

Organic Views of Nature: the Debate over Organic Certification for Aquatic Animals

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When the first US National Organic Standards went into effect in the fall of 2002, they included certification standards for fruits and vegetables, grain, livestock, marine and freshwater algae, wild-harvested plants, and honey. Missing were any standards for certifying fish or shellfish, making it impossible for these organisms to be 'organic' in the United States. Not an oversight, this was a decision made a year earlier after heated debates within the USDA's National Organic Program and among organic producers and certifiers about whether any 'aquatic animals' should be considered for organic status. The issue of whether to include standards for certifying fish and shellfish as organic is clearly a dimension of the question *what is organic?* As Goodman and DuPuis (2002) suggest, this question is not just about how food is grown, but also how it is known. This question is not just about making the process of food production transparent, but instead involves political contestation and knowledge systems. As such, this question is relevant for understanding the social and natural relations of food production and consumption. In this paper, I address some of the socio-natural relations involved in the question *what is organic* by examining the debate over fish to discern relationships between organic production, and worldviews and values about nature-society. I contextualise these relationships within discussion about the meaning of organic as expressed in debates over conventionalisation and standardisation and their implications for rural identity and livelihoods.

Analysis of the USDA aquatic animal debate reveals that participants of the organic movement are conflicted about 'nature': in their defense of organic as different — not just a variant of conventional agriculture — they do not simply defend a non-dualistic view of nature-society, but rather make distinctions about both nature and society that are much more complicated than can be captured by simply labeling them as either dualistic or holistic. In some settings, those in the organic movement may think "the body and the earth are analogous, and food as co-production is the central unifying material and symbolic linkage that bridges and binds the social and the natural together" (Goodman 1999, p. 33). But the fish debate reveals conceptions of nature-society that combine human activity with soil and soil processes while simultaneously

marginalising water and fluid processes as having a different potential relationship with human society. In addition, these organic advocates, in their struggle to assert a process-based view of organic practice against an input-substitution view, deny that organic has anything to do with 'more natural', instead claiming it is about control over the agricultural process, and even about "improvement" of ecological processes. All of these conceptions rest on complex distinctions about different types of organisms and environments. These understandings—of water, soil, control, and improvement—were all contested by those who favored creating standards for certifying fish as organic.

Conventionalisation, views of nature, and organic standards

In the face of increasing industrialisation, consolidation, and globalisation of agriculture, organic foods are among a variety of niche products that seem to provide options for maintaining family farms and rural ways of life. For individual farmers seeking to sustain their livelihoods in the face of competition from increasingly inexpensive and globally sourced food products, moving toward organic foods, local markets, and/or high quality products is a way to develop new markets and economic opportunities (Ilbery and Kneafsey 1999; 2000; Stassart et al. 2003). Alternative agriculture as a means to sustain rural livelihoods is also meant to achieve a larger goal of maintaining rural culture and identity, which revolves in large part around farming (Enticott 2003; Milbourne 2003). Among the ways that rural life is thought to be distinctive is in its relationship to the environment: "'Nature' has long been a keystone in the social construction of rurality... [and has] historically informed the separation of town and country" (Woods 2003, p. 272). Farmers seem to have a more intimate everyday relationship with nature, in the form of seasons, growing cycles, or farm animals (e.g. Buller and Morris 2003; Tovey 2003). This conception of rural nature is part of the basis for the new, niche agricultural products. For example, Murdoch and his colleagues assert that quality food production is embedded in what they term "local ecologies" (Murdoch et al. 2000, p. 108). Thus, in a circular relation, farmers seek to sustain their livelihoods and identity by developing niche products, such as organics. One thing that makes these products unique is their association with nature and local ecologies, which derives in part from their association with rural livelihoods and identity. In other words, to sustain their way of life, farmers sell their way of life as a component of their products.

Because the original idea behind organic production, in particular, was to provide a viable alternative to the productivist and environmentally destructive model of conventional agriculture, organic production especially is based on the idea of selling a healthier product and a different relationship with the natural world. At the same time, however, there is growing evidence that organic production is actually becoming more like conventional agriculture. Scholarly discussion has centered on ways that processes including institutionalisation, standardisation, and increasing industrialisation contribute to an erosion of organic production as an alternative to conventional production (e.g. Buck et al. 1997; Guthman 2000; Rosset and Altieri 1997). Conventionalisation can take a number of forms, including shifting from small-scale farming to large operations; the prevalence of industrial inputs, labor practices, and mass-marketing techniques; and an orientation toward monetary

profits (capturing the organic 'price-premium') as the primary goal of organic farming. At the same time, scholars have questioned the idea that trends toward conventionalisation noted in the United States are universal around the world; empirical work has provided evidence both for and against conventionalisation in other countries and regions (e.g. Campbell and Liepins 2001; Hall and Moggyorody 2001). That conventionalisation may not be inevitable or linear is used as evidence that organic farming retains its exceptionality, and can still challenge the standardising practices of the increasingly global conventional food industry and therefore provide rural development opportunities.

