**1-2-3 Presentations: Weird Foods**

**Overview**
Each small group will have 25 minutes to read one recent article about our food systems, and create a 1-2-3 Presentation to share with the class. Your presentation should provide a brief overview of your group’s article, and answer the Key Questions below.

**Presentation**
Each presentation should
- Summarize the article and present the key points
- Discuss how the topic of the article relates to each of the Three Pillars of Sustainability
- Provide at least one example of how the topic of the article relates to your life

**Articles**
Group 1: [Invasive species: why not just eat them?](#)
Group 2: [Your post-workout protein shake should be loaded with insects](#)
Group 3: [Ugly fruits and vegetables on the march](#)
Group 4: [The problem with making meat in a factory](#)
Group 5: [As lionfish invade, conservationists say eat up](#)
Group 6: “I am a dumpster diver, and I eat trash”
Group 7: [In search of edible weeds](#)
EARTH (HTTP://NEWS.DISCOVERY.COM/EARTH)

Invasive Species: Why Not Just Eat Them?

JAN 24, 2012 03:00 AM ET

Many invasives aren't an easy sell on the plate -- or fashion runways. But for some animals, that could change.

THE GIST

Hunters could help wipe out troublesome invasive species like the nutria. An obstacle is selling these animals as good food to the public.

Other invasive animals, like the python and feral hog, may be dangerous to eat.

Americans hunted many valuable and delicious animals like the beaver, turkey and bison until they were wiped out in many areas. Yet, fur-bearing and edible invasive species now run rampant, damaging native North American ecosystems.

Why haven't American hunters wiped out the nutria, Burmese python, feral hogs and other non-native outlaw species? It turns out that many non-native species aren't valuable enough or are too hard to catch to easily root out.

Increased demand for invasive species products could overcome those difficulties, for example if more people develop a craving for nutritious meals made from nutria, the large aquatic rodent, or make Everglades python purses the next must-have accessory. But cultural and logistic hurdles remain.

"The problem with the nutria is it looks like a giant rat, but it tastes like a giant rabbit," said Dave Linkhart, a 50-year veteran trapper and director of national and international affairs for the National Trappers Association in an interview with Discovery News from his camp in the backwoods of Louisiana.

Nutria pelts aren't valuable -- only fetching about three dollars -- but the animal can weigh up to 20 pounds and make a hearty meal.

"I ate nutria for lunch, I've got two more right in front of me. I am encouraging people to eat nutria, but there's cultural stigmas you have to overcome," Linkhart said.


Cajun culture has made raccoon and other swamp critters into meals for centuries, but the nutria is a newcomer and hasn't made its way into the local gastronomic culture, Linkhart said. But the
barriers to culinary acceptance are not insurmountable.

"They did overcome those stigmas with alligator. People didn’t order alligator in restaurants, but now you see lots of place that have gator," Linkhart said.

Alligators are native to the American south, but another rapacious reptile now residing in Florida is an invader. Burmese pythons have set up shop in Florida within only the last few decades.

The main difficulty for python hunters in Florida is that the snakes are masters of camouflage, Jenny Novak, wildlife biologist with the Florida Fish and Wildlife Conservation Commission (http://myfwc.com/), told Discovery News. Although they regularly reach 12 feet long, they disappear into murky water and dense vegetation.

BLOG: Florida Python Invasion Could Spread [http://news.discovery.com/earth/python-invasion-could-spread-120106.html] Last year, Florida started an official python hunting season. From March 5 to April 12, hunters can shoot pythons with firearms, as long as they have a hunting license, a python permit and correct game tags.

Permits allow hunters to brave taking the snakes by hand all year long, but the reptiles must be immediately euthanized by humane means, Novak said.

Could hands-on python wrangling become the next extreme sport?

"Folks call from other states and want make a fortune (in python skins), but that's just not feasible... . There aren't pythons simply everywhere in the everglades. It can take one to two days to find one," said Novak.

Python skins can be sold, but Novak recommends against eating the meat. Research found some pythons in the Everglades contained high levels of mercury, she said.

