FISH

Processing, Preparing, and Presenting Fish



RIVERS OF RECOVERY

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Cornel CALS College of Agriculture and Life Sciences Natural Resources and the Environment This guide is produced by WWRx and Wild Harvest Table in partnership with Seneca County Cornell Cooperative Extension, Rivers of Recovery, Trout Unlimited, and Cornell University's Department of Natural Resources and the Environment.









Cornell Cooperative Extension Seneca County



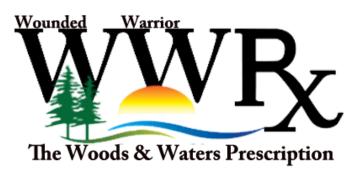
Concelle Calls College of Agriculture and Life Sciences Natural Resources and the Environment

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United States Department of Agriculture National Institute of Food and Agriculture

Acknowledgment: This work was supported by the USDA National Institute of Food and Agriculture, Multistate Hatch and Smith-Lever projects 2013-14-380: Returning Warriors II: A Study of the Social-Ecological Benefits of Coming Home to Nature and 2011-12-221: Returning Warriors: A Study of the Social-Ecological Benefits of Coming Home to Nature.



The WWRx project, funded in part by the United States Department of Agriculture National Institute of Food and Agriculture, explores the importance of socialecological interactions in outdoor recreation and restoration activities among returning war veterans and others who have experienced trauma, and how these interactions relate to individual, community, and social-ecological health and resilience. The multitude of benefits provided by nature contact for health and well-being are well documented. The important social and psychological healing benefits of sharing meals, especially those that are based on wild fish and game procured as a part of intentionally designed outdoor recreation therapeutic outings can be a vital part of Rivers of Recovery events. This booklet offers practical advice on preparing and consuming fish from stream to table based on the Wild Harvest Table program and

Cornell Cooperative Extension research and outreach. The health and nutritional benefits of consuming fish are presented, along with recipes and tips for delicious preparation and presentation. Only keep fish were it is responsible to do so. Always be sure to check your state's fishing regulations for seasons and limits as well as any special health guidance.



Veterans share their Rivers of Recovery experiences...



"Rivers of Recovery stirred a passion in me that has become a healthy obsession. The experiences on my first trip changed my life forever. Fly fishing allows me to engage my mind and body in a beautiful setting and nothing makes me happier than introducing other vets to the benefits of the sport." - Daniel Laffin

"I get a lot out of it, seeing other veterans around me going through similar things that I'm going through. When we go on these trips you just instantly bond without knowing each other. They see me going through the same stuff as they are, and I think we help each other. I think that's what it's all about. I recommend Rivers of Recovery to any veteran." - Jose Jauregui

"It's a 'never forget' type of experience. It's empowering. I joined the military to make a difference. Then my service was over because of my injury. Working with RoR is another way to serve and help other people in the military. It's something I can be proud of and will last." - Levi Crawford

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How and Why to Use this Guide

This booklet is intended to augment a guided fishing outing with the basic information necessary to be able to successfully process, prepare, and present wild fish that is caught during an event. Many of the techniques and recipes can be used with multiple species of fish.

In a recent WWRx study, veteran participants were asked if including wild fish and game processing, preparation and presentation skills in sponsored expeditions that support veterans would increase their satisfaction with those outings. 89% (139/156) responded that it would increase their satisfaction, with 70% saying it would greatly increase satisfaction. 90% agreed that "increasing my knowledge and skill in wild fish and game processing, preparation, and presentation would increase my feelings of satisfaction about being an outdoors person." There is a huge feeling of satisfaction that comes from procuring one's own food from start to finish. There is also an ethical responsibility to be a good steward of what is harvested. Fish intended to be released should be handled gently, keeping hands and the fish wet during a quick release. Be sure to understand the conservation and management goals and conditions of a given fishery before deciding to keep fish for consumption.



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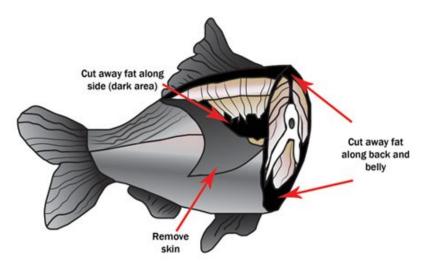
Here are some things to think about well ahead of a fishing outing:

- 1. **Know your ecosystem.** Sometimes, in some places, brook trout are a cherished resource to be released and in other places they are an invasive species that should be kept and eaten. Are there other invasive fish species that are encouraged to be removed from the waters where you are fishing? Or is the fishery managed explicitly as a put and take fishery?
- 2. If you are planning to keep fish to eat, do you have the equipment and knowhow to clean the fish? You will need a sharp fillet knife and a fish processing guide (or knowledge) plus a stringer or live well to keep the fish fresh.
- 3. Have you checked the water quality and fish consumption safety guidelines for the waters you will be fishing in?
- 4. **If taxidermy is desired, is this lined up?** Is there a plan for how to preserve any fish that might be desired for taxidermy?
- 5. Have you considered state and country laws about shipping fish, traveling across borders, and packaging concerns?
- 6. Do you have coolers and ice or a way to keep the fish cold and fresh?
- 7. What are the federal, state, and local regulations for size and daily limits of fish caught?
- 8. Is there a management plan for the fishery, such as removing bass or perch from wild trout waters? This information will help determine what fish can be on the menu.

