



Seize the Opportunity with Responsibly Harvested Regional Seafood

Kyle Foley
Sustainable Seafood Program Manager
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**Gulf of Maine
Research Institute**

Science. Education. Community.



Science – Education – Community

Ecological and Economic Sustainability



Ocean Planet



Covers 70%
of the Globe

Home to 80%
Of all Life

40% of all People
Live within 60 Miles of the
Coast

Seafood: Good for Our Health

USDA / HHS Dietary Guidelines: **eat fish 2x/week**

→ Only 1 in 10 Americans follow that advice

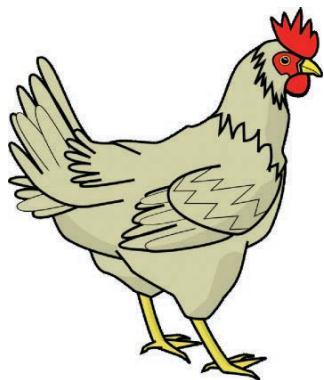
1-2 servings fatty fish (rich in omega-3s) per week

→ *36% reduction in risk of death by heart disease*

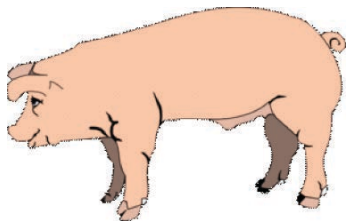
(Mozaffarian & Rimm, 2006)



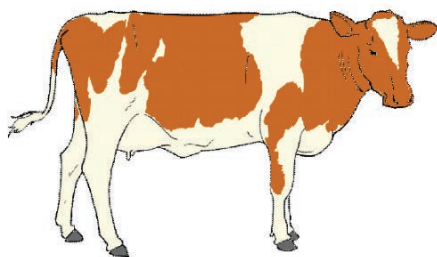
US Animal Protein Consumption



92 lbs per person per year



50 lbs per person per year



54 lbs per person per year



15 lbs per person per year
(ALL types of seafood)

What about the risks?

90% Seafood eaten in the U.S. is low in mercury,² considered “safe options” by the FDA/EPA advisory, which contains a **1,000% Safety Factor**.



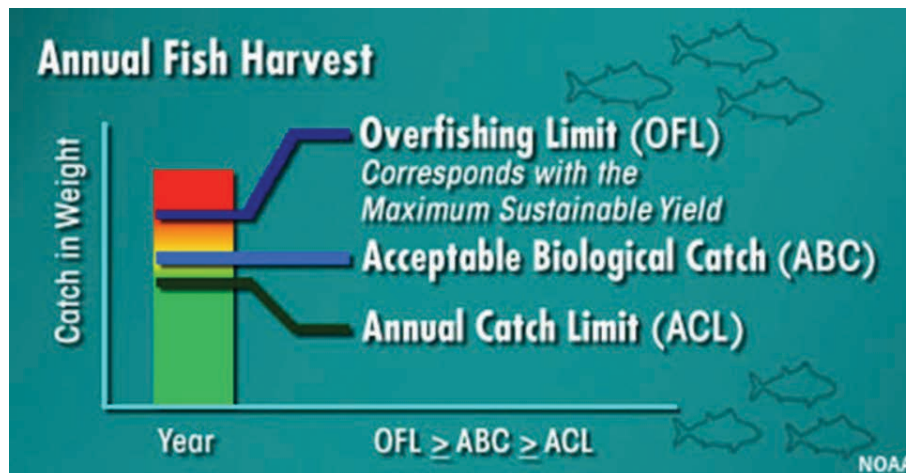
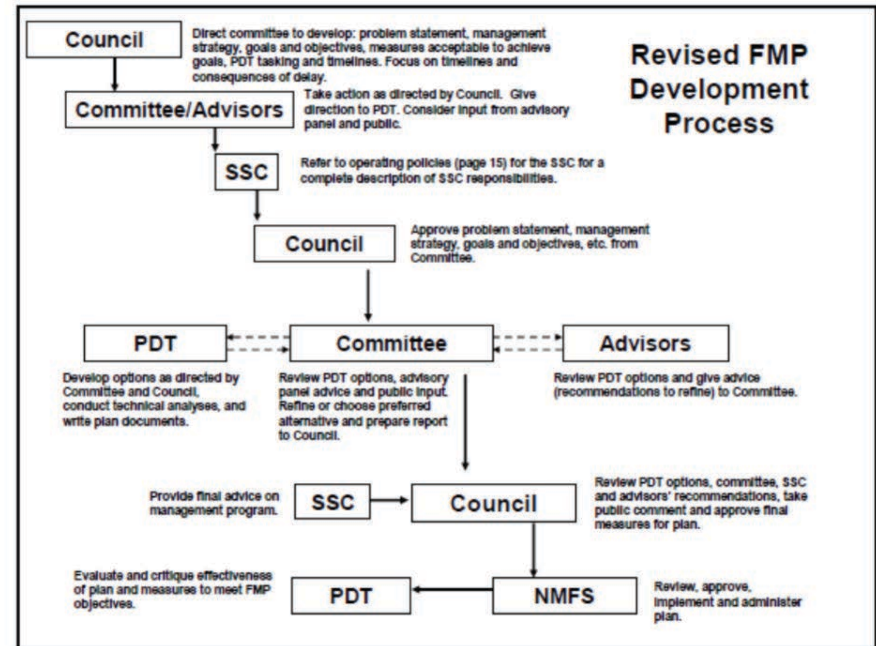
Top consumed seafood species in the US	Weekly upper limit before risk ³
1. Shrimp	1,784 oz (111.5 lbs)
2. Salmon	853 oz (53 lbs)
3. Canned Tuna - Skipjack (Light)	164 oz (10 lbs)
4. Canned Tuna - Albacore (White)	56 oz (3.5 lbs)
5. Tilapia	1,509 oz (94 lbs)
6. Farmed Catfish, Pangasius, Swai, Basa	1,154 oz (72 lbs)
7. Alaska Pollock	530 oz (33 lbs)
8. Cod	223 oz (14 lbs)
9. Crab	311 oz (19 lbs)
10. Clams	853 oz (53 lbs)

Seafood Nutrition Partnership / FDA

→ Important to eat a variety of seafood

Seafood: Good Environmental Choice

- What species
- Quantity (pounds)
- Where to go fishing
- When to go fishing
- How to fish