Also dangerous to eat is the invasive feral hog, said Edmond Mouton, biology program manager with the Louisiana Department of Wildlife and Fisheries (http://www.wlf.louisiana.gov/).

"Feral swine are riddled with diseases that can be detrimental to humans, like brucellosis, and a suite of diseases that affect wildlife," said Mouton.

The New York Times reported on a movement by foodies to put local invasives on the menu, but since even feral pork chops have a downside, the movement may have to watch what it eats.


THE MUST reads

THEMIND blowers

Happened Here:

Your Post-Workout Protein Shake Should Be Loaded With Insects

They’re the most efficient source of protein imaginable.

By Daniella Martin

Excerpted from Edible: An Adventure Into the World of Eating Insects and the Last Great Hope to Save the Planet by Daniella Martin, out now from New Harvest.

A few years ago I gave a talk on insect nutrition to the International Society of Sports Nutrition in Las Vegas. Of all the audiences I’ve ever spoken to, they were the most enthusiastic about edible insects. They all wanted me to alert them the moment an
insect protein product of some kind went on the market. Used to a larger degree of skepticism, I remarked on their outpouring of excitement.

“Well,” joked one of the attendees dryly, “if you tell a bodybuilder that eating manure will help him put on muscle, he’ll go out into a pasture with a fork.”

Bodybuilders and extreme athletes tend to be early adopters of nutrition trends. That’s why they are precisely the demographic Dianne Guilfoyle, a school nutrition supervisor in Southern California, hopes to capture with BugMuscle, a protein powder made up entirely of ground insects.

“If people see bodybuilders taking it, they might accept it more willingly,” says Dianne, whose son Daniel is a cage fighter.

There are many benefits to using insects as a base for protein powder. For one, the main existing sources are soybeans and milk whey, both of which cause health concerns for some people.

While insect protein might not be a perfect alternative for those with shellfish allergies, for others it could present an alternative that’s healthier for their bodies and the planet than some of the existing options. Previously, whey protein was the only protein powder source to supply a complete amino acid profile: all nine of the essential amino acids required for human nutrition. But guess what else is a great source of these amino acids? That’s right, insects.

Whey in its natural liquid form is only about 1 percent protein by weight, whereas dried whey is 12 percent protein. Processed whey protein isolate, marketed as the main ingredient in protein powder, is about 80 percent protein by weight. In comparison, dried beef is about 50 percent protein. Dried crickets weigh in at 65 percent protein. That’s in their whole, natural form, without industrial processing, unlike the whey protein isolate. Cricket protein isolate doesn’t exist yet, though it has been proposed.
Clearly, we’re looking at an interesting possibility here, limited largely by lack of both research and public interest in edible insects.

In addition to being high in protein, many edible insect species are also high in essential fatty acids, particularly omega-3s. Aquatic insects tend to have higher levels of essential fatty acids, though all edible insects contain them to some extent. Many insects, such as crickets, grasshoppers, ants, and certain caterpillars, are exceedingly high in calcium. Soldier fly larvae, used for processing compost, are off the charts in this nutrient.

<table>
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<tr>
<th>Source</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Calcium (mg)</th>
<th>Iron (mg)</th>
<th>Zinc (mg)</th>
<th>Potassium (mg)</th>
<th>Niacin (mg)</th>
<th>Magnesium (mg)</th>
<th>B&lt;sub&gt;12&lt;/sub&gt; (mcg)</th>
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<td>14</td>
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<td>303</td>
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<td>3</td>
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<td>333</td>
<td>5.6</td>
<td>22</td>
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<td>12</td>
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<td>0.6</td>
<td>490</td>
<td>7.8</td>
<td>29</td>
<td>3.2</td>
</tr>
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Values compiled from nutritional studies by Mark Finke, Dennis Oonincx, Julieta Ramos-Elorduy, May Berenbaum, and the USDA. Figures are mg/100g, unless otherwise noted. N/A: not applicable, trace amounts.
As you may be aware, the nutrient B12 can only be found in animal sources. Crickets and cockroach nymphs are both impressively good sources for B12. If vegans could accept the idea of eating insects, they could potentially manage their B12 intake just by popping a few crickets a couple times a week.