Food Safety Concerns for Eating Wild-Caught Fish

All 50 states publish fish consumption advisories or recommendations to limit consumption of certain fish species caught from specific waterways (various lakes, rivers or coastal waters) due to chemical or biological contamination. Unfortunately, many harmful pesticides, industrial chemicals, and other chemical by-products make their way into the waterways and ultimately into the fish. Many of these chemicals are linked to human health concerns, such as cancer and birth defects, especially if ingested over time and in quantity. The EPA and state agencies monitor the waterways for these contaminates and offer advice on what waters are safe to eat the fish from, what types of fish are safe to eat, and in what quantities for human health concerns. Most states offer free pamphlets or websites with this information. For example, the following are tips on healthier eating of fish from the New York State Department of Health's publication, *Health Advice on Eating Sportfish and Game*, which is updated every year. This advice may be applicable to other states as well.

• PCBs, dioxin, mirex, DDT, chlordane and dieldrin are found at higher levels in the fat of fish. You can reduce the amount of these contaminants in a fish meal by properly trimming, skinning and cooking your catch. Remove the skin and trim all the fat from the belly flap, the line along the sides, and the fat along the back and under the skin (see diagram). Cooking or soaking fish cannot eliminate the contaminants, but heat from cooking melts some of the fat in fish and allows some of the contaminated fat to drip away. Broil, grill or bake the trimmed, skinned fish on a rack so that the fat drips away. Do not use drippings to prepare sauces or gravies. These precautions will not reduce the amount of mercury or other metals. Mercury is distributed throughout a fish's muscle tissue (the part you eat), rather than in the fat and skin. The only way to reduce mercury intake is to eat less contaminated fish.



- Choose freshwater sportfish from waterbodies for which there is no specific advice.
- Try to space out your fish meals. For example, if the advice is that you can eat up to four meals a month; don't eat them all in the same week. This is particularly important for women and young children.
- When deciding which sportfish to eat, choose smaller fish within a species since they may have lower contaminant levels. Older (larger) fish from the same species may be more contaminated than smaller fish because they have had more time to accumulate contaminants in their bodies (but make sure to follow your state regulations about fish length). Bacteria, viruses or parasites may be in or on fish. Keep harvested fish cold. Wear protective gloves when skinning and trimming. Wash hands and surfaces often when preparing fish, and keep raw foods separate. Cook fish and shellfish thoroughly before eating.

Source: http://www.health.ny.gov/environmental/outdoors/fish/health_advisories/tips.htm

Before your fishing event, get a copy of fish consumption advisories for the area you will be fishing. This information may dictate how much fish you choose to consume from your fishing outing. Practice catch and release if it is advised not to eat the fish from that water and/or you do not intend to eat the fish for other reasons. Only keep what will be eaten!

Catch and Release– To protect the fish for releasing, be sure to have a soft web net and use barbless hooks. Try to release the fish without touching it or if you need to touch it make sure your hands are wet and avoid putting your fingers in or under gill plates or squeezing too hard. If possible, take pictures with the fish in the water or very quickly held up for a photo cradling the fish. If you must lift the fish out of the water, be sure to have a net under the fish at all times, in case it escapes or wiggles free. If it does, it will be caught in the net instead of crashing to the ground or the bottom of the boat, and you can simply dip the net in the water to give the fish a breather. Try not to beach the fish or allow its skin to dry out. A good rule of thumb is to imagine yourself holding your breath, and if you are becoming uncomfortable after a certain amount of time, the fish probably is too. The goal of catch and release is to produce the least amount of stress on the fish, so it survives to fight another day.



Nutritional Benefits of Eating Fish

Fish are an important part of a healthy diet, providing a lean, low-calorie, high quality source of protein. Fish also contains essential nutrients and amino acids, including omega-3 fatty acids. Not only is fish "brain food" it also positively contributes to heart health and children's growth and development.

The natural diet of wild-caught fish contributes to a nutritious, lean fish. The bright orange flesh of salmon and certain trout species is because of what they eat in their natural environment which creates carotenoids in the flesh with strong antioxidant properties and potential health benefits. On the next page is a chart comparing wild caught trout to domestically raised trout. Notice the fat content, and therefore the calories, are substantially lower in the wild trout.

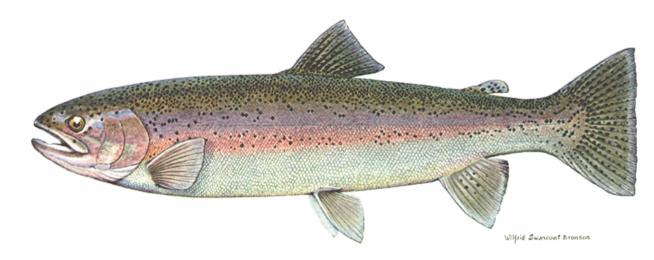


Image source: http://www2.dnr.cornell.edu/cek7/nyfish/Salmonidae/

Nutritional Comparison of Wild Trout vs. Domesticated Trout

(Raw Meat Samples)

Based on 100 gram portion:	Wild Brook Trout NYS	Wild Rainbow Trout	Domesticated Rainbow Trout
NUTRIENTS:			•
Energy (kcal)	110	119	141
Protein (g)	21.23	20.48	19.94
Total fat (g)	2.73	3.46	6.18
Total saturated fat (g)	0.595	0.722	1.383
Total mono-unsaturated fat (g)	0.815	1.129	1.979
Total poly-unsaturated fat (g)	0.772	1.237	1.507
Cholesterol (mg)	60	59	59
Minerals:			
Ca (mg)	25	67	25
Fe (mg)	0.38	0.70	0.31
Mg (mg)	28	31	25
P (mg)	246	271	226
K (mg)	417	481	377
Na (mg)	45	31	51
Zn (mg)	0.55	1.08	0.45
Vitamins:			
Thiamin (mg)	0.137	0.123	0.120
Riboflavin (mg)	0.101	0.105	0.090
Niacin (mg)	5.293	5.384	5.567
Vitamin B-6 (mg)	0.273	0.406	0.340
Vitamin B-12 (µg)	2.77	4.45	4.30

Data source: US Department of Agriculture, Agricultural Research Service, Nutrient Data Laboratory. USDA National Nutrient Database for Standard Reference, Release 27. Version Current: August 2014. Internet: <u>www.ars.usda.gov/ba/bhnrc/ndl.</u> Compiled by Moira M. Tidball, Cornell University Cooperative Extension, March 2015.

