

# SEA TO SCHOOL

A GUIDE FOR SCHOOL  
CAFETERIAS & CLASSROOMS



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# INTRODUCTION

As the local food movement continues to grow, schools throughout New England are increasingly looking to expand the volume and variety of foods they are sourcing from producers in the region. In this guide, we explore the emerging “sea to school” movement in which K-12 schools are sourcing locally and promoting seafood caught in regional waters.

K-12 school systems are incorporating locally caught seafood into their meals for a variety of reasons and through a variety of procurement models. This guide explores **why** schools might choose to source local seafood, the different **methods** for purchasing local seafood, and **innovative strategies** for promoting local seafood to students. We hope lessons from some of the schools at the forefront of the sea to school movement in New England will inspire greater use of local seafood by schools throughout our region and beyond.

## WHY LOCAL SEAFOOD?

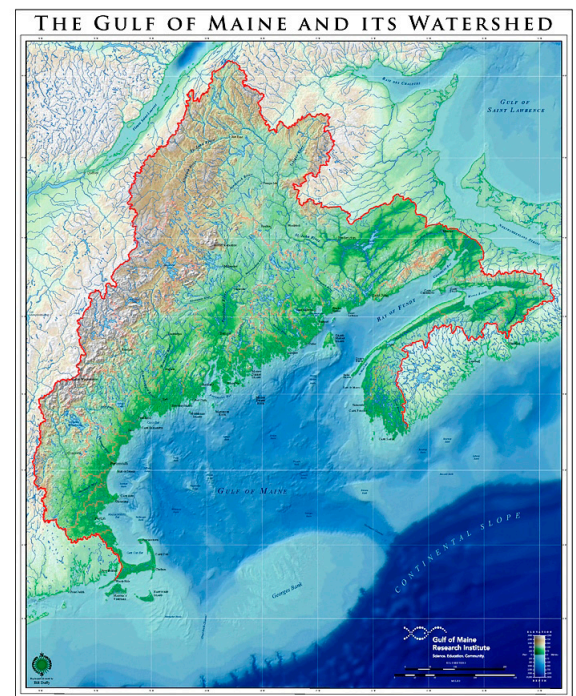
In our New England region, locally caught seafood primarily comes from the Gulf of Maine. This extremely resilient and diverse ocean ecosystem has provided food and sustained livelihoods in New England for generations. But it is also facing many challenges, from declines in the population of some species to rapidly warming waters as a result of climate change. These factors, along with evolving fisheries management policies and much consolidation in the seafood industry globally have greatly impacted many fishing communities. But there are many healthy, abundant species in the Gulf of Maine. As a region, we have strict fisheries management, and much work has been done by fishermen to rebuild fisheries here. Schools and other institutions can leverage their purchasing power to positively impact this important marine resource and the coastal communities dependent on a healthy and vibrant Gulf of Maine.

There are significant environmental, economic, and health reasons to serve local, sustainable seafood in schools.

**Environmental:** Purchasing a variety of local species, including underappreciated species, allows fishermen to harvest what is currently abundant. Rather than always targeting the same 1-2 species because the market demands them, fisherman can respond to fish stocks as they shift over time. Fishermen in New England currently work hard to abide by strict regulations that ensure responsible harvest and the long-term health of the fish stocks.

**Economic:** Local fishermen compete in a very large, very cheap global seafood market. Purchasing a variety of local seafood at a fair price will help keep the fishing and seafood industry a vibrant part of our regional economy. Local seafood purchasing also supports many other local businesses from processors to distributors who operate along the seafood value chain.

**Health:** Seafood is an excellent source of healthy protein lower in saturated fat than other animal proteins that can help meet the school meal pattern. The omega 3s found in fish are also important for brain development, making fish a great item to serve in a learning environment.



