



2009  
Celebrating 10 years  
of partnership and progress



## NET BENEFITS

The first ten years of MSC certified sustainable fisheries



From the Chief Executive	03
Sea change: 10 years of the Marine Stewardship Council	04
Map of MSC certified fisheries	06
Western Australia rock lobster	08
Thames Blackwater herring drift-net	10
Alaska salmon	12
New Zealand hoki	14
Burry Inlet cockles	16
South-west handline mackerel	18
Loch Torridon nephrops creel	20
South Georgia Patagonian toothfish longline	22
South Africa hake trawl	24
Mexico Baja California red rock lobster	26
Bering Sea/Aleutian Islands pollock and Gulf of Alaska pollock	28
Hastings fleet Dover sole, herring and mackerel	30
Bering Sea and Aleutian Islands Alaska (Pacific) cod - freezer longline	32
Australia mackerel icefish	34
US North Pacific halibut	36
Pelagic Freezer-Trawler Association North Sea herring	38
US North Pacific sablefish	40
Lake Hjälmaren pikeperch fish-trap and gill-net	42
Patagonian scallop	44
American Albacore Fishing Association Pacific albacore tuna - north and south	46
North Eastern Sea Fisheries Committee sea bass	48
Oregon pink shrimp	50
Astrid Fiske North Sea herring	52
Lakes and Coorong, South Australia	54
Norway North Sea saithe and Norway north-east Arctic saithe	56
Scottish Pelagic Sustainability Group (SPSG) North Sea herring	58
Canada northern prawn and Gulf of St Lawrence northern shrimp trawl Esquiman Channel	60
Kyoto Danish Seine Fishery Federation snow crab and flathead flounder	62
Gulf of St Lawrence northern shrimp and Gulf of St Lawrence northern shrimp trawl fishery Esquiman Channel	64
Germany North Sea saithe trawl	66
Scottish Pelagic Sustainability Group (SPSG) western component of north east Atlantic mackerel	68
Domstein Longliner Partners North East Arctic cod and haddock	70



This year the MSC celebrates 10 years of partnership and progress. It is a decade since the first fisheries entered the MSC programme and to mark the occasion we have produced this publication to recognise and celebrate their success and to tell their stories in their own words.

Looking back, it has been an amazing journey. It began when WWF and Unilever came together in the wake of the collapse of the Grand Banks cod fishery to create a market based programme to promote and encourage sustainable fishing. Both organisations were deeply concerned about the future health and productivity of our oceans and the sustainability of seafood supplies into the future. MSC was created as a market-based certification and eco-labelling programme to recognise and reward environmentally responsible and sustainable fishing practices and importantly, to empower consumers through the use of the label to

make the ‘best environmental choice’. We became a fully independent, operational, international, not for profit organisation in 1999.

A decade on, as demonstrated in the stories of these pioneering fisheries, it is clear that greater demand for credible certified sustainable seafood is driving positive change in the way the oceans are fished. Today over 150 fisheries around the world are engaged at some stage of the independent assessment process. These fisheries land over 6 million tons of seafood – about 7% of the annual global wild harvest.

MSC owes a tremendous debt to the fisheries featured in this publication – the first 42 fisheries to achieve MSC certification. They had the courage, commitment and foresight to invest in the then young and evolving programme and have created the supply upon which a rapidly growing market for sustainable seafood is dependent. In turn we are also extremely grateful to the many seafood businesses and retailers around the world who have put seafood sustainability at their heart of their procurement strategies. Today the market for MSC certified sustainable seafood is estimated to be worth over \$1.5 billion. There are also over 2500 individual MSC labeled products available in 52 countries around the world.

I would like to thank all those individuals and organisations who have been central to the establishment of the MSC. I also want

to acknowledge the vital role of our funders whose collective and generous support has sustained the MSC over our first decade. Some of our major funders have supported us from the beginning. This funding has been crucial and has enabled us to develop the partnerships and working relationships that have been the foundation of the programme’s success and growing influence. We are also indebted to the marine conservation NGOs and the scientific community that have been central to establishing the credibility of the MSC standard for environmentally responsible and sustainable fishing.

Whilst the following pages demonstrate that we all have a great deal to celebrate it is clear that much more needs to be done and urgently if we are to ensure the future health and productivity of our oceans. We look forward to building on the achievements of this first decade by working together with all of our partners towards accomplishing our vision of the world’s oceans teeming with life, and seafood supplies safeguarded for this and future generations.



Rupert Howes  
Chief Executive, September 2009

Cover photo: South-west handline mackerel fishery, UK © John Spaul; South Africa hake fishery, South Africa © John White / MSC; American Albacore Fishing Association Pacific albacore tuna, US © Fishes Holding BV; US North Pacific sablefish, US © Peter Thompson; Domstein Longliner Partners North East Arctic cod and haddock, Norway © Alice Blålid; Alaska salmon, US © Chris Arend Photography; Mexico Baja California red rock lobster, Mexico.

# Sea change: 10 years of the Marine Stewardship Council

by Andrew Purvis



EVER SINCE 1999, when the first fisheries joined its embryonic programme, the Marine Stewardship Council (MSC) has helped bring to our attention an astonishing and sustainable resource. On the eve of the organisation's 10th anniversary year, there were over 2,000 products and close to 2.5 million tonnes of sustainable seafood carrying the MSC ecolabel. But behind the blue ecolabel on the products are the men and women from MSC-certified fisheries worldwide who have made it possible by honing best practice on a daily basis. Together, they know just about everything there is to know about sustainable fisheries management.

In this 10th anniversary booklet, that is the resource that is being celebrated – and to find out how the MSC programme is helping fisheries a decade after setting out its stall, I asked fishers and client organisations to tell the MSC story in their own words. Has certification delivered what it promised? Have there been clear economic benefits? Has the familiar blue ecolabel resulted in a market premium, helped the fishers penetrate new markets or allowed them to retain old ones? I was also keen to find out whether there have been measurable environmental gains – such as stock recovery, new scientific research, reduced bycatch or increased observer coverage on vessels. And what about clear social benefits? Has the MSC programme helped protect jobs and communities, increased interest in fishing as a way of life or improved access to social regeneration programmes or government funds?

Across time zones, weather systems and language barriers, I spoke in turn to every one of the 42 fisheries certified by April 2009 and asked them these key questions. Every fishery has a fascinating story to tell – and among the answers was compelling evidence of the many ways in

which the MSC programme is contributing to improving the health of our oceans.



## Environmental benefits

Does certification make a fishery more sustainable, or does it simply reward best practice that exists already? Many fisheries have been fishing sustainably for longer than the MSC has been in existence but, as this booklet demonstrates, measurable improvements have occurred under MSC certification. One notable example is the **New Zealand hoki** fishery (page 14), where historically low stock levels have this year recovered due to a raft of management measures. These include a stock rebuilding plan proposed by certifiers as part of MSC certification.

In South Africa, too, the marine environment is healthier as a direct result of the MSC programme's involvement. The economically important **South Africa hake** trawl fishery (page 24) was required to investigate mortality rates among seabirds that were caught in trawl warps and, if studies proved it necessary, take steps to reduce them. As a result, bird kills have decreased dramatically from a previously unrecorded 18,000 to just 200 per year.

As a condition of its certification, the **Norway North Sea and north-east Arctic saithe** fishery (page 56) was required to record bycatch more systematically than under existing regulations. This, it believes,

may lead to changes in the way other fisheries are managed. It also co-operated with government scientists on mapping deep coral areas closed to trawlers, to see if they were damaged or depleted by static gear.

In another case, gains came as a direct result of "chain of custody" certification – through which all seafood carrying the MSC logo is traceable all the way back to the certified fishery. To qualify, the **South Georgia Patagonian toothfish** fishery in the South Atlantic (page 22) requires its entire catch to be weighed, box by box, under government control in the Falkland Islands. This measure ensures that buyers and consumers that the certified catch does not come from vessels fishing illegally in other toothfish fisheries.