Cleaning a Whole Trout (Brook Trout)



 Using a sharp fillet knife, remove the head by cutting at a slight angle from behind the gills towards the base of the head.
 The head can also be left on or the viscera removed before the head.
 Try different ways to determine what you prefer.



 Hold the fish and face belly towards you. Cut a slit in the vent up the belly to the throat, using just the tip of your knife and just cutting the skin (do not cut too deep or you will get into the entrails).

Cleaning a Whole Trout

3. Using your thumb push the entrails (also referred to as viscera or guts) out..



5. Rinse the cavity with cold water.



Photo credit: Keith G. Tidball



4. Using your knife tip, open the blood line and remove with your thumb.







6. Scrape "slime" off skin. This helps flavor and preservation of the fish. The fish is

now "cleaned" and ready to cook whole (grill, pan fry, cook in a foil pouch, or bake in the oven). You can also store the cleaned fish in the refrigerator to cook within a few days or freeze the fish to use within a few months.



Processing a Large Mouth Bass

Large mouth bass are a good eating fish and can be found in many clean waterways.



Make an initial cut behind the gills.

 I then prefer to fillet bass from the top of the spine down, to insure I get around the rounded rib cage. Most of the bass meat is towards the top of the spine even though they often look like they have nice, fat bellies.



2. Run a very sharp, flexible fillet knife along the rib cage and down to the base of the tail, leaving the fillet attached at the tail.



3. Turn the fish over and repeat on the other side, again leaving the fillet attached at the tail.



Note: This is how conservation officers want to see fillets that are crossing borders to insure that the fillets are indeed from one fish!



4. Then at the tail where the fillet is attached, carefully run your knife at an angle along the skin to remove the fillet from the skin.



5. Do this on both sides and you have two lovely bass fillets.

THANK YOU to Casey Breeds for capturing such moments over the years for RoR!













Recipes

The guiding culture started in the north woods, especially in the northeastern states of Maine and New York. These early guides knew where to hunt and fish, how to navigate the waterways, and how to cook their quarry! True to this great guiding tradition, today's guides, outing hosts, and even participants should be experts in the four Ps (procurement, processing, preparing, and presentation) of wild fish that they help catch. Not only is this important to pay our respect to tradition, it is a fundamental aspect of our ethical obligations as hunters and anglers today. What follows are some delicious and simple recipes to help you partake in this time-honored tradition. These recipes work well with many different species of fish.

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Panfish Salad

So what exactly are panfish? Panfish are any edible fish species that generally do not outgrow the size of a frying pan when cooked whole. Examples are sunfish species, perch, and crappie. The term panfish was recorded as early as 1796 in the first known cookbook written by an American, *American Cookery*. Chef Richard Lerman created this panfish salad recipe for a Wild Harvest Table Local Food Workshop.

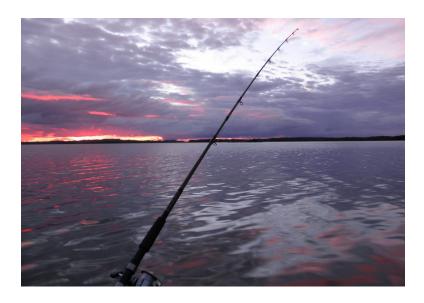
Serves: ~ 4

Ingredients::

- 1-2 lbs. boneless panfish fillets, such as perch, sunfish, or crappie
- 3 tablespoon flour, seasoned with salt and pepper
- 1 lemon
- 1 tablespoon Dijon-style mustard
- ¹/₂ cup olive oil, plus a bit more for the pan
- 5 oz. or about 4 cups lettuce leaves, such as Boston, bibb, or green leaf
- salt and pepper to taste
- fresh cherry tomatoes or cucumber slices for garnish (optional)

- 1. Scrape scales from skin or remove skin from the fish fillets and check for and remove small bones. Cut fish into approx. 2"X 2" pieces, lightly salt & pepper pieces. If fillets were previously frozen wick off excess moisture on paper towels, skip this step if using fresh fish.
- Dredge fillets in flour, seasoned with salt and pepper. Fry in heavy cast iron pan in 1" hot peanut or olive oil, 2-3 minutes per side or till golden. Set on rack or paper towel to drain.

- 3. Prepare the Vinaigrette dressing: Whisk together: Juice of 1 fresh lemon, (about 2 tablespoons). 1 teaspoon freshly ground black pepper, a pinch of salt, 1 tablespoon French-style Dijon Mustard with ½ cup of extra virgin olive oil. Or you can add all of these ingredients to a jar and shake vigorously to combine.
- 4. Arrange Salad: Alternate layers of cleaned and dry lettuce leaves and fish fillets with a spoon or two of the dressing, until all are used, saving a bit of dressing for on top. Garnish with cherry tomatoes or cucumber slices. Do not attempt to toss the salad as the fillets are tender and will break apart. Or you can make salads on separate plates with fish on top of greens and dressing spooned on top. Makes 4-8 servings depending on serving size. Enjoy!