Organic approaches are treated as exceptional not just because they are based on alternative production practices, but because these practices are backed by values that, while not completely coherent nor monolithic, tend to challenge both conventional agriculture and capitalist, non-sustainable production more broadly. Thus, it is values, worldviews, and knowledge systems, as they intertwine with specific practices, that are seen as threatened by the conventionalisation of organic production. Foremost among these alternative values are those relating to the environment and nature-society relations. Just as rural life in general is seen as closer to nature than urban life, organic production is thought to stem from a strong environmental ethic. Scholars have interpreted organic discourse and practice to mean that the majority of organic farmers believe centrally that food production can be environmentally sustainable, farmers should work with (rather than against) natural processes, and nature and society are interdependent (e.g. James 1993; Hall and Moggyorody 2001; Michelsen 2001a; 2001b). Organic practices that are based around ecological processes such as nutrient cycling arise from these basic principles. A particularly interesting aspect of these values is that they rely substantially on the emblem of the soil as both a physical and discursive object (Duram 2000; Reed 2001). Scholars note as key themes ideas about soil health and fertility, soil regeneration, and farmers' relationships with and responsibilities for soil.

Several scholars have argued that those in the organic movement not only value environmental protection, but also hold largely non-dualistic and non-modern views of nature-society relations. As Goodman (1999, pp. 32-33; see also Goodman and Goodman 2001) puts it, the organic movement offers "an alternative world view [that] directly subverts the modernist dichotomy of nature/society...[and] transcends the instrumentalist division between people and nature." Kaltoft (1999; 2001), in her research on organic farmers in Denmark, reports not a single view of nature-society relations, but several, with the majority reflecting some type of holistic perspective on nature-society. In addition, she uses this diversity in itself to show that organic views of nature are non-modern (either pre-modern or reflexive/post-modern), in that the existence of diverse views challenges the rationalist, modernist notion of nature and society as clear and unitary ontological entities. Vos, in his analysis of conflict over organic standards, also argues that "organic farming, in all its diverse manifestations, implies a fundamentally different kind of worldview and cultural ethos;" the organic movement (as opposed to organic agro-industry) questions the "dualistic modernist ontology" that separates nature and society and thus offers a "moral ecology" that "ultimately points to a different way of life" (2000, p. 252).

A key arena for the struggle over maintaining these alternative values and rural

livelihoods is standards for organic certification (see discussion in Buck et al. 1997; Rosset and Altieri 1997; ; Guthman 1998, 2000; Goodman 1999, 2000; Lockie et al. 2000; DuPuis 2000; Vos 2000; Campbell and Liepins 2001; Goodman and Goodman 2001; Michelsen 2001a). Standards were originally developed as a means for identifying organic goods in the marketplace while protecting consumers from false claims about organic production. In this sense, official regulatory standards can be seen as a means of codifying and protecting the values and goals of organic producers. Yet, as standards have become increasingly institutionalised, scholars and organic practitioners have come to see them also as a means for conventionalising organic production. In this view, standards are a means of cooptation that facilitates the idea that 'organic' simply means substituting naturally existing fertilizers and pesticides for chemical ones (e.g. chicken manure for a chemically synthesised fertilizer), while leaving the rest of the conventional agricultural system essentially intact. This 'minimalist' approach in which organic means input substitution contradicts the 'process' view of organic held by many in the organic movement, in which organic refers to some variant of an agro-ecological paradigm of food production. In the US case, these issues surrounding the relationship among standards, views of nature and society, and processes of conventionalisation came to the fore particularly during the development of the official National Organic Standards. When the USDA released a proposed set of rules in 1997, they incited an outpouring of dissent from both producers and consumers within the organic movement, who saw the rules as undermining the fundamental meaning of organic by diluting the definition of organic to a minimalist standard while ignoring the process-based, alternative values and practices that they saw as being at the heart of organic production (for discussion of this case, see especially Vos 2000).

Although this proposed rule eventually was altered substantially, it is into the context of this debate that I wish to place the discussion over whether or not there should be standards for 'aquatic animals'. On the surface the debate over organic fish can be read as one dimension of the larger debate, in that opponents saw organic fish as an attempt to apply minimalist standards that define the product as organic, rather than applying a process-based definition of organic. That is, opponents argued that any claim to organic status for a fish would be based simply on demonstrating that it had no chemical residue, not on demonstrating a completely different production process. Therefore, organic fish represented one more step in the erosion of that which the organic movement was trying to protect, including both values relating to nature-society relations and alternative rural livelihoods. As a representative of a natural foods chain said in formal testimony about this issue:

"the point of organic standards is to have producers adapt to meet the high standards that are set and not to dilute them to accommodate producers to the point that the standard becomes meaningless" (Whole Foods Market).

