

Five Mushrooms That Can Replace Fish In Your Diet

April 21, 2021

By [Josh Wayne, MSW, MPH, T. Colin Campbell Center for Nutrition Studies](#)



If you watched the documentary [Seaspiracy](#) and contemplated the state of the oceans, you may be wondering, “Can I find a seafood alternative that is both sustainable and healthy for me?” The answer is, “Yes!” As a whole food, plant-based forager, I have encountered mushrooms that mimic every animal product imaginable, from the texture, appearance, taste, and smell. For a meal I made at home, I found and prepared a wild, foraged lion’s mane mushroom, *Herichium erinaceus*, that just so happened to look like a fish fillet. It was meaty, chewy, and alarmingly close to looking like a real fish. I know a few vegans that would have declined the meal on sight had they not seen me harvest it from the tree!



As a whole food, plant-based forager, I have encountered mushrooms that mimic every animal product imaginable, from the texture, appearance, taste, and smell.

Where Can I Find These Mushrooms?

Some of the mushrooms I describe below have been cultivated by humans and can be found in stores or markets. Others will need to be foraged or purchased from a knowledgeable and generous forager. Check your local laws prior to foraging as laws vary by park, state, and country. As always, don't eat anything that you cannot positively identify. To [learn more about the foraging of wild foods near you](#), connect with local naturalists, mycologists, universities, and clubs!

Now that you are ready to explore fish alternatives that are healthy and sustainable, I am excited to present to you my top five whole food, mushroom-based fish and meat substitutes.

1. Oyster Mushrooms, *Pleurotus* spp., Replacement for Scallops, Shellfish, and White Fish

Time of Year: Year-round

Where to Find Them: Commonly cultivated, available in grocery stores

If you've ventured outside of the standard white button mushroom or portabella, there is a high likelihood that you've enjoyed an oyster mushroom. This mushroom is both easy to find while foraging and relatively easy to grow. The oyster mushroom encompasses a wide range of species in the *Pleurotus* genus, and their taste and texture can vary. While eating fish might leave you with

increased cholesterol, this delicious mushroom might actually lower your cholesterol. *Pleurotus ostreatus* (pictured below), a common mushroom in North America, contains up to 2.8% lovastatin by dry weight. When fed to rats, it lowered their serum and liver cholesterol by 33% and 27%, respectively.^[1] While this is excellent news for rats, humans can likely experience similar benefits as we eat more mushrooms and less fish. Saving the oceans and managing cholesterol has never been a more appealing venture.

Oyster mushrooms taste their best when the gills are still white. As they age, they turn yellow and then brown, and they develop a strong fishy odor. Wild varieties taste different from cultivated varieties; they contain different nutrients and even have unique diets! While cultivated oyster mushrooms might be grown on sterilized grains or grasses, wild oyster mushrooms feed on decaying trees and nematodes.



Left: Notice how the gills of Pleurotus ostreatus continue up the length of the stipe/stem. Right: Pleurotus ostreatus habitat — Look for dead trees near rivers and streams

2. Lion's Mane Mushroom, *Hericium* spp., Replacement for Crab in Crab Cakes

Time of Year: Fall through spring

Where to Find Them: Commonly cultivated, available in some grocery stores, or from a grower

Hericium is another genus of mushroom that is becoming increasingly popular in the United States. While lion's mane has been used medicinally for centuries in South East Asia and Japan, people worldwide continue to seek out and purchase this mushroom for its medicinal qualities. Some of the documented health claims include:

1. Anti-tumor and immune-modulating activities. In vitro and in vivo research on esophageal cancer, intestinal cancer, pancreatic cancer, and stomach cancers.
2. Antihyperglycemic and antihypercholesterolemic activity.
3. Neuronal growth activity.
4. Antimicrobial activity.
5. Antioxidant and anti-aging activities.^[2]

While this mushroom continues to receive the focus of some experts worldwide, many of these health benefits are not confined solely to lion's mane. Rather than focus on reductionist research, and rather than consuming this mushroom for specific health benefits, I seek out the lion's mane mushroom because I find it delicious, healthful, and beautiful. While I have prepared this mushroom in many different ways, crab cakes have won my heart.



Left: Whole food, plant-based lion's mane cakes Right: Winter lion's mane harvested 20–30 feet in the air.