## Economic incentives

Most fisheries say the MSC label has helped them retain existing markets and gain access to new ones, geographically or in terms of opportunities arising from new product category developments. The **Bering Sea and Aleutian Islands Alaska cod** fishery (page 28) has achieved both. Before, its main sales were in dried cod and wet salted fillets. Since certification, it has broken into the double-frozen, value-added, breaded-and-battered market and has expanded its market to include countries in Europe. The **Germany North Sea saithe** fishery (page 66) used to rely

entirely on fresh fish sales. Now, it is winning freezing contracts for fillets – a totally new market area – because German retailers (notably the big discounters, Aldi and Lidl) are requesting MSC-certified frozen product. In Bristol Bay, Alaska, demand from big retailers has led producers of **Alaska salmon** (page 12) away from lower-value canning and into value-added markets such as filleting, chilling and freezing.

Some fishers reported price premiums. The main beneficiaries have been smaller-scale, artisanal fisheries – many of which have survived and prospered as a result of more favourable prices. In Australia, the **Lakes and Coorong** fishery (page 54) says it regularly commands premiums of 30 to 50 per cent for MSC certified versus non-certified seafood sold to restaurants in Sydney and Melbourne. In a community where fishing and related services account for 60 per cent of household income, this is vital. In Britain, the **NESFC sea bass** fishery (page 48) has reported premiums of up to 25 per cent, compared to local values prior to certification, when selling to top London restaurants. Also in Britain, the **Hastings Dover sole, herring and mackerel** fisheries (page 30) typically received a 10 per cent premium on product sold to The Netherlands and have been offered up to 15 per cent by the Casino supermarket group in France. In the United States, the **American Albacore Fishing Association (AAFA) Pacific tuna** fisheries (page 46) saw its prices increase from US\$1,700 to US\$2,250 a tonne as soon as it became MSC certified in August 2007. Guaranteed a market in Europe, the AAFA could for the first time in its history set a stable price for the future, instead of relying on a volatile dockside trading system.

The **Western Australia rock lobster** fishery (page 8) is a good example of how fisheries can experience economic benefits

beyond price premiums. When the Australian government implemented legislation requiring businesses to be audited and certified in order to export seafood, MSC certification was accepted as an alternative mechanism to meet this requirement, saving the fishery the costs of export certification.



## Social benefits

Certification can also bring social benefits. If fishery resources are managed sustainably, this should improve the security of the livelihoods of the fishing communities who depend upon them. This is particularly true for smaller-scale, artisanal fisheries such as the **Loch Torridon nephrops** fishery (page 20) in Scotland, UK and the **American Albacore Fishing Association (AAFA) Pacific tuna** (page 46) fisheries in the US.

The **Mexican red rock lobster** fishery (page 26) provides a powerful example of MSC certification contributing to the delivery of wider social benefits through community empowerment. Engagement in the MSC programme put the ten villages supported by this small, community-based fishery on the federal government's map. This resulted in increased government attention and better provision of essential services, such as a \$20 million grant for electricity and government help with infrastructure, access roads and drinking water.

## Influence on policy

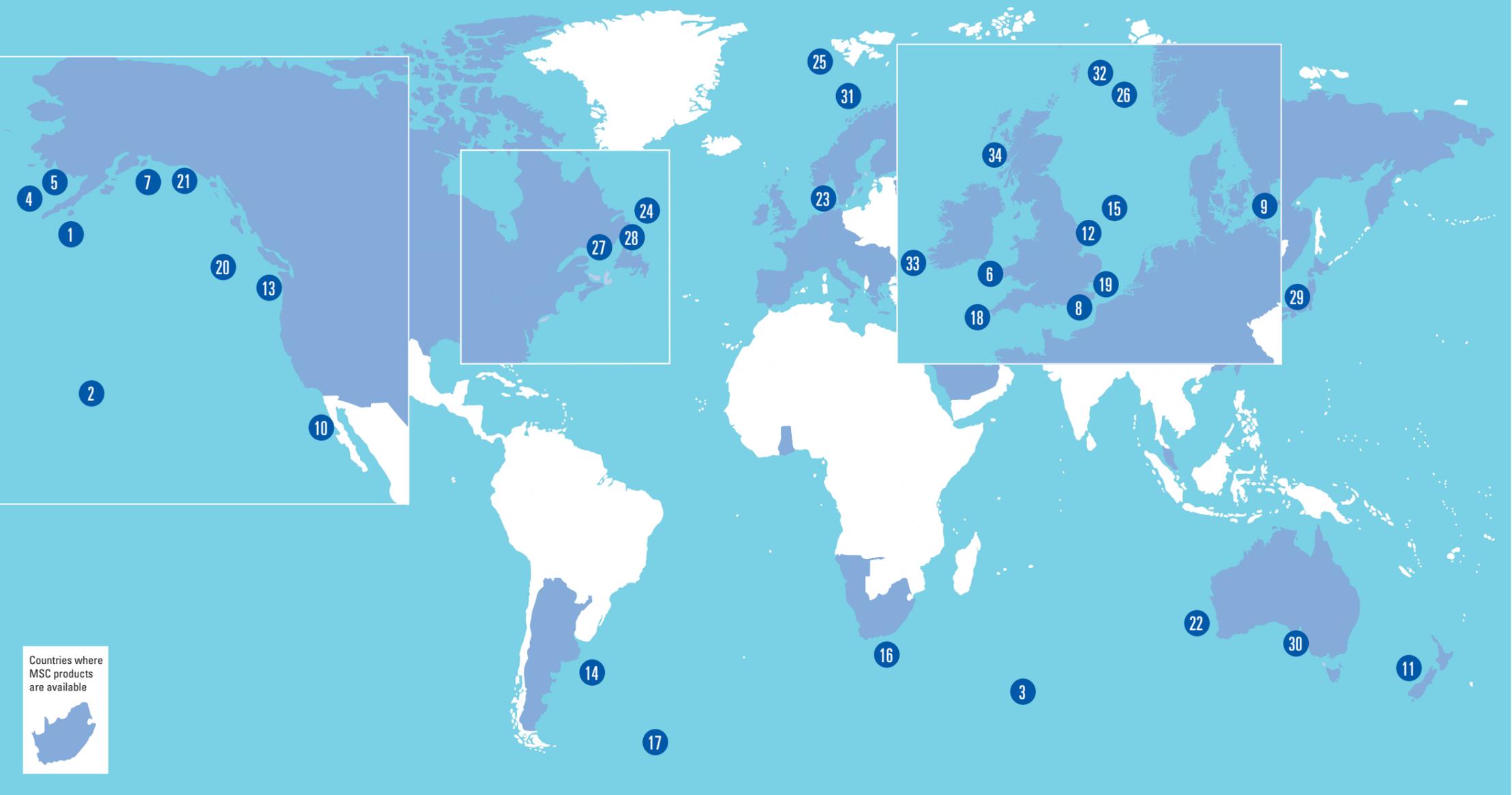
Again, the experience of the **South Africa hake** fishery (page 24) is pertinent. In response to one MSC condition, it introduced tori lines (streamers flown from vessels to keep birds away from bait and gear) on a voluntary basis. These are now mandatory on all trawling vessels in South Africa, an example of how fisheries in the MSC programme can influence government policy. South African fisheries managers also recognise that long-term collaboration opportunities have been fostered as a result of the MSC assessment process. In Europe, where most of the major **herring fisheries** (pages 30, 38, 52 and 58) are either MSC certified or under assessment, their critical mass has changed the mood of EU fishing negotiations. Quotas and other business are now handled in a more precautionary way, with the judgment of the MSC certifiers in mind.

