Analysis of Marine Stewardship Council Certification of Alaska Salmon

**Key Points**

- Ecolabels have emerged in recent years to convey production process information otherwise unavailable to consumers, and may affect their buying choice as much as price or observable qualities of a product. The extent to which consumers will make choices based on this information depends on several factors, including: consumer knowledge of relevant issues, understanding of connection between issues and purchase decisions, clarity of information presented and perceived trustworthiness of the certifying agency.
- The Alaska salmon fishery was certified to the Marine Stewardship Council (MSC) standard for a sustainable fishery in October 2000, making salmon products from the fishery eligible to be marketed with the MSC ecolabel.
- Estimates are that less than 10 percent of Alaska salmon is marketed with the MSC logo.
- The largest volume of MSC-labeled Alaskan salmon is sold in European markets, less in the United States. Even though the top six U.S. seafood firms all have chain-of-custody certification, none are supplying MSC-labeled canned salmon to the U.S. market. Processors cite a lack of interest by U.S. consumers in MSC-labeled product as reasons why there is so little labeled product sold in the U.S. market. Whole Foods, the nation’s largest natural food chain, sells fresh/frozen MSC-labeled Alaskan salmon on a seasonal basis, as well as some processed products. The January 2006 announcement of Wal-Mart to carry only MSC-certified fresh/frozen seafood within the next three to five years may have the largest potential impact on the visibility of MSC-labeled Alaska salmon yet.
- Evaluation of the environmental outcomes point toward improvements made in management as required by the MSC to maintain certification. Alaska has elected to proceed with re-assessment for another 5 years of certification.

**Introduction**

Ecolabeling programs evaluate the production process of a fishery with regard to established environmental standards set by an independent third party. If the process meets these standards, the producer or marketer may buy a license to use a specific ecolabel in marketing efforts. In effect, the label conveys to the consumer otherwise unobservable information concerning a product’s environmental impact. The consumer is then able to choose among product alternatives, ecolabeled and not. In theory, if the consumer perceives benefits from seafood from sustainable fisheries, then the consumer will pay a premium for that product, creating a market-based incentive for the fishery to become and remain certified.

The most famous example of seafood ecolabeling is the ‘dolphin-safe’ label on canned tuna. This label came about in the early 1990s as a result of public pressure to capture tuna in a process where dolphins were not encircled or harmed in any way. The U.S. Dolphin Consumer Information Protection Act of 1990 specifies that the dolphin-safe label may only be used for tuna coming from fisheries which do not encircle dolphins. All canned tuna, even cat food, available in the United States is labeled as dolphin safe. In the United States, there is no available choice consumers can make for non-dolphin safe tuna.

A better example of an ecolabeling program in seafood, in which consumers can choose to buy ecolabeled products or non-labeled products, is the Marine Stewardship Council (MSC). The MSC was created in 1997 through a cooperative effort of the environmental organization the World Wildlife Fund (WWF) and Unilever, a multi-national corporation. The goal of this partnership was to provide a standardized mechanism for certifying and labeling sustainable seafood products from wild fisheries worldwide, thereby providing a
market-based incentive to maintain sustainable fish stocks. Currently, there are no ecolabeling programs for farmed fish, although Fundación Chile does have a Code of Conduct for responsible salmon farming.

The MSC ecolabel is a better example of an ecolabeling program than the dolphin safe ecolabel because the MSC ecolabel is awarded to a sustainable fishery by a third-party independent certifier with built-in accountability. The dolphin-safe program does not employ independent third-party certifiers. The importance of this and other attributes of the MSC ecolabel will be discussed more thoroughly below.

The objective of this chapter is to present an analysis of MSC certification of the Alaska salmon fishery. Thus, the chapter will be laid out as follows. First, to understand the concept of MSC certification, a brief discussion on ecolabeling is presented followed by a discussion of the requirements of MSC certification. Second, a brief review of the assessment of the Alaska salmon fishery will be highlighted. Third, an evaluation of the environmental and economic impacts is presented.

What are Ecolabels?

Environmental labeling has been in existence, predominately in Europe, for many years, and is defined as “making relevant environmental information available to appropriate consumers.” (U.S. EPA. 1998). This type of labeling is generally voluntary, but may be mandatory, and covers a wide range of product attributes, reflecting on the impact of the production process, the products’ use and/or disposal on the environment.

A subset of environmental labeling is ecolabeling, which relies on third-party independent certifiers verifying that the products meet certain environmental criteria or standards (U.S. EPA 1998). If the product is certified to meet those standards, then an ecolabel may be affixed to the product as it moves through the marketing chain.

Unlike price and other easily observable product attributes, environmental attributes related to a product’s production are often impossible for the individual consumer to assess. Nonetheless, the presence or absence of information on environmental attributes may have important implications for certain consumers.

To make fully informed purchase decisions, consumers must have access to all information relevant to their decision-making, including information pertaining to environmental attributes. Ecolabeling programs offer an approach to provide consumers with just such information, while at the same time creating a market-based approach to address environmental issues.

Third-party consumer ecolabeling can serve three functions in the marketplace: 1) it can provide independent evaluation and endorsement of a product; 2) it can act as a consumer protection tool; and 3) it can be a means of achieving specific environmental policy goals.

An ecolabeling organization owns its environmental endorsement symbol or trademark. It licenses the use of its mark for a specified period of time and a specific fee. An ecolabeling organization has usually three tasks: standard setting, accreditation and marketing. Standard setting determines the environmental standards a product must meet to qualify for the ecolabel. Accreditation is given by the ecolabeling organization to trained certification companies. Independent assessment determines whether a given product meets those standards. If certified, then the logo can be licensed to be put on the certified products.

The effectiveness of ecolabels depends on consumer awareness of the label, and consumer acceptance of the label (trust and understanding). Awareness is generally the result of a successful promotion. Acceptance depends on: 1) public understanding of the relevant issues; 2) public understanding of the connection between relevant issues and product choices; 3) an accurate and clearly understood presentation of the product attributes; and 4) an understanding of what specific actions (e.g. purchase decisions) individuals can take in response to the information provided by the labeling program.

