

# Seafood Sustainability and Health

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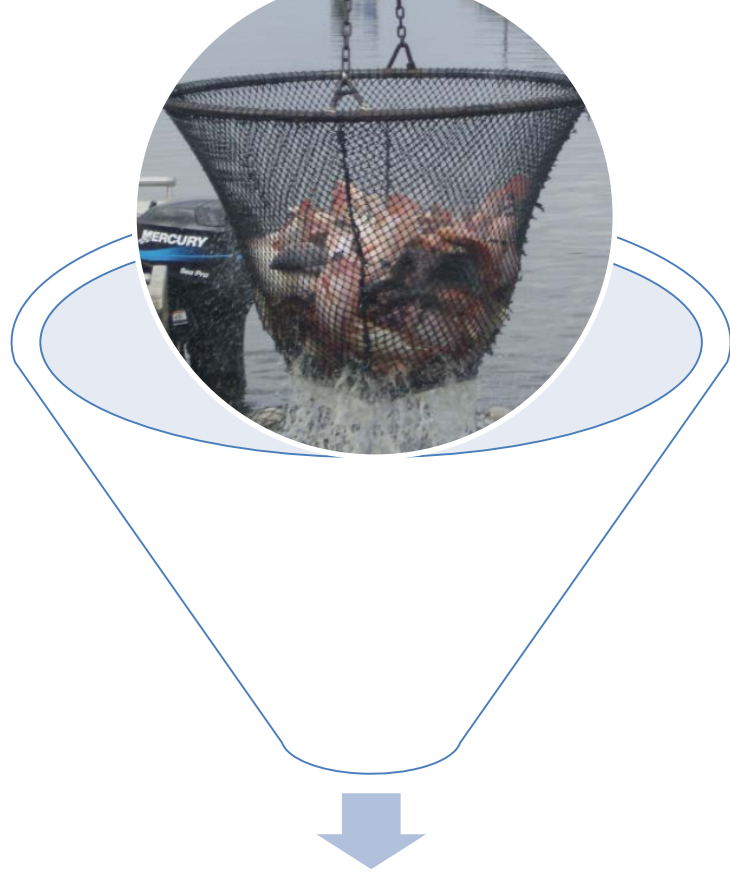


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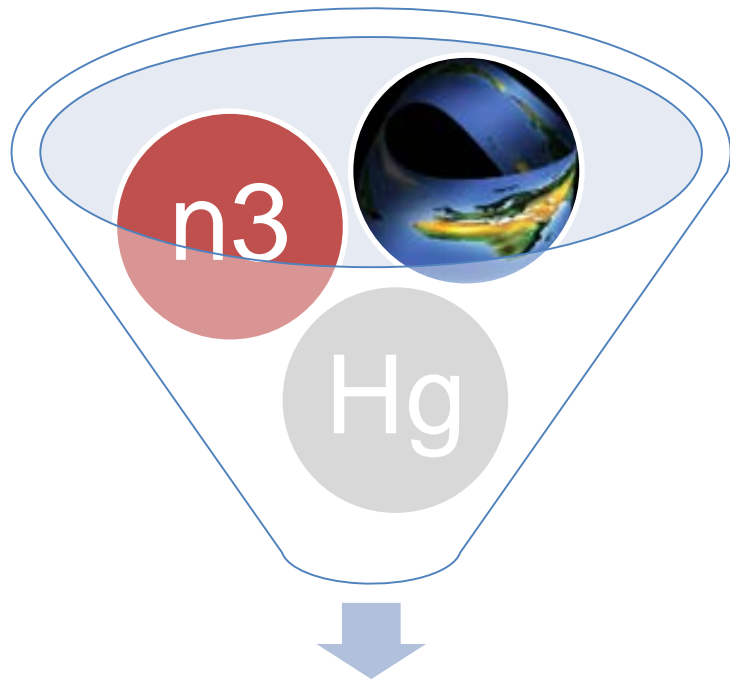
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September 20, 2017