However, as I will show, in making their argument those in the organic movement express contradictory ideas about nature-society relationships, ideas that challenge the notion that alternative organic producers necessarily hold, express, and practice non-dualistic worldviews. Analysis of the arguments used to defend organics from this presumed attack make clear that even alternative values about nature are not so straightforward, and that they may actually be less about nature and its relationship with society

than about the ways that parts of nature-society make sense within certain frameworks. My aim is not to deny the validity of prior work on the worldviews of organic producers, nor to take sides in the debate over organic fish.¹ Rather, my aim is to show that organic views of nature-society are often quite complicated, and cannot simply be classified as either dualistic or not.

The results I present here are based on analysis of two sets of written documents relating to the decision not to develop organic standards for aquatic animals. The first set of documents comprises written testimony to the USDA during its decision making process. These include statements submitted during a formal public input period in spring 2000 and informal statements written after release of draft recommendations in summer 2001. The majority of the testimony was from organic certifiers, and from salmon fishers and shellfish farmers; individuals submitted testimony either on their own behalf or as representatives of larger organisations and firms. This set of documents provides evidence of a range of ideas about farming, fishing, and nature-society, which allows for identification of recurring ideas and themes. The second set of documents comprises official minutes and reports from the USDA's National Organic Standards Board (NOSB) Aquatic Animal Task Force and its working groups. Because the task force and working groups were themselves composed of individuals active in organics (e.g. farming and certification) and fishing (e.g. production and management), these documents provide insight into the structure of the debate, including what points became particularly significant in the decision making process.

Analysis of these documents involved coding using the software package NVivo. While analysis was guided by my broad question about the views of nature expressed within this debate, the first round of coding was based not on conceptual categories, but on the individual topics I found within individual documents. I then proceeded by combining individual topical codes into more conceptual categories (e.g. the ways that terrestrial rules were applied to aquatic systems), which were then further combined into different views of nature-society relations (e.g. control and improvement).

The organic fish debate

In this analysis, I have identified several themes that illustrate the conflictual, and at times contradictory, views of nature-society held by those in the organic movement (Mansfield 2003). First is the ways in which '*organic*' relates to '*natural*', and how this relationship is used to deny organic status for fish. Second, the paper addresses the ways that those against organic fish relied on notions of *control* and *improvement* for judging types of food production as appropriate for organic status. The focus on control both relied on and produced particular notions about soil vs. water. Third, the paper raises the issue of *classification*. The organic constituency makes myriad distinctions about the world that are not necessarily about nature or society themselves, yet reveal particular ideas about nature-society.

"Organic" and the "natural"

To many of the proponents of expanding organic rules to encompass fish, the idea that fish would be categorically denied organic status was incomprehensible. What,

for example, could be more “organic” than wild-caught salmon from the fresh, clean waters of Alaska?

How organic can you be-- wild fish roaming the oceans for food then spawning in their natal streams. No food source provided by man [sic], and no interference by man. (Matthew Hall, Seward, Alaska)

In these debates, proponents of devising organic standards for fish suggested that such status for wild fish made sense precisely because, being wild, they are natural—which is ultimately, in their view, what organic is all about.

Indeed, the basic concept underlying the word “organic” is that food production should be as close to nature as possible and be produced without the use of man-made chemicals. (National Fisheries Institute)

In response, those against organic fish denied that the organic label has anything to do with being more ‘natural’. A key dimension of this denial was that a food cannot simply be organic by neglect.

‘Organic’ is not synonymous with the pristine waters and naturally protected environment that produces fish without human intervention. This may be the ultimate natural environment and production system, but a natural environment is not the same as a ‘certified organic’ environment, nor is an organic system simply a copy of a natural system or product. This is confusing ‘natural’ with ‘organic-by-default’, which has never been certifiable by this industry. (Organic Trade Association)

They argue that organic systems try to mimic natural systems so animals taken from natural systems are thus organic. We disagree... Organic certification of many ... types of aquatic animals would set the perception of organic back 30 years to the times when organic was thought of as “letting nature take its course.” It would set it back to the times when organic farms were thought of as weedy, bug infested fields of moldy vegetables. (Maine Organic Farmers and Gardeners Association)

In contrast to the notion of organic as natural, those in the organic movement argued that organic production is about a system that inherently involves the farmer as an active agent.