Seafood: Good for the Economy



Value of agricultural
products in Ma
2012: \$762

Lobster in Maine:
\$538M value in 2016



Photo by Joachim S. Miller



Value of agricultural
products in Mass in
2012: \$492M

Scallops in New Bedford, MA:
\$327M value in 2016

*Cod, flounders, haddock, hake, pollock, and redfish
combined → \$55M value in all of New England*

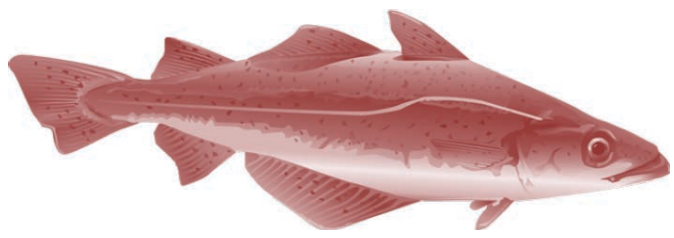
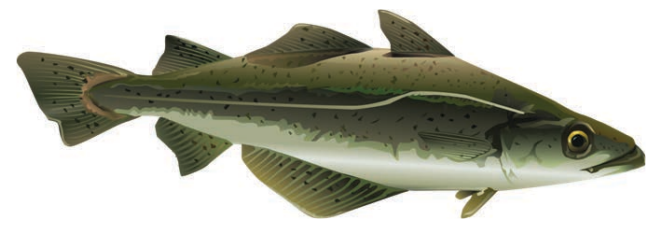
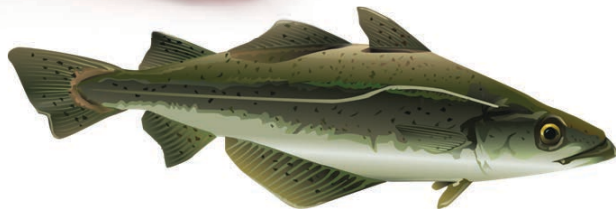
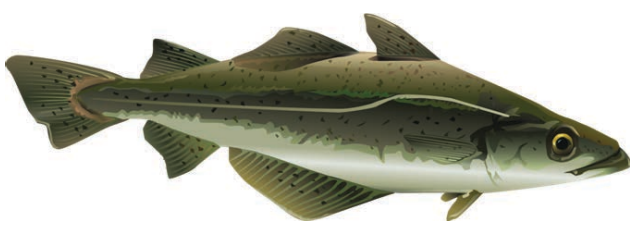
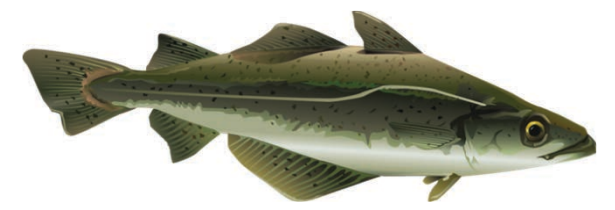
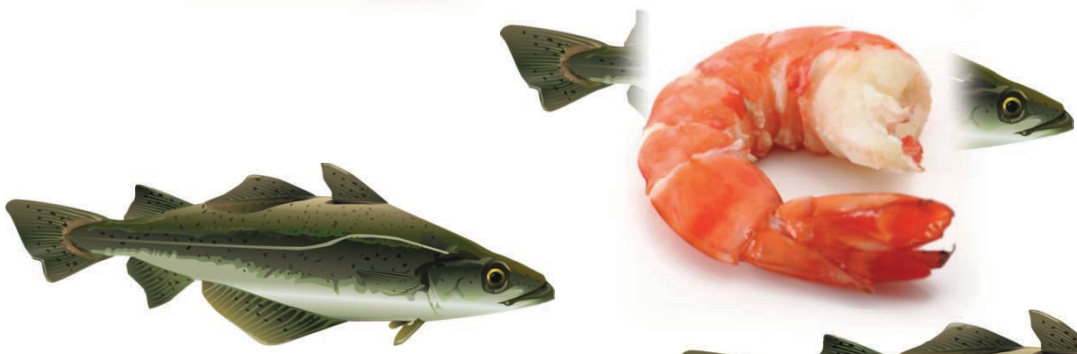
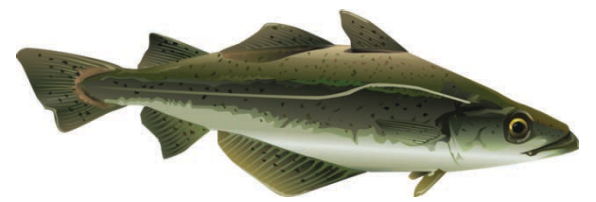