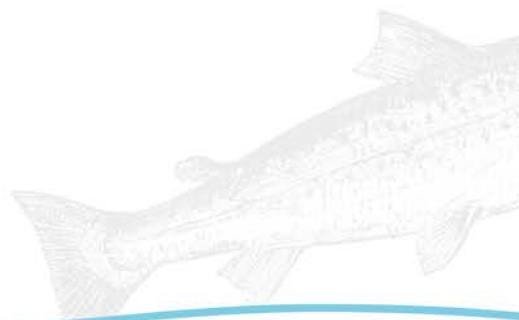
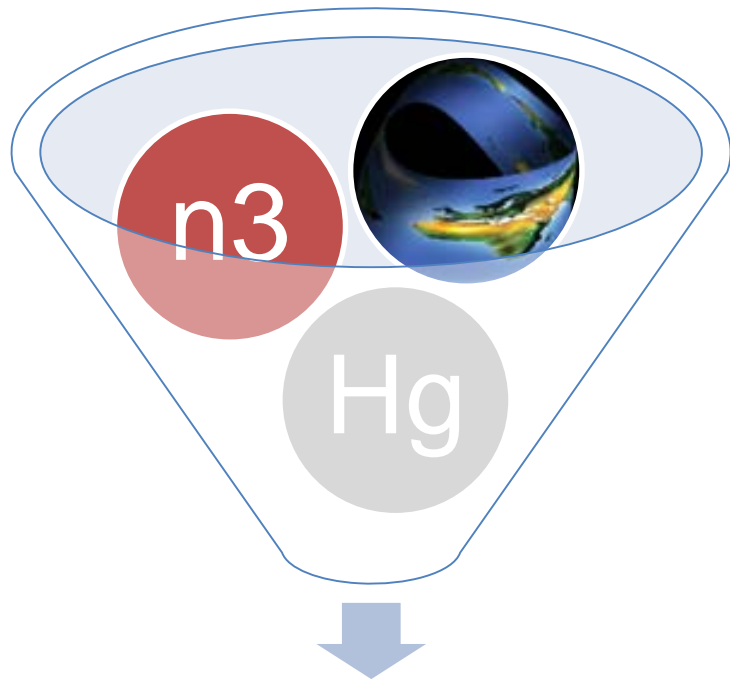


Recommendation



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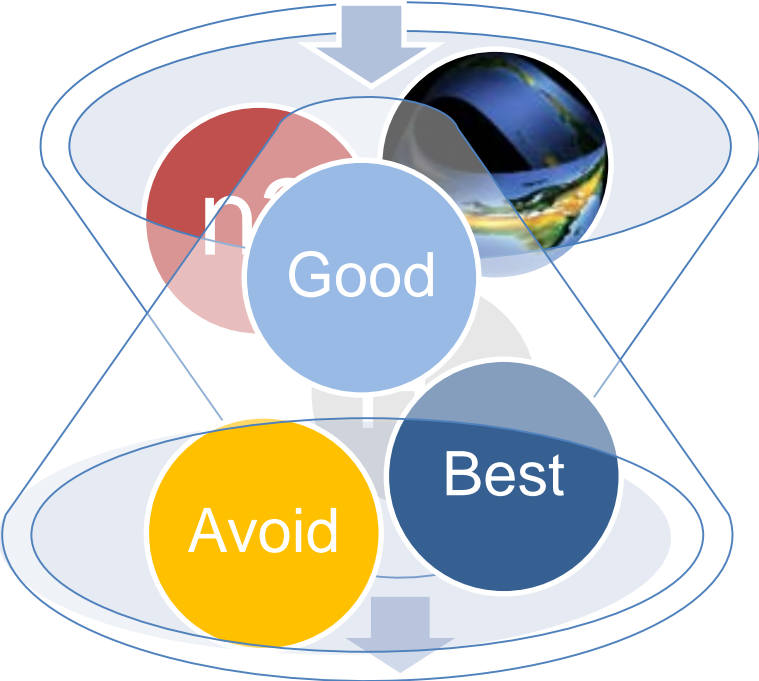




“Eat a variety of seafood types”



# Eat A Variety of seafood types



“Eat a variety of seafood types”



## Seafood Health Facts: Making Smart Choices

Balancing the Benefits and Risks of Seafood Consumption  
Resources for Healthcare Providers and Consumers

SEAFOOD PRODUCT		OMEGA-3s PER 3 OUNCE COOKED PORTION
Herring, Wild (Atlantic & Pacific)	♥♥♥♥♥	>1,500 milligrams
Salmon, Farmed (Atlantic)	♥♥♥♥♥	
Salmon, Wild (King)	♥♥♥♥♥	
Mackerel, Wild (Pacific & Jack)	♥♥♥♥♥	

SEAFOOD PRODUCT		OMEGA-3s PER 3 OUNCE COOKED PORTION
Salmon, Canned (Pink, Sockeye & Chum)	♥♥♥♥	1,000 to 1,500 milligrams
Mackerel, Canned (Jack)	♥♥♥♥	
Mackerel, Wild (Atlantic & Spanish)	♥♥♥♥	
Tuna, Wild (Bluefin)	♥♥♥♥	