## CURRENT SEA TO SCHOOL EFFORTS IN NEW ENGLAND

*We surveyed school food service directors to understand what schools are already doing with local seafood in their cafeterias and classrooms.*

According to the 2015 USDA Farm to School Census, 27% of Maine schools, 14% of Massachusetts schools, and 11% of New Hampshire schools report buying local seafood for school meals. In a separate Sea to School survey conducted in the spring of 2016, 20 school representatives (mostly nutrition directors) from Maine, Massachusetts, and New Hampshire responded about their experience sourcing and serving seafood in the school setting. Respondents identified 19 different types of seafood that they serve, ranging from kelp and lobster to clams and pollock. Most responding schools serve some form of seafood once per month with the most popular being baked haddock. Schools use a variety of marketing methods to promote seafood items such as menus, posters, and classroom engagement. Schools identified a number of vendors they use to source seafood ranging from direct purchases from fisherman to purchasing through a broadline distributor. A list of the 15 vendors named across the tri-state region is available in Appendix A. Survey respondents offered several tips for people starting a sea to school program including:

“ Roll out the sea to school program at an all school assembly with guest speakers from Red’s Best or GMRI. ”

“ We asked three vendors to come for a cooking demonstration and to discuss product development and pricing. From there, we issued a bid and chose a vendor. ”

“ The children enjoy fish demos. Bring in several species and discuss the habitat that the fish thrive in - freshwater or salt, what the fish eat and how large they can grow. Discuss types of fins and scales. Filet a fish and teach them how to properly dress them for cooking. Ask students if they like to fish. ”

“ We have students chopping and mincing the sea greens. The sea green farmer has made presentations and assisted with the class. ”

## SOURCING LOCAL SEAFOOD

Schools in the region are using a variety of mechanisms to source local seafood. These include sourcing through broadline distributors who happen to carry local seafood products, working directly with a Community Supported Fishery that exclusively distributes locally caught seafood, and working with regional seafood distributors that offer locally caught products alongside non-local items.

When selecting a sourcing mechanism for local seafood there are several questions to consider to determine which criteria are most important for your program. These include:

- Do you want your seafood to be traceable back to the boat or a group of boats?
- Is it important to you to support small and independently owned boats or to purchase directly from a fishermen-owned business?
- Do you want your supplier to help provide promotional or point-of-sale materials?
- Will you purchase a significant enough volume of seafood to require a formal or informal bid process?
- How will you determine which varieties of seafood you are purchasing (i.e. underutilized species, species that meet sustainability standards such as those identified by the Gulf of Maine Research Institute, etc.)

Many schools that wish to incorporate seafood as a regular offering on their menus will need to write product specifications and solicitations to meet federal and local procurement regulations. We encourage you to inquire if your state or local municipality has equivalent or stricter procurement regulations than the federal government. The USDA requires that purchases over the current \$3,500 annual micro-purchase threshold follow either a formal or informal bid process. [See [this USDA decision tree](#) resource to evaluate what type of procurement you need to conduct: [goo.gl/bm9EGL](http://goo.gl/bm9EGL)]. This solicitation process can be an opportunity to communicate to the marketplace the specific types of seafood products you are looking for. *Please see the following page for suggested solicitation questions.*

## SEAFOOD CERTIFICATION & LABELING

There are a number of different eco-labels that purchasers can use to identify seafood products that meet certain sustainability criteria. These labels communicate to the buyer that a specific certification or verification has been conducted. Some labels that you might look for in New England include the following:



### Gulf Maine Responsibly Harvested

Careful research and analysis by the Gulf of Maine Research Institute determine the species that can carry the Gulf of Maine Responsibly Harvested label. Species must meet 5 strict criteria which cover stock sizes, management plans, monitoring and compliance, and enforcement. All products carrying this label are traceable back to the Gulf of Maine region, which spans from Nova Scotia to Cape Cod.

