

## How Green is My Seafood?

Are you a seafood lover but deterred by that little voice in your head that keeps ranting about our depleted oceans? It's okay. You can still enjoy your favorite dishes from the sea and be a friend of the planet. Take our quiz and learn how to green your seafood.

*(Hate quizzes? Skip straight to the answers.)*

1. A trendy new oyster bar opens up down the street, so you go to check it out. Which of the following farmed bivalve mollusks would be a sustainable option to go with your over-priced cocktail?
  - Farmed scallops
  - Farmed oysters
  - Farmed mussels
  - Farmed clams
  - They're all great choices!
2. Fish-industry marketers conjured up the name "Chilean sea bass" for this threatened fish, partly because its real name was less glamorous and probably wouldn't have piqued as much interest among American consumers:
  - Darwin's slimehead
  - Roach
  - Patagonian toothfish
  - John Dory
  - Girardinus guppy
3. During these hard economic times, coughing up upwards of \$20/pound for wild salmon and halibut might make you consider cheaper, farmed options. Which of the following farmed fish is the most sustainably raised?
  - Salmon
  - Rainbow trout
  - Tuna
  - Tilapia from China
4. You love a good shrimp cocktail, but you also want it to be sustainable. Which type of shrimp should you choose?
  - Wild pink shrimp from Oregon
  - Caribbean white shrimp
  - Imported farmed shrimp
  - Imported wild shrimp
  - None, shrimp are gross!

5. Your favorite restaurant has started serving orange roughy, a fish you know to be a very unsustainable option. What should you do?
- Not order the orange roughy
  - Ask to see the owner and educate him/her about the why orange roughy is not sustainable and why purchasing sustainable seafood is an important business practice for the restaurant to follow
  - Steal some of their cutlery... that'll show 'em!
  - Don't order the roughy and talk to the owner
6. Which of the following fishing gear creates the least bycatch, and is therefore the best way to catch fish sustainably?
- Ground trawls
  - Longlines
  - Handlines
  - Purse seines
  - Pot traps
7. Modern-day whaling for food is often illegal and whale meat is often sold on the black market. In 1986, the International Whaling Commission officially banned commercial whaling, an action that has since been ignored by:
- Norway
  - Iceland
  - Japan
  - All of the above
8. You feel like eating light, but still want some tasty food, so you head over to your local sushi joint. Which type of tuna sashimi is a fresh, sustainable option?
- Bluefin "toro" tuna
  - Longline-caught non-U.S. bigeye "ahi" tuna
  - Longline-caught non-U.S. yellowfin "ahi" tuna
  - U.S. Atlantic troll/pole caught yellowfin "ahi" tuna
  - None, they're all bad
9. While out to brunch, you see a salmon omelet on the menu. That sounds good, but you aren't sure whether the fish is wild or farmed. What do you do?
- Order the mac and cheese
  - Order it anyway, but pick out the salmon and leave it on your plate to make a statement
  - Order the omelet and eat it -- Sunday brunch in a fancy restaurant just isn't the place to make a statement
  - Insist that the waiter find out whether it's wild or farmed, and if it's farmed or if the server doesn't know, order something else

10. Over the past 20 years, game fishing and the ecology of the Great Lakes have been damaged by aggressive invasive species, such as the zebra mussel, the ruffe, and the round goby, which are all native to:
- China
  - Russia
  - Brazil
  - Africa

## ANSWERS

1. A trendy new oyster bar opens up down the street, so you go to check it out. Which of the following farmed bivalve mollusks would be a sustainable option to go with your over-priced cocktail?
- A. Farmed scallops (2 pts)
  - B. Farmed oysters (2 pts)
  - C. Farmed mussels (2 pts)
  - D. Farmed clams (2 pts)
  - E. They're all great choices! (10 pts)

They're all great! Just about all farmed bivalve mollusks are considered to be "best choices" according to the Monterey Bay Aquarium's *Seafood Watch*. That's because farmed bivalves require little energy, can't escape from their farming environment, and create minor amounts of pollution. But make sure that they're farmed -- many wild-caught bivalve populations are down and are harvested with destructive fishing gear such as dredges.

2. Fish-industry marketers conjured up the name "Chilean sea bass" for this threatened fish, partly because its real name was less glamorous and probably wouldn't have piqued as much interest among American consumers:
- A. Darwin's slimehead (0 pts)
  - B. Roach (0 pts)
  - C. Patagonian toothfish (10 pts)
  - D. John Dory (0 pts)
  - E. Girardinus guppy (0 pts)

Patagonian toothfish. The threatened species is not a bass and inhabits the waters off Argentina and Uruguay in addition to Chile.

3. During these hard economic times, coughing up upwards of \$20/pound for wild salmon and halibut might make you consider cheaper, farmed options. Which of the following farmed fish is the most sustainably raised?
- A. Salmon (0 pts)
  - B. Rainbow trout (10 pts)
  - C. Tuna (0 pts)
  - D. Tilapia from China (0 pts)

Rainbow trout. Unlike farmed salmon and tuna, rainbow trout is farmed in inland "raceway" systems that significantly reduce the risk of escapes and disease transfer. New advancements in feed technology have also made rainbow trout feedstock much more energy efficient than that for salmon or tuna. (It takes 18 pounds of food to produce one pound of farmed tuna!)

Salmon and tuna also are farmed in pens near open water, from which the fish often escape and transfer diseases to native populations. Chinese tilapia is farmed mostly in dirty inland ponds, where the risk of escape and disease transfer is very high.

4. You love a good shrimp cocktail, but you also want it to be sustainable. Which type of shrimp should you choose?
  - A. Wild pink shrimp from Oregon (10 pts)
  - B. Caribbean white shrimp (0 pts)
  - C. Imported farmed shrimp (0 pts)
  - D. Imported wild shrimp (0 pts)
  - E. None, shrimp are gross! (5 pts)

Shrimp are gross. Ok, fine, the correct answer is wild pink shrimp from Oregon, but I still think shrimp are gross!