Amount Per Se	rvina		
Calories 39		ies from	Eat 250
calones 55	o caloi		aily Value
Total Fat 29	a	% Da	45%
Saturated	<u> </u>		20%
			20%
Trans Fat	0		
Cholesterol	100mg		33%
Sodium 310)mg		13%
Total Carbo	hydrate 9	∋g	3%
Dietary Fi	ber 2g		8%
Sugars 20	3		
Protein 24g			
Vitamin A 30	• •	Vitamin (25%
Calcium 109	6 • 1	ron 10%	0
*Percent Daily V diet. Your daily v depending on yo	alues may be	e higher or l	000 calori ower 2,500
Total Fat Saturated Fat		65g 20g	80g 25g
Cholesterol Sodium	Less than Less than	300mg 2,400mg	300mg 2,400mg
Total Carbohydra		300g	375g

Fish Tacos

Serves: 2 - 4

Ingredients::

- 1 pound bass fillets, boneless and skinless (you can substitute other fish fillets)
- 1-2 tablespoons olive oil
- 2 tablespoons lime juice (juice from one small lime)
- $1\frac{1}{2}$ teaspoons chili powder
- ¹/₂ teaspoon cumin powder
- ¹/₂ teaspoon dried oregano
- ¹/₄ cup fresh cilantro, chopped
- 1 small jalapeño, diced
- ¹/₄ cup red onion, diced
- salt and pepper to taste (dash each)

- 1. First, make a marinade by mixing the olive oil, lime juice, chili powder, cumin, oregano, cilantro, jalapeño, red onion, salt and pepper in a glass or ceramic dish large enough to hold the fish. Add the fish fillets and spoon marinade on top to coat the fish.
- 2. Marinate the fish for at least 30 minutes or up to a few hours, turning the fish over a few times.

- 3. Once the fish has marinated, preheat a sauté pan or fish grill pan over medium high heat. Add the fish fillets to the pan and cook for about 4 minutes and then flip and cook an additional 2 minutes until the fish is opaque and cooked through (flakes easily with a fork).
- 4. Remove from heat and coarsely chop the fish.
- 5. To serve, spoon about ½ cup of fish into the center of a warmed corn or flour tortilla, add a dollop of sour cream, some shredded lettuce or cabbage or slaw, and some salsa. Fold or wrap the tortilla so it can be picked up easily to eat. Garnish with lime wedges.





Servings Per	Containe	er about	4
Amount Per Ser			
Calories 170) Calo	ories fron	n Fat 70
		% Da	aily Value*
Total Fat 8g			12%
Saturated	Fat 1.5g		8%
Trans Fat	0g		
Cholesterol	75mg		25%
Sodium 95n	•		4%
Total Carbo	•	Pa	1%
Dietary Fil	-	-9	4%
Sugars 0g	0		
Protein 22g			
Protein 229			
Vitamin A 10	% • V	Vitamin (2 15%
Calcium 10%	6 • I	ron 10%	
*Percent Daily Va diet. Your daily va depending on yo	alues may be	e higher or l	
Total Fat Saturated Fat Cholesterol Sodium Total Carbohydra Dietary Fiber	Less than Less than Less than Less than te	65g 20g 300mg 2,400mg 300g 25g	80g 25g 300mg 2,400mg 375g 30g

Creamy Dijon Fish Fillets

Serves: ~ 3 - 4

Ingredients::

- 1 pound firm, skinless, boneless, fish fillets (such as trout, salmon, perch, etc.)
- ¹/₃ cup mayonnaise
- 2 tablespoons Dijon-style mustard
- 3 tablespoons grated Parmesan cheese
- black pepper to taste

Directions:

- Preheat broiler with oven rack in proper position.
 Rinse the fillets, pat dry and place on a broiler pan (you may want to lightly grease the pan with some oil to prevent sticking).
- 2. In a small bowl, mix the mayonnaise, mustard, cheese and pepper. Spread this mixture evenly over the fish fillets.
- 3. Broil the fillets for 4-7 minutes, depending on the size and thickness of the fish, or just until the fish flakes with a fork. Do not overcook or the fish will be dry.



Nutrition Facts

Serving Size 3-4 ounces Servings Per Container ~3-4

Amount Per Serving		
Calories 280 Calor	ies from	Fat 170
	% Da	aily Value*
Total Fat 19g		29 %
Saturated Fat 3.5g		18%
Trans Fat 0g		
Cholesterol 75mg		25%
Sodium 370mg		15%
Total Carbohydrate	2g	1%
Dietary Fiber 0g		0%
Sugars 0g		
Protein 24g		
Ĵ.		
Vitamin A 2% • V	Vitamin (C 4%
Calcium 10% •	Iron 4%	
*Percent Daily Values are ba diet. Your daily values may be depending on your calorie ne Calories:	e higher or l	
Total Fat Less than Saturated Fat Less than Cholesterol Less than Sodium Less than Total Carbohydrate Dietary Fiber	65g 20g 300mg 2,400mg 300g 25g	80g 25g 300mg 2,400mg 375g 30g
Calories per gram: Fat 9 • Carbohydrate	e4 • Prot	ein 4

Grilled Cajun Fish Fillets

Serves: 6

Ingredients::

- 2 pounds striped bass or other white fish fillets
- 3 Tbsp melted butter or olive oil
- salt and pepper to taste
- 1 Tbsp. Cajun spice (or make your own by mixing 2 tsp paprika, 1 tsp garlic powder, 1 tsp dried thyme, pinch of cayenne pepper)
- Optional: honey and/or lemon wedges

Directions:

- 1. Preheat barbecue grill or grill pan on a range.
- Mix spices with the butter (or oil) and rub evenly over the fish fillets. Let the fish sit for about 20 minutes or place in the refrigerator and let marinade in the spice rub for a few hours for a stronger flavor.
- 3. If grilling a firm fish, place directly on the grill for about 5 minutes and gently flip and grill the other side until cooked through. If a slightly sweet flavor to contrast the spicy Cajun is desired, spread a little honey on top of the fish after flipping it. If the fillets are thin, use a grill pan or place on foil on the grill, so you don't lose your fish through the grill grate. Serve with lemon wedges if desired.