The **Western Australia rock lobster** fishery (page 8) found MSC certification a powerful bargaining tool that helped reduce tariffs for seafood imported into the EU by half – savings that offset some of the certification costs.

It all goes to show that, over the past 10 years, the MSC programme has been helping in ways that go way beyond the simple measure of a price premium. Here, the MSC's true advocates tell the complex, enthralling story of an industry's transformation – what can only be described as a sea change.

# Map of MSC Certified Sustainable Fisheries

- Fishery**
- 1 Alaska salmon
  - 2 American Albacore Fishing Association Pacific albacore tuna - north and south (2 fisheries)
  - 3 Australia mackerel icefish
  - 4 Bering Sea and Aleutian Islands Alaska (Pacific) cod- freezer longline
  - 5 Bering Sea/Aleutian Islands pollock
  - 6 Burry Inlet cockles
  - 7 Gulf of Alaska pollock
  - 8 Hastings fleet Dover sole, herring and mackerel (3 fisheries)
  - 9 Lake Hjälmaren pikeperch fish-trap and gill-net (2 fisheries)
  - 10 Mexico Baja California red rock lobster
  - 11 New Zealand hoki
  - 12 North Eastern Sea Fisheries Committee sea bass
  - 13 Oregon pink shrimp
  - 14 Patagonian scallop
  - 15 Pelagic Freezer-Trawler Association North Sea herring
  - 16 South Africa hake trawl (2 fisheries)
  - 17 South Georgia Patagonian toothfish longline
  - 18 South-west handline mackerel
  - 19 Thames Blackwater herring drift-net
  - 20 US North Pacific halibut
  - 21 US North Pacific sablefish
  - 22 Western Australia rock lobster
  - 23 Astrid Fiske North Sea herring
  - 24 Canada northern prawn
  - 25 Domstein Longliner Partners North East Arctic cod and haddock (2 fisheries)
  - 26 Germany North Sea saithe trawl
  - 27 Gulf of St Lawrence northern shrimp
  - 28 Gulf of St Lawrence northern shrimp trawl Esquiman Channel
  - 29 Kyoto Danish Seine Fishery Federation snow crab and flathead flounder (2 fisheries)
  - 30 Lakes and Coorong, South Australia
  - 31 Norway North Sea saithe and Norway north-east Arctic saithe (2 fisheries)
  - 32 Scottish Pelagic Sustainability Group (SPSG) North Sea herring
  - 33 Scottish Pelagic Sustainability Group (SPSG) western component of north east Atlantic mackerel
  - 34 Loch Torridon nephrops creel



## Western Australia Rock Lobster



DATE CERTIFIED 3 March 2000;  
recertified December 2006

SPECIES Rock lobster  
(*Panulirus cygnus*)

FISHING METHOD Baited pots

COUNTRY Australia

LOCATION



The coast of Western Australia, from Cape Leeuwin (in the Margaret River area south of Perth) to Shark Bay, 1,000km to the north

FISHERY TONNAGE 10,750 tonnes

AS THE FIRST fishery in the world to be MSC certified, this one has had plenty of time to assimilate the benefits. “The main one has been market access,” says Dexter Davies, Executive Chairman of the Western Rock Lobster Council. “Major supermarket chains in Australia are now demanding MSC-labelled product, which puts us in a strong position.” In March, Aldi stores – the German-owned discounter with more than 200 outlets in the Australian states of New South Wales, Queensland and Victoria – announced it would be stocking 11 canned and frozen MSC-certified products in all its stores from July 2009.

### Access to new markets, reduced tariffs and political influence

This surge of interest is new in Australia, but being MSC certified helped the fishery access European markets from the outset. “The EU imposes a tariff on Australian seafood going into Europe,” Davies explains, “and MSC certification was a very powerful tool in reducing it by half” – from 12 per cent to six per cent. The saving, on 1,500 tonnes of frozen lobster sold into Europe over three years, offset some of the costs of MSC certification.

“Representatives from the lobster industry went and lobbied the EU to allow them access,” Davies says, “and the fact that we had MSC certification was a strong bargaining tool. The negotiators could say, ‘Look, this is coming from an independently assessed sustainable fishery’. That counted for a lot.”

For the most part, however, this spiny, reddish-purple crustacean with long antennae is exported to China, Taiwan, the United States and Japan, generating Aus\$400 million (£190 million) a year – 20 per cent of the total value of Australia’s fisheries. When selling into these markets, the MSC connection brought a saving in time and effort that also cut costs – proving that it is not just a price premium that pays dividends. Four months after the Western Australia rock lobster fishery became MSC certified, the Australian government implemented its Environment Protection and Biodiversity

Conservation (EPBC) Act 1999, requiring businesses to be audited and EPBC certified in order to export seafood. “That Act was modelled on the MSC standard,” Davies says, “and because we were MSC certified already, we had done all the work. An enormous amount of those MSC costs would have been incurred anyway, just to get export certification.”

### Reducing negative effects of global recession

This year, exports of lobster are generally in decline. “In a global recession, it is not something people have to eat,” says Davies – but here, too, MSC certification can help. “There is now a real necessity to expand into very diverse markets – in Europe, in the Middle East and some different product areas in the US. As you move into these more specialised boutique markets, they are looking for something to differentiate the product at a high price. In increasing these market opportunities, the MSC has played a useful role.”

### Long-term management

Ecologically, the lobster fishery has always depended on “the magnificent predictive science we have had for 40 years,” says Davies, referring to a technique developed in the 1960s by biologist Bruce Phillips, allowing the catch to be predicted accurately four years in advance. By placing “collectors” (or artificial habitats) on coastal reefs, Phillips was able to count the pueruli, or lobster larvae, drifting in on currents from the depths of the Indian Ocean where *Panulirus cygnus* lays its eggs. “That allowed management decisions to be made four years in advance, which was a powerful tool,” says Davies.

Thanks to that, managers have identified “an unbelievably low count” of pueruli – due to environmental factors – and have cut fishing effort by 50 per cent to allow stocks to recover. “It’s a precautionary measure and still good management,” Davies says. “All we are doing is addressing the issue early.”

“Before certification, this fishery was sustainable because we said so. Now, all this wonderful scientific information is reviewed by experts around the world. We get an automatic peer review of how we manage our fishery”

Dexter Davies, Executive Chairman,  
Western Rock Lobster Council



# Thames Blackwater Herring Drift-net



© John Spaul



DATE CERTIFIED 3 March 2000; recertified December 2005

SPECIES Herring  
(*Clupea harengus*)

FISHING METHOD Drift net

COUNTRY United Kingdom

LOCATION



The Greater Thames Estuary, extending out to the six-mile limit

FISHERY TONNAGE 2 tonnes  
(landed 2006/07)

NOWHERE IS THE phrase ‘Small is beautiful’ more apt than in this tiny fishery stretching north from the mouth of the River Thames to the Blackwater and Colne estuaries near Colchester, a town just 56 miles from London, in the eastern county of Essex. Within this restricted area (part of the larger Thames herring fishery), only drift nets are allowed – set by fewer than half a dozen boats, all less than 10m long, that fish for only an hour or two each day.

To complete the theme, the fish they are targeting are unusually small as well. The herring that spawn here, known as Blackwater stock or Thames Estuary herring, are a discrete population with one less vertebra than North Sea herring. “As a result, they are smaller,” says Joss Wiggins, Chief Fishery Officer of the Kent and Essex Sea Fisheries Committee (KESFC), which manages, regulates and develops fisheries in the region, “so we needed some kind of marketing tool to encourage people to buy our product.”

## Gaining fisher’s support

In the late 1990s, before sustainability was a household word, the fishermen saw MSC certification as the solution. Selling locally-caught fish to local markets in a sustainable manner “ticked a lot of boxes for them”, Wiggins says, but there were benefits for him as a fisheries manager. “It was useful to have someone else come in and audit what we were doing. If you are a regulator, it helps when others back up what you are trying to do to manage stock sustainably. It makes the fishermen more supportive of your measures.”