*Continued on Page 6*



# SOURCING LOCAL SEAFOOD: WRITING SOLICITATIONS FOR LOCAL SEAFOOD

Some questions you might consider when writing your solicitation include:

- What species are you trying to target?
- What, if any, certifications or verifications do you want the product to carry (i.e. Gulf of Maine Responsibly Harvested, MSC Certified etc.)?
- Do you want to source fish harvested in a certain manner (i.e. line-caught)?
- Can you work with both fresh and frozen product?
- Are you looking for a processed product that can be heated and served or can you work with fillets or whole fish?
- Do you want to prioritize fishermen-owned vendors?
- What traceability criteria do you expect the vendor to provide (i.e. back to boat, to the specific fishery where the fish was harvested etc.)?
- Do you have additional vendor requirements you'd like to include such as promotional or educational materials, field trip, or producer visit to the classroom?

Writing a Request for Proposals (RFP) rather than an Invitation for Bid (IFB), where contracts are awarded based solely on price, can help you incorporate more detailed product attributes into your seafood solicitation. You can use these attributes in your evaluation criteria to award the contract. For example, you might award greater points to a vendor that only offers sustainably certified product or a vendor that can trace the product back to the boat that caught it. The Farm to School organizations in each New England state and the USDA Northeast Regional Farm to School Lead are available to help review your seafood solicitations and determine the best method for sourcing local, sustainable seafood for your district.

*For more detailed information on local procurement methods and strategies, see USDA's Local Procurement Guide:*

<http://goo.gl/3hJHJV>

## SEAFOOD CERTIFICATION & LABELING



### Marine Stewardship Council Certified

This label signifies that a product comes from a fishery that has been certified as sustainable by meeting the sustainability criteria of the non-profit Marine Stewardship Council. Fisheries are evaluated against the MSC standard by third party auditors. This standard is based on three principles - the levels of fish stocks, the environmental impact of the fishing operations, and the effectiveness and responsiveness of the fishery management plan. MSC has certified fisheries all over the world. This label does not communicate the location of origin of the fish.



### Best Aquaculture Practices Certified

These standards address multiple elements of responsible aquaculture, including environmental responsibility, social responsibility, food safety, animal welfare, and traceability. The standards encompass the entire aquaculture production chain, including farms, processing plants, hatcheries, and feed mills. Products are evaluated against the BAP standards by a third party auditor. The BAP label does not communicate the location of origin of the fish.

## MENU DEVELOPMENT AND RECIPES

Serving fish as part of your school meal is a great way to incorporate healthy protein and variety while recognizing the cultural relevance of seafood to your region. Here are some things to consider when adding seafood to your menu.

- Keep an eye on white, flakey fish when baking. It is easy to overcook and dry out.
- Evaluate your kitchen staff's familiarity with seafood and identify any training gaps you need to address before introducing the recipe.
- Introduce fish as a component of a familiar item such as fish tacos.
- Add sea vegetables like kelp to dishes for a nutritional boost and added flavor and color.
- As with any new menu item, it may take a few attempts before the dish is accepted. Consider offering taste tests or other samples before putting the item on the line as an entree option.

See Appendix B for the following recipes that schools are already using successfully:

- Blueberry Kelp Smoothie
- Blackened Acadian Redfish
- Crumb Baked Haddock
- Mozzarella Crusted Pollock
- Fish Tacos



## PROMOTING LOCAL SEAFOOD

Promotion is an essential component of an effective sea to school program. While students in some coastal communities may be very familiar with eating seafood, in many areas, students have had little exposure to seafood or have only experienced seafood in highly processed forms such as fish sticks. Introducing seafood on your menu in thoughtful and strategic ways can help ensure the success of your sea to school efforts.

1. Use taste tests to encourage students to sample seafood before offering it on the line.
2. Involve students in the menu development.
3. Use recipes that reflect the cultural food preferences of your students. For example, if tacos are a popular menu item, try fish tacos as the first way to introduce fresh seafood.
4. Where possible, involve fishermen in your promotion activities.
5. Connect your cafeteria initiatives to classroom activities by partnering with teachers to provide students with seafood and marine education.