Amount Per Ser	5		
Calories 160) Calo	ories fron	n Fat 7
		% Da	aily Valu
Total Fat 8g			12
Saturated	Fat 4g		20 °
Trans Fat	0g		
Cholesterol	105mg		35
Sodium 210	mg		9
Total Carbol	hydrate)g	0
Dietary Fit	ber 0g		0
Sugars 0g			
Protein 20g			
			0.00(
Vitamin A 6%		Vitamin (0% ن
Calcium 2%	•	Iron 6%	
*Percent Daily Va diet. Your daily va depending on you	alues may be	e higher or l	
Total Fat Saturated Fat Cholesterol	Less than Less than Less than	65g 20g 300mg	80g 25g 300mg

Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

Fish Stock

Making fish stock is a great use of the fish after you have removed the fillets!

Serves: 4

Ingredients:

- 2 pounds meaty fish bones (can include fish heads)
- 1 large onion, thinly sliced
- 1-2 stalks of celery

Optional:

- 1 bay leaf
- 1 sprig flat-leaf parsley
- 1 sprig thyme
- 3 whole peppercorns

Directions:

- 1. Rinse fish bones well with cold water and scrub any slime off the skin. Place bones in a large pot; add remaining ingredients and enough cold water to cover the fish.
- 2. Bring almost to a boil over high heat (do not let it come to a boil). Reduce heat to low and cook at a bare simmer, skimming any foam that rises to surface, until flavors meld, about 30 minutes. Skim foam often.
- 3. Strain stock through a fine-mesh sieve lined with cheesecloth into another pot; discard solids. You may have to strain the stock a second or third time to remove all solids and for a clear stock.

- 4. Stock tastes best when freshly made and stores in the refrigerator for a few days. It can also be frozen and used within a month or so for best quality.
- 5. It is a great base for fish chowder and sauces.



Photo: Put fish heads and aromatic vegetables in a pan and cover with water to make a stock.





Fish Chowder

Fish chowder is always a crowd pleaser and a great way to cook up different species of freshly caught fish. It works well with pike, pan fish, bass, and salmon, plus you have an opportunity to find and remove more fish bones when you are cutting it into smaller pieces.

Serves: 4

Ingredients:

- 4 slices bacon cut into 1 inch (could substitute 2 Tbsps. olive oil)
- 2/3 cup chopped onion
- ¹/₂ cup chopped celery
- 1 Tbsp flour or cornstarch
- 3 medium potatoes, cubed
- 3 cups fish stock* (can substitute chicken stock, clam juice, or vegetable broth)
- ¹/₂ cup chopped carrots or sweet corn kernels (optional)
- 2 Tbsps. fresh parsley, minced
- 1 Tbsp. lemon juice
- ¹/₂ tsp. dill weed or 1 Tbsp. fresh, minced dill
- 1 tsp. Old Bay-type seasoning
- Salt and pepper to taste
- 1 lb. boneless, skinless pan fish fillets: perch, sunfish, crappie or pickerel, cut into 1 inch chunks
- 1 cup light cream (half n half) or 1 can evaporated skim milk (lower fat)

- In a Dutch oven, cook the bacon until crisp. Remove bacon, and set aside; discard all but 2 tablespoons of drippings. If using olive oil instead of bacon, just add olive oil to pot and proceed to next step.
- Sauté onion and celery in drippings until tender. Stir in flour. Add potatoes, fish stock, carrots or corn, parsley, lemon juice and seasonings. Simmer until vegetables are tender, about 30 minutes.
- 3. Add fish and cooked bacon and simmer for 5 minutes, or until fish flakes with a fork. Add cream, and heat through, being careful not to boil the chowder once the cream is added. Ladle into serving bowls and garnish with a sprinkle of smoked paprika or Old Bay seasoning and a sprig of parsley. * You can make your own fish stock to use in this recipe.





Nutrition	Facts		
4 servings per container Serving size			
Amount per serving Calories	340		
	% Daily Value*		
Total Fat 15g	19%		
Saturated Fat 5g	25%		
Trans Fat 0g			
Cholesterol 140mg	47%		
Sodium 880mg	38%		
Total Carbohydrate 11g	4%		
Dietary Fiber 1g	4%		
Total Sugars 5g			
Includes 1g Added Sug	gars 2%		
Protein 39g	0 		
Vitamin D 4mcg	20%		
Calcium 177mg	15%		
Iron 2mg	10%		
Potassium 980mg	20%		