## Changing regulatory framework

One such measure was the annual closure of spawning areas (in February for the drift-net area, in March for the whole Thames herring fishery) under an existing byelaw. “It was set by date,” Wiggins explains, “but there was no mechanism for closing the whole estuary in the event of quota being reached early.” For a month, trawlers

outside the restricted drift-net zone could continue to fish and potentially exceed the TAC (Total Allowable Catch).

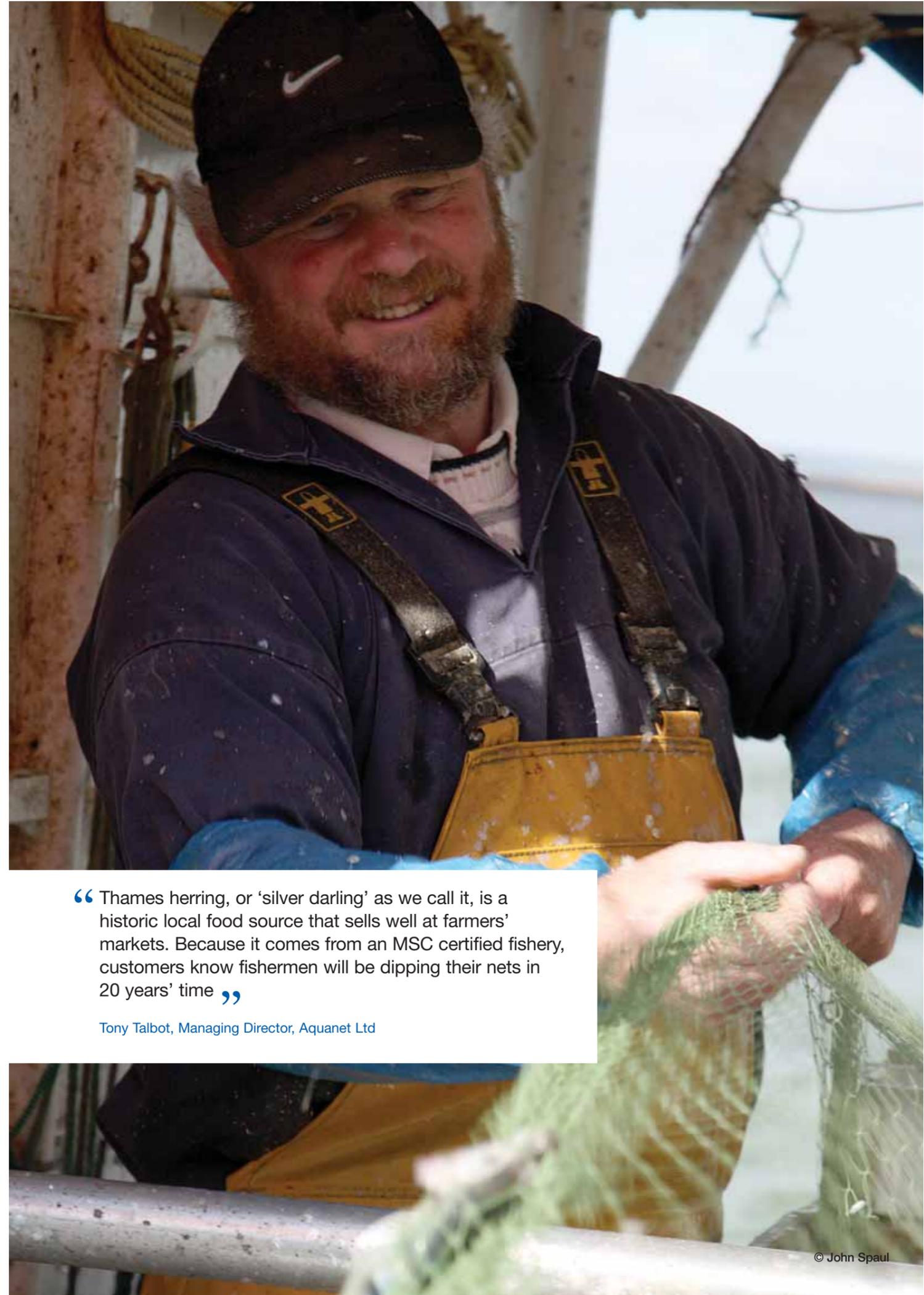
One condition of achieving full MSC certification was that this problem be addressed. “We changed our byelaws,” Wiggins explains, “so we can now close the whole estuary when Defra (the Department for Environment, Food and Rural Affairs) tells us the quota inside the MSC area has been reached. That triggers closure of the whole fishery – which helps protect future stock.”

## Economic benefits

However, the economic gains were instant and spectacular. “Even before certification was granted,” said fisherman Andrew French at the time, “a buyer from Grimsby wanted to buy it all – and the price went up from £2 to £3 per stone immediately.” In 2000, the year of MSC certification, prices peaked at £388 a tonne, according to Defra. Trials were conducted with Thames herring in UK supermarkets; and for a while Duchy Originals, a UK brand founded by HRH The Prince of Wales, sold MSC Thames herring pâté. The main outlets, though, were local farmers’ markets and shops, as is the case today.

Then, ironically, the Blackwater stock decided to go elsewhere to spawn. “They seem to be congregating further up the Thames Estuary,” Wiggins says, meaning trawlers outside the MSC area “are getting improving catches of 80 to 90 tonnes a year while we are landing virtually no herring.”

It is galling, but there is a silver lining. Having observed the flurry of interest at the time of certification, local fishermen are now talking about seeking certification for “some of the major species that the fishing community here is catching.” These include Dover sole, bass and thornback ray. “The herring has acted as a catalyst,” says Wiggins, “and if the same thing is applied to some of these other stocks, most fishermen round here think it could work.”



“ Thames herring, or ‘silver darling’ as we call it, is a historic local food source that sells well at farmers’ markets. Because it comes from an MSC certified fishery, customers know fishermen will be dipping their nets in 20 years’ time ”

Tony Talbot, Managing Director, Aquanet Ltd

“ What MSC certification does is get the fishermen’s minds engaged and fully supportive of our measures to try and manage the stock more sustainably – especially if they can see some benefit in terms of value ”

Joss Wiggins, Chief fishery Officer, Kent & Essex Sea Fisheries Committee

# Alaska Salmon



© Rupert Howes / MSC



**DATE CERTIFIED** 3 September 2000; recertified November 2007

**SPECIES** Salmon – sockeye (*Oncorhynchus nerka*), chum (*Oncorhynchus keta*), Chinook (*Oncorhynchus tshawytscha*), coho (*Oncorhynchus kisutch*) and pink (*Oncorhynchus gorbuscha*)

**FISHING METHOD** Nets (drift gillnet, set gillnet, purse seine), trolling (pulling a baited line or lure behind a boat) and fishwheel (similar to a water-powered mill wheel, with baskets in which fish are captured before transfer to tanks)

**COUNTRY** United States



U.S. territorial waters adjacent to the State of Alaska

**FISHERY TONNAGE** 287,000 tonnes

“IT’S LIKE A modern-day gold rush,” says Warren ‘Buck’ Gibbons, describing the salmon harvest in western Alaska, where he not only fishes but sits on the board of the Bristol Bay Regional Seafood Development Association. “On the 1st of June it is highly likely that, if you put a net in the water, you will catch nothing. Around the 20th of June, here come 40 million salmon! By the 20th of July, there is nothing again. It’s an amazing display of what Mother Nature can provide.”