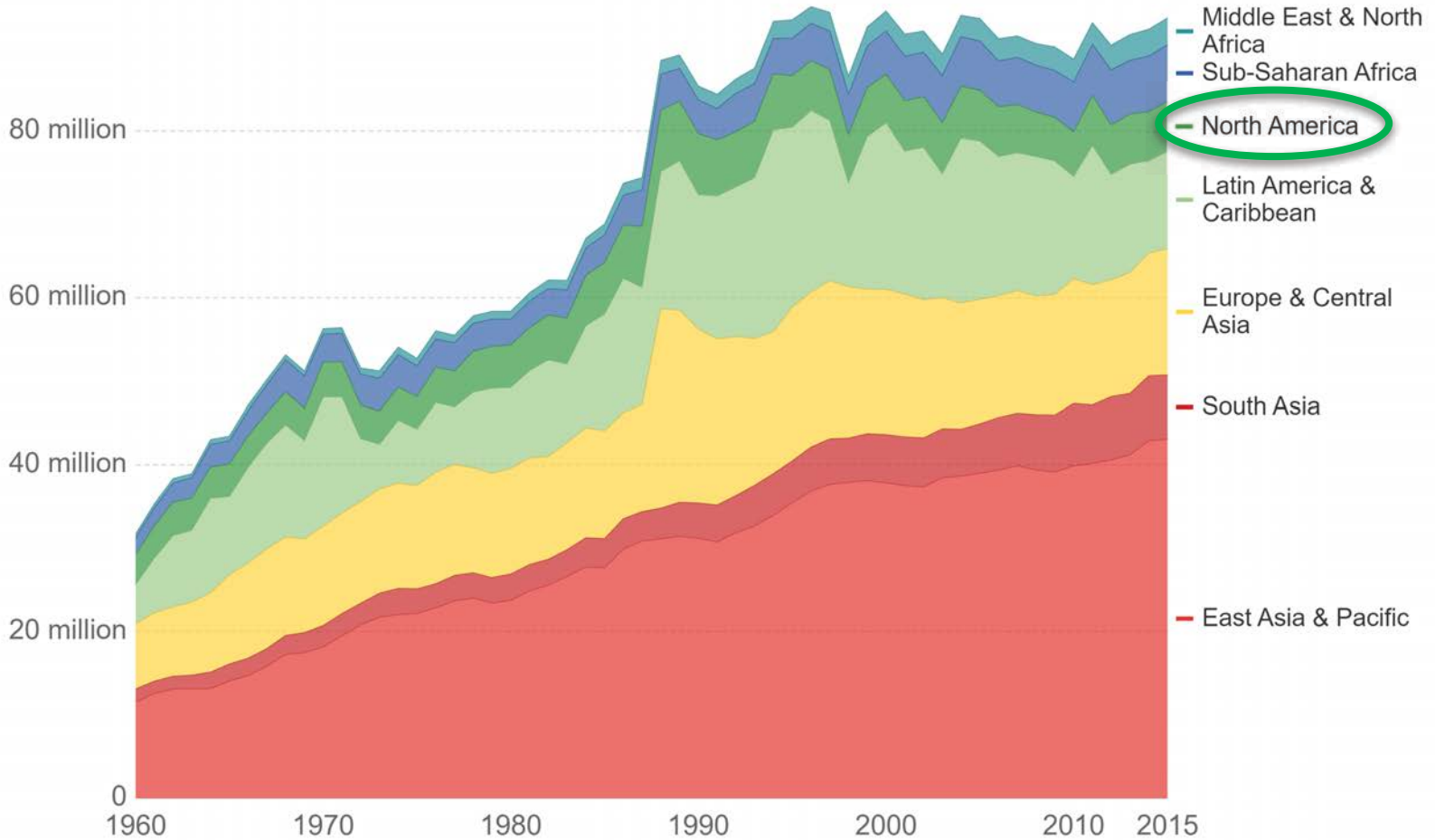


Photo: Lobstertrail.com

Global Seafood Production

Capture fishery production

Capture (wild) fishery production, measured in metric tons per year.



Source: World Bank – WDI

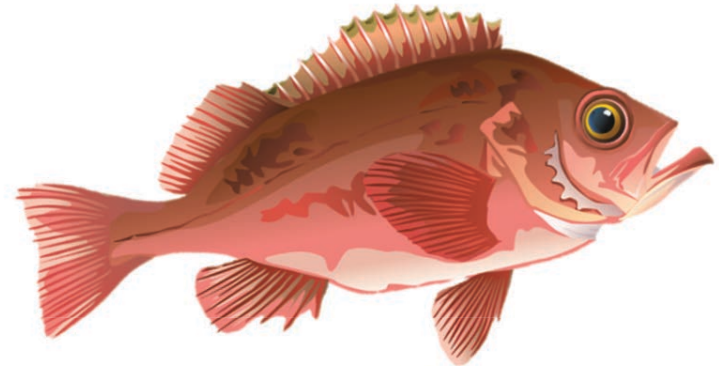
OurWorldInData.org/meat-and-seafood-production-consumption/ • CC BY-SA

The Four Favorites



Opportunity: Underutilized Fish

- Low value to fishermen
- Untapped allowable catch
- Well regulated
- Delicious!



Mackerel



26%



Pollock



21%



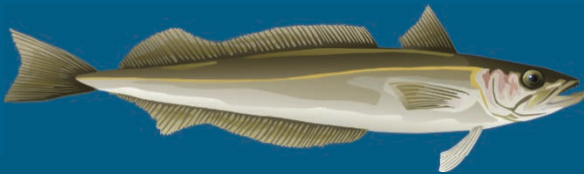
Redfish



48%



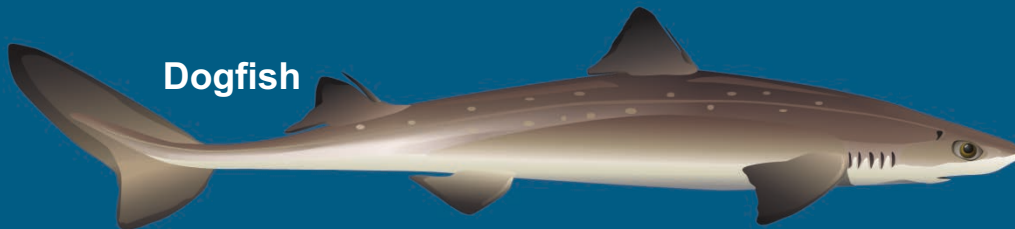
Whiting



11%



Dogfish



40%



Potential: \$310 Million

\$24.2 Million

Gulf of Maine Responsibly Harvested

- Place-based cooperative branding
- Criteria around sustainability and traceability



Gulf of Maine Responsibly Harvested Region

We work directly with
seafood suppliers
around the region...





Gulf of Maine Responsibly Harvested Affiliates

Bowdoin



**UMASS
AMHERST**



Phillips Exeter Academy



Triple Impact

- Introduce a new generation to a range of local seafood
- Create immediate increase in demand
- Provide customers with a healthy local protein option



Commitments to Gulf of Maine Seafood



- **Sodexo** committed to 100% *Gulf of Maine Responsibly Harvested* white fish in Maine accounts by 2020.
- **Sysco Northern New England** committed to increasing *Gulf of Maine Responsibly Harvested* seafood by 10% this year.
- **20+ institutions** buying *Gulf of Maine Responsibly Harvested* seafood in Maine, NH, and Massachusetts.

What can YOU do?

- Eat/serve more seafood
- Choose a wider variety of seafood
- Ask questions, and ask for local
- www.gmri.org/seafood





Thank You!

Kyle Foley
Sustainable Seafood Program Manager
kfoley@gmri.org
@gmriseafood





New Bedford: A **Working** Waterfront

Once the whaling capital of the world...



Today, New Bedford is
America's #1 fishing port



Commercial fishing in popular culture:

Gloucester, Massachusetts is the nation's oldest fishing port, made famous by the book and later the movie, "The Perfect Storm".



Discovery Channel's *Deadliest Catch* brought the Bering Sea crab fishery into many living rooms.

New Bedford is the highest dollar value port in the U.S.

- Today, this value is driven by the sea scallop fishery. Currently, scallops are selling for roughly \$12/lb at auction.
- As smaller ports have lost infrastructure, New Bedford has become a hub port.
- Shoreside businesses service boats that come from Maine to Virginia.