3. Maitake Mushroom, or Hen of the Woods, *Grifola frondosa*, Replacement for Lobster or Crab

Time of Year: Fall

Where to Find Them: Regularly cultivated, available in grocery stores

I first tried Maitake mushroom in a butternut squash curry, and it brought back my childhood memories of lobster bisque. Before going vegan, I used to tell people that lobster was my favorite food. When pulled apart and cooked in balsamic vinegar and mustard, this was one of my favorite mushroom dishes yet! You can find these mushrooms cultivated, but they tend to be very small, whereas the wild versions

can grow up to 10 or 15 lbs! I once found over 15 lbs of hen of the woods mushrooms, and at one point, my entire fridge was full of this mushroom. I had plenty to eat daily while also gifting it to friends, family, and even strangers. This mushroom can be challenging to find. For those who are new to foraging, learn how to find and identify this mushroom. There are no deadly look-alikes in North America. I commonly see this mushroom next to red oak trees in the early fall.



Hen of the woods spotted in an Atlanta park! You won't find a maitake this size in your local grocery store!



Lentil-curry hen-of-the-woods bisque

4. Cauliflower Mushrooms, *Sparassis* spp., Replacement for Calamari

Time of Year: Summer

Where to Find Them: Cultivated in Asia, available by wild foraging

The cauliflower mushroom is one of the more elusive and beautiful mushrooms on this list. My girlfriend's parents sent me this photo asking for an identification. I instructed them to take the mushroom immediately, and they gifted half to me and kept half for themselves. The mushroom has the unmistakable texture of calamari. While I didn't batter and fry this mushroom myself, I could see it replacing the squid market one day. While the cultivation of this mushroom is rare, there is research on cultivation in Korea, and I believe this mushroom will be more commonly produced in the coming years.^[3]



Sparassis spathulata foraged and photographed by Stephen Johnson

5. Young Chicken of the Woods, *Laetiporus* spp., Replacement for Chicken or Salmon

Time of Year: Spring through fall

Where to Find Them: Difficult to cultivate, available by wild foraging

As the name implies, this mushroom is a great chicken substitute. The mature specimen is often stringy and somewhat dry. It requires a nice marinade and goes well in BBQ chicken recipes. Last year was my first year finding a chicken of the woods, and I didn't find just one but seven different mushrooms, weighing a total of nearly 20 pounds! I made a [TikTok video](#) to capture my incredible find, which resonated with many people as it was viewed over 346,000 times!

The young version of this mushroom is soft and light, easy to chew, and delicious. I cooked the water out of the mushroom, and once I browned each side, I added lemon and pepper. It was delectable, and the texture reminded me of salmon or scallops while still young and tender.



A young and large specimen of Laetiporus cincinnatus, or white-pored chicken of the woods



A young Laetiporus sulphureus, the yellow pored chicken of the woods



An older specimen of Laetiporus sulphureus, with a dry, stringy, chicken-like consistency



Young and tender chicken of the woods. Cooked Chicken of the woods, finished with lemon and black pepper

Our oceans need time to rest, regenerate, and heal. If you care about the state of our oceans and you want to do all that you can to help support the diverse and suffering ecosystem, start with your diet. Mushrooms can sustainably replace every type of seafood imaginable, from salmon to white fish, oysters to scallops, and crabs to squid. By removing fish from your diet and replacing it with mushrooms, you will experience a wide array of tastes and textures that mimic the consistency and even the taste of seafood without contributing to the destruction of the ocean. By finding mushrooms locally, either through foraging or buying from local sellers, you will be supporting the seas, your health, and the health of our planet.

References

1. Abrams, D. I., Couey, P., Shade, S. B., Kelly, M. E., Kamanu-Elias, N., & Stamets, P. (2011). Antihyperlipidemic effects of *Pleurotus ostreatus* (oyster mushrooms) in HIV-infected individuals taking antiretroviral therapy. *BMC Complementary and Alternative Medicine*, 11(60). <https://doi.org/10.1186/1472-6882-11-60>
2. Thongbai, B., Rapior, S., Hyde, K.D. et al. (2015). *Hericium erinaceus*, an amazing medicinal mushroom. *Mycol Progress* 14,91. <https://doi.org/10.1007/s11557-015-1105-4>
3. Park, H. Ryu, S. R., & Ka, K. H. (2011). Cultivation of *Sparassis crispa* on several kinds of medium density and particle size of sawdust-based medium made of *Larix kaempferi*. *Journal of the Korean Wood Science and Technology*, 39(1), 68–74. [doi:10.5658/WOOD.2011.39.1.68](https://doi.org/10.5658/WOOD.2011.39.1.68)