SEAFOOD PRODUCT		OMEGA-3s PER 3 OUNCE COOKED PORTION
Salmon, Wild (Sockeye, Coho, Chum & Pink)	♥♥♥	500 to 1,000 milligrams
Sardines, Canned	♥♥♥	
Tuna, Canned (White Albacore)	♥♥♥	
Swordfish, Wild	♥♥♥	
Trout, Farmed (Rainbow)	♥♥♥	
Oysters, Wild & Farmed	♥♥♥	
Mussels, Wild & Farmed	♥♥♥	

## Advice About Eating Fish

### What Pregnant Women & Parents Should Know

Fish and other protein-rich foods have nutrients that can help your child's growth and development.

For women of childbearing age (about 16-49 years old), especially pregnant and breastfeeding women, and for parents and caregivers of young children.

- Eat 2 to 3 servings of fish a week from the "Best Choices" list OR 1 serving from the "Good Choices" list.
- Eat a variety of fish.
- Serve 1 to 2 servings of fish a week to children, starting at age 2.
- If you eat fish caught by family or friends, check for fish advisories. If there is no advisory, eat only one serving and no other fish that week.\*

### Use this chart!

You can use this chart to help you choose which fish to eat, and how often to eat them, based on their mercury levels. The "Best Choices" have the lowest levels of mercury.

### What is a serving?

To find out, use the palm of your hand!



For an adult  
4 ounces



For children,  
ages 4 to 7  
2 ounces

Best Choices EAT 2 TO 3 SERVINGS A WEEK			OR	Good Choices EAT 1 SERVING A WEEK		
Anchovy	Herring	Scallop	Bluefish	Monkfish	Tilefish (Atlantic Ocean)	
Atlantic croaker	Lobster, American and spiny	Shad	Buffalofish	Rockfish	Tuna, albacore/white tuna, canned and fresh/frozen	
Atlantic mackerel	Mullet	Shrimp	Carp	Sablefish	Chilean sea bass/Patagonian toothfish	
Black sea bass	Oyster	Skate	Chilean sea bass/Patagonian toothfish	Sheepshead	Sheepshead	
Butterfish	Pacific chub mackerel	Smelt	Grouper	Snapper	Tuna, yellowfin	
Catfish	Perch, freshwater and ocean	Sole	Grouper	Spanish mackerel	Weakfish/seatrout	
Clam	Pickering	Squid	Halibut	Striped bass (ocean)	White croaker/Pacific croaker	
Cod	Plaice	Tilapia	Mahi mahi/dolphinfish			
Crab	Pollock	Trout, freshwater				
Crawfish	Salmon	Tuna, canned light (includes skipjack)				
Flounder	Sardine	Whitefish				
Haddock		Whiting				
Hake						

### Choices to Avoid HIGHEST MERCURY LEVELS

King mackerel	Shark	Tilefish (Gulf of Mexico)
Marlin	Swordfish	Tuna, bigeye
Orange roughy		

\*Some fish caught by family and friends, such as larger carp, catfish, trout and perch, are more likely to have fish advisories due to mercury or other contaminants. State advisories will tell you how often you can safely eat those fish.

