeted regional species whose fisheries generally fall in line with sustainable practices.<sup>4</sup> Practices are assessed with reference to a number of factors including -- but not limited to -- habitat damage, bycatch, overfishing, and impact of practices upon the local environment. These reports are compiled to formulate recommendations for "best choices", "good alternatives", and those items to "avoid".

"Best choices" for Southeast consumers include: Pacific Cod (wild longlined), Pacific Halibut, Salmon (Alaska, wild), Tilapia (US farmed), and Tuna: Albacore (US).

Species to "avoid" in the Southeast include: Caviar (Sturgeon, imported wild), Cod (Atlantic), Mahi mahi, Orange Roughy, Salmon (farmed, including Atlantic), Shrimp (imported), and Tuna (Bluefin, canned)

**Marine Stewardship Council**

The Marine Stewardship Council offers official certification for fisheries and producers of sustainable seafood.<sup>5</sup> Consumers can be sure that seafood carrying the MSC label comes from a certified sustainable fishery, that each business along the supply chain has undergone a traceability audit, and meets best practice guidelines set forth in the MSC standards. Where the Monterey Bay Aquarium offers general guidelines at the species level based on common practices for each region of the United States, the Marine Stewardship Council certifies specific fisheries in compliance with their standard for sustainable fishing and tracks each product from harvest to consumer.

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<sup>1</sup> <http://www.epa.gov/hg/effects.htm>

<sup>2</sup> Bouzan C, Cohen JT, Connor WE, Kris-Etherton PM, Gray GM, Konig A, Lawrence RS, Savitz DA, Teutsch SM (2005) A Quantitative Analysis of Fish Consumption and Stroke Risk. *American Journal of Preventive Medicine* 29(4):347-352

<sup>3</sup> Mozaffarian D, Rimm EB (2006) Fish intake, contaminants, and human health. *JAMA* 296:1885-1899

<sup>4</sup> <http://www.mbayaq.org/cr/seafoodwatch.asp>

<sup>5</sup> <http://www.msc.org/>