For ecolabeling initiatives to be broadly accepted, the issues surrounding labeling must become prominent so consumers will actively look for the labels. Thus, ecolabeling programs perform a public education role as well. A labeling program is also more likely to be accepted if it is offered by a credible source.

Seafood Ecolabeling of Wild Fisheries

There are several controversial issues related to ecolabeling, particularly related to fisheries, which has led to concern by nations around the world, both developed and developing. Partly in response to these concerns, the United Nations Food and Agriculture Organization (FAO) developed in 2005 its own guidelines for fisheries ecolabeling which outline the principles that should govern ecolabeling programs. These guidelines include the need for reliable, independent auditing, transparency of standard-setting and accountability and the need for standards to be based on good science. They also lay down minimum requirements and criteria for assessing whether a fishery should be certified and ecolabel awarded, drawing from FAO’s Code of Conduct of Responsible Fisheries to do so.

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1 There is a potential for rival ecolabels to begin appearing in the near future, however, at the moment the MSC is the only large and international true ecolabeling organization for capture fisheries in existence and it is logical to focus on it.
The Marine Stewardship Council

The MSC’s mission statement is to safeguard the world’s seafood supply by promoting the best environmental choice. It describes itself as a non-profit organization that works to enhance responsible management of seafood resources, to ensure the sustainability of global fish stocks and the health of the marine ecosystem. The MSC defines its obligations as:

- Conservation of marine fish populations and the ocean environment on which they depend;
- Conservation of the world’s seafood supply for the future;
- Provision of consumers with accurate information about the best environmental choice in seafood;
- Engaging in partnership with our stakeholders;
- Ensuring their program and its benefits are available to all regardless of size or region;
- Engaging in activities responsibly and openly.

The MSC states its beliefs that:

- the right to fish carries an obligation to do so responsibly and sustainably;
- well-informed consumer choice is a positive force for conservation;
- well-informed markets help environmentally responsible businesses to be more competitive;
- independent certification provides credible information that everyone can trust.

The three Principles of the MSC are:

**Principle 1**: A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.

**Principle 2**: Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.

**Principle 3**: The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable.

Based on the mission statement and three principles noted above, the MSC has created a standard that fisheries must meet before they can become certified: the Principles and Criteria for Sustainable Fishing. Having set the standard, the MSC has accredited a number of certification bodies (the third-party independent entities) who then judge the fishery against the standard. Certification is voluntary and accessible to all wild capture fisheries.

Certification lasts five years and is subject to annual audits to confirm improved required improvements are being made. No product from the fishery can bear the MSC ecolabel identifying it as being from a well-managed source until chain-of-custody/traceability requirements have been met ensuring that fish from the certified fishery are not mixed with uncertified fish in the supply chain. Once the fishery is certified, and chain-of-custody/traceability requirements are met all the way up the supply chain, the MSC’s trading company, MSCI, licenses the use of the MSC logo.

There are costs to the certification process. Those fisheries being assessed contract with the independent third-party certification firm – the MSC receives no funds other than funds from the license of its logo. Costs of certification vary depending on the size and complexity of the fishery. These costs are normally confidential between the client and the certification firm. The client also varies from fishery to fishery. In some cases it is the industry that pays for the certification, as in the pollock fishery. In others, as in the case of the Alaska salmon fishery, the State government through the Alaska Department of Fish and Game, funded the certification.

Subsequent to the certification, anyone handling product from the fishery must pay for a chain of custody certification — for example, processors. Anyone using the MSC logo must pay the license fee to the MSCI. There are costs of the audits that occur post-certification, and costs of re-certification every five years. The major cost of certification remains, however, the cost of running a well-managed, sustainable fishery.

The MSC welcomed FAO’s guidelines, saying that the development of the guidelines showed an endorsement of ecolabeling as a tool to achieve sustainable management of fisheries (MSC 2005). Rupert Howes, the MSC Chief Executive Director, stated that the MSC standard is consistent with the core FAO requirements, and is strengthened by the setting of the FAO’s credible international minimum standard.
Evaluations of the MSC

In January 2004, two evaluation studies of the MSC were released, one by Wildhavens Consultancy contracted by the Homeland and Oak Foundations and the Pew Charitable Trusts, and another by The Bridgespan Group contracted by the Packard, Oak and Esmée Fairbairn Foundations (Wildhavens Consultancy 2004; The Bridgespan Group 2004). The major criticism of the MSC was that it lacked credibility with U.S. environmental groups. Both reports indicated that the MSC needed to improve the quality and consistency of assessments and annual audits. The MSC since then has taken several steps to address these concerns, and has made considerable progress on many fronts in the last two years.

It is worth noting, however, that neither report was critical of the certification of Alaska salmon, beyond those concerns that were raised by the stakeholders at the time of assessment and the expert panel of scientists reviewing the application for certification.

MSC certification of the Alaska Salmon Fishery

The Alaskan salmon fishery assessment began as a test case for the MSC. Having constructed draft principles and criteria as the basis for a standard, the MSC wished to apply these to two to three volunteer fisheries. Representatives from Alaska volunteered that the MSC consider the salmon fishery as one of the test cases. The MSC began discussions in 1998 with a working group formed by the Alaska Department of Fish and Game (ADF&G) comprising of fishermen, processors, government managers and conservation groups concerning Alaska’s potential participation as a test case to which the MSC could apply the MSC Principles and Criteria for Sustainable Fishing.

There was not unanimity within the working group that the salmon fishery should be considered as a test case. Members of the working group, mainly processors and fishermen, did not want the MSC assessment to provide an opportunity for using one fishery against another or one gear type against another in the allocation process. In the end, the working group agreed that the salmon fishery could be used as a test case, under certain conditions. Those conditions were:

- The project would include all species, all gear types
- The project report, when written, would not identify individual fisheries’ problems, but would talk about species groupings to avoid issues that may affect arguments about allocation
- The MSC would pay for the test case
- The test case could be converted to an official certification evaluation if requested by ADF&G

In this MSC and ADF&G partnership of a test fishery, ADF&G contributed time of its staff needed to prepare the data and other information for the certification body, and would in return get a report for this fishery as to whether or not it comply with the MSC standard. The report from the certification body would aggregate all the fisheries, and not report on individual fisheries in order to satisfy the conditions bulleted above.