Several states have also incorporated local seafood into Harvest of the Month campaigns that highlight different local foods each month. If your state has such a program, find out if seafood is included. If so, there may be ample posters, curricular resources and recipes to help you implement the program. For an example, see Massachusetts Harvest of the Month where seafood is the featured item in May: [www.massfarmtoschool.org/hotm](http://www.massfarmtoschool.org/hotm)



### THE GREAT REDFISH SAUCE-OFF: CREATING STUDENT OWNERSHIP OF A LOCAL SEAFOOD DISH

The Cambridge, Massachusetts Public Schools decided to involve students directly in the development of a new seafood menu item. 6th, 7th, and 8th grade students at the Vassal Lane Upper School became culinary engineers, striving to produce the best sauce to accompany the Gulf of Maine Responsibly Harvested Acadian Redfish that was introduced in cafeterias throughout the district. In the class, led by local organization **City Sprouts** and the chef from the seafood vendor supplying Cambridge with the redfish, the students set to work in small groups developing their signature sauce recipes. They were tasked with creating a precise recipe that could be replicated by anyone. They mixed together different ingredients, searching for the combination that would create the perfect flavor and texture. Eventually each grade had a sauce that would represent them in a school-wide Sauce-Off.

On the day of the Sauce-Off, a table was set up in the cafeteria complete with samples and ballots and nearly 300 samples of fish with the different sauces were distributed. While all of the sauces were well-received, the 7th grade Rosemary Tropical Dash Sauce earned the most votes and made its way onto the May menu for the district. Participating students not only learned about the science and engineering behind recipe development, they also saw that their opinions matter and that they have the power to help shape their school food environment.

Credit: CitySprouts, <http://citysprouts.org/vassal-lane-fish-sauce-off>



## CLASSROOM AND CURRICULAR CONNECTIONS

Engaging students in the classroom while making the connection to the cafeteria can go a long way to increase acceptance of seafood on the cafeteria menu. Science lessons including the impacts of climate change on the Gulf of Maine, economic lessons on the importance of the seafood industry in the Northeast, maritime history lessons, and nutrition lessons on the health benefits of seafood can make the connection between the cafeteria and the classroom. See below for classroom and curriculum supports including professional development opportunities for teachers interested in expanding their tools for ocean education.

### **MAINE AGRICULTURE IN THE CLASSROOM**

Searchable lesson database by content area, grade, and other criteria. E-newsletter available.

<http://www.maineagintheclassroom.org>

### **NEW ENGLAND AQUARIUM**

Teacher Resource Center located at the New England Aquarium offers workshops, educator-only events, contests and activities for students, and funding opportunities. Teaching materials, curriculum guides, theme-based kits, and biofacts available by loan as well as downloadable classroom activities. E-newsletter available.

<http://www.neaq.org/learn/for-teachers/>

### **UNIVERSITY OF MAINE AQUACULTURE EDUCATION NETWORK**

A place to find and share vetted aquaculture education materials and resources created for and by educators and organizations from Maine and beyond. Listserv available.

<https://umaine.edu/aquaculture/education-outreach/aquaculture-educators-network/>

### **MASSACHUSETTS MARINE EDUCATORS**

Educational resources and classroom activities for marine environmental education, STEM education, ocean literacy standards, and other topics as well as opportunities for educators, K-12 students, and undergraduate and graduate students. E-newsletter available.

<http://ma-marine-ed.org/>

### **GULF OF MAINE RESEARCH INSTITUTE**

The Gulf of Maine Research Institute catalyzes solutions to the complex challenges of ocean stewardship and economic growth in the Gulf of Maine bioregion. Classroom lessons and educator professional development. E-newsletter available.

