

A Fresh Defense: A Cultural Biography of Quality in Puerto Rican Fishing

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ABSTRACT Puerto Rican artisanal fishers, like artisanal food producers around the world, emphasize the quality of their products to compete with industrial food producer-distributors. In this article, we trace the cultural biographies of three important fish species, focusing on their roles in creating social relationships and, through this process, creating value and political alliances to contest fisheries laws. We argue that fishers move strategically between moral and political economies to maintain fishing livelihoods and defend themselves against coastal developments that threaten those livelihoods. [*artisanal fishing, seafood, quality, value, food industry*]

RESUMEN Los pescadores artesanales puertorriqueños enfatizan la calidad de sus productos frescos para competir contra la distribución de alimentos importados que domina el mercado local. Este artículo recrea las biografías culturales de tres especies de peces y describe la manera en la que se articulan relaciones sociales solidarias que añaden valor económico y potencian alianzas políticas para enfrentar al Estado con sus regulaciones pesqueras. Los pescadores se movilizan estratégicamente entre la economía moral y la economía política para viabilizar su quehacer y para defenderse contra las amenazas del capital y el desarrollo costero, que amenaza a su modo de vida. [*pescas artesanales, los mariscos, la calidad, el valor, industria de alimentos*]

"Nos defendemos con pescado fresco." [We defend ourselves with fresh fish.]
—Puerto Rican fisher

The inspiration and guiding theme of this article derives from its opening epigraph. When Puerto Rican fishers repeat this expression, they are referring to marshalling a defense against cheaper, lower-quality, imported fish, but here we use it metaphorically in light of developments along Puerto Rico's coast, in natural-resource policy and in international food marketing, that threaten artisanal fishing livelihoods. As artisanal food producers, Puerto Rican fishers are part of a larger group that has recently garnered the increasing attention of average consumers, popular writers (e.g., Pollan 2006), and academics interested in issues ranging from fair-trade initiatives to the fates of peasant farmers and fishers under current political-economic regimes (Heller 2007; Moberg 2009). This attention is largely because of the perception that artisanal producers, operating on smaller scales than industrial food manufacturers, are more likely to emphasize quality. Along with producing smaller volumes of food, artisanal producers may be more interested in quality because their foods are for their own consumption

and for gifts, sale, and use locally, usually by family and community members, and because they add economic and social value to their foods in unique, qualitatively distinct ways, often drawing on local culinary traditions. Focusing on quality, too, artisanal food producers have found a way, potentially, to compete with large food manufacturers.

In this article, we argue that Puerto Rican fishers conform to this understanding of artisanal food production, emphasizing the landing, handling, sale, and consumption of high-quality seafood as part of what they perceive to be high-quality fishing livelihoods. We document how this occurs by focusing on fishers' interactions with three species of fish—king mackerel, cero mackerel, and spotted goatfish—that they consider important to their livelihoods yet are not among the most commercially valuable species they catch. Tracing the cultural biographies of these species, we show that the importance of these species derives from several characteristics related to both artisanal production and fishers' conceptions of "quality" and "value," particularly in terms of how these three species fit into traditions of seafood consumption in Puerto Rico and how they can express social relationships as they are sold, given away, and eaten.

THEORIZING QUALITY: QUALITY LIVES FROM QUALITY PRODUCTS

The “fresh” in Puerto Rican fishers’ defense against imports and other challenges to fishing livelihoods is one of several characteristics that they use to define high-quality seafood, expressed especially well by this south-coast fisher in reference to a recent fishing excursion:

Like that day that you [García-Quijano] went to fish with us, do you remember? We caught a good quantity of “*arrayao*” [lane snapper], and we could have caught lots, lots, more, but the boss [the interviewee’s father, the boat captain], said: “That’s it, don’t catch anymore, leave it alone, ‘cause this is what we can sell now.” The boss always says, “The sea is the best freezer, the fish just caught from the sea is the best quality, it is fresh, and that is what we sell, the quality and the freshness of the fish. When we need it we go and catch fresh fish and keep our clients happy.” That is what he has taught me and that is how I fish. [conversation with authors, December 9, 2003]

Although high-quality seafood is fresh seafood, some species that Puerto Rican fishers land have special characteristics that also make them prized, such as their ability to respond to marinades or their distinctive taste. In many cases, too, Puerto Rican fishers add economic value to species, serving it in pleasant settings or packaging it in special ways. Consider, for example, this roadside clam seller who adds part of the experience of the clams’ habitat as value to the sale and consumption of his clams:

Quality is about the clams I sell, yes, but, also, do you understand me, it is about the client’s experience of coming here, and eating the clams, some *escabeche* (marinade), here at my stand. I present them the clams, they give their approval, and they eat them. They come and eat them right here, and I tell them about when I caught the clams, how nice that day it was out in the mangroves, how fresh the clams are. For my clients, the experience of eating the clams here is as important as the clams themselves. [conversation with authors, July 14, 2010]

Perhaps most importantly, Puerto Rican fishers also use the word *quality* to describe fishing livelihoods, emphasizing that they are not only producing quality products but also, in the process, quality lives. In the words of another two south-coast fishers:

For me, fishing, is *calidad de vida* (quality of life). I say this because around here, if there are fish and we can have access to them, we can lead a better life The quality of life we are living now, we cannot compare it to 15, 20 years ago, because in those days there was less pollution, less industries in the coast, you know, we saw more and better marine life. Nowadays, our quality of life suffers because the marine life has suffered. [conversation with authors, October 24, 2003]

The main benefit, the best quality that you get from fishing around here, from fishing for a living, is right there [pointing to a group of young adult (16- to 20-year-old) fishermen, working hard as a team, classifying and cleaning the day’s catch]: good, hard-working, healthy, wholesome (“*sanos*”), responsible young kids. [conversation with authors, June 23, 2010]

As this last quote suggests, one of the challenges facing Puerto Rican fishers, as is common among artisanal producers worldwide, is hanging onto and reproducing their liveli-

hoods by passing them on to their children. Artisans usually acquire their knowledge through experience or apprenticeship rather than through formal education, their livelihoods thus tied to family, community, and cultural tradition, dependent on unique local natural resources, and seated in local history and reciprocal networks of gift and commodity exchange (Menzies and Butler 2006). As a source of strength in economic competition, artisanal producers attempt to maintain and reproduce their livelihoods—and, by extension, the families and communities that depend on those livelihoods—by producing quality products. At the same time, many artisanal producers are petty capitalists, struggling to maintain class positions as small-scale entrepreneurs yet often having to move between self-employment and wage work to survive and subsidize artisanal production. As such, they may exploit themselves, family members, and others in their production processes, justifying such behavior with moral-economic sentiments (discussed further below) and, in the case of artisanal fishing, with the reasoning that their livelihoods face many threats.