Certification of the Alaska salmon fishery proceeded as a test case for the MSC. Scientific Certification Systems (SCS) was chosen as the accredited certification body for the project. SCS selected three experts into the assessment team—Dr. Lee Alverson of Natural Resource Consultants in Seattle, Washington; Dr. Louis Boisford a the University of California, Davis; and M. Paul Krasnowski, a retired ADF&G biologist. Dr. Chet Chaffee of the SCS managed the assessment team’s activities to ensure compliance with MSC requirements (Phillips, Ward and Chaffee 2003).

Certification by the Marine Stewardship Council

Fisheries certified: US Alaska salmon; UK Thames herring driftnet, South West (England) mackerel handline fishery and Burry Inlet cockle fishery (South Wales); Western Australia rock lobster; Loch Torridon Nephrops (Scotland); South Georgia Patagonian toothfish, New Zealand hoki; Mexico’s Baja California spiny lobster; South African hake; Gulf of Alaska (U.S.) pollock; and Eastern Bering Sea/Aleutian Islands (U.S.) pollock; BSAI Pacific Cod (U.S.); Hastings Fleet Dover Sole (UK); Hastings Fleet Pelagic (U.K.).

Fisheries undergoing full assessment as part of the MSC certification process: Canada’s British Columbia salmon; Chilean hake; North Sea herring; Pacific halibut (Alaska, Washington and Oregon); Pacific halibut (British Columbia, Canada); US Alaska sablefish; California Chinook salmon; and Australian Mackerel Icefish; Lake Hjälmaren Pikeperch Lakes (Sweden); Lakes and Coorong fisheries (South Australia); US Oregon Dungeness Crab; Maryland Stiped Bass (U.S.); Oregon Pink Shrimp (U.S.); Norwegian North Sea Saithe and North East Arctic Saithe; Patagonian scallop.

Additional fisheries are in the pre-certification process, which is confidential and at the end of which the fisheries choose whether or not to pursue full assessment.

Source: MSC 2006

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Environmental Issues and Stakeholder Concerns from MSC Certification of Alaska Salmon

There were several environmental issues of concern for the assessment team.

Sustainability

Under Principle 1, the assessment team raised the question of how well the management system, which has done well in years of large populations of salmon, would fare if there was a downturn in ocean conditions which had recently been favorable for salmon.

Under Principle 2, the team identified a weakness that should be corrected: the implementation of a program to identify by catch in net fisheries.

Under Principle 3, the assessment team was concerned about the lack of research on the potential effects of salmon hatcheries on the wild stock gene pool and reproductive fitness.

Stakeholders’ Concerns

One of the most important facets of the assessment process for MSC certification is the involvement of stakeholder groups. Stakeholder groups include fishermen, environmental groups, other levels of the marketing chain, recreational fishermen, other governmental agencies. Native Americans and any other person or group that in some way is impacted by the fishery under assessment. Consulting all stakeholder groups ensures that any and all issues concerning the management of the fishery are included in the deliberations of the assessment team. The issues brought to the attention of the assessment team are evaluated to determine their relevance to the assessment and the MSC process, as well as to determine their veracity.

In the case of Alaska salmon, during the test assessment, there were few concerns brought up by industry. For the most part, industry seemed happy with the management system as it existed.

According to Chaffee, the conservation sector was also quiet. Local, regional and national groups known to be concerned with salmon issues were contacted, and any thoughts they had on the assessment and the fishery were generally positive. The Audubon Society, the Sierra Club of British Columbia and the Canadian fishing industry raised a few concerns:

- The influence of salmon hatcheries on the genetic integrity of wild salmon stocks
- The ecological effect from adding thousands of additional salmon fry into specific areas and their effect through competition for the plankton food source
- The adequacy of marking hatchery salmon to understand their influence in Prince William Sound and other areas
- Interception of Pacific salmon destined for Canada and other coastal areas
- Concern that the state budget for salmon management has been cut to the point that there is little to no room for research and development into new management strategies and techniques

Outcomes of the certification assessment

The test case results for the Alaska salmon fishery were sufficiently positive to persuade Alaska that its chances of receiving full certification were good. The state agreed to proceed with the full certification assessment in 1998, using the same assessment team. Greater consultations with stakeholders in Canada took place with the full assessment, as well as increased evaluation of hatchery-related issues and transboundary stock management.

In their report to ADF&G in September 2000, the SCS recommended that the salmon fisheries in Alaska be certified by the MSC in October 2000. Some examples of specific strengths in Alaska salmon management included:

- Statutes and regulations codify the authority and decisions of the management system
- The Board of Fisheries (BOF) has adopted numerous management plans that control harvests and assure escapement in many important fisheries throughout Alaska; management philosophy, articulated as BOF policy, has generally been codified as well
- Clearly codified state regulations establish the primacy of management for sustained yield and identify subsistence as the priority use for the harvestable surplus
- The limited entry system has helped to control effort in salmon fisheries throughout the state and has thus facilitated management for sustained yield
- The Emergency Order system allows rapid, on-site response to changed or unexpected fishery conditions
- The management system has a very high success rate in achieving target escapements, and conducting orderly harvest of surplus stocks
- Policies are in place (including a mixed stock policy) generally aimed at protecting dominant and weak stocks
- The management system has demonstrated the ability and willingness to close fishing areas and seasons to protect depleted stocks
- There are adopted Escapement Goal, Sustainable Fisheries and genetics policies
- There is a mandate for sustainable salmon fisheries in the state constitution
There were requirements for continued certification included conditions with which ADF&G would have to comply to remain certified over time. These issues were the focus of continued monitoring each year after the initial certification, to ensure sustainability of salmon. They were (SCS 2000):