The Organic Trade Association has spent years educating consumers that organic production is a proactive approach to farming that very much involves the farmer. (Organic Trade Association)

Organic is a system of agriculture...Organic farms, just like conventional farms, are agroecosystems, not natural systems. (Maine Organic Farmers and Gardeners Association)

However, while denying that organic relies on notions of being more natural, those in the organic movement did continually stress that organic is aligned with natural processes. As the NOSB stated in their 1999 draft recommendations for certifying aquatic animals, the purpose of certification is:

to recognize management systems which rely upon natural cycles and materials to the extent

possible to address the nutritional, health maintenance, and environmental challenges of production. In general, the livestock production systems best suited for certification are those which mimic the natural life cycle of the animal.

The official definition of ‘organic production’, in the National Organic Program Final Rule, also incorporates this notion of human-based farming systems that self-consciously intermingle with natural systems. Organic production is:

a production system that is managed ... to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.

As the above two quotes indicate, although those in the organic movement choose not to describe organic as ‘natural’, they definitely claim that organic is about emulating and incorporating natural processes, from the cycling of nutrients to the life cycle of organisms to biodiversity.

In one sense this view corresponds quite well with the notion that organic involves ‘non-modern’ and ‘non-dualistic’ views of nature. Those in the organic movement are not making a distinction between natural food and social food, but instead are challenging the distinction between these. Organic food production is treated as a hybrid system in which what is natural and what is social are not so easily separated, and organic certainly cannot be reduced to being ‘natural’ as though it does not involve the actions of food producers. In another sense, however, once this conception of organic production is used as an argument against organic fish, it becomes more complicated, and less clearly challenges more traditional and dualistic views. Because wild fish do come from ‘natural’ systems, as the argument goes, they are ineligible to be organic. Only those food production systems that include humans can be organic.

In this spatial imagination, aquatic systems (and especially oceans) are treated as an external space of nature that is separate from human society. As a key dimension of what Neil Smith (1984) has called the ‘ideology of nature’, it is this concept of ‘external nature that underlies particularly modern ideas and practices.’² Thus, this geographical mapping belies a non-modern conception of nature-society, and instead re-inscribes a division between nature and society. In this view, there are spaces of nature (e.g. aquatic environments), spaces of society (e.g. conventional farms), and a middle, hybrid ground, which organic producers intentionally create in their farming practices. Only certain kinds of activities and organisms can inhabit this middle ground, while others, such as fisheries, are permanently relegated to pure spaces of nature. As such, organic agriculture is a hybrid system that mimics natural processes, but because external nature does not mimic agriculture, it cannot be organic.

Control, Improvement, and the Soil

The separation of fisheries from organic farms relied not only on treating oceans as a space of nature and the farm as a hybrid middle ground, but more specifically involved conceptions of control. In particular, most in the organic movement strongly asserted that organic production was fundamentally about control. This is suggested in the quotes in the previous section, in which individuals decry the idea of *organic-by-default* or organic

as 'letting nature take its course'. Others made this idea of control much more explicit.

The claim by proponents of the certification of aquatic animals that their animals are organic simply because they are wild does not reflect the management required to produce a certified organic crop... The key to the use of the certified organic label on crops or livestock is the word "management"... The definition of management is: act or art of managing; conduct, control, direction. This means that in order to manage there must be control. (Northeast Organic Farming Association of New York)

The concept of organic certification implies domestication, control, and monitoring of the habitat of the certified species or of the certified land on which the crop is grown. (Organic Crop Improvement Association)

Also alluded to in the quotes in the previous section, at the center of this idea of control is the idea that organic farming is a system based in particular around soil. According to Reed (2001), soil has been an emblem of the British organic movement for over fifty years, as is represented by the Soil Association, the primary certifying body in the United Kingdom. The emphasis on soil is similarly seen within the US organic movement.

Organic production systems are soil based systems, dedicated to maintaining and improving soil fertility, and minimising the use of non-renewable resources. (Organic Trade Association, American Organic Standards)

Organic certification is based upon an entire set of practices designed to conserve soil, protect the environment, and preserve and renew sustainable agricultural resources. (Organic Materials Review Institute)

Soil is then tied explicitly to the issue of control and management through the idea of *improvement*. It is not simply that organic farmers can make a series of management decisions and have explicit management practices, but the goal is actually to improve on natural processes. Although improvement is extended to organic farming and the idea of stewardship in general, the emphasis is particularly on soil improvement.

Organic is based in the soil with the focus on the improvement of the quality of the soil through the use of organic matter. (State of Washington)

The principles of organic management are based on improving soil health, being an active participant in building soil diversity, and creating and maintaining ecological farm practices. (Organic Trade Association)

As with organic farms in general, soil here becomes an emblem of the middle ground, in which human labor and natural processes combine to produce high quality, nutrient rich, living soil. The principles of organic farming may be derived from knowledge of natural processes such as nutrient cycling, but in focusing on the soil and soil improvement, it also revolves around human control over the system. Without control, there is no organic food production.