Threats to artisanal fishing are found throughout coastal regions worldwide: growing populations, changing land use, shrinking wetlands, marine pollution, diminished access to the water, tourism, gentrification, imports of low-cost seafood, and complex regulations over the catching and marketing of fish and seafood (Griffith 1999, 2011; Pollnac et al. 2006). Similar pressures face other artisanal producers, forcing many into alternative social and economic relationships that expose them to new risks and new opportunities while drawing them away from their natal or preferred livelihoods. Faced with these threats to their preferred ways of life—threats, that is, to quality lives—Puerto Rican fishing families attempt to protect the natural resources on which they depend (García-Quijano 2007; Valdés Pizzini 1990), influence seafood distribution networks, and emphasize the importance of high-quality products in maintaining and reproducing high-quality lives. Qualitatively, these responses are similar to those of other small-scale producers around the world, including artisanal fishing peoples as well as farmers, ranchers, and others maintaining livelihoods in vastly different environments (Heath and Meneley 2007; Heller 2007; Paolisso 2007).

Several recent developments attest to growing consumer interest in quality goods produced under artisanal conditions: community-based agriculture and fisheries; the search for locally produced products; branding products with reference to regions, territories, or geographies; the growing artisanal production of meats, wines, dairy products, and other foods; and an expansion of marketing options for small producers (e.g., fair-trade initiatives, consignment shops, and farmers’ markets; see Heller 2007; Ostrum 2011; Roseberry 1996). Through such practices, artisanal food producers implicitly criticize industrial production and its tendency to underpay workers, destroy environments, mistreat animals, genetically modify organisms, engage in unfair trade practices, and dispossess smaller competitors (Heller

2007; Pollan 2006). Industrial agriculture has been heavily criticized for substituting fuel crops for food crops and, in Mark Moberg's (2009:8) words, "threatening the sustainability of life on earth" (see also Manning 2009; Midgett 2009; Mintz 2009; Thu 2009). Many consumers are willing to pay higher prices for foods they perceive to be of higher quality and to have been produced under more humane, environmentally sensitive, or other morally sound methods (Pollan 2006).

Although industrial food producers have long dismissed artisanal producers as marginal, growing evidence suggests that they are feeling more threatened as artisanal producers receive more public attention and support. For example, large retail food chains have marshaled labeling campaigns to advertise portions of their merchandise as local, organic, or otherwise environmentally friendly and healthy. Most land-grant colleges and many government agencies still advocate for industrial agriculture, arguing that artisanal producers can neither satisfy national or global food demands nor comply with food safety standards (Heller 2007). Finally, certification programs' production criteria that are costly for smaller producers to implement (e.g., GAP—Good Agricultural Practices; Altria 2011), or that distribute the burdens of compliance unfairly, benefit larger over smaller producers and, under conditions of contract production, allow corporate entities to dictate production practices to farmers (Benson 2008).

Although these efforts have yet to turn the tide against artisanal production, artisanal producers have not escaped criticism. Just because they work on a small scale does not mean that their production practices are entirely benign. In addition to the concerns mentioned earlier about product safety (esp. with food producers), at times exploitative labor practices, and their capacity to meet consumer demand, scholars have documented artisanal producers engaged in environmentally destructive and socially disruptive practices. These include, for example, degrading natural resources (Alvard 1993; Diamond 1986), marshaling political support to restrict access to common-property resources (Acheson 1988; Valdés Pizzini 1990), manipulating market access, and channeling public resources to support private interests (Peréz 2005). Nevertheless, among Puerto Rican fishers and other small-scale, artisanal producers, the evidence for sophisticated knowledge bases that can lead to conservation practices has been voluminous (García-Quijano 2007; Menzies and Butler 2006). Similarly, their interest in producing quality foods can stimulate them to object to environmentally damaging processes that can jeopardize the quality of natural resources from which those foods come.

Of broader theoretical appeal, our interest in product quality derives from the long history of anthropology's engagement with economic value and, by extension, social scientific critiques of economic science dating to Karl Marx, Marcel Mauss, Karl Polanyi, and those most recently focusing on political economy, moral economy, and other alternative economic logics (Blim 2005; Edelman 2005; Griffith

2009; Gudeman 2001; Kingsolver 2011). Specifically, we argue that Puerto Rican fishers focus on quality seafood to maintain and reproduce fishing and fishing communities as highly valued livelihoods. We substantiate these claims with a general discussion of fishing and seafood in Puerto Rico and with narrower cultural biographies of three species of fish that Puerto Ricans highly value yet that fail to rise into the official landings data in great numbers, indicating that fishers withhold many of these species from the market for personal use, including home consumption and gifting.

Adapted from ideas presented in Arjun Appadurai's (1986) *The Social Life of Things*, the cultural biographies we develop involve tracing the social relationships that extend to and from the things of our world, whether those things are commodities, gifts, inalienable properties, livelihoods, or other objects. Cultural biographies are deliberately anthropocentric, focusing on human interaction with the object, including, in the case of fish, human interaction with marine habitats, with the fish as a biological organism, as a species targeted and processed by fishers, as a commodity, as a food, as a gift, and so forth. This breadth enables us to consider social relations involved in production, exchange, and consumption. Cultural biographies are also principally qualitative in nature rather than heavily dependent on quantitative modeling or data sets, such as landings data, that can be of questionable quality, and they tend to be based in local areas yet can draw on more regional and international information sources to flesh them out.