Part of the reason nutrient levels are so high for certain insects is because they are eaten whole, including their exoskeleton and internal organs. Certainly, if more of our livestock were somehow ground up whole and fed to us, we’d get far more nutrition out of them.

Calcium in particular may be high because of the fact that we ingest the insects’ “bones,” or exoskeleton. This protective structure is made out of chitin, a long-chain polymer of acetylglucosamine. It’s the same stuff that shrimp, crab, and lobster shells are made of, as well as the cell walls of fungi (mushrooms). It is structurally similar to cellulose, which makes up the cell walls of plants, and functionally similar to keratin, which our hair and nails are made of. After cellulose, it is the second most abundant natural biopolymer on the planet and is useful in things like biodegradable surgical thread, edible films for preserving fruits and vegetables, as a dietary fiber, and as a potential absorber of cholesterol.

In one episode of The Simpsons, Lisa Simpson faints during a saxophone solo. The doctor chalks it up to an iron deficiency.

“Please say it’s the vegetarianism,” her mother prays. “It’s not the vegetarianism,” snaps Lisa.

“It’s a little bit the vegetarianism,” says the doctor, prescribing iron supplements that clank like railroad spikes into his hand.

Lisa tries taking the monster supplements but complains of vitamin burps all day. Lunch Lady Doris intervenes, giving Lisa a taste of what, she says, keeps her young: beetle mush. Lisa protests that she’s a vegetarian.

“Get real,” scoffs Doris. “There’s bug parts in peanut butter!”

NEWS & POLITICS
Ugly fruit and vegetables on the march

07/20/15 06:48 AM – UPDATED 07/20/15 08:07 AM

By Tony Dokoupil

It's the pride movement you probably haven't heard of yet: a push for the acceptance and even the love of ugly fruit and vegetables.

Fruit and vegetables come in every shape and size, of course, just like people do. But while we celebrate differences in people, we reject differences in our produce. We don't like the half-launched lemon, the puny pear, or the bent banana.

We may sense that Mother Nature is a gnarly lady, but we've never actually seen much of what she creates. It's been hidden from us by federal standards and the aesthetic guidelines of major food sellers. A culture of "food porn" doesn't help. We all seem to be eating with our eyes, not our mouths.

But this is starting to change.

This week Raley's Supermarket in California became the first major American chain to sell gloriously grotesque produce. It's a just a ten store pilot program in the Sacramento area, but it's
That the ugly fruit and vegetable movement is spreading in America is thanks in large part to Imperfect produce. The Oakland-based company is responsible for the historic deal with Raley’s and it will start a home delivery service in parts of northern California starting early next month.

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RELATED: Whole Foods’ new produce rating system burdens organic farmers
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“You've got to think about what you're not seeing in the grocery store, and that's what we're doing with Imperfect,” Ben Simon, the company’s co-founder told msnbc.

He’s 25, not so ugly himself, and a canny businessperson. But at times he can almost sound like Naomi Wolf, attacking the beauty-obsession that can trap modern women, or Randolph Bourne, agitating for the rights of the disabled.

His passion is fueled by a recognition of the fact that Americans waste too much – food especially, and fruits and vegetables most of all. More than half the fruits and vegetables grown in this country never get eaten, according to an influential 2012 study by the National Resources Defense Council. Many are purchased but later tossed.

But another large portion – about 20% – never even end up in stores. And for a very superficial reason: they look bad. They don't have bugs or disease or any other health-related problem. They are simply ugly by the obsessive standards of modern America.

Simon realized that this is a multi-faceted disaster for the environment.

It's a major loss of water, at least 25 gallons for every pound of uneaten fresh food. It's a major contributor to landfills, where rotting food leeches methane – a greenhouse gas. Food waste contributes so much to global emissions that if it were a country it would rank third, behind only China and the U.S.

Our obsession with pretty fruit and perfect vegetables is also a mockery of the millions of people who would like any kind of fruit and veggies but can't afford them. Simon's company addresses this problem too. Farmers used to leave ugly fruits and vegetables in the field to rot, knowing they would never sell. Those that partner with Imperfect, however, get about 70 percent of the normal market value. Simon then passes the difference to customers.