- Within three years of certification the ADF&G must:
  - Determine the number of salmon spawning stocks or spawning stock aggregates in the state that are managed on the basis of a) escapement goals determined by stock-recruitment analysis; b) escapement goals determined by average escapements; and c) no established escapement goals.
  - Categorize each spawning stock or spawning stock aggregate according to relevant characteristics such as: whether it is a mixed stock fishery, the number of individual stocks exploited, methods used to estimate escapement, whether escapement goals were based on data before or after the mid-1970s and whether the monitored stocks exploited in the mixed stock fisheries are representative of unmonitored stocks exploited.
  - Present the distributions in terms of the number of spawning populations, the number of fish and the economic value of the fishery.
- Within three years of certification the ADF&G must provide an explanation to the certification body about how Alaska salmon fisheries will continue to be sustainably managed even if there is an event that changes ocean survivals back to rates equivalent to those seen in the 1950s, 1960s and 1970s.
- Within one year after certification, ADF&G must provide evidence to the certification body that the joint stock status report for northern coho required by the Pacific Salmon Treaty (PST) is being undertaken in a timely and cooperative manner.
- Within two years after certification, ADF&G must present to the certification body an explanation of why ADF&G believes the stocks being co-managed under the PST are considered sustainable based on the current management paradigm.
- Within three years after certification the state must implement a sampling program to identify major non-salmon fish species, birds and marine mammals taken in the salmon net fisheries of the State. The program should be designed to provide a reasonable understanding of fish, shellfish, birds and marine mammals taken incidentally in the fisheries.
- Before five years pass after certification, ADF&G must provide evidence and a summary regarding its findings on by-catch of non-salmon species taken in the Alaskan salmon fisheries to an accredited certification body.
- Within two years of certification, ADF&G must present information to the certification body reporting on progress made by the Commercial Fisheries Entry Commission on reducing the number of permits to the numbers determined to be consistent with the limited entry law on an annual basis.
- The Department must identify long-range research needed to assess the magnitude of the interaction of hatchery programs on the wild stock gene pool and the effect on the reproductive fitness of those stocks. The department must document the programs, policies and regulations and statutes as well as specific actions taken to assure the consistency of the hatchery program with the Genetics Policy.

The primary issues raised in the latest surveillance audit (2003-2004) include: status of stocks statewide; focal stocks for the annual surveillance; escapement goals; unmonitored, lesser stocks; the June fishery in Area M, South Unimak and Shumagin Islands; changes in management; changes in ADF&G staffing levels; and hatchery production in Alaska. Given that the system in Alaska is one in which the catch levels are set by management based on escapement goals, the status of the stocks, annual surveillance and whether or not management is successful in meeting escapement goals are all of real concern. These have been of continual concern since the original assessment. The same can be said of hatchery production. In particular, the surveillance audit recommends that “a re-assessment should examine what recent genetic and population research is being conducted to ascertain the ongoing effects of hatchery releases” (SCS 2004).

It was announced in February 2005 that ADF&G will fund a re-assessment for recertification of the Alaska salmon fishery. The timeline for completing the re-assessment was extended to 25 December 2006, due to the complexity of the fishery. The MSC certificate for the fishery will remain active for the same period (SCS 2006a).

In July 2005 the 2004-2005 Annual Surveillance Report was issued, the final surveillance report under the first five-year certification. In it, SCS found that the salmon fisheries in Alaska continued to meet the standards of the MSC and to comply with the requirements for continued certification, including having met all of the conditions in the bullets above (SCS 2005).

*The MSC’s Carrots and Sticks*

The Wildhavens report criticizes the MSC, stating that ‘the MSC places too much emphasis on the punitive threat of losing certification and not enough on the
positive inducement granting certification provides. The recommendation is that it is better to use the positive incentive of establishing pre-conditions to pull indicators up to the best practices level prior to certification. It is not clear if Wildhavens applies this criticism to the Alaska salmon fishery certification. In any case, the MSC has not accepted the suggestion that applying pre-certification conditions with only the possibility of realizing market benefits some years hence provides enough of an incentive to draw fisheries into the program. Some outside observers state that the Wildhavens criticism points to a lack of understanding of market incentives. Without the market, there is no ecolabel and thus no incentive for environmental improvement. The MSC asserts that its program is based upon a continuous improvement model: having passed a minimum standard which stretches environmental performance beyond that required by existing regulation, fisheries must continue to improve, not only by meeting its certification conditions but also overall as collective understanding of sustainability evolves.

**Chain-of-custody certification**

Certification of the fishery as sustainable is only the first step in getting the product to consumers, and in building that market-based incentive for the actors in the salmon fishery. Without those incentives, there would be no logic in maintaining the certification.

The next step in the process of getting MSC-labeled Alaska salmon to the consumer is chain-of-custody certification. Chain-of-custody certification provides proof that any product sold under the MSC logo or ecolabel can be shown to originate from a certified fishery. It applies to all entities involved in the supply chain from the fisherman, through primary and secondary processors, wholesalers, distributors, importer, retailers, food service, restaurants or any other business that handles MSC product.

The MSC web page lists the firms that have undergone chain-of-custody certification for Alaska salmon—in the United States that list includes 42 firms. It also includes nine British Columbia firms who handle both Alaskan and British Columbia salmon. In the United States, many large firms have gained chain-of-custody certification, including what are likely the six largest seafood firms in the U.S. handling Alaska salmon—Icicle Seafoods, Ocean Beauty Seafoods, Peter Pan Seafoods, NorQuest Seafoods, North Pacific Processors and Trident Seafoods.

**Assessment of the British Columbia Salmon Fishery**

The British Columbia salmon fishery is undergoing the full assessment process for potential certification by the MSC. The British Columbia Salmon Marketing Council is the client, which is entirely an industry group for wild salmon. They entered into the assessment in early 2001, however the assessment has been beset by a variety of delays.