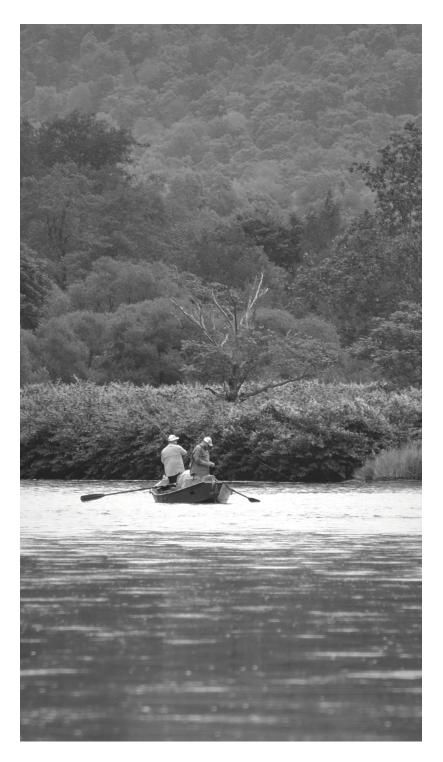
Parmesan Fish Fillet Fries

Serves: 2 - 4

Ingredients:

- 1 pound of boneless, mild-flavored fish fillets (perch works well)
- ¹/₄ cup skim milk
- ¹/₄ cup grated Parmesan cheese
- ¹/₂ teaspoon lemon pepper seasoning
- 1 teaspoon parsley flakes
- dash of salt to taste or Old Bay seasoning
- 1 tablespoon olive oil

- 1. Rinse perch fillets and cut into long strips.
- 2. Put milk in a small bowl or dish.
- 3. Mix cheese and seasonings (except oil) on a plate or in a shallow bowl.
- 4. Heat olive oil over medium to medium high heat.
- Place perch fillets in milk and then coat them individually with the cheese "breading." Place parmesan crusted fillets in hot oil and brown about 3 minutes per side. Serve with lemon wedges if desired.







Serving Size 3 Servings Per 0	oz.		cts
Amount Per Servi	ng		
Calories 150	Cal	ories fron	n Fat 50
		% Da	aily Value*
Total Fat 5g			8%
Saturated F	at 1.5g		8%
Trans Fat 0	g		
Cholesterol 1	- 05mg		35%
Sodium 150m	ng		6%
Total Carbohy	ydrate	1g	0%
Dietary Fibe	er Og	-	0%
Sugars 1g	-		
Protein 24g			
.			
Vitamin A 2%	• `	Vitamin C	24%
Calcium 15%	•	Iron 6%	
*Percent Daily Valu diet. Your daily valu depending on your	les may b	e higher or l	
Total Fat L Saturated Fat L Cholesterol L	ess than ess than ess than ess than	65g 20g 300mg 2,400mg 300g 25g	80g 25g 300mg 2,400mg 375g 30g

Versatile Fish Patties

Serves: 12

Ingredients::

- 1 pound filleted fish, such as lake trout, salmon, pickerel, perch, etc
- About ¹/₂ cup of milk for poaching fish
- 1 large potato or 3 small ones (enough to make 1 cup cooked, mashed potatoes)
- 1 shallot, minced or 1/3 cup minced onion of choice
- 1 large egg
- 2 tablespoons flour
- 1-2 tablespoons chopped fresh parsley or dill
- salt and pepper to taste or a dash of Old Bay
- 2-3 tablespoons olive oil or butter or preferred fat for pan frying
- Lemon wedges

Directions:

- Poach the fish fillets by placing in a skillet with a lid or braising pan with a lid and adding about ½ cup of milk (enough to almost cover the fish or at least half way). Turn the heat to medium and bring the milk up to a gentle boil/simmer (not too hot or the milk will burn). Cover the pan and "poach" the fish in the milk for about 5-10 minutes, depending on the thickness of the fish. The fish should be opaque and flake easily with a fork. Remove from heat to cool slightly.
- 2. When it has cooled, drain the milk (this can be saved to make a fish chowder or fed to a favorite cat or dog :-)) and flake the fish with a fork, removing any bones that

might have been missed in the filleting process.

- 3. Boil the potatoes and mash with a fork, season with salt and pepper.
- 4. Mix the fish, mashed potatoes, and remaining ingredients in a bowl.
- Form into four ½ inch thick patties. Or, you can make smaller patties to serve as an appetizer.
- Heat oil in a fry pan and drop patties into hot oil.
 For a crispier patty, coat the patties lightly in fish fry batter or seasoned panko breadcrumbs or seasoned flour before frying. Panfry until golden brown on both sides.
- 7. Serve with tarter, cocktail sauce, or aioli sauce and/or with lemon wedges. A squeeze of lemon juice is especially good on some of the stronger flavored fish, such as trout or salmon. The patties can be served on a bun as a sandwich or just as the patties/cakes.





Serving size	~3 ounces
Amount per serving	200
Calories	280
	% Daily Value
Total Fat 15g	199
Saturated Fat 2.5g	139
Trans Fat 0g	
Cholesterol 120mg	40%
Sodium 240mg	10%
Total Carbohydrate 11g	49
Dietary Fiber 1g	49
Total Sugars 1g	
Includes 0g Added Sug	ars 0%
Protein 24g	
Vitamin D 1mcg	6%
Calcium 104mg	89
Iron 2mg	10%
Potassium 617mg	15%

day is used for general nutrition advice

Fish on the Grill

Grilling is a great way to enjoy delicious, healthy, fish– either whole or filleted. Grilling works great in the back-county as well as on a gas grill at home.

Serves: 4

Directions for Fish Fillets:

- Place skinless, boneless fillets in your favorite citrus flavored marinade for about 10 minutes while your grill is heating up.
- 2. Grill the fillets either on foil or in a fish pan (so they don't fall through the grill rack) for about 5 minute per side or until cooked through and flake easily with a fork. You can brush more fresh marinade on as you grill.