For all these reasons, ugly fruit pride has taken off. This past spring Dana Cowin, editor of Food & Wine, launched a #loveuglyfood campaign during a Tedx presentation in Manhattan. “If we could take what we once thought was ugly and see it as beautiful, we could reduce food waste and change the world,” Cowin declared on stage.

Around the same time, Jordan Figueiredo launched an “End Food Waste” social media campaign with the handle @UglyFruitAndVeg, and the mantra “all produce should be loved and eaten.” It now has than 15,000 followers, and a joyful stream of wacko-looking food.
All of this major American action is following Europe, however, where ugly fruit and vegetable sales exploded in 2014.

“Now you can eat five ‘inglorious’ fruits and vegetables a day. As good, but 30% cheaper,” begins a commercial aired last summer in France for Intermarche, one of the country’s largest supermarkets. In print and TV ads, the company praised “the grotesque apple, the ridiculous potato, the hideous orange, the failed lemon, the disfigured eggplant, the ugly carrot and the unfortunate clementine.”

They worked: the company sold out of its ugly food in less than two days. It also reported a 24% increase in foot traffic. Now it’s expanding the program to more than 1,400 stores.

If Ben Simon is right, that same revolution is about to take off in America. It could end the widespread mistreatment of ugly fruit and veggies. But for the moment, Simon is limiting his sales to the most popular kinds of fruit and vegetables, whatever their appearance.

Sorry kale. Your pride movement is next.

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This Week in Pictures: Oct. 3-9

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The Problem With Making Meat in a Factory

Some hope that creating meat without any animals will save energy. But that might not be the case.

By Carolyn Mattick, Amy Landis, and Brad Allenby

The Industrial Revolution is sometimes described as the replacement of animal labor, fueled by agricultural inputs, with machine labor, fueled by industrial energy. In the early 20th century, tractors all but replaced horses and other work animals on American farms, rapidly industrializing food production. This
transition reduced the cropland required to feed work animals: In 1913, an estimated 28 percent of all harvested acres were required to feed horses and mules. But it also increased fossil fuel consumption.

In the coming years, we may face a similar shift: Emerging technologies could allow meat to be grown in factories rather than in animals. Conventional wisdom holds that this new process of cultured, or in vitro, meat production will be an environmentally friendly alternative to livestock rearing and will reduce the greenhouse gas emissions, energy consumption, land use, and water use associated with meat production. Some even argue that the shift to in vitro meat could save the planet. Indeed, early research suggested that it could have a smaller environmental footprint than traditional meat. But the reality may turn out to be more complicated. We recently completed a study that suggested swapping out the meat in a hamburger could have mixed environmental effects.

Cultured, or in vitro, meat is edible muscle (and perhaps fat) tissue grown from animal stem cells in a factory, or “carnery.” It is essentially meat that does not require animals to be slaughtered; in theory, thousands of pounds of meat could be produced from a small sample of living tissue. The first cultured hamburger was tasted in London on Aug. 5, 2013, and the startup firm Modern Meadow took cultured “steak chips” to the South by Southwest Interactive festival in March 2014. Even though meat grown with this process may not appear in stores and restaurants for a number of years, when and if it does become commercially feasible, some speculate that an array of novel foods could become available—possibly even meat from extinct species.

As cultured meat makes the long journey from hip technology expos to supermarket aisles, we wanted to learn more about what environmental changes could be expected if cultured meat replaces traditional meat as a household staple. While still speculative, our study found that cultured meat could require smaller quantities of feed crops and agricultural land than livestock to produce an equivalent amount of food. That’s good news! But these savings could come at a cost. Cultivation of in vitro meat requires more industrial energy—often produced by burning fossil fuels—than
pork, poultry, and maybe even beef. As a result, the global warming potential for cultured meat is likely to be higher than that of poultry and pork but lower than that of beef.