<http://gmri.org/resources/education-resources>

**STUDENT ENROLLMENT: 680**

**FREE & REDUCED LUNCH RATE: 49%**

**NATIONAL SCHOOL LUNCH PROGRAM PARTICIPATION RATE: 49%**

**DAILY MEALS SERVED: 655**

**NUMBER OF TIMES/MONTH SEAFOOD IS FEATURED: 1**

### PROGRAM OVERVIEW

In the 2013-2014 school year, the Seabrook School District began implementing a new initiative that would strive to source local seafood for students. The program goals were to help the local economy, provide healthier meat alternatives, and give students the educational background about the benefits of locally sourcing their food.

### HOW THE PROGRAM WORKS

Seabrook staff began by working with students to learn that redfish, haddock, and flounder were cafeteria favorites for students and that their Kindergarten was enjoying a new fish stick finger food, that met National School Lunch Program nutrition requirements.

Over the past two school years, the initiative has proved to be successful with their students. The school is offering one seafood meal per month and is working with vendors such as the Yankee Fisherman's Cooperative and Fish George and the Fillet. They source between 80 and 100 lbs of local seafood each month. Staff, students, and parents appreciate that the product is local, sustainable, fresh, and helping the local economy. Yankee Fisherman's Cooperative, a team of sixty members located in Seabrook Harbor, NH, provides the freshest fish because they operate dayboats. These boats bring in their fresh catches on a daily basis, rather than holding fish for several days at sea.

The sea to school program is strengthened by involving the fishermen in promotion efforts. The local fishmonger visited the school for an educational and interactive presentation for the students. He showed students whole, uncooked fish and they were able to hold and inspect the fish as they learned about different species. The program was successful and they hope to grow it by introducing cooking and nutrition classes that will help to show students the variety of ways to prepare different of species in different recipes.

### LESSONS LEARNED

Including fishermen in promotion efforts helps encourage students to try new seafood dishes. Invite your fishmonger to help carry out educational activities with the children about the species you are serving.

Note: Much of this case study was first reported by Farm to Institution New England. Visit <http://www.farmtoinstitution.org/blog/seafood-case-study-series-just-released> to read this and other seafood case studies.

**STUDENT ENROLLMENT: 550**

**FREE & REDUCED LUNCH RATE: 12%**

**NATIONAL SCHOOL LUNCH PROGRAM PARTICIPATION RATE: 30%**

**DAILY MEALS SERVED: 441**

**NUMBER OF TIMES/MONTH SEAFOOD IS FEATURED: 3**

### PROGRAM OVERVIEW

In the fall of 2016, Yarmouth, ME High School freshmen participated in the school's first Sea to School project - a collaboration between the Health Science class and the school cafeteria in an effort to improve the school's ability to be a community education resource with the goal of increasing food systems knowledge and understanding. Due to the district's proximity to the Gulf of Maine, the Gulf of Maine Research Institute (GMRI), and fishing industry in nearby Portland, Health Science teacher, Sandy Thomas, designed a 5-day nutrition unit that explored the subject of fish and sustainable fisheries. Kyle Foley, Seafood Brand Manager at GMRI, and Blair Currier, Nutrition Director for the Yarmouth School Department, worked collaboratively with Mrs. Thomas to develop the program.

### PROGRAM DETAILS

At the start of the 5-day unit, a group of 10-20 students visited GMRI to learn about the work done there, which includes research to better understand the Gulf of Maine ecosystem; providing tools, information, and training for the fishing industry; and engaging consumers about responsibly harvested, abundant, and underutilized fish species. Students left with the understanding that eating a more diverse range of fish which is available in the Gulf of Maine is good for fishermen's businesses, good for the ecosystem, and good for our health.