Our Commercial Fishing Industry

- The Northeast fishery employs approximately **15,000** (5,000 locally) in a combination of shoreside and at sea work
- Commercial fishing contributes **\$5.5 billion** to the nation's economy, and over **\$1 billion** to our regional economy
- 142 vessels landed their catch in our port in 2017 making our port #11 in the country for volume of catch

A diverse community - Our fishing families trace their roots to:

- Portugal and the Azores
- Norway
- Newfoundland & Nova Scotia
- Ireland, England, and Scotland
- Poland & Latvia
- Cape Verde
- Vietnam
- Mexico & Central America



A performance of Portuguese *fado* music

Fishing is often a family affair with skills and knowledge passed down from one generation to the next



The Avila family has six generations of fishermen



Reidar Bendiksen fished for 30 years before coming ashore to open a gear shop which he runs today with his wife Kirsten and sons Tor and Hans

Shoreside businesses

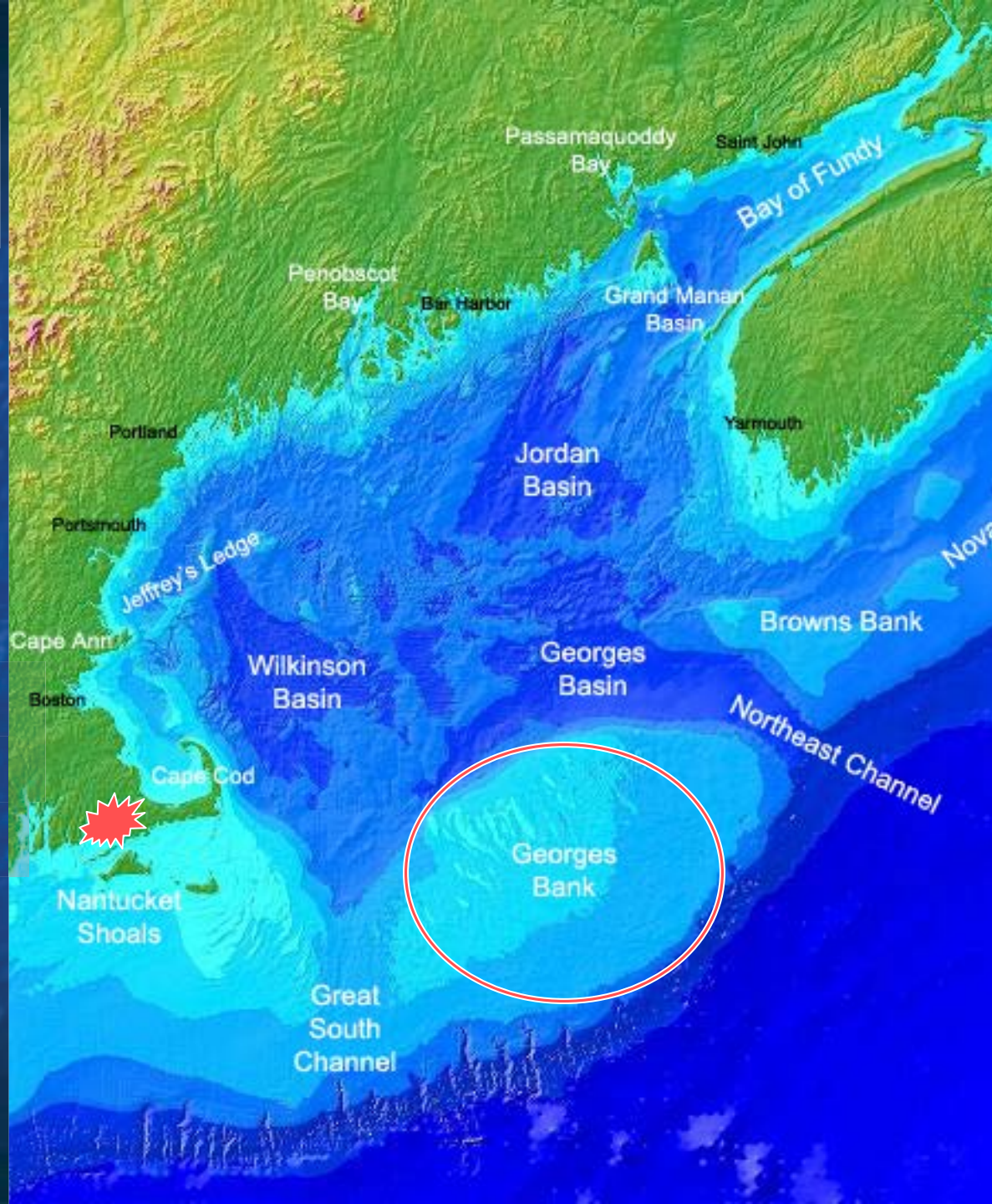
Many shore side businesses support the fishing industry

Ice
Fuel
Provisions
Gear
Repairs
Ship yard
Auction
Settlement Houses
Insurance Agencies
Lawyers
Banks
Supermarkets



Most New Bedford boats fish on ***Georges Bank*** (about 200 miles off-shore)

Boats may be out to sea for anywhere from five to sixteen days.



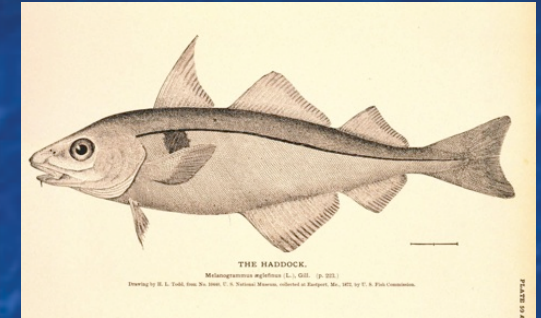
What they catch



Red Crab



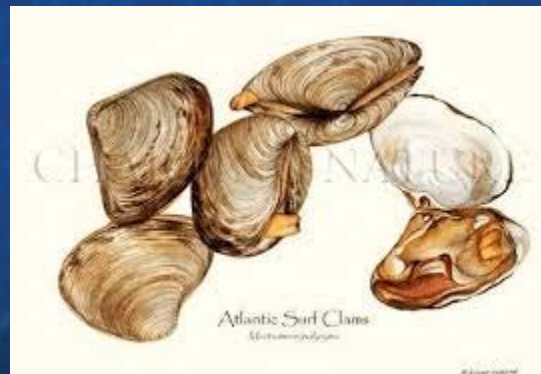
Sea Scallops



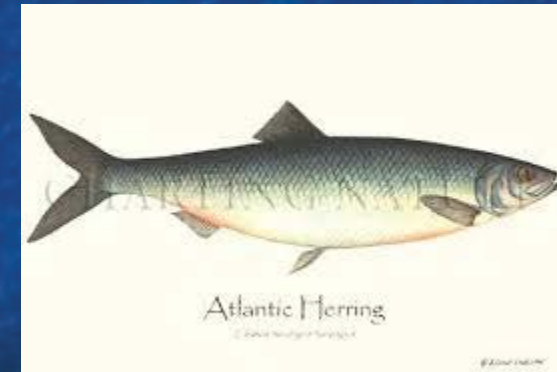
Groundfish: cod, haddock, flounder, etc.