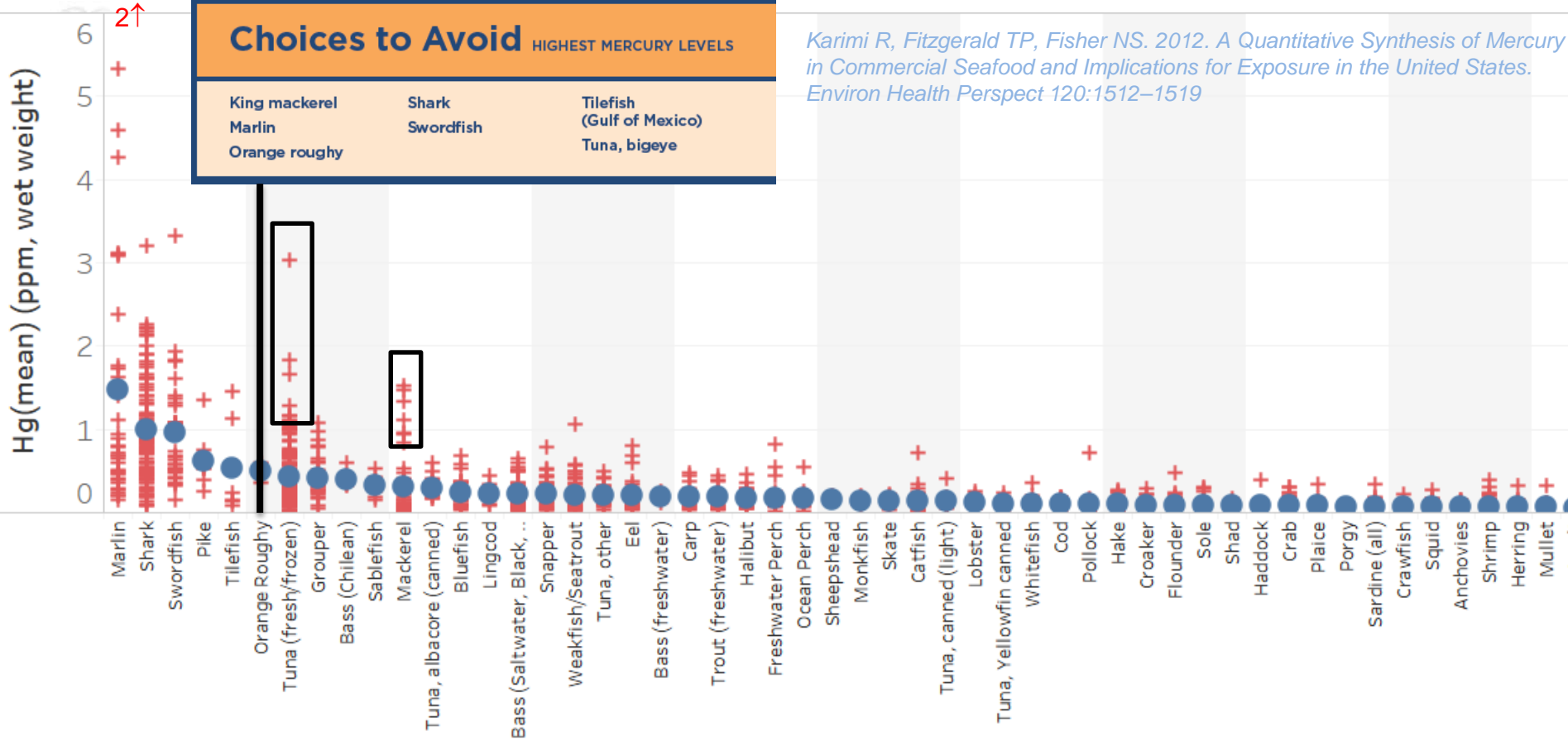


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# Choices to Avoid HIGHEST MERCURY LEVELS

- King mackerel
- Shark
- Tilefish (Gulf of Mexico)
- Marlin
- Swordfish
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Karimi R, Fitzgerald TP, Fisher NS. 2012. A Quantitative Synthesis of Mercury in Commercial Seafood and Implications for Exposure in the United States. *Environ Health Perspect* 120:1512–1519