Towards the end of the unit, Mr. Currier took on the role of visiting chef and brought cooking elements and ingredients to the classroom to create a recipe using pollock. Students prepared one of three different recipes: fish sandwich, fish tacos, or braised fish served with rice and topped with fresh lemon and parsley. While half of the class prepared taster sized portions for the class, the other half put together a presentation to be served to another test group class who did not participate in the project. The test group was comprised of upperclassmen who heard from the students about what they learned at GMRI along with some nutrition information and then samples were distributed. The test group completed an online survey about their preference for the various recipes and Mr. Currier used the information to shape the school menu.

The recipe that was the most popular would be the first featured on the lunch menu. With enough interest from the full student body, the recipe could become a recurring menu item. At project completion, seven small groups of 10-20 freshman participated in the unit. An additional 10-15 upperclassmen were given the opportunity to taste and vote on the student created recipes.

*Results on following page*

## CASE STUDIES - RESULTS: YARMOUTH HIGH SCHOOL

Menu Item	Not Good	Good	Awesome
Fish Sandwich (50)	9%	64%	27%
Fish Taco	24%	69%	7%
Sauteed Fish	23%	71%	6%

Based on survey results, the fish sandwich was the most popular item which was then featured as a regular menu item the following month. The first day fish sandwiches were featured as a regular menu item, 188 total lunches were served and 40 students (21%) chose the fish sandwich. Most importantly, overall participation did not go down, which typically happens on fish day. At \$5.00 per pound, cost is still a barrier.

### LESSONS LEARNED

Evaluation is an important part of building student buy-in for sea to school efforts. It is important to make sure the survey methods are well thought through. In this project, for every class that cooked, made samples, presented, and taste tested, there were different people collecting the survey data. It was difficult to track down all the data and ultimately, some of it was not included.



Pictures provided by the Yarmouth School Department



## APPENDIX A: LOCAL SEAFOOD SUPPLIERS & RESOURCES

### SEAFOOD SUPPLIERS SELLING LOCAL SEAFOOD TO NEW ENGLAND SCHOOLS\*

Cape Ann Fresh Catch <http://www.capeannfreshcatch.org>  
Dennis Paper & Foods <http://www.dennisexpress.com>  
Dole and Bailey <http://www.doleandbailey.com>  
Fish George and the Fillet Seafoods  
Harbor Fish Market <http://www.harborfish.com>  
Ipswich Shellfish  
North Coast Seafood  
Maine Fresh Sea Farms <http://maineseafarms.com>  
Maine Shellfish  
Ocean Approved <http://www.oceanapproved.com>  
Performance Foodservice Northcenter <https://performancefoodservice.com/NorthCenter.aspx>  
PJ Merrill Seafood <http://www.pjmerrillseafood.com>  
Red's Best <http://www.redsbest.com>  
Seaport Fish <http://www.seaportfish.com>  
Sysco Boston (delivering Red's Best product) <http://www.syscobostonllc.com>

\*Note: This is not intended as a complete list. It only reflects the businesses that surveyed schools reported purchasing from or that the authors have worked with directly.

### REGIONAL SEAFOOD ORGANIZATIONS AND RESEARCH RESOURCES

**Northwest Atlantic Marine Alliance** <http://www.namanet.org>

NAMA is a fishermen-led organization building a broad movement toward healthy fisheries and fishing communities.

**Local Catch** <http://www.localcatch.org>

LocalCatch.org is a community-of-practice that is made up of fisherman, organizers, researchers, and consumers from across North America that are committed to providing local, healthful, low-impact, and economy sustainable seafood via community supported fisheries (CSFs) and other direct marketing arrangements.

**Sea Grant** <http://seagrants.noaa.gov>

Sea Grant's mission is to enhance the practical use and conservation of coastal, marine and Great Lakes resources in order to create a sustainable economy and environment. A network of 33 Sea Grant programs in the coastal US States and territories carries out this mission through research, extension and education activities.