## The largest sockeye fishery in the world

All along 400kms of Bristol Bay shoreline in the crook of the Alaska Peninsula, salmon rush up rivers with evocative names such as Cinder, Kvichak, Nushagak, Togiak and Ugashik. Waiting for their return at the river mouths are the 1,800 small vessels of the Bristol Bay gillnet fleet – each one just 10m long, but together comprising the largest sockeye fishery in the world, with a harvest worth \$190m in 2008.

And Bristol Bay is only one part of an Alaska-wide salmon fishery that includes five species of salmon and hundreds of millions of fish, all participating in this annual migration as the fish return from thousands of miles out in the North Pacific to spawn in the rivers and lakes where they were born.

## Harvest and conservation

Throughout the vast state of Alaska, in remote fishing areas scattered throughout a rugged landscape, the fishery is carefully managed by the Alaska Department of Fish and Game (ADF&G) to ensure its sustainability. ADF&G begins by setting overall conservation objectives and then controlling the harvest to make sure these objectives are met. “Harvests are set based on the resource that is surplus to the conservation needs” according to David Bedford, deputy commissioner of the ADF&G. Alaska managers monitor the fishery harvests and keep careful count of each of the various species of salmon to make sure sufficient numbers have escaped the fishers and are able to swim upriver and spawn.

“ADF&G uses spotter planes on river systems that are shallower and clearer, so they can see the fish from the air,” says Jon Sarheim – who, with Gibbons, runs the seafood company Wildcatch. “You can also see fish jumping, and monitor activity from counting towers.” This, together with strict regulation, enforcement, and ongoing research has made Alaska “a global leader in fisheries management and a working

model of what happens when you do it right,” Gibbons says.

## Beyond canned salmon

In Bristol Bay, the sheer abundance of fish forged the area’s reputation for canned salmon. “There was such a stampede of protein, you had to can it because, next day, you’d be overwhelmed by another wave,” says Gibbons. “Now, as the fish has become more valuable internationally, there are huge investments going on in Bristol Bay to fillet, portion and add value,” continues Gibbons. “Part of this change in outlook has come from the commitment to MSC by big retailers in the US and Europe.”

In September 2008, Findus France launched a new value-added product – Alaska salmon fingers – which was immediately listed by all major French retailers because of its MSC label, boosting Findus’s market share from 38 to 45 percent.

## Sustaining communities

“For all those efforts of filleting, chilling and value-adding, everyone along the supply chain picks up a little bit more revenue,” Gibbons explains. “In our communities, there are very few jobs and opportunities – and salmon is often the thing that creates the cash to sustain them through the year. The more value you place on fish, the more you return to these Alaskan communities.”

## A long history with MSC

The Alaska salmon fishery, a model for sustainable management practices since statehood in 1959, was one of the first fisheries to enter the MSC programme, as a way to demonstrate its sustainability to global markets through independent verification. In 2007, the fishery, through the continued leadership and efforts of ADF&G, successfully completed its second five-year certification to the MSC standard. As one of the pioneering fisheries in the MSC programme, ADF&G has been a key partner and has played an important role as the MSC programme has evolved and improved the consistency and quality of the criteria and guidelines by which a fishery’s sustainability is measured against the MSC standard.

According to Bedford: “MSC recommendations for increased research into hatchery/wild salmon interactions in Prince William Sound and southeast Alaska have been beneficial to the agency in moving this work up the priority list.”

However, it has not all been smooth sailing. Bedford points out how “ADF&G has shared some of the growing pains of the [MSC] programme.” An experience Bedford acknowledges as probably being “somewhat unique among MSC clients due to our relatively long history with the programme,” as well as the complexity and size of the fishery. ADF&G’s work with MSC has paid off for the Alaska seafood economy. Wild Alaska salmon products, popular worldwide, currently include nearly 900 MSC labelled products in more than 30 countries.



“ The MSC label helped to get the strongest listings for our new Alaska salmon finger product: it was immediately listed by all major French retailers. Proposing more and more MSC products in their ranges is an effective way for retailers to prove their commitment to sustainability ”

Sophie Allemand, fish group brand manager, Findus France

“ This message about Walmart – and the connection with MSC – makes its way all the way back to the boat in Bristol Bay. It drives appreciation and awareness of sustainability right back to the primary producer ”

‘Buck’ Gibbons, Bristol Bay Regional Seafood Development Association

# New Zealand Hoki



© Sealord Group Ltd



©Terry Hann

DATE CERTIFIED **March 2001; recertified October 2007**

SPECIES **Hoki (*Macruronus novaezelandiae*)**

FISHING METHOD **Midwater trawl; bottom trawl**

COUNTRY **New Zealand**

LOCATION



Separately managed as two stocks: west and south of the South Island (western stock); and in Cook Strait and on the Chatham Rise, to the east of the South Island (eastern stock)

FISHERY TONNAGE **90,000 tonnes (TAC 2008/09)**

"If you are looking for a good news story, here's a really good one," says George Clement, CEO of the DeepWater Group Ltd in New Zealand, generously providing me with a headline. "How about: Fishery Rebuilt Under MSC Custody, Stock Now Well Above Maximum Sustainable Yield?" As we talk on the phone, MFish (the Ministry of Fisheries there) has just completed its annual assessment of both the eastern and western hoki stocks. The western stock has been below the management target in recent years due to reduced levels of recruitment – the numbers of young entering a population in a given year. In the case of hoki (a chunky white fish, and one of the country's most valuable species), nobody knows why. In some years, fewer larvae and small hoki survive than in others, which has nothing to do with overfishing.

"It's like a rollercoaster," Clement says. "Hoki recruitment levels can fluctuate up to 50-fold from year to year. Between 1991 and 1994, recruitment into the western stock was above average, resulting in annual catches of 100,000 - 140,000 tonnes from 1997 to 2002. However, low levels of recruitment between 1995 and 2001 have reduced the stock size. To compensate, we have reduced catches from this stock down to 29,000 tonnes. These lower exploitation rates, coupled with improved recruitment, have enabled the stock to rebuild in size."

### Stock rebuilding

It seems the strategy is paying off. Higher levels of recruitment and low catches have enabled the stock to rebuild to above the size that will produce the maximum sustainable yield (MSY) – the largest catch that can be taken without affecting a stock's abundance or its capacity to reproduce.

There had been particular concern about the western stock, which in 2007 was running well below the required MSY figure. The 2009 stock assessment estimates that both stocks are now above the size that will provide for maximum sustainable yields.

One key element in the success story has been the stewardship of the MSC. Among the conditions of the 2007 recertification was that the industry implement a stock rebuilding plan, to be updated annually if recovery lagged behind forecasts. It also

required management objectives, outlined in the New Zealand government's existing recovery plan, to be recorded in more detail.

It is said, MSC certification has encouraged better documentation of processes. Clement agrees this is the main bonus, but there have been others: "MSC certification also required that we undertake an Environmental Risk Assessment of the fishery with participation from stakeholders. We see that as a beneficial step."

### Reduced seabird death

Another condition of recertification required the fishery to reduce the risk of injury or deaths to seabirds by managing discards of offal (fish waste) from vessels. "All hoki trawlers now have individual Vessel Management Plans," says Clement, "which prescribe agreed offal management procedures. The sole objective is to reduce the risks of injury or death to foraging seabirds." Since 2001, the number of impacts has fallen from 8.73 seabirds per 100 tows to 1.32 per 100 tows, due to a range of regulatory and voluntary measures.

### Reducing impact on seabed

In Clement's view, the MSC strengthens and systemises intentions that are already there. The creation of Benthic Protection Areas (BPAs) is another excellent example. The MSC certification and surveillance programme identified interactions between trawling and seabed habitats as an area needing further management consideration. In 2007, the New Zealand Government introduced BPA closures, which exclude trawling and dredging across 30 per cent of its Exclusive Economic Zone, and provided legal protection to a wide range of representative and pristine benthic habitats – an initiative proposed by the seafood industry. This is the largest assemblage of marine protected areas in the world – focused on maintaining unspoilt deepwater marine benthic biodiversity.