The reason for these differences is that animals must perform a variety of functions to build muscle mass: They must digest food, circulate nutrients and oxygen, maintain an optimal body temperature, and protect against disease. Food energy fuels these processes in organisms, but carneries will have to use industrial energy, i.e. fossil fuels, to accomplish the same tasks. For example, unlike animals, meat grown in a factory will not have an immune system. That means everything that touches it must be sterilized to avoid contamination with harmful microbes. Both heating water and using chemicals for sterilization could require a great deal of energy.

This pattern of increased energy consumption and reduced land use is reminiscent of the last industrial transition, but with a twist: Whereas tractors replaced the external work done by animals, growing meat in factories would replace the internal work done by organisms. This could be both good and bad. On the upside, it may be easier to control pollution leaving a carnery than a feedlot. On the other hand, in vitro meat may require a lot of energy. But even this may have a silver lining: As University of Minnesota researcher Nicholas Genovese points out, “By identifying energy-intensive processes (such as the sterilization procedures), engineers can optimize the energy efficiency of production before the first carnery is even built.”

To complicate matters even further, meat is not the only product derived from livestock. Inedible components such as blood, internal organs, hide, and feathers are used for a variety of applications including leather, cosmetics, pharmaceuticals, and many other household and industrial products. Traditional meat production is often an inexpensive source of these substances—some of which may not have ready human-made substitutes whereas others are considered lower in quality by some (think pleather or vegan leather). In any event, synthetic substitutes could have greater environmental impacts than animal sources, or cost more, or both. For example, Modern Meadow is already working to develop in vitro leather. It’s too early to estimate the cost, but growing skin cells in a factory may turn out to be more energy-intensive than using cowhide.
No working carnery yet exists, and in vitro techniques are likely to advance rapidly in the coming years—so it’s essentially impossible to accurately forecast what the first industrial process will look like. From this perspective, all projections of specific environmental impacts are almost certainly wrong, and it may be years before we know how far off we are.

Moreover, the large-scale environmental impacts of cultured meat will depend on the degree of adoption; the energy sourced for production; the methods used to cultivate it; the shifting patterns of livestock production; and the substances, if any, found to replace animal byproducts. To complicate matters even more, shifts in other areas, like expansion of biofuel production, could offset decreases in required agricultural land.

Top Comment

Three thoughts: 1) Seems a little early to guess what the carbon footprint will be if/when this can be done largescale, 2) that meat looks like it's made of tiny worms, 3) the carbon footprint is only part of the...

The world is getting hungrier for meat every year. To offset increasing demand, startups like Beyond Meat are developing plant-based meat-esque alternatives, and the United Nations suggests we pick up a tasty cricket patty. Add technologies like cultured meat and the future is likely to offer a dizzying array of new foods—all with particular culinary characteristics and unique environmental footprints. Given the potential impact of global consumption, it’s worth exploring the opportunities and drawbacks of new products and technologies before we start building factories, designing logos, and getting late-night cravings for dodo nuggets.

This article is part of Future Tense, a collaboration among Arizona State University, New America, and Slate. Future Tense explores the ways emerging technologies affect society, policy, and culture. To read more, visit the Future Tense blog and the Future Tense home page. You can also follow us on Twitter.
As Lionfish Invade the Caribbean and Gulf of Mexico, Conservationists Say Eat Up [Slide Show]

The species is wreaking havoc on reef communities, prompting efforts to encourage the public to catch and eat the fish

By Melissa Gaskill | December 11, 2013 | 0

Conservationists wrestling with the problem of invasive lionfish have suggested that recreationally and commercially harvesting the predatory species for food could put a big dent in its numbers. New findings bolster that view. In one-day derby events in the Florida Keys and Green Turtle Cay, Bahamas, participants caught 1,400 of the fish, reducing local populations of this invasive species by 60 percent. They also enthusiastically ate much of the catch. Stephanie Green, a research fellow at Oregon State University, reported the derby results to the Gulf and Caribbean Fisheries Institute (GCFI) in Corpus Christi, Texas, in November.