This approach to organic farming as inherently rooted in soil, soil improvement, and control has shaped the reaction against the idea of organic fish, which are seen

as coming from a completely different environment: water. My argument here is that the contrast between soil and water further complicates the views of nature-society within the organic movement. Expressed in this contrast are views quite different from those discussed in the last section, which was about how aquatic environments are treated as an *external* space of nature. Here I will show that water is simultaneously seen as *internal* to spaces of society, in that it is treated as polluted by human activity, and therefore as inappropriate for organic production. Thus, water, like soil, inhabits the middle ground, but not in a positive way: water is about fluidity and pollution, while soil is about stability and improvement. This distinction was contested by those seeking organic status for fish (for more on the contrasting views of the pro-organic fish community, see Mansfield 2003).

As the emphasis on soil suggests, those in the organic movement consider agriculture in general to be a soil-based activity, and they also consider fisheries to be a water-based activity. The NOSB included in their final report a table comparing land-based and aquatic systems: soil and water are the basic distinctions, with the assumption that soil is relatively stable while water is often quite dynamic (see Table 1). In one sense, this seems unremarkable: agriculture takes place on land, which is soil, and fisheries take place in the water. Yet, closer analysis reveals complex views about soil and water that arise within what appears to be a common-sense distinction.

Table 1: *Distinctions between land-based and aquatic systems*

	Land based system	Aquatic system
Medium	Soil	Water based
Nature of Medium	Soil more or less stays put	Water can be relatively static (farm ponds, lakes) or quite dynamic (tidal estuaries, rivers, oceans)
Ownership	Mostly privately owned	Mostly publicly owned
Management	Mostly cultivated and domesticated crops	Non aquaculture systems dominate production

Source: NOSB Wild Aquatic Species Working Group Final Report

First, the distinction is not simply between soil-as-stable and water-as-fluid. Rather, the distinction is about the potential for control over the medium, especially for control over contaminants. Those in the organic movement declared that, because of its fluidity, it is impossible to have control over water and, further, that aquatic systems are already polluted and dirty.

Unlike farmers who monitor and control the application of materials, there is no control in an aquatic system. There is also a long history of dumping of all sorts of contaminants into ocean waters. (Northeast Organic Farming Association of New York)

In this view, oceans are essentially irredeemable spaces that cannot be improved.

Therefore, organic fish is inappropriate both because aquatic systems are natural and have not come under enough control (as outlined in the previous section), and also because aquatic systems are no longer natural (they are polluted) yet they cannot come under human control (they are fluid).

Second, as the proponents of organic fish continually emphasised, the notion that farms are soil-based, stable, and controllable reveals a rather limited view of the flows that comprise farms. For example:

The atmosphere, like the oceans, contains man-made materials or pollutants that are assimilated into plants and animals when they respire. Indeed, substantial volumes of pollution are carried in the atmosphere. Organic farmers and ranchers do not control the quality of air used by their animals and plants any more than fishermen control the quality of ocean waters, yet land animals and plants are routinely classified as being organic. (National Fisheries Institute)

In this dissenting view, a farm—even if organic—is not a “coherent, self-regulating and stable whole” (Michelsen 2001a, p. 62) comprising soil, the farmer, and the crop or livestock being produced. Instead, farms inevitably include flows of air, water, nutrients, pollutants, pollen, and so on. Thus, just as with aquatic systems, organic production involves fluidity, much of which is not under control of the organic producer.

Thus, the distinction between soil and water as the medium for different kinds of food production is not simply a common-sense notion, but rather carries with it various assumptions about nature-society and how different aspects of it work and relate with each other. At work here is not necessarily a distinction between nature and society, but rather those in the organic movement made sharp distinctions between soil and water, stability and fluidity, and controllable and out of control spaces. Farms are presumed to be soil-based, and soil is seen as stable, controllable, and even improvable. Fisheries, on the other hand, are treated as water-based, and water is seen as fluid, out of control, and not improvable. This distinction between soil and water thus further contributes to the geographical mapping that makes land and water into completely different kinds of spaces.

Classifying the world

That those in the organic movement treat soil and water quite differently speaks to the larger issue of classification. Classification involves not only the question *what is organic*, with which this paper began, but more general questions of *what is similar* and *what is different*. As Bowker and Star (1999) argue, classification is impossible to avoid. It can be formal or informal, and it is often quite invisible to us. In other words, particular classifications are often taken-for-granted, and come to seem quite objective. But even those invisible classifications, they suggest, do not just exist, but instead require work to create and maintain them. Bowker and Star define idealised classification systems as being consistent, complete, and having mutually exclusive categories, but they also state that it is unlikely that any really existing system could actually meet these relatively simply requirements.