"I can't say this was a result of the MSC certification of hoki alone," says Clement, "but it shows there are parallel lines of thinking. We and the MSC are doing the same thing, working hand-in-hand on long-term, sustainable solutions. We are producing food, but looking after the fishing resource and the ocean habitats at the same time."

“ The New Zealand hoki fishery is the largest fishery in New Zealand. We supply clients across Europe, the Americas and Asia with MSC certified sustainable hoki. MSC certification of the New Zealand hoki fishery has confirmed for us both the need and the benefit for our long-term commitment to sustainable seafood supplies ”

Eric Barratt, Managing Director, Sanford Ltd Sustainable Seafood



© Sealord Group Ltd

## Burry Inlet Cockles



Photo provided courtesy of South Wales Sea Fisheries Committee



DATE CERTIFIED 20 April 2001;  
recertified February 2007

SPECIES Cockle  
(*Cerastoderma edule*)

FISHING METHOD Hand-raking and sieving

COUNTRY United Kingdom

LOCATION



The Burry Inlet estuary, near Llanelli and Swansea in South Wales, in the western part of the United Kingdom

FISHERY TONNAGE 960 tonnes (2008)

EVEN BEFORE MSC certification, the cockles of the Burry Inlet had time and tradition on their side. Throughout the history of the fishery (which has existed since Roman times), the only method of capture allowed has been hand-raking and sieving – digging the shellfish from the mud at low tide, then passing them through a mesh so under-size juveniles can escape, rebury and breed. Gatherers, traditionally women, harvested 100-150kg a day – as much as they could carry – until the arrival of horse-drawn carts in the 1920s increased the load and, for the first time, put pressure on the cockle stocks.

### Control measures ahead of their time

In 1965, the Burry Inlet Cockle Order was established to control the quantity of shellfish taken. Licences were (and still are) issued to just 50 or so gatherers, the aim being to take an agreed portion of the biomass each year, based on surveys carried out in May and November by fishery personnel and CEFAS (the Centre for Environment, Fisheries and Aquaculture Science), which has three laboratories in the UK. These involve the random counting and size classification of cockles, along transects on both sides of the Loughor Estuary. The remainder are left as broodstock, and to provide food for the oystercatchers and other birds that flock to the area, designated a Site of Special Scientific Interest (SSSI) and EU Special Protection Area (SPA).

The Order proved to be legislation ahead of its time. “The EU’s Common Fisheries Policy works by determining input controls – the size of the fleet, the fishing effort – and output controls, meaning how much fish is taken by quota,” explains Phil Coates, Director of the South Wales Sea Fisheries Committee (SWSFC), one of 12 such committees in Britain that regulate and manage fisheries in their area. “We have exactly the same controls at Burry Inlet – and every kind of control in-between. However, regulation across the drying sands is somewhat easier than controlling fishing vessels at sea! We can tell people not to fish on Sundays, to fish this area and not that area, to encourage

the picking of big cockles or small cockles. We also have an additional penal system in force: if you break our rules, it’s three strikes and you’re out.”

### Staying in the vanguard with MSC

Despite these measures, Coates was determined to go down the MSC route. “We had a well-managed fishery,” he says, “and if we had that, why not flaunt it? We felt other fisheries could be managed with a similar level of control and regulator-industry involvement. We wanted to be in the vanguard. It sounds altruistic, but that is our job – managing shellfish, not just for consumers, but for fishermen to catch and for birds to live on.”

### Government support

Eight years later, 39 fisheries worldwide are certified by the MSC, meaning Burry Inlet (only the fifth to receive the accolade, and the first for bivalve molluscs) was indeed in the vanguard of a movement. Recognising its success, the Welsh Assembly Government has provided a ringing endorsement in both its Environment Strategy for Wales and its developing Welsh Fisheries Strategy.

“It is saying we need to have more MSC-certified fisheries as a measure of sustainable fisheries management,” Coates says. “MSC certification is an independent measure of success, a benchmark.” Such is the Government’s commitment; the Countryside Council for Wales (CCW) and WWF have twice shared the costs of certifying the Burry Inlet MSC fishery.

Local merchants, too, are aware of the benefits. “Everyone is using this as a model for moving forward with Regulating Orders,” says Colin MacDonald, MD of Leslie A Parsons & Sons and Chairman of Penclawdd Shellfish Processing Ltd. “I’d like to see the River Dee seeking MSC status.” He wants Burry Inlet to remain MSC certified – despite being temporarily closed due to an increase in cockle mortality that has nothing to do with the way it is managed. “Supermarkets are increasingly keen on MSC product,” he says, “and we don’t want to lose our link into the supply chain. When the cockles come back, we are ready.”



“ MSC certification recognises a well managed fishery. I’ve seen so many investments lost because there have been no proper controls or management. We need continuity of supply and we need sustainability ”

Colin MacDonald, Chairman, Penclawdd Shellfish Processing Ltd

Photo provided courtesy of South Wales Sea Fisheries Committee

# South-west Handline Mackerel



© John Spaul



DATE CERTIFIED 29 August 2001;  
recertified February 2007

SPECIES Mackerel  
(*Scomber scombrus*)

FISHING METHOD Handline

COUNTRY United Kingdom

LOCATION



The coastal waters of Cornwall and Devon, between Start Point and Hartland Point, in south-west England

FISHERY TONNAGE 1,750 tonnes

“YOU DON’T NEED bait,” Nathan de Rozarieux tells me, unwinding his line from a hand-held wooden board, like an artist’s palette, and lowering it into the water. Tied to it are a lead weight and 35 hooks 5cm long, festooned with red feathers and plastic. “That’s how it feels when the mackerel bite,” he says, handing me the line and nudging his boat slowly forward. All I can detect is a faint trembling from the dark waters below. “They’re feeding on plankton, or chasing sand eels,” de Rozarieux says. When he winds in the line, there are eight fish – not one – dancing in the sunlight.

### Traditional, low-impact fishing

This low-impact method is precise and clinical, targeting only one species (others are thrown back still alive) and allowing juveniles to be returned to the water. “Fishing the way we do, it is impossible to overfish or damage the stock,” says David Muirhead, Secretary of the South West Handline Fishermen’s Association (SWHFA). Besides, the 150-strong fleet is subject to a quota of just 1,750 tonnes a year, less than one per cent of the UK total. “The trawl fishery, the big Scotch boats, catch half of that in a night,” says Muirhead.

### Raising the profile

This fishery with a small environmental impact carries huge marketing clout. “At some stage in the year, all the big UK multiple retailers list MSC handline mackerel from Cornwall,” de Rozarieux says – and since certification in 2001, hardly a month has gone by without it being mentioned in the press.

“Being MSC has undoubtedly raised the profile of the fishery,” he says. “A lot of journalists pick it up – and in anything mentioning the MSC, handline mackerel is cited as something from the UK. Magazine supplements often use it in their recipes. For them, the fact that we are MSC is... well... the hook.”

### Price premiums

As consumer awareness has increased, so have prices. “Large mackerel fetch a heck of a lot more than any other grade,” says Muirhead. “We have been getting up to £4 a kilo, which is unbelievable. That equates to £28 a stone. In the 1970s, we were getting 80p a stone – and even recently, if someone was getting £7 a stone for large mackerel, that was remarkable. One reason for that must be MSC status, but it’s hard to put a figure on it.”

De Rozarieux thinks the other reason might be the trend towards healthy eating, and the well-publicised benefits of the omega-3 fatty acids found in oily fish – but for him, arguing about the price of fish isn’t the point.