Just as *The Social Life of Things* examined "regimes of value" (Appadurai 1986:15), our purpose in linking social relationships to seafood in general and specifically to three species of fish is to disentangle how the production, exchange, and consumption of seafood in Puerto Rico creates and adds value to not only marine resources but also fishing livelihoods and the overall quality of life of coastal communities. Although we discuss value primarily with reference to economic value—or the perception of a thing as worth acquiring with money, through barter, or by other forms of sacrifice—we also recognize that things possess social and symbolic value as well, as in a gift's ability to express respect for the recipient or a fishing vessel's tendency to increase in value after being given a name and proving its worthiness at sea. Our analysis critiques recent work that emphasizes the creation of value primarily in exchange relations or distribution networks, including kula ring type exchanges of deeply symbolic significance (Appadurai 1986; Graeber 2001; Munn 1986). Instead, we locate value-creating and value-adding processes within livelihoods that engage production, exchange, and consumption. Although Appadurai and his colleagues, along with David Graeber and Nancy Munn, recognize the potential for production spheres to generate value, Appadurai's focus on commodities and Graeber's and Munn's on exchange relations highlights theoretical interest in exchange over either production or consumption, in line with conventional economic science. Munn's assertion that value derives from

extending one's "spacetime" beyond the self, for example, not only explicitly places the creation or transformation of value in an exchange context but also contrasts exchange with consumption in a way that further champions exchange relative to consumption:

I argue that certain broad types of Gawan acts are fundamental symbolic operators of positive value transformation and its negation. As my use of the example of Gawan overseas food hospitality may perhaps suggest, these consist respectively of the separation of food from the self (the transmission of food to *others* to consume) and its negative polarity, the incorporation of food in consumption. [Munn 1986:11–12]

In one of the most comprehensive anthropological treatments of value, Graeber (2001), drawing on Munn, repeatedly subordinates production to exchange as a source of value. In a telling passage about the use of food among the Baining, for example, he initially discusses the importance of production—or, more accurately, work—as an act that not only separates humans from animals but also, through gardening and feeding children, transforms infants into “fully formed social beings, humans whose humanity, in turn, is defined largely as a capacity for productive action” (2001:70). Yet he follows these observations with what he argues is the true source of value—exchange, or giving—by saying, “So even here, there is a sort of minimal hierarchy of spheres. Producing food is not simply a value in itself. The most prestigious act in Baining society is *giving* food, or other consumables” (2001:70).

Finally, by examining links between food and livelihoods, we draw on recent work in anthropology and beyond that criticizes economic science for its overemphasis on indicators of material conditions of existence in estimations of well-being, including Michael Blim's (2001) recent work and work on moral economy, in particular E. P. Thompson's observation that poor-quality bread produced poor-quality work: “There is a suggestion that labourers accustomed to wheaten bread actually could not work—suffered from weakness, indigestion, or nausea—if forced to change to rougher mixtures” (1971:81). Linking the quality of food to the quality of work within a focus on the marketing of bread, Thompson created the basis for a strong theoretical connection between consumption, exchange, and production in their joint creation of value.

In their understanding of the proper role of producers and merchants and the correct functioning of markets and the provision of suitable food, the 18th-century working poor developed moral-economic sentiments that we encounter again and again in our ethnographic fieldwork among artisanal fishers. As the opening epigraph suggests, many small-scale fishers routinely point to their fresh, local seafood in comparison to fish and shellfish that are farm raised or caught in remote locations (often with deleterious environmental practices and socially unjust labor conditions) and imported from afar (Griffith 1999). These sentiments are echoed by people who brand local seafood by region or association with a fishing community (Andreatta 2010). Whenever produc-

ers and their allies in commodities markets take steps to alter the biographies of commodities, there are political-economic consequences, including evaluating economic fulfillment in ways different from those promulgated by capital, focusing on well-being, happiness, and similar conditions (Blim 2005; Pollnac et al. 2006) rather than higher labor productivity, increased profits, and uneven accumulation.

For Puerto Ricans, defending themselves with the excellence of the fruits of their labor entails far more than catching and selling fresh fish. Marshaling an effective defense against what seem like insurmountable odds—particularly highly organized and heavily capitalized interests representing the food industry, real estate, and tourism—involves several value-adding strategies that, in the process of defending fishing families' livelihoods, redefine coastal and marine environments and reassess the place of fishing and fishing families in coastal history, communities, and culture.

VILLAS PESQUERAS IN PUERTO RICO: METHODS AND BACKGROUND

This work is based on research conducted from 2003 to 2006 on Puerto Rico's fisheries, research that grew out of several previous studies that the authors have conducted separately and together dating back to the 1980s (García-Quijano 2006; Griffith and Valdés Pizzini 2002; Griffith et al. 2007; Valdés Pizzini 1990; Valdés Pizzini and García-Quijano 2009). Throughout this work, similar themes regarding the value of local coastal resources continued to emerge in our conversations with fishers and other coastal dwellers over several field projects spanning more than two decades and multiple sites, indicating their lasting importance for Puerto Rican fisheries. Most recently, we visited every active government-built *Villa Pesquera* (which often house fishing associations and local dealers buying fish from them) in Puerto Rico ($n = 86$), interviewing fishermen at each site, taking transect walks (i.e., walks through significant fishing sites with fishers), conducting focus groups and follow-up interviews, witnessing important fishing events (e.g., patron-saint ceremonies), ground-proofing census data collected by the state, and so forth (Griffith et al. 2007).