Lionfish arrived in the South Atlantic in 1985, most likely released by private aquarium owners, and have caused native fish populations there to decline by up to 80 percent. In the Bahamas between 2008 and 2010 they reduced biomass of 42 other fishes by an average of 65 percent. By 2013, lionfish had spread throughout the Caribbean and Gulf of Mexico, reaching densities well above those in their native Indo-Pacific habitat and, unlike most invasive species, have shown no signs of slowing down (animation). The invasion may be “one of the greatest threats of this century to warm temperate and tropical Atlantic reefs and associated habitats,” wrote National Oceanic and Atmospheric Administration scientist James A. Morris, Jr., in Invasive Lionfish: A Guide to Control and Management (pdf).

Lionfish have enjoyed phenomenal success in their new range thanks to insatiable and far-from-picky appetites, impressive reproductive abilities, and lack of interest from native predators. Except, that is, for the planet’s top predator—Homo sapiens.

View a slide show on the lionfish invasion.

Derby day
A number of presentations at the GCFI meeting reported that lionfish derbies or tournaments and regular, ongoing removal of the fish have reduced local Caribbean populations. “We’re finding throughout the region that local control is very successful at keeping numbers down,” says Lad Akins of the nonprofit Reef Environmental Education Foundation (REEF). “Divers and snorkelers are removing them and we’re actually seeing native fish communities coming back.”

Green calls derbies one of the best control tools available. “Derbies engage people, train them to remove lionfish, encourage development of markets and are effective for population suppression at a local scale,” she says. “Tastings are a big part of it, too. We’ve surveyed participants and found that these events are changing attitudes toward eating lionfish.”
Once derby participants learn how to safely collect and handle the venomous fish, organizers hope they will take lionfish at every opportunity. The Florida Fish and Wildlife Conservation Commission waives license requirements and bag limits for divers harvesting lionfish and Texas allows unlimited removal by spear, net or hook and line in state waters. A number of Caribbean countries issue special permits allowing lionfish removal by otherwise illegal methods and in areas where fishing is normally prohibited. “Kill all you can” seems to be the universal message.

Green is now looking at how much lionfish populations must be reduced to protect ecosystems and whether derbies are hitting that sweet spot. According to Morris, models suggest that at least 27 percent of adult lionfish must be removed monthly to bring about meaningful decline in targeted areas.

**Deadliest catch**
That level of reduction would require a major fishing effort with assistance from commercial fishers. Commercial operators are capable of harvesting from deeper waters as well, which harbor significant populations of large lionfish with correspondingly sizeable appetites and reproductive capabilities.

Commercial fishery development shows much potential but also faces challenges. In Belize, where the sale of lionfish could conceivably help make up for dwindling lobster and conch catches, a hoped-for export market for the invasive species sputtered in the face of shipping costs. But some 20 fishers in Belize sell lionfish regularly to markets and restaurants, and more sell opportunistically or catch for personal use. In Bermuda lobster fishers increasingly sell lionfish bycatch to restaurants and markets. Florida reported commercial lionfish landings in 2012 of about 5,000 kilograms, Akins says, and unreported catch likely pushes the actual number higher. Lionfish is the number-two bycatch in Florida’s lobster fishery, and it fetches one of the highest prices per pound.

**Traditional Fisheries**, a commercial supplier, brings lionfish to the U.S. market from Cozumel and Puerto Morelos, Mexico. “The tiny island of Cozumel produced 12 tons of lionfish fillet in less than two years from maybe six square miles of sea,” owner David Johnson says.

But regular, large-scale harvesting will depend on development of lionfish-specific techniques above and beyond spearfishing and bycatch. Johnson has developed a prototype, patented lionfish smart trap and is currently seeking funding to test and bring it to market. In Bermuda the government, fishers, scientists and nongovernmental organizations are collaborating on modifying lobster traps into a lionfish-specific model. Preliminary research indicates a high percentage of lionfish around Bermuda are in deeper waters. “One of the beauties of a trap is you can put it in 600 feet of water,” Akins says. “But a lot of lionfish come up in traps that are full of other things, too, and that collateral damage is not worth using more traps. We need better ones.”