The BC salmon assessment is proceeding along much different lines from the Alaska assessment. In this case the client requested that SCS, the certification body, conduct an assessment based on individual fisheries. This has led to 40 different fisheries, based on the different gear types, river systems and species. In addition, aboriginal and recreational fishing is also being taken into account. The assessment has not arrived at a point in which there is any more information.

**Assessment of the California King Salmon Fishery**

In December 2002, the California Department of Food and Agriculture awarded the California Salmon Council a $125,000 grant for a pilot project seeking to certify California king salmon fishery under the MSC program. A full assessment began in April 2004 for the troll-caught chinook salmon fishery. California is the leading producer of troll-caught chinook salmon along the Pacific coast. Fishing is by barbless hook and line using artificial lures and bait highly selective to chinook salmon. In 2003, the industry produced 6.4 million pounds and its primary markets are major cities in California, with some exports to Japan, Germany and the U.K. (MSC 2003).

**Analysis of MSC Ecolabeling of the Alaska Salmon Fishery**

There are, broadly speaking, two impacts of the MSC certification: 1) the impact on the environment and the salmon fisheries; and 2) economic impacts for the entire industry. In this case the definition of industry includes the seafood market, including the fishermen, processors, wholesalers, importers/exporters and the retail, foodservice and restaurant sectors.

The surveillance reports discussed above speak to the first impact. The 2004-2005 surveillance report of the SCS indicates that the Alaska salmon fishery has met all the conditions imposed during the initial certification of the fishery, thus one can conclude that the environmental conditions have improved. The reassessment of the salmon fishery is proceeding differently than the initial assessment. Rather than assessing the Alaska salmon fishery as a single fishery for all rivers, all gear types and all species, the fishery is being assessed with 16 units of certification, generally defined by geographical area, each containing various species and generally more than one gear type (SCS 2006). One of the issues being raised within the assessment process is the use of hatcheries as a management tool. Thus, while previous conditions regarding hatcheries were addressed, met and discussed in surveillance reports, concerns remain and are being brought up again in the reassessment process.
The evaluation of the economic impacts is more difficult. How does one measure positive economic impact? If the theory of ecolabels holds, then one could expect that the price of Alaska salmon would increase after certification as consumers would now pay a premium for the ecolabeled product relative to non-ecolabeled products. This might then be reflected in the ex-vessel prices.

Chapter XIII showed that there are a very large number of factors that influence salmon prices. For a variety of reasons, many related to lack of data, there have been no studies done to determine the impact of farmed salmon on wild salmon prices. Similarly, there are no existing studies of the price impacts of MSC labeling on product prices. It is quite simply very difficult to tease out the specific effect of the MSC certification exclusive of the effect of all the other demand and supply forces that move wild salmon prices at the ex-vessel level. Thus, at best, there is anecdotal evidence of market impacts of MSC labeling.

In addition, the discussion that follows will show that in spite of the MSC certification of the Alaska salmon fishery, a very small proportion of the product that flows from that fishery is actually marketing with the MSC ecolabel, or logo. As a result, any premium that the consumer may be paying (which is undetermined as yet) is going to have a minimal, if not zero, impact on the ex-vessel price.

The following section describes what is known of the current state of the markets for MSC-labeled salmon from Alaska. Portions of the discussion are taken from Roheim (2003).

**Evaluation of Outcomes of MSC Certification for Alaska Salmon Markets**

Consumer access to the product, consumer awareness of the label and consumer acceptance of the label (trust and understanding) are key to the effectiveness of the ecolabel. Awareness is generally the result of successful promotions. Acceptance depends on: 1) public understanding of the relevant issues; 2) public understanding of the connection between relevant issues and product choices; 3) an accurate and clearly understood presentation of the product attributes; and 4) an understanding of what specific actions (e.g., purchase decisions) individuals can take in response to the information provided by the labeling program.

MSC chief executive Rupert Howes reports that there has been over $70 million in retail sales of MSC-labeled Alaska salmon in 10 countries (DiPietro 2005). Consumers’ access to MSC product is growing, particularly in the UK and Western Europe. The UK has a diverse set of MSC-labeled Alaska salmon products. Figure XVI-1 shows the variety of goods available to the consumer at retail outlets. According to The Bridgespan report, retail chains representing 85 percent of U.K. food sales carry MSC-labeled product.

Two leading supermarket chains in the UK, Tesco and Sainsbury’s, competed to become the first to have newly certified product on their shelves. Sainsbury’s, the UK’s largest fish retailer, was an early supporter of the MSC and the first UK supermarket to stock MSC-labeled seafood products. Sainsbury’s has stocked Alaskan salmon since the summer of 2002.

One producer, Young’s Bluecrest — which has recently changed its name to Young’s Seafood Limited — the largest seafood producer in the UK, having recognized the potential value of the MSC label, created an entirely new brand based around the MSC label. The ‘Fish for Life’ brand is designed to promote the health benefits of fish to the consumer and assure them that by buying these products they have not contributed to the global problem of overfishing. A value-added Alaskan salmon product was launched in September 2002. Unfortunately, the product was pulled from the market in May 2004 due to lack of consumer demand. It continues to carry MSC Alaska salmon, such as that shown in the accompanying graphic. In the case of the Fish for Life product, Young’s displayed the words ‘wild Alaska chum’ salmon on the package of its product with the MSC logo appearing on the front of the package. In the accompanying graphic here, we see ‘wild pink’ salmon, with no mention of ‘Alaska’ on the package, and the MSC logo in the lower left hand corner, also on the front of the package.

Other European countries with significant Alaska certified salmon available for consumers are Switzerland, Germany, Austria and Belgium. Major international retail support comes from Migros.

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3 There remains, however, a ‘Fish for Life’ hoki product on the market.
Cooperative and Coop Schweitz in Switzerland; Delhaize based in Belgium. Gottfried Friedrichs in Germany began to market MSC products in October 2002. Metro in Germany has recently become a strong supporter of the MSC, carrying MSC-certified products. Migros was the first supermarket chain in continental Europe to sell MSC products. Migros has conducted several aggressive product promotions of the MSC product to their consumers, building consumers’ recognition of the logo and the logo’s meaning. Delhaize, which has 117 supermarkets in Belgium, with 183 affiliated supermarkets and 148 smaller neighborhood grocery stores is enthusiastic about including MSC products in their product line. Delhaize has the third largest number of supermarkets in New England (Hannaford Brothers) with 86 stores and nine percent of the market (WorldCatch Wave 2002). Products marketed include Alaska salmon fillets and smoked Pacific salmon.