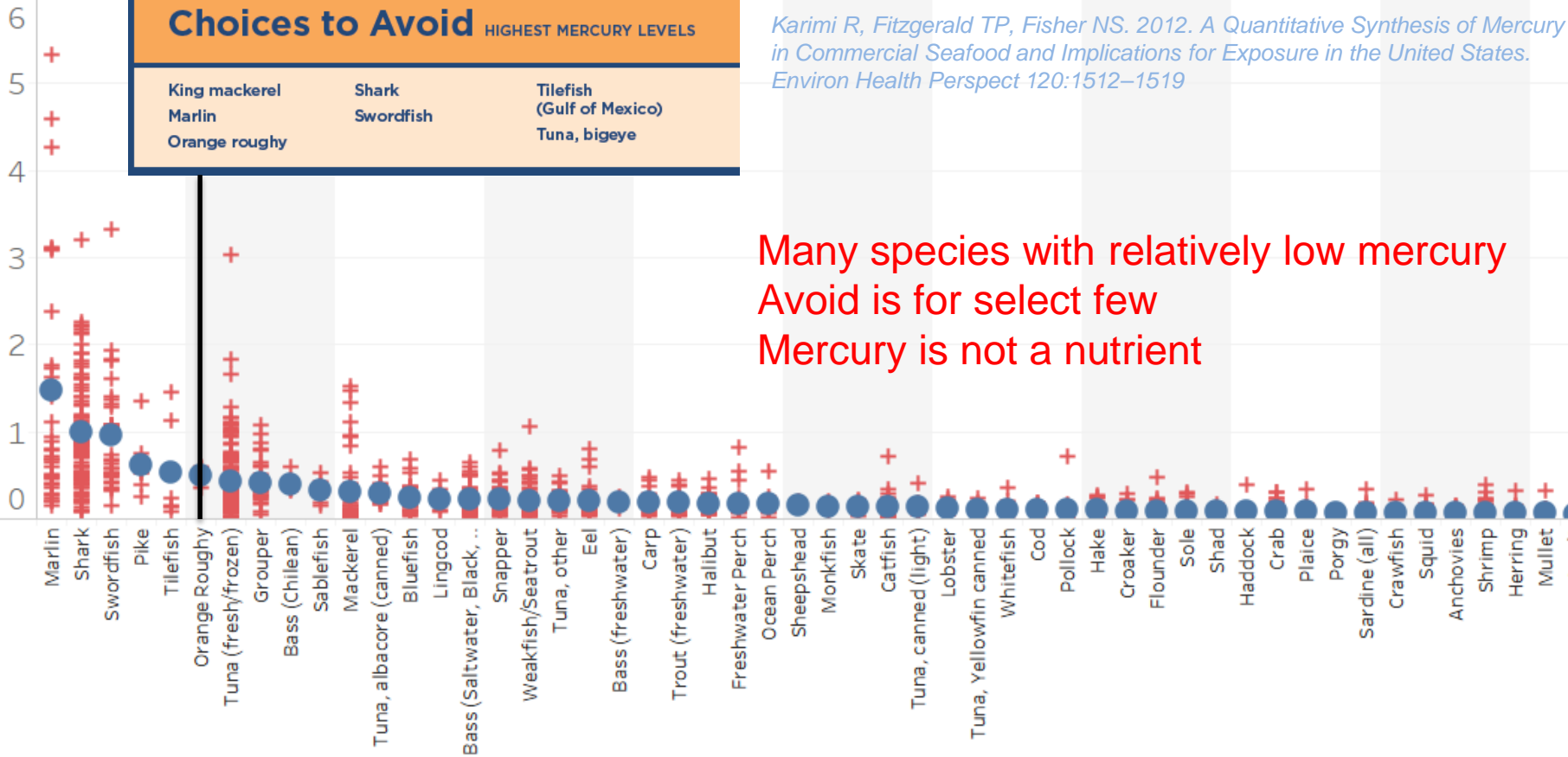


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Hg(mean) (ppm, wet weight)



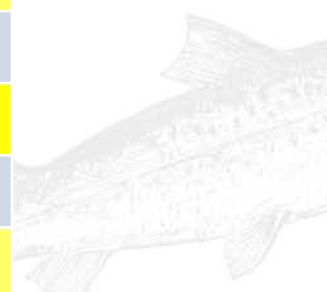
Many species with relatively low mercury  
 Avoid is for select few  
 Mercury is not a nutrient



# How the US eats seafood



Rank	Species	Lbs Per Capita	Source
1 <sup>st</sup>	Shrimp	3.6	~90% farmed
2 <sup>nd</sup>	Salmon	2.7	~70% Farmed
3 <sup>rd</sup>	Tuna	2.3	Wild-caught
4 <sup>th</sup>	Tilapia	1.4	100% Farmed
5 <sup>th</sup>	Pollock	1.2	Wild-caught
6 <sup>th</sup>	Pangasius	0.8	100% Farmed
7 <sup>th</sup>	Cod	0.6	Wild-caught
8 <sup>th</sup>	Catfish	0.6	99% Farmed
9 <sup>th</sup>	Crab	0.5	Wild-caught
10 <sup>th</sup>	Clams	0.5	Farmed & Wild



# How the US eats seafood

EPA+

DHA(mg/g)\*

Sustainability

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Ecotherms

Aquatic

Habitat

Management

Feed

*\*USDA National Nutrient Database for Standard Reference*



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# How the US does not eat seafood

## Sustainability

### *Wild*

Fast reproducing

Small species

Underutilized

### *Aquaculture*

Land based

Filter feeders

Herring (w)

Mackerel (w)

Anchovy (w)

Sardines (w)

Smelt (w)

Trout (a)

Mussels (a)

Squid (w)

Oyster (a)

## EPA+DHA(mg/g)

18

17

17

10

8

8

6

5

4

# Eat many (new) varieties of seafood to achieve complimentary goals of health and sustainability

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Sustainability & Food Solutions

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