For the purposes of this paper, it is also important to remember that although dividing the world into those things that are natural and those that are social (and those that are hybrid) is one such form of classification, there are also classification schemes related

to the natural world that are not particularly about the distinction between nature and society (see also Mansfield 2003). While some of these may be formal and standardised, such as taxonomy, many more are informal and largely unacknowledged as classification schemes. Analysing the classification scheme through which the organic movement sorted different types of organisms and foods — and the inconsistencies within this scheme — adds further to understanding the complicated views of nature-society held within this community.

To some extent, this process of classification was explicitly recognised. As the NOSB stated in its final report on wild aquatic animals:

The continuum goes from highly managed and high input organic row crop farms to low-input organic permaculture systems that try to imitate natural systems. There are highly managed organic poultry operations that rely on purchased organic feed and low-input range-fed organic cattle operations. There are cultivated organic rice systems and wild organic rice systems and organic sea vegetables. The question seems to be where do we draw the line between which systems can be considered organic and which ones cannot be considered organic. Is the line between terrestrial and aquatic systems or between wild and managed systems, or is there no line at all. (NOSB Wild Aquatic Species Working Group Final Report)

In other words, on what grounds are livestock, wild-harvested plants, sea vegetables (i.e. algae), and honey acceptable as organic, while fish is not? What makes fish, and the practices used to produce them, like or unlike these other categories of food, and the practices used to produce them? Are these the proper categories with which to begin?

When is a fish not just a fish?

Although all aquatic animals are currently excluded from organic certification, it is not the case that all fish are considered the same. Fish were treated as belonging to three categories: wild fish, farmed fish (also known as aquaculture), and shellfish (both farmed and wild). Each of these was compared differently with other types of organic food production systems. As much of the discussion in the earlier sections of the paper pertains specifically to wild fish, here I focus instead on how farmed fish and shellfish were perceived in relation to those foods considered more organically appropriate.

Whereas wild fish have been categorically denied organic status, the NOSB left open the possibility of developing certification criteria for farmed fish at some time in the future. Recognising the variety of ecological problems associated with many types of fish farming — from pollution to release of potentially invasive species — many in the organic movement nevertheless saw aquaculture as being somewhat analogous to other types of farming, and thus saw an opening for organic aquaculture operations.

Organic standards for farm raised fish should be developed methodically, bringing in experience and knowledge as producers experiment with various organic methods. I do not believe that organic standards can ever be applied to wild fish. (Independent Organic Inspectors)

In particular, even though it is not soil-based, aquaculture can compare favorably in terms of the control that the producer can have over the entire production process, including stocking, disease control, site selection, and monitoring pollutants.

The only aquaculture operation that we feel is certifiable is a closed system where the farmer can manage inputs and outputs. All feed to be used must be certified organically produced. Stock from wild populations should not be permitted for aquaculture, since as we note above, there is no management of a wild system. (Northeast Organic Farming Association of New York)

A different comparison is made for shellfish (e.g. mussels and oysters), even those that are farmed. On the one hand, farmed shellfish are even more like traditional organic farms than other forms of aquaculture: shellfish themselves can be compared with vegetable crops, in that they are 'planted' and they do not migrate. As representatives of the shellfish industry argued:

Shellfish farms are managed with the same level of care and stewardship seen on terrestrial farms. Shellfish are unique, in that they are animals, but as stationary creatures they could be more readily likened to a standing crop such as corn. (Pacific Coast Shellfish Growers Association)

On the other hand, farmed shellfish are in other ways more similar to wild fish: they live in open waters and they feed themselves from organisms living in those waters. Thus, producers do not have control over their feed, and cannot provide them organic feed.

Molluscs are filter-feeding animals that typically utilize naturally occurring microalgae for their nutritional requirements. While filter-feeding represents a natural process and can benefit the environment by cycling excess nutrients, it does not conform with the Task Force's understanding of the [Organic Foods Production Act's] requirement that producers provide livestock with an organically produced feed ration. (NOSB Aquatic Animal Task Force, Recommendation on Operations that Produce Aquatic Animals)

Thus, in this sorting scheme, farmed fish have the potential to be classified with other types of farms, based on the possibility of control of both the setting and process by which the organism is grown. Yet shellfish, because they eat wild food (which is, in this view, non-organic), are classified with wild fish, for which key elements of the process necessarily remain outside producers' control.

Are fish livestock?

As the linkage between farmed shellfish and wild fish indicates, fish were classified as livestock and thus judged on the extent to which they can meet the organic requirements designed for livestock. The standard requiring organic feed for all livestock makes shellfish ineligible for organic status, just as wild fish are.