Lobster



Surf Clams



Herring

Once a vessel returns to port, seafood is offloaded by lumpers, sold at auction and processed in shoreside facilities



Fishermen are paid with a share system.

Settlement houses do the bookkeeping for the boat.

They take the money from the auction, pay off the bills (fuel, ice, and grub) and then divide the remainder among boat owner, captain and crew.



Commercial Fishing is one of the nation's most dangerous jobs

- Fishermen are 10 times more likely to die on the job than police officers
- New England's waters are the most dangerous in the country
- The loss of the F/V Northern Edge in December of 2004 prompted a renewed focus on safety at sea. Many fishermen now participate in safety training programs.



This is a survival suit.

Fishermen are Conservationists

- Many fishermen work with scientists to insure a strong, healthy resource.
- **Cooperative research** values the fishermen's skills and knowledge equally with those of the scientists.
- Working together, fishermen and scientists monitor stocks and develop new gear to sustain the resource.

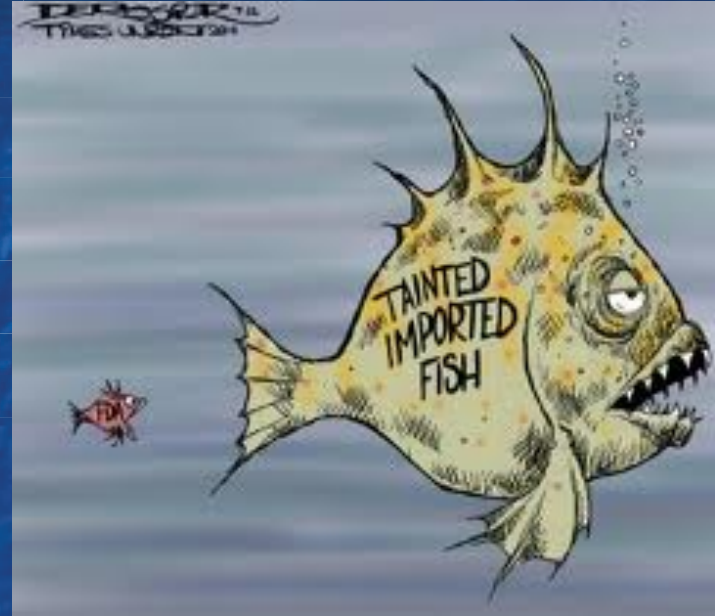


Eat fresh, domestic seafood

On average, Americans eat about 15 pounds of seafood per year.

Currently, **the US imports 80% of its seafood**, much of which comes from countries which do not practice sustainable harvesting methods, do not have fair labor practices and do not monitor food safety.

A 2014 study found as much as 30% of wild fish imports are caught illegally in the country of origin.



Less than 1% of imported seafood is inspected, and of that 60% is rejected for toxins.

Abundant, Underutilized, & Tasty!

As consumers, by choosing abundant, local, underutilized fish and shellfish, we can help to build a market and sustain the resource.





www.fishingheritagecenter.org

The background features a gradient of blue shades. In the upper half, there are stylized white outlines of ocean waves. In the lower half, there are white silhouettes of several fish swimming towards the right. A solid black rectangular box is positioned in the lower-left corner, containing white text.

Sourcing Local, Sustainable Fish

UMass Dartmouth – Executive Chef Kevin Gibbons,
Nancy Wiseman, Kirby Roberts



Monkfish

SPECIES: LOPHIUS AMERICANUS

- 4.5 feet long
- Males live up to 7 years
- Females live up to 15 years
- Bottom Dweller
- Distinctive for their huge mouth and head
- Re-owned for their tail meat



Red's Best
sampling

Species
Range





Monkfish

Recipe

- One large red pepper, large dice
- One large green pepper, large dice
- One large Spanish onion, large dice
- Three plum tomato, large dice
- One can San-Marzano tomatoes
- Two Yukon gold potato, medium dice
- Two cloves garlic minced
- Two carrots, medium dice
- One pound of chorizo, large dice
- Two pounds of monk fish, large chunk
- Two tablespoons of olive oil
- Salt and pepper
- Portuguese seasoning
- One quart of homemade fish stock or fish base
 - Three pounds of fish bones
 - Two stalks of celery, medium dice

- One stalk of leek, clean well and diced
- One bulb of fennel, medium dice
- One bunch fresh parsley stems, one bunch of fresh thyme

Combine all ingredients and simmer for one hour, strain

- Add olive oil to a hot heavy bottom pan, add potato and carrot for 3 minutes stirring, then add peppers, onions, season with salt, pepper and Portuguese seasoning. When stew becomes fragrant, add garlic, tomato, San Marzano tomatoes and chorizo, stir, then add stock to cover and simmer. When potato is almost done, add monkfish, season and cook until fish is done.

Optional:

- Clams and mussels can be added. Add enough fish stock to cover the bottom of the pan. Tent with foil until they steam open.



