Sushi, beloved in the United States, has come to epitomize food that is fresh and fast (fast in a classier-than-usual way). It was once anything but. Several recent books remind us that the original sushi was, so to speak, “old” and slow. *Nare-zushi*, which means “aged sushi,” was a way of preserving fish in fermented rice. During the fermentation process, friendly bacteria produced acids, which turned rice sour and inhospitable to the microorganisms that cause fish spoilage. It was an ancient Asian form of pickled fish.

The sushi we know and love is a form of *haya-zushi*, or “quick sushi,” that dates back to Edo-era Tokyo, only some 180 years ago. Fish, usually raw, is draped over a quick squeeze of rice, lightly vinegared to recall the sour rice of the past. What took sushi from the streets of Tokyo to Main Street, USA, was a combo of rapid changes in technology and fishing, and the jet-propelled global fish trade—the same forces that are dramatically reshaping ocean life and all our seafood choices in the twenty-first century.

Sushi today is a food without borders. The book that makes this point most emphatically is Sasha Issenberg’s ambitious *The Sushi Economy: Globalization and the Making of a Modern Delicacy*. First, a word about that title, *Sushi Economy*. Essentially the book is about tuna. (I guess “Tuna Economy” might not have the same ring and could make you think “cans” or “Chicken of the Sea” instead of “maguro.”) “In the sushi system,” argues Issenberg, “tuna is the trophy fish: the most demanded by diners, the one that is tested as a benchmark of a restaurant’s merit” (p.xii). Sushi just isn’t sushi without tuna, especially big bluefin—at least not in his book.

Yet, as even Issenberg points out, tuna was not always the topping of choice. Its red meat was quicker to spoil than leaner white fishes. Superfatty *toro* from the belly, now highly prized for sashimi, was chucked aside for cat food. What changed? After World War II, partly under American influence, the Japanese took to eating more (and fatter) meat in general, according to Issenberg. Better refrigeration and faster transit took care of tuna’s “freshness” problem. By 1970 Japan had a yen for tuna and a trade imbalance with North America. The country was flooding America with electronics and other exports yet flying its jal planes home with holds almost empty. Airline execs, looking for return freight, found North Atlantic bluefin swimming off eastern Canada and New England. Local fishermen considered the hulking torpedo-shaped bluefin—the largest of tunas—all but commercially worthless: a sport fish caught for recreation, not for human consumption…cat food. It wasn’t long before the fish, rebranded “Boston Bluefin,” was being iced and packed in Styrofoam coffins and air-lifted to Japan, where it fetched top dollar at fish markets like Tokyo’s legendary Tsukiji, the world’s largest.

Issenberg gives us a blow-by-blow account of a Tsukiji auction—from supplies of fish arriving from around the world, their bodies stiffly sliding out of their coffins “amid a stream of melting ice” (p.41), to the “flurry of hand-signals and coded speech” (p.48) that ends the bidding. On the day...
of his visit, the “number-one” fish happens to be a big, wild American bluefin that commands 6,000 yen a kilo. But not all tuna spend their whole life in the wild. The “number-two” fish, a bluefin from Spain, is “ranched.” It goes for 2,500 yen a kilo. *Sushi Economy* tells the tale behind those numbers.

As our appetite for sushi exploded, so did the demand for tuna, putting huge pressure on ocean stocks. What’s more, fishing is inherently unpredictable—that’s why they call it fishing, not catching, as the old joke goes. Beginning in the 1990s, in Port Lincoln, Australia, then in the Mediterranean, and more recently in Mexico, some fishermen turned instead to tuna-ranching: they netted small young tuna swimming offshore and fattened them up fast in watery feedlots, creating tuna versions of super-sized teens.

“Ranched” tuna is less insanely expensive than adult, fat-bellied (toro-rich) ocean-caught fish. Even so, that “number-two” ranched bluefin at Tsukiji fetches the equivalent of $1,800. For Japanese chefs tuna is a loss leader, a cost of doing business. But what if the demand for sushi and sashimi keeps growing? Issenberg quotes a Japanese fisheries specialist as worrying that soon only the Chinese will be able to afford the best tuna. Frankly, though, that may be the least of our worries. Bluefin are already woefully overfished. And ranching still entails taking tuna out of the sea: they’re just removed sooner, rather than later. (Plus, ranchers stuff tons of small fry into their juvenile tuna to bring them to market size in months.) As for actually breeding tuna—rather than depleting ocean stocks—so far that’s met with mixed results.

Issenberg is an energetic and driven reporter—he’s traveled the globe like a transoceanic tuna to chase down his often-fascinating story. But about tuna and its “virtuous global commerce” (p.xix) he’s an obdurate romantic. On a visit to Cape Cod he describes tuna fishing in New England as “perhaps the purest hunter-gatherer undertaking left on earth” (p.166). Perhaps? Not even close. Even rod-and-reel fishermen use twenty-first-century fishing, navigation, and communication aids: sonar, radar, GPS, radio, and cell phones.