However, a German frozen seafood manufacturer, Frosta AG, reported a 7.6 percent decline in sales and an operating loss of US$9.1 million in 2003, which it blames largely on consumer disinterest in or lack of awareness of its MSC-certified line of New Zealand hoki and wild Alaska salmon (The Wave News Network 2004; Cherry 2005). The company is one of the largest frozen seafood manufacturers in Germany.

Figure XVI-1  Availability of MSC-certified Alaskan salmon in the U.K. as listed on the MSC website as of September 2006. (MSC 2006b)

<table>
<thead>
<tr>
<th>Store/Brand</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sainsbury's</td>
<td>Canned Alaska salmon: Pink salmon 105g, 212g, 418g Canned Alaska salmon: Red salmon 212g, 418g Sainsbury's fresh Alaska salmon fillets (June to August - fish counter) Sainsbury's smoked Alaska salmon: Coho 140g Sainsbury's smoked Alaska salmon: Sockeye 160g Sainsbury's salmon with a mozzarella and tomato crust 360g Sainsbury's 2 Wild Alaskan salmon fishcakes 180g Sainsbury's 'Taste the Difference' Wild Alaskan salmon fillets 240g Sainsbury's Salmon goujons 200g Sainsbury's Be Good to Yourself Wild Alaskan Salmon with Mediterranean sauce in herb breadcrumb 300g Pesto crusted wild Alaska salmon 300g</td>
</tr>
<tr>
<td>Tesco</td>
<td>Wild Alaskan smoked silver salmon slices 100g Wild Alaskan smoked salmon 260g Wild Alaskan salmon fillets</td>
</tr>
<tr>
<td>Asda</td>
<td>Alaska salmon fillets in a lime and coriander marinade ‘Go Cook’ 2 Alaska salmon fillets in a tomato and mascarpone cheese sauce 360g</td>
</tr>
<tr>
<td>Waitrose</td>
<td>Wild Alaskan Coho smoked salmon 140g Wild Alaska Sockeye smoked salmon 140g Fresh Alaska salmon fillets (seasonal) (fish counter) Wild Alaskan salmon paté 113g</td>
</tr>
<tr>
<td>Co-op</td>
<td>Canned Alaska salmon: Pink salmon 213g Canned Alaska salmon: Red salmon 418g</td>
</tr>
<tr>
<td>Somerfield</td>
<td>Pink salmon in watercress</td>
</tr>
<tr>
<td>Iceland</td>
<td>2 Alaska salmon en croute 370g</td>
</tr>
<tr>
<td>Young's Bluecrest</td>
<td>Frozen wild Alaskan salmon fillets Garlic &amp; Herb Salmon Goujons 500g Salmon &amp; Pasta</td>
</tr>
<tr>
<td>Birds Eye</td>
<td>‘Simply Salmon’ Alaska salmon fillets in a garlic and herb crumb 240g ‘Simply Salmon’ Alaska salmon fillets in a malted wholegrain crumb 240g</td>
</tr>
<tr>
<td>Brakes</td>
<td>Breaded salmon nuggets 2kg 10 Pacific salmon supremes 1.4kg 20 Pacific salmon steaks 2.8kg 12 Pacific salmon steaks 2.04kg Wholemeal breaded Alaska salmon portions</td>
</tr>
<tr>
<td>Duchy Selections</td>
<td>Smoked Alaska salmon 140g</td>
</tr>
</tbody>
</table>
Figure XVI-2 shows availability in the United States, which is not as deep or broad, although it has grown substantially between 2002 and 2005. All MSC salmon products sold in the United States currently are chinook, coho and sockeye products. Most MSC-labeled products are being sold outside the major national supermarket chains network and not reaching the average consumers, with the exception of a couple of recently introduced products appearing in Safeway. Wegmans, a regional chain in the mid-Atlantic, has introduced some MSC-labeled products as well.

In the United States, natural foods chains Wild Oats and Whole Foods Market have been strong supporters of MSC products, particularly Whole Foods Market. Whole Foods is the nation’s leading natural foods grocer currently selling many MSC-labeled products in more than 130 stores nationwide. Whole Foods’ vice president Ms. Margaret Wittenberg is quoted in the MSC annual report 2003/2004 as stating, “Our partnership with the Marine Stewardship Council allows us to actively demonstrate our commitment to improving the health of the world’s fisheries” (MSC 2004).

Whole Foods first carried MSC-labeled fresh salmon in June 2001. The following year, Whole Foods Markets kicked off sales of labeled Alaskan salmon in its stores with a big promotion in June and July 2002 called “Fish for Our Future.” The Fish for Our Future educational awareness campaign highlighted wild Alaska salmon, the first North American seafood species to earn an ecolabel from the MSC. They have reported strong interest and strong sales during the promotions. The 2004 promotion ran from June 15 through July 30, which included ‘Wild Alaska Salmon Week’ from June 30 to July 4. The primary species marketed was sockeye.

Whole Foods reports that wild salmon is becoming a larger part of sales in their chain. One of the key features of Whole Foods marketing of their seafood is that they do a marketing splash for seafood as it comes in season. For example, there is a large promotional effort in May to highlight fresh California king salmon. At the end of May Whole Foods highlights fresh Copper River salmon, followed by fresh sockeye and coho in June, July and August and so on. Finally, the supermarket chain is beginning to source high-quality frozen salmon for the off-season, to carry in addition to fresh farmed salmon. It is, however, hard to identify which product attribute—ecolabeled or fresh wild—is generating any premium price that Whole Food’s consumers might be paying.