**Good eating**
In the meantime the public can help spur demand—and fishing innovation—by requesting lionfish. The species has higher levels of omega-3 fatty acids than other commonly consumed Caribbean fishes, Akins says. And although lionfish is one of 400 species that can carry toxins, which cause the foodborne illness ciguatera, it poses no greater a threat than others commonly eaten, including snapper, grouper and hogfish.

Lionfish meat also tastes good. “It’s very mild and buttery, and lends itself to many different recipes,” Akins observes. “So it has good taste and health benefits. It should also be a top choice for environmental reasons—it’s not just sustainable, but actually needs to be consumed.” The **Lionfish Cookbook**, produced by REEF, includes collection and handling instructions and 20 recipes. Restaurants throughout the Caribbean and in Florida already serve lionfish.
"I Am a Dumpster Diver, and I Eat Trash"

By Nathan Pipenberg

If you stick your head into a dumpster, the first thing that you notice is the smell -- a delicious mix of rancid cooking oil, rotten fruits and mold.

When you jump all the way into a dumpster, you start thinking about what other people would think if they saw you standing ankle-deep in garbage bags.

But if you really check out a dumpster, there's one discovery that will stick with you after the smell washes away and you accept your questionable habits -- there's a lot of food in those things. Good, clean, healthy food that we can eat. Loads of it. And it ends up in the trash every day.

At least, those were the thoughts going through my head when I went dumpster diving for the first time Sunday night. Along with my friend Weedo, I visited about five dumpsters and tore open countless trash bags. We wore leather gloves and old clothes. We took along headlamps, a stick for poking through the mushier trash heaps and backpacks to carry what we found.

Dumpster diving, also known as urban foraging, is the process of sifting through trash, usually behind restaurants and supermarkets, in search of food. It's gaining traction in the United States as more people realize just how wasteful we can be.

I decided to give it a shot. Although both Weedo and I are diving novices, we were phenomenally successful. And the end of the night, I was the proud possessor of a bag full of smoked cheeses, fresh bread, cookies and pastries.

I didn't take anything that wasn't still in its packaging or double-bagged, separated from the rest of the dumpster's contents. It was inside clean packaging, safe enough that I could even persuade my mom to eat one of the bagels I found.

Looking back on the night, I'm already sure that I'm going to try my hand at dumpster diving again. There are several reasons why.

First of all, it combines several of my favorite activities -- riding my bike all over town, staying up late on school nights and eating food without paying for it.

Secondly, it's addictive. It's challenging. On our first dive, we found plenty of bread and cookies, which is a good start. But I'm not just trying to carbo load. I know there are fruits and veggies out there, but they are more elusive. I have to find the right dumpsters, and I already have a few ideas where to find them.

Thirdly, if my experience on Sunday night is any indication, when you find something, you tend to find a lot of it. With the quantity of food you can harvest while diving, sharing meals and eating together becomes a lot easier. I have so much bread in my freezer right now I will have to find some people to share it with.

Finally, it really is eye-opening to see just how much food is wasted. In one dumpster alone, there were at least five trash bags brimming with baked goods. In another, we found bags stuffed with meatballs, lunch meats and veggies that never made it onto a sub.

According to the Environmental Protection Agency, Americans throw away 33 million tons of food each year. To break it down, that averages out to every person in the country taking one pound of food and tossing it in the trash every day.

I think it's something that's easy to ignore when you're just tossing out an uneaten pizza crust, but it really sticks with you when you're pulling apart garbage bags in the middle of the night.
Somehow, seeing all that food at once really had an effect on me. I've ordered too much at restaurants before. I've thrown out moldy bread and bought jars of peanut butter that I lost in the fridge for a year before chucking them, unopened. None of that bothered me as much as unknotted a bag to find about 30 pounds of fresh bread, rolls and bagels inside.

I took as much I thought I could eat and share in a week, eventually stopping because my backpack was full. I felt a strange mixture of elation and despair.

I had as much free food as I could handle, but I still had to throw the bag back in the dumpster. It wasn't that I was wasting the food -- I was actually saving a small portion of it. But even so, it felt like I was throwing something away by not taking it all.