New England’s fishery, as Issenberg points out, was “transformed by tuna’s new value” (p.166) as an international
commodity. Indeed, back in the day, in the late 1970s and 1980s, even the Moonies, the Reverend Sun Myung Moon’s entrepreneurial followers, got into the lucrative bluefin game. Issenberg knows those boom times are over, but pussyfeet as to why. “No one,” he writes, “knows enough about tuna populations and behavior to squarely place blame for overfishing, and some question whether the bluefin have merely changed their migration patterns or even wised up enough to fishing methods to elude boats altogether” (p.180). Earlier he mentions that local rod-and-reel fishermen are “hemmed in” (p.166) by conservation rules and quotas. For a reality check, I consulted Carl Safina, a biologist Issenberg has used as a source. According to Safina, commercial catches of bluefin off the United States have fallen to 15 percent of the quota, suggesting population collapse.

“A book that wants to revel in the beauty and deliciousness of sushi must be a celebration of globalization” (p.xxiv), writes Issenberg at the outset of *Sushi Economy*. Call me a party pooper for wondering how long the celebration can last.

For a less tuna-centric take on sushi, readers can turn to Trevor Corson’s *The Zen of Fish: The Story of Sushi, from Samurai to Supermarket*. (Pretty much every menu item at your local sushi bar is covered.) Corson follows a group of young wannabe chefs at the California Sushi Academy, owned by the stoic Toshi Sugiura, once a sushi-maker to Hollywood’s stars. Like many an apprentice story before it, *Zen* puts us in the students’ shoes and gives us a vicarious education. A student visit to a miso factory turns into a tutorial on microbes that ferment rice and soybeans in the manufacture of miso and soy sauce. In a class on *tai* (sea bream), which was farmed in Japan long before salmon, we learn that farmed *tai*—if it’s to look like wild *tai*—must be reared under tents to prevent black “suntans,” and fed krill or paprika to give it that desired red-snapperish hue. And a chapter on rice becomes a meditation on its botany, its history, and the tender rituals of its culinary transformation. “According to Japanese folk tradition,” Corson tells us, “each grain of rice contains not just one spirit but seven. And a repetition of that line, as Corson upends it, “Come on, don’t worry about it,” he is told by his California Sushi Academy supervisor.

In Japan, a sushi novice may spend two years on rice alone. A complete sushi education takes many years more (as we also learn in Issenberg’s recounting of Nobu Matsuhisa’s career). In California, action at the Academy is compressed into weeks. It’s already a pressure-cooker situation, and Corson ups the emo by focusing on the student least likely to make the cut—slipping from his documentary mode into what feels oddly like reality-show territory.

Maybe none of us, Corson included, can view a group of young strivers under the tutelage of a seemingly strict taskmaster without now thinking “Project Sushi!!” In any case, you’ve seen this script, or something like it, before. Young woman adrift takes up new challenge. Her *maki* fall apart. Knives like totally freak her out. Fish cleaning—eeewww! She perseveres, guided by a tough, enigmatic Australian ex-body-builder turned sushi-wiz named Zoran (the Timothy Gunn role, with a shot of Gordon Ramsay). Personally, the reality-show thing didn’t do much for me, except to suggest how completely sushi has become absorbed into U.S. pop culture. It seemed a distraction from the story of sushi itself and the engaging lessons on its ingredients and preparation, which are infinitely more fun.

Even science is fun in this book, as it was in Corson’s previous book, *The Secret Life of Lobsters*. A class on *maki*, for instance, includes an account of the exceedingly weird sex life of laver, the seaweed used for the nori sheets that encase those ubiquitous plain California rolls. Chances are those rolls won’t seem so plain any more after seeing nori described as an “orgy of boy and girl seaweed, pressed into an edible piece of paper” (p.84). Nori’s recondite sex-life begins with a wormy, oyster-boring form of the algae, which spews spores that develop into male and female seaweed fronds. It was figured out in 1949 by a British botanist named Kathleen Drew-Baker, who is memorialized as “Mother of the Sea” by Japanese nori farmers.

By *Zen’s* end, readers may find they’ve absorbed a surprising amount of sushi lore, as well as snippets of fish physiology, taste chemistry, and microbiology, all in small digestible bites—sort of like sushi, come to think of it. And they may also come away sensing that sushi, for all its long history and aura of tradition, is an adaptable food. It’s evolved in the past and, for better or worse, is reinventing itself before our eyes. It will need that resilience, I suspect, in this uncertain new world we’re entering of fewer fish, more costly fish, and ethical concerns over the way we eat. What will sustainable sushi look like?