5. Your favorite restaurant has started serving orange roughy, a fish you know to be a very unsustainable option. What should you do?
  - A. Not order the orange roughy (5 pts)
  - B. Ask to see the owner and educate him/her about the why orange roughy is not sustainable and why purchasing sustainable seafood is an important business practice for the restaurant to follow (10 pts)
  - C. Steal some of their cutlery... that'll show 'em! (0 pts)
  - D. Don't order the roughy and talk to the owner (10 pts)

Make your opinion matter by talking to the owner. If enough people speak up, the owner might re-think the menu.

6. Which of the following fishing gear creates the least by catch, and is therefore the best way to catch fish sustainably?
  - A. Ground trawls (0 pts)
  - B. Longlines (0 pts)
  - C. Handlines (10 pts)
  - D. Purse seines (5 pts)
  - E. Pot traps (2 pts)

Handlines only catch one fish at a time, and any fish that is caught that is not desired can easily be released without causing much harm to the fish.

7. Modern-day whaling for food is often illegal and whale meat is often sold on the black market. In 1986, the International Whaling Commission officially banned commercial whaling, an action that has since been ignored by:
  - A. Norway (2 pts)
  - B. Iceland (2 pts)
  - C. Japan (2 pts)
  - D. All of the above (10 pts)

All of the above. And Greenland is working to join the list. From the June 2008 edition of Sierra magazine:

Through the transparent charade of "scientific whaling," designed to sidestep the global ban on commercial hunting imposed by the International Whaling Commission (IWC) in 1986, Japan is currently harpooning more than a thousand minke whales annually. Over the years this

"research harvest" has been expanded to include 50 fin and 5 to 10 sperm whales. Late last year Japan announced its intention to add 50 humpbacks. But then Australia condemned the move and threatened to send planes and a patrol boat to monitor the Japanese whaling fleet, and the United States lodged an unusually strong complaint as well. In response, Japan delayed its humpback hunt for up to two years. Norway, which simply ignores the IWC moratorium on commercial whaling, is also killing around a thousand minke annually and is steadily increasing its take. Iceland resumed industrial whaling in 2006, quit in 2007 when too few shoppers proved interested in buying steaks carved from warm-blooded submarines, but just announced plans to start again -- despite the fact that whale-watching has become a multimillion-dollar industry in that nation.

8. You feel like eating light, but still want some tasty food, so you head over to your local sushi joint. Which type of tuna sashimi is a fresh, sustainable option?
- A. Bluefin "toro" tuna (0 pts)
  - B. Longline-caught non-U.S. bigeye "ahi" tuna (0 pts)
  - C. Longline-caught non-U.S. yellowfin "ahi" tuna (0 pts)
  - D. U.S. Atlantic troll/pole caught yellowfin "ahi" tuna (10 pts)
  - E. None, they're all bad (4 pts)

U.S. Atlantic populations of yellowfin tuna are much healthier than most other parts of the world due to good fisheries management. Trolling and single-pole fishing methods also result in significantly less bycatch than longline methods. Longlines are responsible for the by-catch of many endangered species like seabirds and sea turtles. Avoid all types of bluefin tuna, which has been severely overfished to the point that bluefin tuna populations have declined 90 percent since the 1970s. We're giving partial credit to anyone who selects E and would rather look for alternative seafood options to tuna.

9. While out to brunch, you see a salmon omelet on the menu. That sounds good, but you aren't sure whether the fish is wild or farmed. What do you do?
- A. Order the mac and cheese (5 pts)
  - B. Order it anyway, but pick out the salmon and leave it on your plate to make a statement (2 pts)
  - C. Order the omelet and eat it -- Sunday brunch in a fancy restaurant just isn't the place to make a statement (2 pts)
  - D. Insist that the waiter find out whether it's wild or farmed, and if it's farmed or if the server doesn't know, order something else (10 pts)

Ask the waiter. Wild salmon, especially from Alaska, is considered the sustainable choice. Patronizing wild salmon helps protect habitats, promotes responsible timber harvesting, and strengthens the fight against damming. If enough customers voice their concerns to restaurant owners, perhaps they'll switch from farmed salmon.

According to the Monterey Bay Aquarium's *Seafood Watch*, "The current health of Alaska salmon and its habitat reflects the success of the state's management practices. Wild-caught salmon from Alaska is therefore a best choice, due to the health and abundance of the population and effective management of the fishery and habitat. Seafood Watch recommends all species of wild-caught salmon as an ocean-friendly alternative to farmed salmon (sometimes sold as Atlantic salmon). Pollution, chemicals, parasites and non-native farmed fish that escape from salmon farms can impact native salmon populations in the surrounding areas."

10. Over the past 20 years, game fishing and the ecology of the Great Lakes have been damaged by aggressive invasive species, such as the zebra mussel, the ruffe, and the round goby, which are all native to:
- A. China (0 pts)
  - B. Russia (10 pts)
  - C. Brazil (0 pts)
  - D. Africa (0 pts)

Russia. These species in particular all came from the Caspian and Black Seas through the ballast water of sea vessels. There are more than 130 known invasive species in the Great Lakes. It's estimated that the economic impact of zebra mussels will be in the billions of dollars in the coming years.

For recreational fishermen, the zebra mussel and round goby present a health hazard. The mussel is a natural filter that accumulates toxins from the water. The goby eats the zebra mussel in large quantities. Game fish such as the smallmouth bass then eat the goby and, with it, the toxins.

For more information, check out the *U.S. Geological Survey* or the *Great Lakes Commission*.