- New Hampshire Sea Grant <https://seagrants.unh.edu>
- Massachusetts Sea Grant <http://web.mit.edu/seagrants> and <http://www.whoi.edu/seagrants>
- Maine Sea Grant <http://www.seagrants.umaine.edu>

## APPENDIX B: BLUEBERRY KELP SMOOTHIE

**Yield:** 20, 8 oz portions

**Source:** Yarmouth School Nutrition Program, Yarmouth, ME

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### *Ingredients*

10 medium 3" diameter raw apples with skin

10 raw bananas, peeled

1 qt plus 1 c orange juice chilled

1 qt frozen wild blueberries, IQF

8 cubes\* frozen kelp seaweed, raw

*\*Frozen kelp cubes available at Ocean Approved [www.oceanapproved.com](http://www.oceanapproved.com)*

### *Directions*

Add all ingredients to a blender and puree.

Hold for cold service at 41°F or lower.

## APPENDIX B: BLACKENED ACADIAN REDFISH

**Yield:** 160, 4oz portions

**Source:** Seabrook School District, New Hampshire

### Cajun Seasoning

#### Ingredients

- 4 teaspoons ground paprika
- 4 teaspoons dried leaf thyme
- 2 tablespoon granulated sugar
- 4 teaspoons salt
- 4 teaspoons black pepper
- 1 teaspoon ground cayenne pepper
- 2 teaspoon dried leaf oregano
- 1 teaspoon ground cumin
- 1 teaspoon ground nutmeg
- 4 teaspoons onion powder
- 4 teaspoons garlic powder

#### Directions

- Mix dry ingredients in bowl.

### Fish

#### Ingredients:

40 pounds of 4 oz Redfish, Flounder, or Haddock Filets

#### Directions:

- Brush 2 inch full size hotel pans with clarified butter.
- Roll the fish filets into roulades and place closely together in hotel pan.
- Brush the tops of fish roulades with clarified butter and then sprinkle Cajun seasoning on them.
- Cover the pans with foil and batch cook them in the oven at 350°F for 7 to 8 minutes or until cooked through but not dry.
- Uncover the hotels pans and garnish each fish roulade with a fresh lemon wedge and sprig parsley.

### Clarified Butter or Butter Blend

#### Ingredients

1 pound butter or butter blend

#### Directions

- Slowly heat butter/butter blend in sauce pan over low heat.
- Remove white impurities from the top of the liquid as it melts with a spoon or ladle and dispose of it.
- Remove impurities until you have a golden clear liquid.
- Remove from heat and do not burn.

## APPENDIX B: CRUMB BAKED HADDOCK

**Yield:** 160, 4oz portions

**Source:** Seabrook School District, New Hampshire

### Buttery Crumb Topping

#### Ingredients

2 Pounds Butter Crackers

*(Crumb in Processor, you can also do this by rubbing crackers between your hands.*

*Note: Do not blend crackers into dust, best when a little chunky.)*

1 Pound Panko Bread Crumbs

1 Cup Grated Parmesan Cheese

4 T Garlic Powder

1 t White Ground Pepper

2 T Smoked Paprika

4 T Italian Seasoning

1 Cup Chopped Italian Parsley

#### Directions

- Mix dry ingredients in bowl.

### Fish

#### Ingredients

40 pounds of 4 oz Haddock Filets

#### Directions

- Brush 2 inch full size hotel pans with clarified butter.
- Roll the fish filets into roulades and place closely together in hotel pan.
- Encrust the tops of the filets with 2TB of buttery crumb topping.
- Add 1/2 cup water and lemon juice to the bottom of the pan, 1:1 ratio for moisture
- Bake at 350°F for 15-20 minutes.
- Garnish with lemon wedge and fresh parsley.

### Clarified Butter or Butter Blend

#### Ingredients

2 pounds butter or butter blend

#### Directions

- Slowly heat butter/butter blend in sauce pan over low heat.
- Remove white impurities from the top of the liquid as it melts with a spoon or ladle and dispose of it.
- Remove impurities until you have a golden clear liquid.
- Remove from heat and do not burn.