Issenberg, in love with bluefin, is the sort of unreconstructed “apex” fish consumer Taras Grescoe might call a “topfeeder.” Grescoe is the author of *Bottomfeeder: How to Eat Ethically in a World of Vanishing Seafood*. His book is the yin to *Sushi Economy*’s yang, an excoriation of what
large-scale commerce has done to fish and the seas they live in. Ten years ago, Grescoe forsook meat, the terrestrial, factory-farmed variety, and took up fish, believing (naively or disingenuously) that fish “seemed to be in endless supply” and “the oceans were apparently inexhaustible” (p.4). When the scales fell from his eyes, he realized, “I had heard all the talk about sustainable seafood, but I still was not sure how to walk the walk” (p.12). He embarked on becoming what he calls a “bottomfeeder.”

Bottomfeeder, unhyphenated, is Grescoe’s term for “somebody who routinely eats closer to the bottom than to the top of the oceanic food chain” (p.12). A bottomfeeder, in other words, favors mostly smaller species such as sardines, whiting, and squid—which live on plentiful little marine organisms—and shuns large top predators such as bluefin tuna and Atlantic halibut, which are worrisomely overfished (and likelier to accumulate unhealthy mercury). Bottomfeeders, Grescoe goes on to say in parentheses, are “Not to be confused with hyphenated bottom-feeders, such as monkfish or lobsters, organisms that actually live and feed on the ocean floor” (p.12).

Uh-oh. You just know this hyphen thing spells trouble. Not even Grescoe seems to always keep it straight. Does he really mean to say that jellyfish are “bottom-feeders” (p.79), that is, creatures of the seabed? Or perhaps he means that jellies, feeding on zooplankton, way low on the food chain, are marine versions of his human (unhyphenated) bottomfeeder? Then again, Grescoe also uses “bottomfeeder” as a catchy catch-all term for somebody who avoids seafood that is scarce, or fished or farmed in lousy ways, irrespective of its spot on the food chain. I’m all for catchy terms and slightly cheeky titles, but here they sometimes get in the way of the story—a story of oceans in peril, and of how to eat fish in good conscience, which despite quibbles, I find plenty to agree with.

Grescoe pursues his worldwide ethical eating mission with the zeal of the lately converted. In New York, he head-butts chefs for including bottom-trawled monkfish and other “red-lined” fish in their menus and cookbooks. (For its bluefin sins, Nobu: The Cookbook is named the “most stunningly profligate” [p.32] of the lot.) Grescoe visits British chippies, cooks up bouillabaisse in Marseilles, tours shrimp ponds in India and salmon farms in British Columbia, and dines exotically at the Yu Chi Shark’s Fin Bird’s Nest Restaurant in Shanghai. He shudders at the thought of “newly affluent Chinese…developing a taste for sushi” (p.190). Tokyo’s Tsukiji market creeps him out: “an Auschwitz for fish” (p.191). Yet—and this seems like food porn in the light of his righteousness—he lingers over a breakfast of bluefin sashimi (his first and last taste of toro, he claims), proceeds to eat whale for his own “research purposes,” and samples fugu (potentially poisonous pufferfish) for the tongue-titillating heck of it. Many species will get crossed off his ethical eating list: bluefin, monkfish, orange roughy, shark, Atlantic cod and halibut, Chilean sea bass, most industrially farmed salmon, and shrimp from polluting, chemically laden ponds. (He sees no panacea in the so-called Blue Revolution, an aquacultural version of agriculture’s Green Revolution.) But Grescoe does acquire a taste for sustainable Bering Sea pollock and whiting, savors Portuguese sardines, discovers jellyfish, and has clearly never gotten over his youthful coup de foudre involving Belons. Oysters are one farmed species that can actually do some environmental good.

When Grescoe isn’t doing a Michael Moore number, he makes an amiable companion, in his element on a day boat, observing the catch, listening with empathy to decent, local fisherman worrying about their livelihoods. His visit to Tsukiji, begun in hostility, ends on a more conciliatory note. As part of a Pufferfish Memorial Service, he joins his fellow fugu diners in a ceremony to return live pufferfish to Tokyo’s Sumida River. Cupping his fish’s belly in his hands, surprised by its heaviness, he gently slides the gasping fish into the water, not entirely convinced he’s doing the fish a favor, but wishing it godspeed. In Japan, Grescoe discovers a vestigial reverence for the life of food that is largely lost on us Westerners. The world’s largest fish-consuming country, he notes, has at last agreed to bluefin quota cuts (but whether the poor fish can pull back from the brink remains to be seen).

**Bottomfeeder** is Grescoe’s story—his journey, not ours—but it’s a starting point for reflecting on where each of us draws the line about what’s acceptable to eat and what’s not; guidelines at the book’s end are designed to be tuned to individual tastes and concerns (for all his daredevil image Grescoe can also come off as a bit of a health nut). Not everyone will want to join Grescoe in eating invasive jellyfish at every opportunity as a public service. But it’s clear we need to adapt our appetites to our changing oceans, and—if fishing history is anything to go by—keep adapting as new species get overfished, or are harvested in environmentally awful ways. And that goes for all fish, big and small, from the top of the food chain to the bottom.