This work revealed the internal heterogeneity of Puerto Rico's fishing populations, ranging from fairly well-capitalized fishermen of the west coast to the smaller, part-time fishers of the north coast and those more engaged with the tourist economy of the east and south. In general, most Puerto Rican fishers fish from small (under 25-foot-long), motor-powered vessels for a variety of species that inhabit coral reefs, near-shore shelf, and deep-water or open-ocean environments. Although there is a good deal of variation related to local social dynamics and individual variation in attitudes toward cooperation and independence, by and large those fishers that the state considers bona fide commercial fishers tend to belong to a *Villa Pesquera*, where they have lockers for their gear, seafood markets, slip space, piers, and other fishing infrastructure.

Like other small-scale fishers and resource users operating within intermediate, modernized economies, Puerto Rican fishers often engage in multiple livelihoods, occupying intermediate and ambiguous positions between a traditional subsistence that is dependent on local ecosystems and a “modern,” proletarian subsistence that is engaged with larger labor markets (Griffith and Valdés Pizzini 2002). Fishing in Puerto Rico forms part of a lasting (more than 300-year-long) coastal economic tradition that combines reliance on coastal resources such as fishing with other activities such as work in the formal economy and odd jobs (both in Puerto Rico and the U.S. mainland; see Pérez 2005).

Carlos García-Quijano (2006), for example, found that in southeastern Puerto Rico many fishers who are widely recognized by their peers as “experts” or “highly successful” fishers have been career part-time fishers. García-Quijano (2006:130) also found that while fishers are very much working-class Puerto Ricans, for the most part they enjoy a relatively prosperous material standard of living (average 9.9 [1.33 *SD*] in a 13-item material standard-of-living scale), the resilience of which is partly buttressed by engagement with fishing and coastal resources. The average fishing household in southeastern Puerto Rico in 2004 had running water, electricity, a washing machine, a color television, a refrigerator, at least one automobile, a stove range, a microwave oven, a music system, ceiling fans, and an electric water heater. Furthermore, most (76%) owned their homes. Thus, fishing is not a desperate occupation of those living in “poverty” but, rather, an integral part of Puerto Rican fishers’ livelihood strategy that places them in an economic position intermediate between those characteristic of fishermen in “Western” (Europe and North America) and those in “non-Western” contexts. Fishers also have high symbolic capital, which they deploy selectively in political conflicts with competitors for coastal access and to entice local elected politicians to recruit and sometimes exploit them in political campaigns (Griffith and Valdés Pizzini 2002). In summary, like many fishers around the world (Pollnac et al. 2006), they enjoy livelihoods that they consider high quality. Below, we discuss quality in relation to three important fish in Puerto Rico, developing cultural biographies of the species within a more general history of seafood consumption in Puerto Rico.

LOCAL AND IMPORTED SEAFOOD IN PUERTO RICO

Ironically, local seafood consumption in Puerto Rico evolved from a complex history in which imported seafood played a critical role, existing alongside the casual seasonal and commercial exploitation of local marine resources. From early Spanish colonization, Puerto Rico depended on fish (mostly salted codfish, sardines, and mackerel in brine) imported from Spain while satisfying local needs with fresh fish caught in seines, fishweirs, and traps and meat from the hunting of manatees and sea turtles (Valdés Pizzini 1985). Fishweirs, located in the estuaries, were the main source of fresh fish,

although a handful of “professional” fishers plied the nearby waters, dodging English and Dutch pirates and privateers. Despite relatively abundant marine resources, the interest of the Spanish settlers in other highly profitable productive activities, such as mining and sugar-cane cultivation, and the colonial government’s overzealous control of the local waters did not encourage fishing as an important economic activity. The rich biodiversity of the coral reefs and sea-grass beds offered a mosaic of colors and species of fish, gastropods, and mollusks but in small populations, restricting the exploitation of most species except sea turtles, which were targeted until the mid-1970s.

Meanwhile, massive amounts of imported salted fish such as cod, haddock, and herring sustained Puerto Rican slaves, peasants, and rural workers. Throughout the 19th century, Puerto Rico opened its market to New England groundfish, with the United States becoming a key supplier of cod and other fishes. The colony also expanded its market to import various commodities, including saltfish, from the British, who landed the fish mostly from Newfoundland; Newfoundland also provided cod to Spain throughout the 19th century. As the Spanish were obsessed with the consumption of cod in a myriad of gastronomic forms, Puerto Rico inherited that taste and dependence.

In the first four decades of the 20th century, with the economy dominated by U.S.-based sugar corporations that operated the large mechanized central mills, salted cod remained the main source of protein for the labor force, and Puerto Rico became, arguably, the main Caribbean and Latin American client of the Newfoundland fish merchants and their powerful fisheries marketing institutions. Salted fish was shipped to Puerto Rico and distributed by Spanish-owned firms who controlled the local market and pricing until the U.S. and local governments moved aggressively to set prices and buy the fish at preferential prices. This was done to provide the labor force with a relatively cheap source of food, thus helping the sugar corporations defray the potential cost of maintaining the labor force.¹ The amount of imported fish (a lean and dried mass of meat) was staggering and surpassed the local production of fresh fish. In 1932, Puerto Rico fishers landed 3.5 million pounds of fish (roughly the same amount of fish caught today) while importing 32 million pounds of salted fish from Newfoundland (Griffith et al. 2007).

During the first half of the 20th century, the local and U.S. governments worked hard—especially during World War II—to maintain a constant flow of cod from Newfoundland at prices affordable to the agricultural workers, undercutting the market for local fish. During a moment of scarcity of that key staple, the Puerto Rican state outfitted a fleet to fish for cod off the Newfoundland coast (Pérez 2005:58). That effort failed, and Puerto Ricans continued satisfying their dependence on cod from Newfoundland until the 1960s, when frozen seafood from U.S., Asian, and Latin American markets began to replace codfish.² Presently, we estimate that imported fish amounts to nearly 70–75 percent



FIGURE 1. *Sierra*. (Credit: C. B. Hudson, illustrator, Bowers [1900], public domain)

of the fish consumed in Puerto Rico. It has been against this background that local, fresh fish has emerged as a defense.