THE NEW ENGLAND
FOOD VISION PRIZE

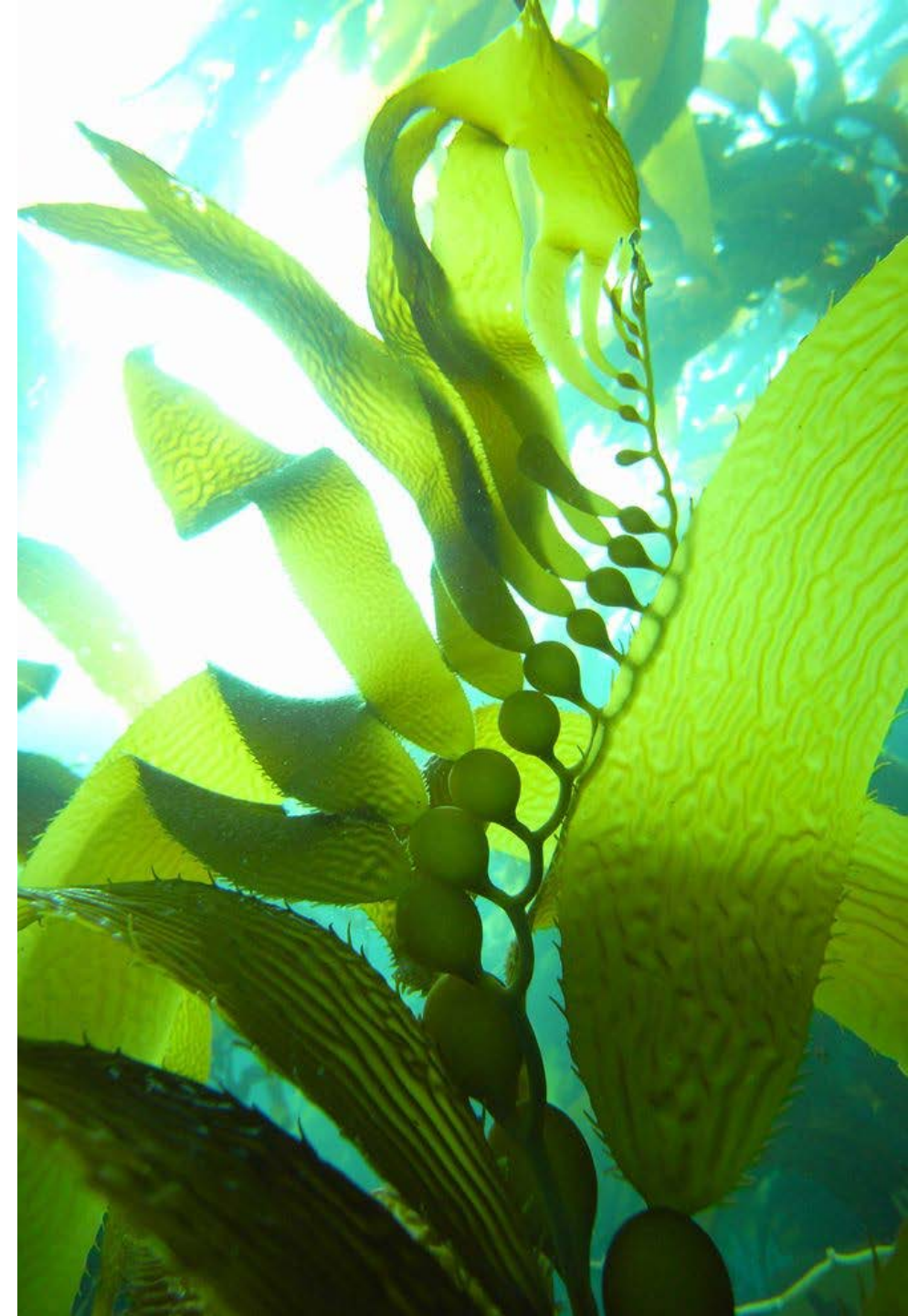
HENRY P. KENDALL FOUNDATION

- Launched by the Henry P. Kendall Foundation, the NE Food Vision Prize is an award of up to \$250,000 that will allow the region's food service leaders at college and university campuses to launch bold and innovative ideas that will positively impact New England's food system. The Foundation will award up to 6 prizes this year.
- Designed to raise awareness of and support for the NE Food Vision, which calls for the capacity to produce at least 50% of clean, fair, just, and accessible food to be grown or produced in the region by 2060.



DINING SERVICES

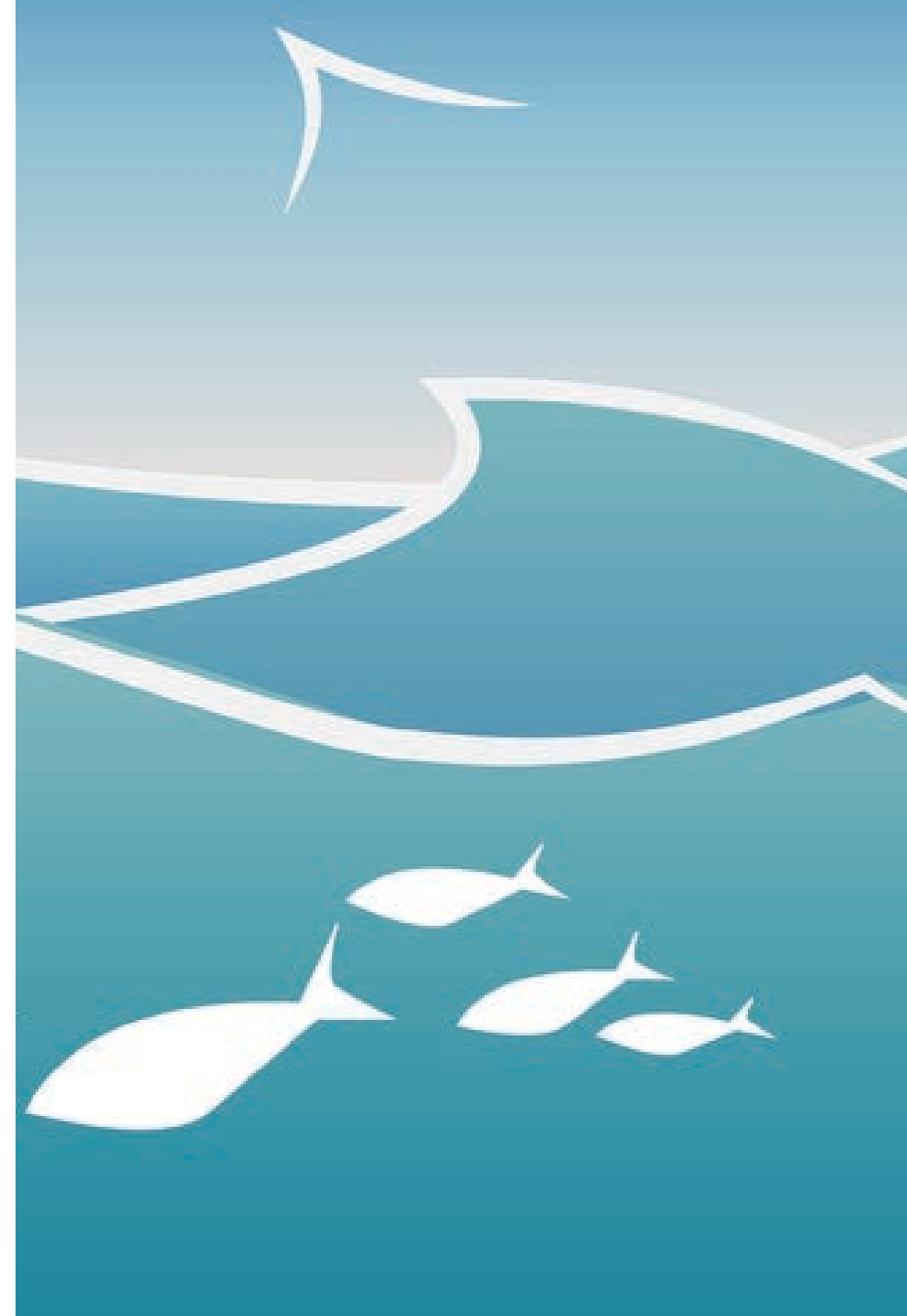
- [University of Massachusetts Dartmouth](#)
- [Northeastern University, Massachusetts Maritime Academy, and Eastern Connecticut State University](#) will join forces with Chartwells, Ipswich Fish, the New Bedford Fishing Heritage Center, Red's Best, Farm Fresh Rhode Island, New Bedford Port Authority, and Buyers & Sellers Seafood Auction (BASE) to improve sourcing and purchasing systems. System changes will allow greater incorporation of traceable local fish on campus menus with an emphasis on underutilized and abundant species. The institutional partners have committed that 75% of all fish served on each campus will be locally sourced.