### Protecting existing markets

“For us, what the MSC is all about is protecting the market we have got,” he says. “Most of the multiples [supermarket chains] are using MSC certification in their sourcing decision tree now, so you have to have it to get your product on the shelves. MSC is seen as the gold standard in eco-labelling. The message is that, if you want to deal with the multiples in the future, you will have to be MSC.” All of the UK’s major retailers have put MSC certification at the centre of their sustainable seafood sourcing strategies.

Cornwall is well served with merchants operating an MSC chain of custody, meaning all mackerel sold in supermarkets carries the blue logo. “There are a handful of them down here,” de Rozarieux says, “buying for Tesco, Marks & Spencer, Sainsbury’s and Morrisons.” At Newlyn, where the fish is auctioned, a buyer for Migros, the Swiss retailer, also puts in an appearance. “They pay top dollar for quality,” de Rozarieux says, “and they too are demanding MSC.”



“ One man in a small open boat, using a simple line with hooks, is fishing at its purest. The MSC logo tells us this fish has been caught in the most environmentally friendly way possible – and, while mackerel comes from many places, the Cornish handline fish is something special ”

Andrew Mallison, Marine Technologist, Marks & Spencer

# Loch Torridon Nephrops Creel



© Caroline Woffenden



DATE CERTIFIED 16 January 2003  
recertified July 2008

SPECIES Langoustine, or  
Norway lobster  
(*Nephrops norvegicus*)

FISHING METHOD Baited creels, pots  
on lines

COUNTRY United Kingdom

LOCATION



Loch Torridon and the  
Inner Sound of Raasay,  
Northwest Scotland

FISHERY TONNAGE 120 tonnes

“NO, IT’S NOT quite as romantic as going out in a rowing boat and hauling up pots!” exclaims Karen Starr of the Torridon Nephrops Management Group, when I tell her how I imagine the nephrops fishery. “We’ve ten vessels, including four modern catamarans and two single hulls, all under 10m long. Creels [or baited pots, similar to lobster pots, which crustaceans can enter but not leave easily] are laid in strings of 115 at a time, with a buoy marking one end.”

Up until 1983, there was a three-mile limit restricting the use of mobile fishing gear – in other words, trawlers – in these coastal waters where soft corals, sea ferns and sea pens thrive. In 1984, the restriction was lifted, and the creel fishermen found their pots being snagged and towed by trawlers, with “considerable economic loss”. They believed their benign fishing methods were being undermined by other, more industrial ways of harvesting.

In 2001, the Scottish Executive created a “closed area”, a protected zone where only static gear such as creels could be used. The fishermen saw this as a chance to prove they could manage their fishery sustainably, opting for MSC certification as an objective, scientific way of demonstrating it to others.

### Voluntary restrictions on fishing

One condition of certification was the formation of a management group to oversee voluntary restrictions on fishing: permitting it only on a fixed number of days per year; using a limited number of pots; putting “berried” females (in other words, those carrying eggs) back into the water; and fitting escape panels to creels so that undersize langoustines would not be caught.

### Scientific interest and confirmation

Once certified, the fishery became a kind of living laboratory, with studies conducted by Scottish Natural Heritage, the University of Glasgow, and Fisheries and Research Services in Aberdeen, among others. “They showed we had very benign impacts on the

environment,” Starr explains, “with extremely low bycatch and insignificant effects from ‘ghost fishing’, where a gear type is lost at sea but continues to catch fish on the seabed.”

### Political influence

The fishery’s only concern was that creel vessels which did not belong to the group, or follow its code of practice, were showing up in the area – drawn, ironically, by the publicity surrounding closure, which made this an attractive place to fish. In 2008, when the fishery was reassessed, the certifier, Moody Marine, voiced similar concerns. It imposed a condition obliging the fishery to make sure the limits in place were effective. In response, the fishery approached the Scottish Government to find ways of addressing the problem.

“That is where we stand now,” Starr explains, acknowledging that any intervention by government will come as a direct result of MSC engagement. Initially, though, the scheme was a way of preserving the status quo, she says: “The certification was in order to retain the closed zone; it helps us keep the situation the same. We joined the programme to prove and maintain our sustainability, to keep it economical for us and to look after our community.”

### Socio-economic benefits

On the economic side, Loch Torridon live nephrops fetches between three and four times the price of the same creature netted by trawler, Starr explains. Since 95 per cent of the catch goes to Spain, where interest in the MSC certification is only just beginning to catch on, it does not carry the MSC label.

On the community side, the benefits have been incalculable. Since certification, the number of fishers in the group has remained static or slightly increased – a tangible social benefit, since creeling is seen as an attractive lifestyle. “That is what we wanted,” says Starr, “to make sure this fishery was passed on to the sons of the guys who are fishing now. We take a long view.”

“ The fishermen in the Torridon nephrops fishery are among the most responsible and forward-thinking it has been our pleasure to work with. It is greatly to their credit that they sought and obtained the first MSC accreditation in Scotland, providing a robust and independent confirmation that their management approach is valid and worthwhile ”

Dr David Donnan, policy and advice manager, Scottish Natural Heritage



“ We can say to the Scottish Government and other stakeholders, ‘Look, we are running a sustainable fishery’. That is the benefit of being MSC ”

Karen Starr, Secretary, Torridon Nephrops Management Group

# South Georgia Patagonian Toothfish Longline



© David Agnew, MRAG Ltd



DATE CERTIFIED 23 March 2004; recertified 11 September 2009

SPECIES South Georgia Patagonian toothfish (*Dissostichus eleginoides*)

FISHING METHOD Bottom set longlines

COUNTRY South Georgia and the Sandwich Islands

LOCATION



Off the island of South Georgia – in the South Atlantic Ocean, about 1,300km south-east of the Falkland Islands – and westward to Shag Rocks

FISHERY TONNAGE 3,500 tonnes

“WE DON’T HAVE a population in South Georgia, only a small team of scientists who live on the island,” says Harriet Hall, Director of Fisheries for the Government of South Georgia and the South Sandwich Islands. As a result, this remote Overseas Territory of the United Kingdom has no industry and no income tax to generate revenue for government projects – including marine conservation. “The toothfish fishery is our main source of income,” Hall adds, “so the money from that is the major thing that helps protect the environment.”

Licence fees charged to the ten deep-water longline vessels harvesting Patagonian toothfish are ploughed back into fisheries research and protection, helping to preserve a vital resource. Last year, the territory’s total revenue was £4.9m (up from £670,000 in 1994) and 80 to 90 per cent of it came from fishing. Hall says “roughly that amount” is spent on research and policing.

“The key message is that, without this fishery which the MSC has certified, we wouldn’t be able to afford the research, the surveillance and the control,” Hall warns – “and without that, there would be an environmental disaster.”

What she is alluding to is the well-known and relatively widespread problem of unregulated and illegal fishing of Patagonian toothfish in some parts of the Southern Ocean. Such activities have not only decimated the species itself but led to significant levels of seabird bycatch. As the only MSC-certified Patagonian toothfish fishery, how is this one different?

“Quotas are set by CCAMLR [the Convention on the Conservation of Antarctic Marine Living Resources], so a lot of science goes into that,” Hall says. “We have a full-time patrol ship, well-trained fishery officers and very effective legislation – so if anyone is fishing when they shouldn’t be, we can take action.” To reduce bird bycatch, vessels fish only in winter (when birds are not breeding, so there is less pressure on them to feed) and only at night when fewer are flying. “Bait has to be thawed so it sinks quickly,” Hall says, “and there are line-weighting regimes to achieve the same effect on those.”

As a result, the MSC assessment report notes, seabird bycatch in the licenced fishery has been reduced to negligible levels. In the 2001-2002 season, for instance, only six birds were reported to have been killed.