Colorado-based Xanterra Parks and Resorts has become the first hospitality operation in the United States to undergo chain-of-custody certification for MSC-certified Alaska salmon. They promoted certified Alaska salmon in nine national parks during the summers of 2003 and 2004, including Yellowstone, North and South Rim at Grand Canyon, Crater Lake, Bryce Canyon and Zion National Parks.

In the summer of 2002, Washington-based SeaBear was the first U.S. firm to apply the MSC’s ecolabel to nationally distributed smoked salmon products. The logo is featured on their top-selling Copper River smoked salmon. SeaBear ships wild salmon direct to customers across the country as far away as the United Arab Emirates and also sells its products through high-quality retailers including Thriftway, Hannaford Brothers, QFC and Larry’s.

In November 2001, Norm Thompson Outfitters of Portland, Oregon, became the first catalog company in the world to offer smoked salmon products bearing the MSC label.

Is There Room in the Market for MSC-labeled Alaska Salmon to Grow?

Absolutely. The entire fishery is certified. At the moment, pending re-certification all Alaska salmon products are eligible to bear the MSC logo. The more appropriate question is “can MSC-labeled Alaska salmon take market share away from farmed salmon?” Figure VI-2, which shows world salmon consumption, shows that the EU is a very large market for fresh and frozen salmon, but the source is primarily farmed salmon. There is a perception that European consumers are more inclined to purchase environmentally-friendly product, therefore, it may well be that at some point in the future MSC-labeled Alaska salmon will begin to increase its market share in that market.

At the current point in time, little MSC-labeled product is being sold in the Japanese market, however, the current Integrated Strategic Plan of the MSC contains milestones that target development of the Japanese market for MSC products. There may become a point in time when the MSC label will be beneficial to Alaska salmon exports to Japan.

The U.S. market is a bit more perplexing. The Bridgespan Group reported that approximately five percent of Alaskan salmon is sold in the United States with an MSC logo, and certainly much of that is reaching the consumer through Whole Foods. As mentioned above, some of the largest firms processing, distributing and marketing salmon in the United States have MSC chain-of-custody certification, including

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4 It is worth highlighting that Whole Foods, Inc. is a 25-year-old company and the first and only retailer in the U.S. to have its retail operations designated as “Certified Organic” by Quality Insurance International, a federally recognized independent third-party certification organization (www.wholefoodsmarket.com). In addition, Whole Foods granted $225,000 over three years to create a fisheries manager position for the MSC. The role of the fisheries manager was to expand MSC’s outreach to sustainable and well-managed fisheries with a goal of introducing those fisheries to the MSC program, ultimately increasing the number of certified seafood products available to consumers, Kate Troll, formerly a policy analyst for the State of Alaska’s Department of Fish and Game, held this position while it was funded.
### Figure XVI-2

**Availability of MSC-certified Alaskan salmon in the United States as listed on the MSC website as of September 2006. (MSC 2006b)**