THE CULTURAL BIOGRAPHY OF YABUCOA SIERRA

Yabucoa is a municipality on Puerto Rico's southeastern coast whose fishing community occupies a small Villa Pesquera called La Puntita ("the Little Point"). It is neither the most nor least productive of Villas Pesqueras in Puerto Rico, ranking 25 in landings out of 41 coastal municipalities and 19 in dependence on fishing out of 61 Villas Pesqueras considered in recent research (Griffith et al. 2007). Although La Puntita fishers describe *sierra* as their "most important fish," landings data from the villa contradict this.

Sierra is a highly prized and versatile fish in Puerto Rico, as likely to be served from a small roadside stand beside a factory as in a restaurant with cloth napkins and fine china overlooking the Caribbean Sea. The common name *sierra* is used in Puerto Rico for two different species: *alazana* (*Scomberomorus regalis*, or cero mackerel) and *carite* or *veritable* (*Scomberomorus cavalla*, or king mackerel). Cero mackerel is smaller than king mackerel but larger than Spanish mackerel (*S. maculatus*; see Figure 1), reaching between 80 millimeters to a meter in length compared to the king's 1.5 meters. Both are pelagic species, roaming individually or in small groups from the North Atlantic to the Caribbean, South America, and the Gulf of Mexico in their annual migrations. This range makes them vulnerable to capture in several nations' waters, and, hence, they are sold in Puerto Rico both as imported seafood and as local fish.

During an impromptu focus group at La Puntita, the local fishers agreed, without hesitation, that *sierra* was the fish most important to them, yet state data list white grunt and snapper as their most frequently landed species. This contradiction derives from the fact that local highly prized fish are often consumed at home or are sold or given away locally; hence, they are not recorded in official landings data. Although *sierra* is not the most abundant fish in the local landings (*S. cavalla* 2.9% and *S. regalis* 1.5%), it is an iconic species along the entire coast. Many fishers target *sierra*, mostly in the north and east coast, where close to two-thirds of fishers target *sierra*, compared to around a third

in the south and 16 percent in the west (Matos-Caraballo et al. 2007). Although few fish in Puerto Rico are used to identify a specific place, such as *pargos* (snappers) in La Parguera, *sierra* refers to a large fishing bank off the west coast as well as indicates the month in which the fish becomes abundant: *Abril la Sierra* ("[in] April, the mackerel").

Fishers at La Puntita complained that imported *sierra* can sell for as low as \$0.79 per pound in the large supermarket chains. To cover their costs, they need to sell it for \$2.00 per pound. They are, of course, selling a fresher product, and they can add economic value to their product by serving it in a small, open, seaside restaurant on the villa grounds. By adding value to *sierra* in this way, La Puntita fishers join fishing families across Puerto Rico involved in the coastal tourist trade, a move driven by both moral-economic and political-economic motives, inviting tourists to visit their fishing association, experience the association's importance to coastal ambiance, and spend money on their catch. At the same time, encouraging coastal tourism may result in increased coastal development and the resort construction and gentrification that often undermine commercial fishing livelihoods. Yet all along Puerto Rico's coast, Villas Pesqueras have experimented with coastal tourism, if not through sales of cooked seafood then by providing services and space for recreational boating and fishing, offering tourists boat rides, and selling fresh and frozen seafood.

At La Puntita, the foray into restaurant sales takes place from the heart of a highly politically engaged process: the villa's leadership and membership, in conjunction with villa members from Humacao and other municipalities, have been actively attempting to change the foundation law, la Ley 278, that the Puerto Rican Department of Natural Resources uses to sculpt its fishing regulations. *Sierra* is part of this process—a fish they consume heavily themselves, along with other freshly caught fish, while they discuss political strategy.

How do we account for the discrepancy between the official, quantitative information on Yabucoa fisheries and the assertion of La Puntita fishers that *sierra* is their most important fish? The most obvious explanation is that, as with most Puerto Rican fishers, La Puntita fishers move among different fisheries through the course of the year, setting traps for snapper, grouper, and grunts during one time of year and fishing with lines for *sierra*, *dorado* (mahi), and other species during other times. More germane to this discussion, however, is that La Puntita fishers consider *sierra* their most important species because they judge importance, ultimately, qualitatively: simply, its special characteristics make it superior to many other fish that La Puntita fishers catch. By valuing *sierra* qualitatively, La Puntita fishers do not discount its economic value. In fact, its high quality makes its quantitative value all the more important: its quantitative value, in other words, is one of its finer qualities. We perceived this especially poignantly one day when we visited La Puntita to discuss the problems they were having in the fishery.

We arrived in the early afternoon, on a fine late June day with a gentle breeze cooling the open-air restaurant. Three

long picnic tables stretched out beside the small kitchen under a thin metal roof. Several middle-age fishers and a teenager sharing a plate of sierra and white grunt asked us to join them, passing us the sweet fried fish. The communal spirit of this initial impression was typical of the entire day, with many fishers coming and going, buying drinks, sharing ideas, and sharing more plates of fish and fish pastries.

This wasn't our first visit to La Puntita. The previous week when Griffith stopped by to say that we were studying Puerto Rico's fisheries for NOAA, the villa president said, "We've been waiting for you" and led him to a picnic table on which he slapped down a copy of *Las Reglas*—the fishing regulations—and a copy of *la Ley 278*. "This," he said, pointing to *Las Reglas*, "we have to change. But first we have to change this," he added, indicating *la Ley*.

At the villa that day were the association's officers and a few local fishers, but on the second visit, over the course of a few hours, several other fishers from other municipalities joined the La Puntita fishers to participate in the discussion. The most prominent among the visitors was the president of the Villa Palmas del Mar, from Humacao, a slight man, lean and dark, and a valuable political ally. He was a diver, however, and as such at odds with the trap fishers of La Puntita, as one of the most widespread beliefs in fishing communities in Puerto Rico is that divers steal from traps. Yet perhaps people who fish with traps on occasion tolerating a diver sitting with them derived from both the president's insider status as a politically engaged commercial fisher and the La Puntita fishers view of themselves more as hook-and-line sierra fishers than as trap fishers. Both explanations invoke the idea of community: the former as a social structure made up of specific individuals linked to a way of life and the latter to community as part of one's identity—in this case, an identity that derives, in part, from hunting, catching, landing, cleaning, selling, cooking, and eating sierra.