DINING SERVICES

- [Massachusetts Maritime Academy, University of Massachusetts Dartmouth, Northeastern University, and Eastern Connecticut State University](#) will work with Chartwells, Farm Fresh Rhode Island, Sardilli Produce, and Dole & Bailey to introduce students to the use of kelp in recipes and meals, broadening consumer knowledge, increasing demand for an abundant New England sea vegetable, and expanding the versatility of kelp as a staple ingredient in the dining choices available at these campuses and beyond.



Gen Z

Teens and younger. 27% of the U.S. Population

Gen Z is the first generation to completely grow up in the digital age, so to them there is no question that can be unanswered.

They enjoy the “documentation” of their daily life on social media.
Gen Z relies on Social media to learn what’s available

“Real Food” is the rallying cry of Gen Z shoppers.
They have the highest consumption rate of Organic Foods

Their Parents Seek Life Longevity, the trickle-down is Gen Z is appreciating
They are taught to value food on nutrition and function rather than just taste.

Gen Z was born into a world of “Foodie Culture”

They have a keen understanding of the “purpose of food and how it pertains to a WELL-LIVED LIFE.

Gen Z looks for Big and Bold Flavor Profile. Gen Zr’s are engaged in real life.
Online communities, Yoga, Spinning, animal rescue, volunteering, Civics etc..

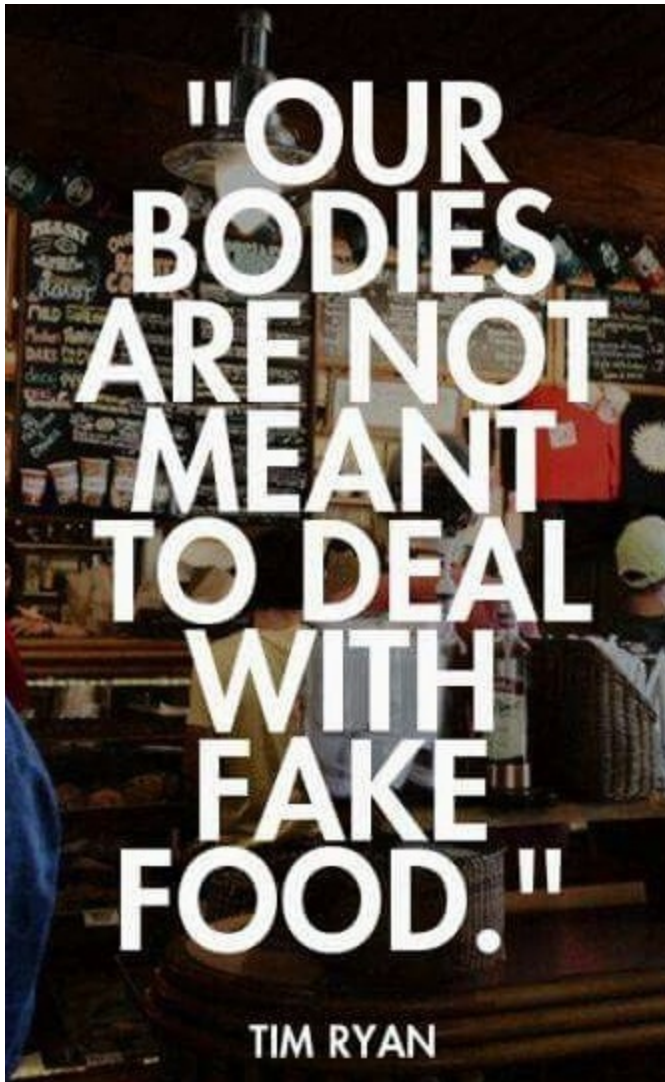
They Seek “Authenticity”.

The world is a Melting-Pot and food allows them to “Celebrate” different cultures.

We have become a nation of “Flavor-Junkies”

.... barely caring whether the base of the dish is chicken, a piece of fish or a hunk of pork.

Buffalo – Teriyaki – Sriracha – Curry – Chili Pepper - Gochujang



What is #trending?

#realfood

#authenticity

#eatlocal

#organic

#celebrateculture

#instayum

What is #NotTrending?

Deli Meats

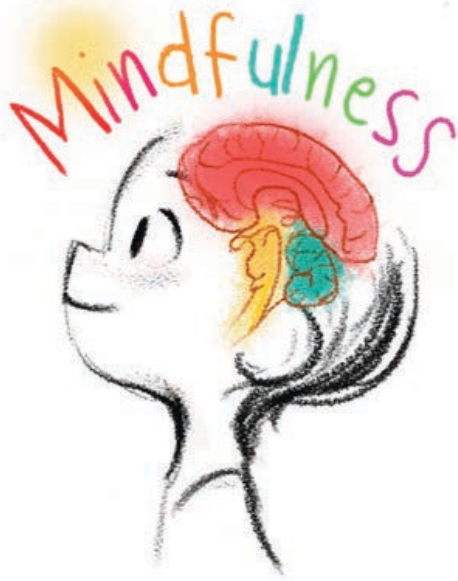
Riblette Patties

Nuggets

Red Meat

Fake Cheese

Hot Dogs



Mindfulness

simply “the quality or state of being conscious or aware” —

Mindfulness reflects a new consumer attitude, mostly led by millennials, to truly understand everything possible about a particular food and then support the mission.