<table>
<thead>
<tr>
<th>United States</th>
<th>Store/Brand</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Whole Foods Market</td>
<td>Whole Catch Wild Alaskan salmon burgers 363.5g</td>
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<tr>
<td></td>
<td></td>
<td>Whole Catch Wild Alaskan cold smoked salmon 113g</td>
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<tr>
<td></td>
<td></td>
<td>Whole Catch Wild Alaskan cold smoked salmon 227g</td>
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<tr>
<td></td>
<td></td>
<td>Whole Catch Wild Alaskan smoked salmon eastern spice 226g</td>
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<tr>
<td></td>
<td></td>
<td>Whole Catch Wild Alaskan smoked salmon traditional 226g</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Whole Catch Wild Alaskan smoked salmon asian 226g</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Whole Catch Wild Alaskan sockeye salmon fillets 340g</td>
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<tr>
<td></td>
<td></td>
<td>Fresh Alaska salmon fillets (in season)</td>
</tr>
<tr>
<td></td>
<td>Wal-Mart</td>
<td>Aquacuisine: 'Seafood Tonight' brand Alaska salmon patty cakes 199g</td>
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<tr>
<td></td>
<td></td>
<td>Wild Alaska salmon fillets 454g</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SmartyKat BenefitBlitz Natural salmon treat 56g</td>
</tr>
<tr>
<td></td>
<td>Wildcatch</td>
<td>Frozen Coho Alaska salmon fillets (sold in Wild Oats stores)</td>
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<tr>
<td></td>
<td></td>
<td>Frozen Sockeye Alaska salmon fillets (sold in Wild Oats stores)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Smoked Alaska salmon (sliced) 114g (sold in Wild Oats and Whole Foods Market stores)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peppered smoked King salmon 170g (sold in Wegman’s and Whole Foods Market stores)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Smoked King salmon 170g (sold in Wegman’s and Whole Foods Market stores)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Canned Alaska salmon 106g, 213g (sold in Whole Foods Market stores)</td>
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<tr>
<td></td>
<td></td>
<td>Natural Salmon Jerky 114g (sold in Whole Foods Market stores)</td>
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<tr>
<td></td>
<td></td>
<td>Wildcatch: Alaska sockeye salmon burger patty 114g (sold in Whole Foods Market stores)</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.seabear.com">www.seabear.com</a></td>
<td>Copper River Sockeye smoked salmon 170g, 450g</td>
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<tr>
<td></td>
<td></td>
<td>Smoked Alaska Sockeye salmon pouch 227g</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.vitalchoice.com">www.vitalchoice.com</a></td>
<td>'Wild Red' canned Alaska salmon 106g, 212g</td>
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<tr>
<td></td>
<td></td>
<td>Wild Alaskan sockeye salmon oil capsules (90 and 180 capsules)</td>
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<td></td>
<td></td>
<td>Alaska sockeye salmon pouch 170g</td>
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<tr>
<td></td>
<td>Norm Thompson</td>
<td>Copper River Sockeye smoked salmon 170g (Christmas season)</td>
</tr>
<tr>
<td></td>
<td>Xanterra Parks and Resorts</td>
<td>Alaska salmon: fillets, fishcakes, burgers and smoked</td>
</tr>
<tr>
<td></td>
<td>(selected outlets)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ducktrap River</td>
<td>Sliced Alaska coho cold smoked salmon 113g</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sliced Alaska coho bagged smoked salmon 113g</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.takustore.com">www.takustore.com</a></td>
<td>Hot Smoked Alaska Sockeye Salmon Fillets 1.3-1.8 lb</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hot Smoked Alaska Sockeye Salmon Pieces 0.15lbs-0.75lbs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cold Smoked Alaska Sockeye Salmon Fillet 1.5lbs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cold Smoked Alaska Sockeye Salmon Trays 6oz</td>
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<tr>
<td></td>
<td></td>
<td>Cold Smoked White Alaska King Salmon Trays 6oz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alaska Salmon Jerky plain or peppered 3oz or 6oz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Taku Smoked Alaska Salmon Spread 8oz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Taku Wings (Smoked Alaska Salmon Belly Fins) 6oz</td>
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<tr>
<td></td>
<td></td>
<td>Smoked Alaska Salmon Snack (Hot smoke sockeye, king or coho salmon) 2oz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fresh Frozen Alaska King Salmon Steak - 0.5-1lb</td>
</tr>
<tr>
<td></td>
<td>Safeway</td>
<td>Wild Alaska Sockeye cold smoked salmon 113g</td>
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<tr>
<td></td>
<td></td>
<td>Wild Alaska Sockeye hot smoked salmon 113g</td>
</tr>
<tr>
<td></td>
<td>Trident</td>
<td>Trident brand Premium wild Alaskan salmon burgers 1.367 kg</td>
</tr>
<tr>
<td></td>
<td>Ocean Beauty</td>
<td>Sea Choice brand Alaska sockeye salmon fillets 340g</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sea Choice 4 Wild Alaskan Salmon Burgers 363g</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sea Choice 4 herb crusted Wild Alaskan Salmon Burgers 363g</td>
</tr>
<tr>
<td></td>
<td>Gold Seal</td>
<td>Wild salmon oil capsules 1,000mg (120 capsules)</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.nmwtlandtrust.org">www.nmwtlandtrust.org</a></td>
<td>Bristol Bay canned Alaska red sockeye salmon 418g</td>
</tr>
<tr>
<td></td>
<td>Odyssey</td>
<td>Wild Alaska sockeye salmon 908g (sold in Sam’s Club stores)</td>
</tr>
<tr>
<td></td>
<td>Seafood Producers</td>
<td>Alaska salmon fillets (for export)</td>
</tr>
<tr>
<td></td>
<td>Cooperative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Portlock</td>
<td>‘Pure Catch’ Wild Alaskan sockeye salmon fillets</td>
</tr>
</tbody>
</table>
some of the largest canning firms. Therefore, it is somewhat puzzling that we do not see more MSC-labeled salmon in fresh/frozen and canned product forms in the major supermarket retail chains in the United States, other than Whole Foods. The puzzle continues with the Alaska Seafood Marketing Institute (ASMI). As recently as June 2005, ASMI ran a full page advertisement of grilled Alaskan salmon in Bon Appetit, Cooking Light and Sunset magazines and the advertisement did not contain the MSC logo or any mention of the MSC certification of the Alaskan salmon fishery on it (Alaska Seafood Marketing Institute 2006) The audience reached by those magazines is possibly the most likely audience to purchase ecolabeled salmon, and yet they are not being informed of the ecolabeled product. No explanation for this has been given that the authors of this report are aware of. The MSC label cannot assist Alaskan salmon in competing with farmed salmon imports if it is not referred to in marketing materials.

With respect to a lack of logos on canned salmon sold in the United States, many companies label their canned salmon with ‘Pacific’ in order to be able to freely switch between Alaska and British Columbia salmon into the product as supply and prices dictate. This removes the costs of maintaining separate labels for each product. Until British Columbia salmon is certified, they may not wish to use the MSC logo.

While the Alaska industry may not be creating a supply push for MSC-labeled salmon, Alaska salmon may benefit from an increase in demand-pull for MSC certified products on both sides of the Atlantic in the future. With the recent announcement of Wal-Mart to carry only seafood from MSC-certified fisheries within the next three to five years, wild salmon sold by Wal-Mart will be certain to carry the MSC logo (McGovern 2006). Given that Wal-Mart also sells farmed salmon, this will set up an interesting competition between the two products.

The MSC is focusing significant attention on Europe to expand the market for MSC-labeled goods. As one can see on the MSC website (www.msc.org), there is a greater diversity and increased market penetration of ecolabeled Alaskan salmon into the European market, particularly Switzerland. The future looks bright for an expansion of the market for ecolabeled salmon in the European market for a couple of reasons: a) Consumers in Europe appear more inclined toward environmentally-friendly products, and so demand, with sufficient brand advertisement, may increase; and b) industry in Europe is encouraged to engage in environmentally-friendly activities for many reasons, including reporting their activities in sustainability to shareholders in their annual reports. Furthermore, there is increasing activity on the part of retailers in Europe to procure seafood from sustainable sources which may create further demand pull for MSC-certified seafood, including Alaskan salmon.

The net impact of the increasing demand for MSC-certified seafood on Alaskan salmon is uncertain, but with an overall positive effect. It is likely to have disproportionate impacts across the various species with more positive impacts on the higher valued species – chinook, coho and sockeye. Most sockeye salmon continues to go to the Japanese market, which will remain largely unaffected in the near term at least. However, as competition within the Japanese salmon market grows, a growing market for MSC-labeled sockeye salmon in the United States and Europe would prove beneficial to the Alaska industry. The sheer size of the chum and pink salmon catch implies that the current size of the market represented by Wal-Mart and other corporations who may follow their lead in the United States and the retailers in Europe may be insufficient to significantly impact prices. In addition, they are focusing on fresh/frozen products, not the processed products into which chum and pink are typically produced. However, the European market sells pink and chum salmon with the MSC logo, and while this market is only a small fraction of the total landings of pink and chum, it is a positive market development.
References