Sierra as a food fish—as a favorite food—is central to Yabucoa's fishing community, and a sense of community—where ideas of proper or legitimate economic roles develop and are shared, maintained, and enforced—is essential to a moral economy. La Puntita fishers land sierra from 18-foot outboard motor-powered vessels, intercepting them east and south of Puerto Rico's southeastern corner. Landing sierra, La Puntita feed themselves, provide fresh fish to the association's restaurant, and sell the fish to a wide variety of venues—from roadside kiosks and small open-air bars frequented by the working class to mid-range and upscale restaurants. La Puntita's small restaurant enjoys a scenic view of palm trees and the sea in one direction yet a view of the fishers' fishing gear and storage lockers in the other. As such, it symbolizes a class position between the working-class kiosks and the fancier restaurants, very much in the same way that sierra itself can pass for a working person's food or a wealthy person's gourmet dish.

More importantly, how sierra is typically cooked and served, in a marinade known as *escabeche*, underscores the fish's freshness along with its deep cultural meaning and

lengthy history in Spanish and Puerto Rican cuisine. Between the 16th and 18th centuries, the *escabeche* marinating process took an ironic historical turn that deserves some attention. *Escabeche* recipes were established, officially, in the Spanish cookbooks by the 16th century. According to Berta Cabanillas de Rodríguez (1973:333), a historian of Puerto Rican gastronomy, the first cookbook published in Spain in 1525 already had a recipe for *escabeche*. It was then a complex concoction reflecting the fruits of the Mediterranean sea, coast, countryside, and forests, consisting of fish broth, vinegar, almonds, hazelnuts, pine nuts, saffron, raisins, parsley, bread crumbs, and cinnamon. The last ingredient showed, perhaps, an acquired taste for exotic spices, which helped to make *escabeche* a special fare among the aristocracy. Shortly after its 16th-century appearance, however, it started appearing in the bowls of common folk—bowls that also contained olive oil, water, vinegar, lime, and laurel leaves. In the 18th century, *escabeche* became a method of pickling fish to preserve it during the long, difficult trip from coastal Spain inland. The method became so effective and popular for preserving and adding flavor (and value) to fish that it fostered a specialized craftsman: *el escabechero* or the pickler. Fish traders from the northern coast of Spain started to use *escabeche* on an "industrial" or large scale, using a procedure similar to the one used in households (Cubillo de la Puente 1998:139). On the basis of its ubiquity in Spanish cookbooks, *escabeche*, one of the most effective ways to preserve fish, was also one of the most popular flavoring methods in Spanish households.

In Puerto Rico, *escabeche* is quite popular (esp. during Lent), as it combines a traditional way of cooking (pan frying) fish with the *escabeche* marinade, which now also contains onions and garlic. It is common to see *escabeche* in food stands along the coast that do not use much refrigeration, as the pickling preserves the fish for a few days. However, the preferred way to use *escabeche* is to fry the fresh fish, cover it with the marinade, and eat it few hours afterward or the next day. All the classic Puerto Rican cookbooks include a recipe for *escabeche* (not distant from the steps taken by the Galician or Basque *escabecheros*), indicating that the best fish for this fare is sierra (Aboy Valldejuli 1980:230). Thus, when the fishers of La Puntita serve sierra they are invoking a Mediterranean household tradition that competed with industrial fish processing while also serving a cultural gastronomical fare embedded in local tradition.

The importance of sierra to La Puntita and to the many markets that La Puntita fishers supply, according to La Puntita fishers, underlies their logic for supporting a moratorium on importing sierra from April to August, when they land sierra in great numbers. Its importance has also encouraged them to lobby for restrictions on recreational fishers selling sierra to pay for trip expenses. Given sierra's importance, it is not surprising that the fishers also object to seasonal closures for the species and to additional licenses to land sierra



FIGURE 2. *Salmonete*. (Credit: Albertus H. Baldwin, illustrator, Bowers [1900], public domain)

legally. Sierra's disposition, thus, has been politicized, occupying a central role in La Puntita fishers' political activism and critique of current fishing regulations.

THE CULTURAL BIOGRAPHY OF SOUTH-COAST SALMONETE

Several Puerto Rican marine resources enjoy limited circulation because of their status as local delicacies or their importance to family and friendship. Outside Arecibo, for example, on the road to a popular beach, families harvest the seasonally aggregating larvae of the Sirajo Goby (*Sicydium plumieri*) with mosquito nets, mix them with pumpkin, and sell them as tamales (a dish of high cultural importance locally known as *seti*) during a limited time of the year. Historically, prior to regulations restricting the landing of undersized species, fishers gave these to elderly community members. The value of *salmonete* (spotted goatfish) derives from its role in social relations as well, residing in the species' local importance as a uniquely delicious food fish and one emblematic of both ecological and cultural contexts (see Figure 2).

The spotted goatfish (*Pseudupeneus maculatus*, Mullidae goatfishes) is a small (maximum size: 30 cm), specialized, bottom-foraging fish that uses two sensitive barbs located on the sides of its mouth to hunt for benthic crustaceans, mollusks, and polychaetes (Cervigón et al. 1992; Munro 1976, 1983). It is distributed throughout the western tropical Atlantic and the Caribbean and is an important food fish for a large part of its range (Cervigón et al. 1992; Froese and Pauly 2011). Salmonete inhabit shallow waters up to depths of 90 meters, especially over sand and rock bottoms and beds of seagrass in reef areas—bathymetric and ecological characteristics widely represented in the ample, gently sloping shelf-marine ecosystems off Puerto Rico's south coast, as opposed to the sharp drop-offs and narrow shelf found off the north coast. In our conversations with fishers around Puerto Rico, south, southwestern, and southeastern fishers frequently discussed salmonete as a significant fishery, yet their north-coast counterparts mentioned them infrequently.