After one dive, I think I'm hooked. It wasn't quite what I expected. Somehow I thought that if I found the right dumpster it would be clean and neat and appealing. Nope. It's still a dumpster, and it's still gross. But my get-up -- the dirty gloves, stained clothes and headlamp -- almost felt like a uniform of protest, akin to the graffiti artist's gas mask and hoodie.

It says: I am a dumpster diver, and I eat trash.

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7 delicious common weeds you probably never knew you could eat!

"Wildman" Steve Brill introduces seven common weeds that are edible and delicious.

Inhabitat YouTube

The next time you’re out pulling weeds in the garden or stepping over a dandelion sticking out from the cracks of the sidewalk, consider where these wild greens could go: your salad bowl.

In this educational video produced by the design blog Inhabitat, foraging expert "Wildman" Steve Brill showcases seven exotic-sounding but common weeds you can eat: Garlic Mustard, Poor Man’s Pepper, Yellow Sorrel, Violet, Field Pennycress, Common Mallow and Cattail. They’re scattered all over Central Park in New York City, where Brill takes students on an expedition, and can be found up and down the East Coast in the summer months, too. They’re delicious, he says.

Here are some highlights:

- Garlic Mustard is part of the Mustard family and protects itself by smelling and tasting like garlic: "a very good defense unless Italian insects find it," Brill says in the video.
- Poor Man's Pepper tastes like horseradish and wasabi.
- Violet tastes like lettuce, and according to Brill, is rich in vitamin C.

The summer salad Brill makes from these weeds is the ultimate locally grown dish that costs nothing. It could become the star of your Fourth of July dinner party or Saturday picnic in the park.

But is foraging for edible weeds in the wild really that easy?

Intrigued by the romantic notion of picking my own greens and communing with nature, I decided to give it a shot, right here in Washington, D.C. I made sure I did my homework the night before — downloading Brill's master foraging app, studying the video and taking notes of all the identifying characteristics of the seven common weeds. I was ready.
Dandelion (Taraxacum officinale) flower found on the sidewalk in Meridian Hill Park, Washington, D.C. It's edible, but isn't on "Wildman" Steve Brill's list of seven.

Ina Yang/NPR
White Clover (Trifolium repens) is edible, but not all that tasty.
Ina Yang/NPR

I went to Washington, D.C.’s Meridian Hill Park, equipped with nothing but a fully-charged phone and my notebook. If you saw a young adult peeking over benches and crouching down to stare intensely at the grass last Sunday, it was probably me.

It felt like a scavenger hunt, albeit one dependent on technology. I was constantly consulting the app – which inconveniently crashed every time I tried to search for a plant name – and Googling for images and plant descriptions.

How many of the seven common weeds did I find in two-and-a-half hours? None.

Even as a scavenger hunt aficionado, this one was tough. The stifling June afternoon wore me down while the occasional bug sighting made me jittery. (Disclosure: I detest mosquitoes and other small insects.)

I also refused to believe that none of the weeds I found fit the description. I wanted to find something, so I started reversing the process and tried to identify the weeds that I did find with the help of Google – they were dandelion and white clover, both edible weeds. But no luck.

Granted, a book of wild plants might have been handy on this hunt. And perhaps I
could have tried DC's Rock Creek Park, which is considerably bigger.

But my experience was probably not all that unusual. For the average urbanite, foraging can be daunting. We may not trust ourselves to correctly identify edible weeds from the poisonous ones. And eating plants growing near where dogs may pee makes us squeamish.

"I think we as a culture have really gotten separated from the source of our food," Philip Stark, a statistician with the Open Source Food Project at the University of California, Berkeley, tells The Salt. "You buy something from the grocery store, a farmer's market, or something shows up on your plate at a restaurant and you don't think about how it came here, you just trust that it's going to be safe and nutritious."

Humans started as hunter-gatherers, and as much as the instinct may be built into my DNA, I don't have the time or energy to hunt and gather my salad on a daily basis. So for now, I think I'll stick with the greens in the grocery store when I crave a salad. (Unless "Wildman" Brill comes to town — maybe I'd give it another go in the shadow of an expert.)

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