Directions for Whole Fish:

Freshly caught whole fish can be cleaned, seasoned, and cooked directly on a grill grate over hot coals or pan fried in a cast iron pan set over the coals. A metal fish basket is another great way to grill whole fish, as it keeps them intact and easy to turn. Clean the fish by making a shallow slit from the vent (anus) up to the gill of the fish along the belly, just cutting the skin while avoiding poking the knife into the guts. Then scoop the entrails out and thoroughly rinse the cavity of the fish. Rinse and clean the entire body of the fish, lightly rubbing the skin to remove any slime. Keep the skin on the fish, lightly oil the skin so it doesn't stick, and cook it until the meat turns opaque and flakes with a fork, turning it at least once. A little pad of butter or a drizzle of olive oil in the cleaned cavity will keep the meat moist and flavorful and you can add some lemon and/or herbs to the fish cavity. The meat should separate easily from the bones and the skin after it's cooked.





Nutrit		ı Fa	cts
Servings Per C		er 4	
Amount Per Servin	g		
Calories 200	Calo	ries from	Fat 100
		% Da	aily Value*
Total Fat 11g			17%
Saturated Fa	at 2g		10%
Trans Fat 0g			
Cholesterol 65	Smg		22%
Sodium 330mg	3		14%
Total Carbohy	drate	1g	0%
Dietary Fiber	822		0%
Sugars 0g	<u> </u>		
Protein 23g			
Vitamin A 4%	•	Vitamin C	C 10%
Calcium 8%	•	Iron 6%	
*Percent Daily Value diet. Your daily value depending on your o	es may b alorie ne	e higher or l eds:	ower
	alories:	2,000	2,500
Saturated Fat Le Cholesterol Le	ess than ess than ess than ess than	65g 20g 300mg 2,400mg 300g 25g	80g 25g 300mg 2,400mg 375g 30g
Calories per gram: Fat 9 • Cart	oohydrate	e 4 • Prote	ein 4

Brown Trout in Brown Butter Balsamic Sauce

This classic French recipe also works well for salmon, walleye, halibut, rockfish or cod.

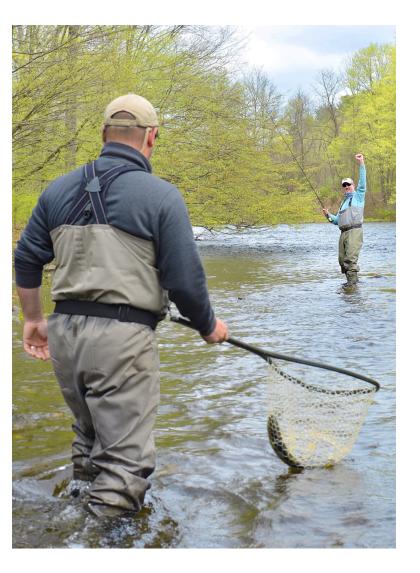
Serves: 4

Ingredients:

- 6 tablespoons unsalted butter
- 2 tablespoons balsamic vinegar
- 2 teaspoons honey
- 2 teaspoons Dijon mustard
- 4 trout or salmon fillets (about 4-6 oz each)
- 1 teaspoon olive oil
- 1 tablespoon drained capers
- ¹/₂ cup chopped tomatoes (optional)

- 1. Simmer butter in heavy small saucepan over medium heat until deep golden brown, swirling pan occasionally, about 5 minutes.
- 2. Remove from heat and skim off any foam.
- 3. Whisk in vinegar, honey and mustard. Season sauce with salt and pepper to taste.
- 4. Brush fish with oil; sprinkle with salt and pepper.
- 5. Heat heavy, large skillet over medium-high heat. Add trout fillets. Sauté just until opaque in center, about 2 minutes per side.

- 6. Transfer to plates; tent loosely with foil to keep warm.
- Whisk sauce over low heat to rewarm if necessary.
 Spoon sauce over fish. Sprinkle with capers and, if desired, tomatoes.





Amount Per Ser	aving		
	0		E-+ 04
Calories 380	J Calor	ies from	
		% Da	aily Value
Total Fat 24	•		37%
Saturated	Fat 12g		60 %
Trans Fat	0.5g		
Cholesterol	140mg		47%
Sodium 180	mg		89
Total Carbo	hydrate 6	6g	29
Dietary Fil	ber Og	-	00
Sugars 4g	•		
Protein 33g			
Frotein sog			
Vitamin A 15	% • V	Vitamin (C 10%
Calcium 10%	6 • I	ron 8%	
*Percent Daily Va diet. Your daily va depending on yo	alues may be	e higher or l	
Total Fat Saturated Fat Cholesterol Sodium Total Carbohydra	Less than Less than	65g 20g 300mg 2,400mg 300g	80g 25g 300mg 2,400m 375g

Poached Fish Fillets in Foil

Serves: 4

Ingredients::

- 4 fish fillets (~1lb.) any species, such as perch, bass, trout, salmon, pickerel
- 4 T. butter or olive oil
- 4 Tbsp. white wine and/or fresh lemon juice
- 4 Tbsp. chopped shallot or red onion
- pinch of salt and pepper and/or a spice rub (to taste)
- 4 Tbsp. fresh chopped parsley or dill or other fresh herbs
- heavy duty aluminum foil

Directions:

- 1. Preheat grill to medium high heat. Place a large piece of heavy duty aluminum foil on a flat surface. It works best to only have 1 or 2 fish fillets per foil packet, so depending on the number of fillets, you may need more pieces of foil. Place 1 Tbsp. of butter or oil, a sprinkle of fresh herbs and some onion in the center of the foil. Place cleaned fish fillets in a single layer on top of the herbs and sprinkle with salt and pepper.
- 2. Bring up two ends of the foil above the fish and carefully pour 1 Tbsp of wine or lemon juice on top of the fish.