Salmonete accounts for under one percent of officially reported landings in Puerto Rico (NOAA 1998–2003), but fishers in the south coast say that it is underreported in commercial landings because it is first a food fish and second a commercial species. When salmonete are caught, they are often consumed within the fishers' household or given to family or friends rather than sold to the public. Because the flesh of this fish species is so prized locally for its flavor and consistency, when these very small, light fish are caught, it is better to consume them than sell them by the pound commercially. This is in line with moral-economic actors' critique of market economics for measuring all products equally and, more generally, for quantifying quality. Among Puerto Rican fishers, estimating the worth of salmonete in terms of a price per pound fails to capture the true value of this distinctive fish.

Because of its distinctive food value, a local specialty market has developed for salmonetes along the south coast where people, mostly those from the coastal region, are familiar with its delicate flavor. Local people will visit *pescaдерias* (seafood markets) specifically asking for fresh salmonete, and news of a large catch will spread by word of mouth and cause locals to rush to the fish houses. Fishers all along the south coast have mentioned how they market salmonete through local networks, catering to this specialty consumer base. In 2004, a fisher in a southern municipality described the culinary value of the spotted goatfish:

People around here are crazy about the salmonete. That is because of the natural gravy that comes out of it and mixes so well with rice, do you understand me? My mom would make white rice and would put the fried salmonete right on top of it, and that little fish would ooze a red gravy that looked like *achiote* (*Annato*), a natural gravy, that would mix with the rice. It was delicious! You didn't need any red beans or anything, no more than just the fish and the rice! [interview by García-Quijano, March 29, 2004]

It is not trivial when a Puerto Rican says that something can effectively substitute red beans to go with rice in a meal. With equal emphasis, another south-coast fisher said:

The salmonete, that is one of the best fish for eating! Because its flesh has its own taste, it is very flavorful by itself. The sierra, for example, is a great, delicious, fish, but you have to really marinate and season it, you have to make the escabeche, leave it there to marinate with its bay leaves, onion, black pepper, and the other ingredients for at least two or three days, and then it is great to eat. The *chillo* (silk snapper) and *sama* (Mutton snapper), you have to put Sazón (commercial condiment mix) in it and it's a beautiful meat. But the salmonete, you just bake it or fry it, and no condiment is really necessary. . . . You just sit down and enjoy it. [interview by García-Quijano, January 17, 2004]

When a salmonete is fished along the southern coast of Puerto Rico, its cultural biography can take one of two or more paths. It can enter reciprocity networks, its high culinary and local symbolic value serving to express, affirm, or create social ties (Graeber 2001), or it can enter the local specialty-sales networks, where its unique, locally known characteristics assure a small, dedicated consumer base. Entering either of these paths, the value attached to

salmonete entangles fishers and the fishing community in social relations of different qualities—both cultural, based on local knowledge of, experience with, and taste of salmonete, but the former involving sustaining ties within the community and the latter involving more fleeting, temporary ties between the community and others in the wider municipality.

As often happens when highly valued things circulate through community networks, these values can build on or play off of one another, leading to commodity histories and objects imbued with cultural value that defy common cultural biographical trajectories. For example, when García-Quijano mentioned the salmonete in an interview with a seafood cook who grew up and worked for decades in southern Puerto Rico before emigrating to Connecticut, the elder woman reminisced about how she would buy fresh salmonete as much to give as gifts to friends and family as to enjoy herself. In fact, for her, the salmonete, along with *jueyes* (land crabs), local sierra, and *cotorros* (parrotfish), formed part of the culturally valued fish species she liked to buy fresh when she visited Puerto Rico, flash freeze, and smuggle back to her family and friends from the south coast living in the United States. A freshly caught salmonete constitutes a meaningful, nostalgic gift for a southern-coastal Puerto Rican. In this case, an alternative social life of salmonete emerged from its being bought as a commodity by a nonfishing consumer and transformed into a culturally significant gift.

An object this distinctive and valuable is rarely politically neutral. As we worked in our concurrent field projects around Puerto Rico (García-Quijano 2006; Griffith et al. 2007; Valdés Pizzini and García-Quijano 2009), we found that fishers all over the coast were gravely concerned about the future of salmonete catches in light of recent regulations regarding increased minimum mesh sizes for the multispecies fish traps commonly used in shelf Puerto Rican waters. Fishers along the south coast repeatedly and independently reported that increased minimum mesh sizes for fish traps were making it very hard to trap even adult salmonetes, reducing salmonete catches and increasing pressure on other species that school in areas where fishers pursue salmonete.

Fishers argued that the regulated minimum mesh sizes (5.1 cm, hexagonal mesh) are too large to catch adult salmonetes because of this fish's small size, its cylindrical, elongated form with small body depth compared to size (20–25% of body length; see Froese and Pauly 2011), and its uncanny ability to squeeze through tight holes. This ability was supported by independent research on fish-trap selectivity in southern Puerto Rico. Aida Rosario and Yvonne Sadovy (1991) measured the species composition of the catch for fish traps of different mesh sizes. Among their findings was that salmonete catches decreased dramatically for any mesh sizes larger than 1.2×1.2 centimeters (square mesh) or 3.8 centimeters (hexagonal mesh) and virtually ceased at mesh sizes of 5.1 centimeters or larger. The sweeping

application of mesh size regulations had greatly reduced the fishers' ability to catch salmonete while increasing pressure on other, larger species such as the red hind (*Epinephelus guttatus*), which would get caught by traps in spotted goatfish habitats. A fisher summarized the situation like this:

You know that little fish, the salmonete, right? Well, that fish is small, adult fishes are small. The government has prohibited the use of our regular one-inch mesh sizes for out pots, and for some species, that is good. But not in this case. Why? Because the salmonete escapes on any larger mesh size! Any mesh size larger than an inch! If you use as much as one inch and a half, you stop catching salmonetes. That little fish is almost like an eel. So, when they forbid us to use one-inch mesh sizes, they, *como quien dice* [local adage meaning saying something without really saying it], forbid us from fishing for salmonete. In the last few years I only see this little fish as bycatch from gillnets, by chance. [interview by García-Quijano, March 29, 2004]

Between 2003 and 2008, fishers and coastal residents in other southern-coast locations also expressed concern about future salmonete availability. Fishers did not want to do away with mesh-size rules, recognizing the value of this management strategy for some larger, important fishery species. What several of these fishers suggested, based on their ecological knowledge, was that one way to get around this multispecies trap selectivity problem could be to allow fishers to use smaller mesh sizes specifically for salmonete, taking advantage of salmonetes' seasonal migrations from deep to shallow water, which are well-known by south-coast fishers (García-Quijano 2006). The fishers' widespread concern for their future ability to catch salmonetes highlights the value of this fish species for local fisheries. It also provides a good example of how small-scale fishers' local-ecological knowledge can aid in contemporary fishery-management challenges, engaging the politics of salmonete in a positive way by pointing out how fish-trap mesh-size regulations affect the composition of the multispecies fishery catch, sometimes with unforeseen and even counterproductive consequences (Mahon and Hunte 2001). At the same time, fishers oppose the blanket application of mesh-size regulations across all species captured with traps because it ignores qualitative distinctions among species, assuming that a single regulation, based on a specific measure, will affect all species equally.

Examining the cultural biography of south-coast salmonete, we see another of the multiple ways that Puerto Rican fishers defend themselves with fresh fish. Marshalling their local knowledge of cultural, ecological, and political-economic contexts with valuable, high-quality, and freshly caught fish and shellfish, Puerto Rican fishers strategically connect to larger, islandwide markets (as with sierra during Lent) and to the specialty local markets (as with salmonete) in a way that larger, vertically integrated actors such as supermarkets cannot. At the same time, they use their catch to maintain reciprocity networks, creating and reaffirming social ties and the symbolic value of their livelihoods for the surrounding communities.

CONCLUSION: THE CULTURAL BIOGRAPHY OF QUALITY

Puerto Rican fishers' emphasis on quality seafood produced through quality livelihoods is a manifestation of a growing critique marshaled by artisanal food producers of industrial agriculture and food distribution (Heller 2007; Midgett 2009; Moberg 2009). It involves relocating quality in community and in social relations of production and exchange that are qualitatively distinct from, yet influenced by, capitalist political economy. Incapable of fully disengaging themselves from capital and still surviving as fishers, Puerto Rican fishers combine the moral economy of artisanal fishing with the political economy of fishing commercially, selectively promoting or opposing coastal tourism based on benefits or threats to their livelihoods and enlisting their symbolic capital to organize in opposition of fishing regulations.

Inasmuch as value can be created by forming and sustaining social relationships through gift giving and exchange (Graeber 2001), sierra and salmonete become most highly valued during those times of their social lives that they reaffirm community membership and circulate within restricted local and regional spheres. In this process, it becomes easy for Puerto Rican fishers and those who follow their life histories (including anthropologists) to contrast artisanal foods with industrial foods, establishing in consumers' minds a binary opposition that reflects and resonates with other common dichotomies associated with food: local versus foreign, organic versus processed, slow versus fast, *techne* versus technoscientific (Heath and Meneley 2007). Conceptually, it is a short distance from these dichotomies to those that characterize the livelihoods that produced the foods in question, contrasting moral economy with political economy and perhaps even community with capital. Such contrasts have as deep a history as contrasts between nature and culture, rural and urban, and traditional and modern, based on empirical work, entomology, and philosophy (Heller 2007; Williams 1976).

Although it is seductive to use such dichotomies as analytical tools, it is a mistake to exaggerate typology to the point of losing sight of process and forgetting that both livelihoods and their products play active social roles within reach of analysis and interpretation through methods like cultural biography. For at the same time that artisanal food producers may use these dichotomies to distinguish their foods, industrial food producers can draw on dichotomies of their own design, notably between safe and unsafe foods, reducing food quality to a set of established, quantifiable variables such as numbers of water spigots at production sites. Such processes enable powerful producers to depoliticize social processes that disenfranchise smaller producers and, to use Chaia Heller's words (2007:605), "normalize their increasingly marginal status."

It is equally misleading to suggest, as many anthropologists have (e.g., Graeber 2001; Munn 1986), that exchange is the primary economic realm where value is created, discounting the important roles that production and consumption can assume for artisanal producers as they land, pro-

cess, package, and eat the fruits of the sea. Fish like sierra and salmonete—or, more accurately, the controversies and knowledge bases surrounding their capture—congeal fishing communities into functioning units, highlighting production's role in creating economic value from marine resources for those who land, sell, and give them away. Yet foods like sierra and salmonete draw fishing communities into larger social networks and broader cultural historical contexts, including those of fellow Puerto Ricans and those of tourists, highlighting exchange and consumption in adding economic and symbolic value to marine resources for those who enjoy them. By defending themselves with fresh fish, adding value to seafood by serving it in the truly authentic fishing environments of Villas Pesqueras, Puerto Rican fishing communities may be courting the very processes of coastal gentrification that are undermining and displacing the quality working lives and livelihoods that Puerto Rican fishers hope to maintain.

Yet when Puerto Rican fishers claim to be defending themselves with fresh fish, they are making a modest assertion that is part of a much grander and comprehensive project (Blim 2005). They are redefining political-economic processes in moral-economic terms and thereby situating moral-economic and political-economic behaviors and perspectives within an artisanal fishing livelihood. They are making an argument that certainly must resonate with humanistic social scientists as much as with small producers around the world: that quality is more important than quantity when we are talking about life.

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NOTES

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