## APPENDIX B: MOZZARELLA CRUSTED POLLOCK

**Yield:** 100, 2.6 oz portions, Meat/Alt: 2oz

**Nutrient Analysis:**

<https://sde.idaho.gov/cnp/hne/chef-recipes/files/lunch/mozzarella-pollock/Mozzarella-Crusted-Pollock-Grades-K-12.PDF>

**Source:** Adapted from Idaho Child Nutrition Programs

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### *Ingredients*

¼ lb onions, spring or scallions (incl. tops & bulb)  
1 lb mozzarella, shredded low-moisture part-skim  
2 ½ c reduced calorie mayonnaise  
1 ¼ T garlic powder  
2 T dried oregano  
2 T dried basil  
½ T salt  
½ T pepper  
18 lbs pollock

### *Directions*

- Preheat ovens Conventional 425°F; Convection 375°F.
- Chop green onions.
- Shred mozzarella.
- Prepare mozzarella topping in a mixer, using the paddle attachment, mix mayonnaise, onions, mozzarella, garlic powder, oregano, basil, salt, and pepper.  
*Tip: Sauce is best if made one day ahead of time. Store in refrigerator.*
- Prepare fish: Spread 1 ¼ T of mozzarella topping across the top of pollock.
- Bake fish:
  1. Place parchment paper on a shallow, metal baking sheet.
  2. Place fish portions on pan, leaving space between pieces.
  3. Conventional oven: bake at 425°F for 20-25 mins  
Convection oven: bake at 375°F for 15-20 min
  4. Fish is done when it flakes apart easily and internal temperature reaches 155°F.

## APPENDIX B: FISH TACOS

**Yield:** 100 servings, 2 oz seafood

**Nutrient Analysis:** Available at: <https://sde.idaho.gov/cnp/hne/chef-recipes/files/lunch/fish-tacos/Fish-Tacos-Grades-K-8.PDF>

**Source:** Adapted from Idaho Child Nutrition Programs

### Taco Filling

#### Ingredients

- 2 lb shredded raw green cabbage
- 2¼ lb shredded raw purple cabbage
- 10 2" limes
- 13¼ lb tomatoes
- 1 2/3 lb green onion

#### Directions

- Toss shredded cabbages together in a large bowl.
- Slice each lime into 10 slices.
- Dice tomatoes.
- Slice green onion.

### Tortillas

100 tortillas

#### Directions

- Place a piece of parchment paper in a deep steam table pan.
- Wet two paper towels with water and make into a ball.
- Place paper towel ball underneath the parchment paper in a corner of the steam table pan.
- Place tortillas in the steam table pan by staggering them on top of each other in groups of 12-15.
- Cover the pan with foil, place in warmer, and heat for 2 hours.

#### Directions

- To assemble dish, in each tortilla, add 2 oz portion of fish, ¼ c cabbage mix, ¼ c diced tomatoes, 1 T sliced onion, and 1¾ T sauce.
- Garnish with 1 lime slice and 1 T salsa.
- Serve 1 taco.

### Salsa

#### Ingredients

- ½ #10 can low-sodium salsa

### Fish

#### Ingredients

- 15 lbs locally caught white fish such as redfish or pollock

#### Directions

- Bake fish portions.
- Fish is done when it flakes apart easily and internal temperature reaches 155°F.

### Fish Sauce

#### Ingredients

- 1 qt plain low-fat yogurt (12 g protein per 8 oz)
- 1 qt reduced calorie mayonnaise
- ½ c lime juice, unsweetened
- 2 c canned green chili peppers, drained
- 2½ T ground cumin
- 2½ T dried oregano leaves
- 2½ T garlic powder
- 1 T salt

#### Directions

- In a large bowl or mixer, mix yogurt, mayonnaise, lime juice, green chilies, cumin, oregano, garlic powder, and salt.

*Tip: For best flavor, make sauce one day ahead and store in refrigerator.*