All livestock feeding is intentional, as required by [Organic Foods Production Act] Section 6509 (c)(1), which states producers...shall feed such livestock organically produced feed.... Shall does not also mean if a producer feeds livestock. This is interpreted to mean that a producer must manage the livestock feed. Wild fish feed cannot be managed or certified organic. (Organic Trade Association)

Thus, one of the more common strategies for denying organic status for fish was to

outline all the ways that fish cannot meet the requirements for livestock, including not only the source and types of feed, but also things such as the origin of the animals, health care practices, living conditions, and identification/record keeping. For example:

Health care practices: Wild aquatic animals cannot be individually tagged, identified or tracked. While whole schools may be observed as flocks of poultry are, disease cannot be isolated, identified or treated until harvest and processing operations begin. Even then, practices as they currently exist do not address healing or treatment, but simply segregation, based on visual inspection. This may be practical, but it is not in line with current organic practices. (Organic Trade Association)

Yet, if the rules for livestock clearly do not fit fish, then there are at least two options: continue to treat fish as livestock and therefore reject the fish, or decide that fish are not actually livestock and devise new and more appropriate rules. As one proponent of organic fish rather sarcastically put it:

If there is an explanation to be found for this ridiculous decision [to deny organic status for fish] it seems to stem from your inability to distinguish the difference between land animals and fish. Perhaps a visit to a local grade school biology class would be helpful. (Larry Johnson, Seward, Alaska)

In sum, those in the organic movement made a strict distinction between terrestrial systems (soil) and aquatic systems (water), but then insisted on treating aquatic animals as though they should be the same as terrestrial animals. Differences among the systems and organisms were highlighted, yet this did not lead to creating a different and more appropriate set of standards. Instead, similarity was the necessary criterion, and fish could not meet that criterion.

Are fish like wild plants, algae, or honey bees?

Classifying fish as livestock is not the only possible way of sorting these different food organisms. Even staying within existing organic categories, it is possible to compare wild fish not with livestock but instead with other wild organisms that are eligible for organic status, namely wild plants, algae, or honey bees. As it is the wildness of much fish that caused the most consternation within the organic movement, it is particularly interesting to explore the ways in which wild fish were contrasted with these other wild organisms. If wildness indicates the site and process are out of control, what is that makes some wild organisms acceptable while others are not?

For plants and algae, the basic organic criteria is that the organism come from an area that is certified to be clear of prohibited substances for the previous three years, and that it be harvested in a sustainable manner. Given this set of criteria, some in the fisheries community did suggest classifying fish with wild plants rather than with livestock.

Within the proposed rules, “fish” more properly fits with wild crop harvesting and not with livestock, since the vast majority of domestically produced fish (e.g. salmon, halibut, cod, crab, clams, shrimp) comes from wild stocks. (State of Alaska)

Few in the organic movement accepted this comparison, and instead pointed out ways that wild fish are different from wild crops on a range of criteria.

All wild harvest of plant materials require that the applicant describe and map the areas from which harvesting will take place. It requires verification that no prohibited substances have been used on that land for three years. Aquatic food production systems based on wild populations cannot delineate such an area, nor can they assure any level of management control over where the fish go. (Oregon Tilth)

In the case of wild plants and wild sea vegetables, the collection area while not directly controlled can be sufficiently monitored by the producer and easily inspected. In addition, wild plants and wild sea vegetables do not migrate from their collection area. There is no element of control or oversight for wild caught fish. (Organic Crop Improvement Association)

These concerns center on two issues. The first has, once again, to do with aquatic environments and the extent to which they are out of control, so that the producer cannot verify that no prohibited substances have been used. Yet, these criteria are not applied solely to terrestrial plants, but also to 'wild sea vegetables'. These freshwater and marine algae exist in the same fluid waters from which fish would be taken, yet this is acceptable for algae where it is not for fish. The second issue is mobility: where the fish go is not controlled. But this is not true for all fish, as was noted for shellfish, which are generally sedentary. If mobility and tracking is the only issue, then it could make sense to treat shellfish like wild crops rather than livestock (thus also eliminating the requirement for organic feed).

Further, the issues of control and mobility become particularly interesting when comparing fish to honey, which is made by semi-domesticated bees that forage widely. Beekeepers have control over the hive environment, and may have some control over the area of land surrounding the hives, but they do not have control over, or full knowledge of, where the bees actually go. This has been acknowledged and generally accepted within the organic movement.