The new leaders of food service are driven by a new set of corporate values:

- social conscience,
- health and wellness,
- enhanced nutrition

Start a Trend in your School

“Transparelocalicious”

which says it all.

Transparent, Local and Delicious.





Cultural Authenticity

Culinary Diversity

Finding your Diamonds in the Rough



NORTH COAST SEAFOODS
SCHOOL FOODSERVICE SEAFOOD PROGRAM



Our Mission To offer all school children the health benefits of adding seafood to your weekly school lunch program. Equip the school's educators with the information to understand how this food source is obtained.



The beauty of Sea to Schools is that it provides a practical solution to a multitude of current global issues. In serving sustainable fish in the Massachusetts and New England schools, we are nourishing our kids and helping them become stronger and better learners, which is just what our future needs. Responsibly harvested fish is the most environmentally sustainable choice. Exposing New England kids to the history, traditions and methods of harvesting the bounty of our sea will help keep local culture and economies alive

1



Fish-in-Chips

- GMRI Certified Sustainable Acadian Redfish - Locally fished from the Gulf of Maine
- Baked from Frozen to your service line in just 14 minutes - No Labor Needed
- Crunchy Potato Chip Breading Kids will love.
- Healthy Protein - Wild Caught Seafood
- Made Locally in Boston @ North Coast Seafoods

2

Coconut Crusted Redfish

- GMRI Responsibly Harvested Acadian Redfish
- Locally fished from the Gulf of Maine
- Baked from Frozen to your service line in just 14 minutes
- No Labor Needed - Crunchy Coconut Breading Kids will love.
- 75% Healthy Protein - Wild Caught Seafood
- Made Locally in Boston @ North Coast Seafoods



3

Mediterranean Salmon Falafel Burger



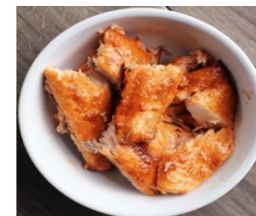
Salmon Falafel— "Salafel"

- Gluten Free!!!
- Made with Sustainable Gulf of Maine Salmon
- Protein Packed - Great Umami Flavors - Healthy Seafood - Clean Label
- Packed in Bulk, portion as you wish
- Made Locally in Boston @ North Coast Seafoods

PLUS

Northern Harvest Salmon

- Highest Rated Salmon Farm in the world—4 Star BAP Rating
- Regionally Farmed from New Brunswick—Processed in Boston Mass.
- Very Affordable Portions—Just \$2.95/lb. Just 19 Cents per ounce
- Non-Processed. Very Healthy Protein
- Easy to work with. Sub any Chicken Recipe with Salmon. Treat Like a Tuna Salad.



Something Fishy You Should Know

There's no slowing down the craze for all things Latin American, but the taco trend has a life of its own.

WILL
WORK
FOR
TACOS

1. Warm Soft Flour Tortilla
2. Creative Slaw Component
3. Crispy Crunchy Fish
4. Hippy Shake Sauce



**Fish Tacos.....
the tastiest export to
come out of Baja
since Cerveza.**

“Cooking is an observation-based process that you can’t do if you’re so completely focused on a recipe.” -Alton Brown

Classic Cole Slaw Base Dressing:

3 cup Mayonnaise, 1 cup sour cream, $\frac{3}{4}$ cup cider vinegar,
1 Tbl. sugar and 2 tsp. kosher salt.

Finely shredded green cabbage and shredded carrots.



Sesame Siam Slaw

- Buffalo - adding Frank’s hot sauce, thinly sliced celery and crumbled blue cheese
- Russian Collusion Slaw - substitute sweet chili sauce for the sour cream and add sweet pickle relish, diced red onion and chopped parsley
- Broccoli-Ranch 1 Qt. buttermilk, 1 cup each mayonnaise and sour cream, $\frac{3}{4}$ cup cider vinegar, 1 Tbl sugar and 2 tsp kosher salt. Toss with broccoli slaw.

Get Jiggy With It

Green Cabbage, Red Cabbage, Scallion, Fennel, Peppers, Broccoli, Kale, Arugula, Cucumber, Pumpkin seeds, Apple, Jicama, Jalapeno, Snow Peas, Butternut squash, Ramen Noodles, Sriracha.....



Something Fishy You Should Know

The Salmon Falafel

“Poppable, craveable, customizable, dippable, build-on-top-able, wrap-able—what’s not to love?”

Middle Eastern culinary influences have made their way west for years, and now 2018 they are mainstream. Falafel, Hummus, Pita and Tzatziki are the tasty entry level points to the Middle Eastern cultures.



As a Burger....
.....or a Pita Taco



Install Your Own Cafeteria “BOWLING LANE”

Bowl-a-Rama

Greens

Kale
Romaine
Iceberg
Spinach

Grains/Beans

Quinoa
Brown Rice
Barley
Chick peas
Black Beans



The Anatomy of A Power Bowl

Protein

Salmon Coconut Redfish
Fish-in-Chips Tofu
Eggs Cheese Seeds Tuna

Veggies

Broccoli
Butternut
Brussel Sprouts
Avocado
Tomato
Beets
Red Onion
Cauliflower
Cucumber
Corn

THE BANH MI FROM THE SEA

86 THE “DELI MEAT” CARCINOGENS

Vietnamese Seafood Banh Mi

In the Mid 1800's Vietnam was part of French Indochina. That's when they were introduced to the Baguette. The rest was downhill.....

Simple Ingredients

Coconut Redfish
Pickled Carrot and Daikon
Cucumber Slices
Jalapeno Slices
Cilantro sprigs
Sriracha Mayo



The Result is a Chef's Pot Pourri of Flavor Profile

The combination of filling and accompaniments pop with layers of flavors ranging from salty, sweet, sour & spicy.



“It’s not nutrition until its eaten”

After all this Healthful – Sustainable – Affordable - Information ...

.....It still comes down to **TASTE**

Taste Trumps Health Every time

So a little creativity is needed.