- 3. Fold the foil to create a tight seal on all edges.
- Place foil pack directly on the hot grill and cook about 5 minutes, then carefully turn packet over with a large spatula or tongs and cook about 5 minutes more. Remove from grill. Be very carefully of the steam when opening packet.

*You can get creative with the seasonings and add any of your favorite spice rubs, such as cajun or Old Bay, on the fish.

*Softer vegetables such as sliced summer squash or asparagus can be cooked in the foil packs with the fish.

* These foil packs work great on a campfire for camping or making a shore lunch!







Sodium 510mg			21%	
Total Carboh	ydrate	4g	1%	
Dietary Fibr	er Og		0%	
Sugars 1g	- 22			
Protein 26g				
Dania & AM		1 El	150/	
Vitamin A 6%		Vitamin (; 15%	
Calcium 15%		Iron 6%		
Cholesterol I Sodium I	less than less than less than	20g 300mg 2,400mg	25g 300 mg 2,400mg	
Cholesterol I	ess than	300mg	300 mg	
Total Carbohydrab Dietary Fiber	2020	300g 25g	375g 30g	
Calories per gram. Fat 9 • Ca		ed · Prot	ein ő	

Nutrition Facts

Calories from Fat 100

% Daily Value/

17%

18%

28%

Serving Size 3 ounces (162g)

Servings Per Container 4

Saturated Fat 3.5g

Amount Per Serving

Calories 230

Total Fat 11g

Trans Fat 0g

Cholesterol 85mg



Smoked Trout or Salmon

Smoked Trout or salmon fillets are excellent served with crackers and cheese as an appetizer, made into a salad for sandwiches (similar to a tuna salad), mixed into pasta dishes, incorporated into a potato hash for brunch, or made into a spread (such as the following recipe). Delicious!

Serves: ~ 16

Ingredients:

- 2 pounds of fish fillets
- ¹/₂ cup pickling or sea salt
- 2 quarts cold water
- 2-4 tablespoons brown sugar
- 2 tablespoons pickling spices (you can experiment with other flavors, such as dill and lemon peel, garlic, Asian flavorings of soy, ginger and lemongrass, etc)

Directions:

- 1. Make the brine by mixing all ingredients, stirring to dissolve the salt. Make sure the brine is cold when fish are placed in it. Use a glass, ceramic or other non-reactive container, not a metal bowl. Leave the fish in the brine for 4-6 hours. Longer brining creates a saltier fish.
- 2. After you have brined your trout fillets, place them on slightly oiled metal racks (can use the smoker racks) and let them dry for about one hour to form a slight glossy shine, called a pellicle. This locks in the juices and flavors. A fan can be used to speed up the process.
- 3. Preheat the smoker and then smoke your fillets according to the directions of your smoker. Usually the fish will be smoked at 225°F until it reaches an internal temperature of 180°F (about 2 hours).





Smoked Fish Spread

Serves: ~ 12

Ingredients::

- ³/₄ pound smoked trout fillets (any species)
- ¹/₂ cup sour cream, light preferably
- 8 ounces cream cheese, low fat preferably, room temperature
- 2 tablespoons fresh lemon juice
- 1 teaspoon grated lemon zest
- 1 tablespoon horseradish mustard
- 1-2 tablespoons finely chopped red onion or shallot
- ¹/₄ teaspoon pepper (or to taste)
- 2 tablespoons fresh chopped parsley or dill

- Flake the smoked fish and add it along with all remaining ingredients to a food processor, blender, or use an immersion blender. Blend until almost smooth.
- 2. Serve on cracker or bread as an appetizer with perhaps a sprig of parsley or dill for garnish. This spread will keep for up to 5 days if covered and kept refrigerated.



	Containe	er 12+	
Amount Per Ser			
Calories 90	Calo	ories fron	n Fat 30
		% Da	aily Value
Total Fat 3.5	ōg		5%
Saturated Fat 1.5g			8%
Trans Fat	0g		
Cholesterol 30mg			10%
Sodium 150mg			6%
Total Carbo	hvdrate		1%
Dietary Fiber 0g			0%
Sugars 10	•		-
Protein 11g)		
l lotein rig			
Vitamin A 4%	6 · '	Vitamin C	6%
Calcium 8%	•	Iron 2%	
*Percent Daily Va diet. Your daily va depending on yo	alues may be	e higher or l	
Total Fat Saturated Fat Cholesterol Sodium Total Carbohydra Dietary Fiber	Less than Less than Less than Less than ate	65g 20g 300mg 2,400mg 300g 25g	80g 25g 300mg 2,400mg 375g 30g

Presentation of Fish

The final step is presenting your fish nicely at the table. You "eat with your eyes first" is a true expression known by chefs and restaurants. If food looks appealing, people want to eat it or are at least willing to try it. If it does not look good, you will have a harder time convincing people that it tastes good.

The term "plating" refers to making a dish look delicious by using a mix of color, textures, layering, and placement of foods on the plate. You can use the same techniques at home by choosing colorful vegetable side dishes or garnishing the plate with a bit of green parsley or a small section of fruit..





You may choose to serve fish on top of rice, potatoes, pasta, or salad greens with a drizzle of sauce over the top. Another important consideration is the portions on the plate so that it looks balanced and food is not spilling off the plate.

Be sure to caution people about fish bones and to chew carefully. If you have taken the time to fish, clean the fish, and cook it, then take the time to set a nice table and enjoy the meal!

Enjoy your feast with family or friends or treat yourself to a well-deserved gourmet meal!



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