The certification of products derived from beekeeping reflects the challenge of drafting standards which account for environmental conditions beyond the producer's control. Bees exhibit a blend of domesticated and wild animal characteristics. They are subject to human management during their time in the hive but their ability to forage for miles can lead to exposure to prohibited substances... [Existing certification agencies] utilize two types of standards for bees: prescriptive standards for production aspects over which the producer has direct control and descriptive standards for the foraging range... To meet the descriptive foraging requirements, producers must identify the general area where their bees are expected to range and establish that it provides adequate nectar and contains minimal sources of contamination. (NOSB Livestock Committee Proposed Recommendation on Wild Animals).

Thus, although organic certification rules for honey are not easily met, neither is honey categorically excluded from being certified organic simply because it is difficult to produce a satisfactorily organic product.

In sum, on what basis do we classify fish? For the most part, they were assumed to fall into the category 'livestock', seemingly on the assumption that because they are animals, they should be grouped with the other animals.³ That other options are not carefully considered by organic proponents rests on the particular distinctions made among both organisms and environments. Further, the classification schemes used to make these

distinctions are not only informal and generally taken-for-granted, but are also often inconsistent. Fish are ineligible because they are water-based rather than soil-based, yet eligible sea vegetables are also water based. Being soil-based is important because it is stable and improvable while water is fluid and polluted, yet farms are also constituted by myriad flows. Fish are ineligible because they are wild, yet wild plants are acceptable. Fish are ineligible because they are mobile, yet some fish are quite sedentary, while honey bees are also mobile. In all of these cases, the organic movement dismisses ways that fish producers might be able to manage and monitor the aquatic environment, yet they accept varying types of control for sea vegetables, wild plants, and honey bees. To arrive at this situation, the organic movement classifies nature-society in various ways, but without having a clear, consistent, or comprehensive system of classification. Fish are different from everything else, but just what makes them different is not clear.

Conclusions

In their fight against conventionalisation, those in the US organic movement opposed developing standards for organic fish. They saw this opposition as a way to defend organic standards from what they perceived as a weakening and watering down of strong standards that reflect decades of development of organic practice and ideals. These ideals include particular environmental values, in which the organic movement seems to have a less instrumental and more holistic relationship with the natural world. Recently, scholars have identified this relationship between organic production and nature as being largely non-dualistic and non-modern.

In this paper, I have used the debate over organic fish to show that organic views of nature cannot be so simply classified. First, even when expressing non-dualistic views, such as that the farm is a hybrid site combining natural processes and human labor, organic proponents simultaneously posit some spaces (e.g. the ocean) as being a space of external nature. This notion of externality is central to modern conceptions of nature and society as separate entities and arenas. Second, tied to the hybrid view of the farm is not just the idea of mixing human labor with ecological processes, but this is explicitly linked to ideas of *control* and *improvement*. This evokes the idea of humans being able to dominate and control nature, an idea that rests at the heart of modern scientific assumptions about nature. Ideas about control and improvement have also long been part of the American imaginary, such as with Thomas Jefferson's vision of an agrarian society based on American citizens spreading out across the country and improving the land through agriculture. None of this is to say that everyone in the organic movement simply holds dualistic and modern views that continue to separate nature from society, but rather to show that such practices and ideals cannot simply be defined as either modern or non-modern: they are more complicated and conflictual than this.

Third, it is not possible to simply talk about relations between nature and society. Many of the views of 'nature' expressed within the organic fish debate are not really about nature, but are about the ways that the world is classified, sorted, and categorised. Are soil and water completely different? Is soil really the medium for farming? Are oceans really out of control? Are fish livestock? How are different kinds of fish different from each other, and do those differences matter? In what ways are

fish differentiated from other ‘non-traditional’ organic foods, such as honey or sea vegetables? The point in asking these questions is not to suggest that it would ever be possible to definitively decide that one particular way of classifying the world was absolutely right. Rather, it is to suggest that individual classifications schemes—regardless of how consistent or complete—are always at work, and that they have particular effects. There are other schemes that also make sense, and these would be based on different sets of assumptions and values about nature-society as a whole. Even with the particular classification scheme expressed within the fish debate, the organic movement simultaneously articulated a wide variety of often contradictory views of nature-society. To return to the question *what is organic*, the debate over organic fish reveals that those in the organic movement look through a variety of complex lenses that influence how food is ‘known’.

Notes

- ¹ As an academic whose primary interests are in fisheries, and as a committed consumer of organic food and a former worker on organic farms, I am not disinterested, yet my allegiances do not lie with one side or another.
- ² According to Smith, the production of external nature relies simultaneously on the production of “universal” nature, including human nature. Thus, it is not the concept of external nature alone that is modern, but the ways that capitalist production, in concert with scientific and cultural practices, combines notions of external and universal nature.
- ³ There was also discussion about whether the Organic Foods Production Act required that fish be considered livestock. This might be an issue to consider, but could also be changed legislatively if the organic movement decided it was necessary to do so.

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