### Creating closed areas

All of this pre-dated certification – but have any improvements happened as a result of it? Hall cites condition 10 of the MSC certification report, requiring the fishery to direct research “at locating areas of complex benthic habitat” such as deep coral areas. Longlining, while regarded as a relatively low-impact fishing method where seabed habitats are concerned, could still potentially damage them. “If such areas are found, efforts to protect these should be considered and results documented,” the MSC report suggests.

“We went further than considering and documenting,” Hall stresses. “There were three deep coral areas in particular that needed protection, so we closed them off to fishing vessels completely. We exceeded our condition there.”

### Traceability requirement provides biggest environmental gain

The main environmental gain, however, has come as a result of the auditing required for Chain of Custody certification – an assurance that every product with the MSC logo is fully traceable. “We now insist that all catch is weighed box by box, under our control in the Falkland Islands,” says Hall. “All vessels in the MSC programme bar-code every single box of fish as it is produced on board, and that is audited and checked by us. We know, to the nearest few kilos, exactly what has been caught in a year – and that has helped us to measure the stock better. We know vessels are fishing to their exact quota.”

### Raising revenue for conservation

While the fishing companies have gained new customers (such as Whole Foods Market in the US) as a result of certification, crucial revenue has been raised for fisheries conservation. “From our point of view,” Hall says, “the government gets the license value – and we have been able to maintain the value of those licenses. I think the MSC certification has helped us to do that.”

“Raising the profile of South Georgia has been one bonus of being in the MSC programme. The certified fishery provides 80 to 90 per cent of government revenue – and most of it is spent on research and fisheries protection. Without it, goodness knows what would be happening now”

Harriet Hall, Director of Fisheries, Government of South Georgia



“This fishery operates among huge colonies of breeding albatrosses and petrels which are highly vulnerable to bycatch, so the reduction of seabird mortality to low levels has been a major achievement. It is a credit to the operators and managers of the fishery – and the incentive provided by MSC certification is critical to replicating this success”

Dr Ben Sullivan, Coordinator, BirdLife Global Seabird Programme

## South Africa Hake Trawl



DATE CERTIFIED	16 April 2004
SPECIES	Hake ( <i>Merluccius capensis</i> and <i>Merluccius paradoxus</i> )
FISHING METHOD	Bottom trawl
COUNTRY	South Africa
LOCATION	



The shelf of the South-East Atlantic Ocean between 200m and 1,000m, extending from the Namibian border southward (deep-sea fishery); the south coast of South Africa, in shallower waters – mainly on the Agulhas Bank (inshore fishery)

FISHERY TONNAGE 120,000 tonnes

“ONE ADVANTAGE OF MSC certification is the way it ‘conscientises’ people,” says Roy Bross, Secretary of the South Africa Deepsea Trawling Industry Association (SADSTIA). At first, I think he has invented the word conscientise but in fact it is the creation of the Brazilian educationalist Paulo Freire, who defined it as consciousness-raising through a sequence of distinct stages. “It makes you think about such things as ecosystem approaches to fisheries and acting them out,” Bross explains. “We have done a few things in that regard.”

### Establishing Marine Protected Areas

In response to one MSC condition, requiring it to identify habitat susceptible to impacts from bottom trawling, the fishery initiated an independent assessment of the potential for Marine Protected Areas (MPAs). Four projects are under way to determine where the MPAs should be. In the meantime, trawling is permitted only in established fishing grounds where the bottom is flat and muddy, unless the new areas have been properly investigated by way of an environmental impact assessment. “That has been one of the pronounced gains of certification,” Bross agrees. “The MSC directed our attention to the importance of MPAs, and that resulted in us spending a lot of money on research.”

### Drastically reducing seabird bycatch

In similar fashion, the fishery commissioned a study in October 2004, looking at how many seabirds were being caught in trawl cables – a problem first identified in the Falkland Islands. As a condition of certification, the fishery was required “to investigate seabird mortality within a year”, says Dr Samantha Petersen of WWF, one of three organisations involved in the study. “If it was found to be significant, the fishery would then be required to mitigate the mortality within the next year.”

On average, 18,000 birds were being killed annually, Dr Petersen found, so “the industry moved very quickly” to introduce measures such as tori

lines (streamers normally flown behind longline vessels to scare birds away from bait) and restrictions on fish processing while nets are being set, because offal thrown overboard is “a free meal” that attracts birds, Dr Petersen says. As a result, seabird mortality has been reduced to just 200 birds per year.

Though voluntary at first, tori lines were later made mandatory. “That is what happens,” Bross says. “We put in place measures because of the MSC. The government then will not hesitate to enshrine them in the regulations, to make sure everyone has to do them. It comes back to this conscientising thing.”

### Stock rebuilding plan for kingklip

In 2004, there was also concern about the status of kingklip – a fish capable of being targeted by longliners but incidentally caught in trawls. Clearer guidance was needed. As a condition of certification, the fishery had to put in place a bycatch policy and, for kingklip, a stock rebuilding plan. As a result, precautionary catch limits for kingklip have been set, spawning grounds are closed at appropriate times and “limits have been placed on other species”, Bross says. “Before, we did not have a bycatch policy. Now, we have a very definite one, refined on a yearly basis”. It is “preventive, not curative”, he stresses, since “virtually no iconic bycatch or undesirable fish were being caught”.

### Changing mindsets

The question to ask, Bross believes, is not how MSC certification changes the specific details of how fisheries are managed, but how it alters mindsets. “From that kind of change, a lot of benefits continue to flow,” he maintains. “It may not sound like a direct benefit, but I believe it is one of the more fundamental advantages of MSC certification. It changes the thinking of all kinds of people involved in the business. That should not be underplayed.”

“ The MSC certification provided a platform and an incentive for us to work together. Prior to that, the industry was more suspicious of us. Once MSC status was on the cards, it gave us a common goal and opened up a dialogue that was not there before ”

Dr Samantha Petersen, Sustainable Fisheries Programme Manager, WWF



“ We, as a private-sector entity, will put in place measures – about bird kill, about bycatch – because of the MSC. The government will not hesitate to enshrine it in the regulations. People then say ‘It’s the law, you have to obey’... but anyone who knows will realise it evolved from the MSC ”

Roy Bross, Secretary, South Africa Deepsea Trawling Industry Association

# Mexico Baja California Red Rock Lobster

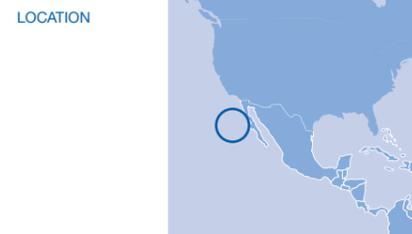


DATE CERTIFIED 27 April 2004;  
entered reassessment  
May 2009

SPECIES Red rock lobster  
(*Panulirus interruptus*)

FISHING METHOD Baited wire traps

COUNTRY Mexico



The Pacific coast of Baja  
California Sur, between  
Cedros Island and  
Punta Abreojos

FISHERY TONNAGE 1,300 tonnes

IN THE ten villages supported by this small, community-based fishery, MSC certification has brought empowerment twice over. “Before, these communities did not receive electricity from a governmental company,” says Mario Ramade, Senior Biologist with FEDECOOP (the Regional Federation of Fishing Industry Cooperatives). “Each provided its own power – but after certification, the federal government paid us more attention and implemented a programme to supply us. I have no doubt this was due to MSC certification.”

### Empowering communities

In addition to a \$20 million grant for electricity, the government has helped with fisheries infrastructure, access roads and drinking water – inspired, Ramade believes, by the international recognition and kudos gained from being an MSC-certified fishery. In his view, the social and political benefits far outweigh any commercial gain. “CONAPESCA, the Fisheries Department in Mexico, finances social programmes and gives us a seat on its national committee because of our certification,” he says. “It is an intangible benefit.”

### Low-impact fishing

Accomplished with support from World Wildlife Fund (WWF) US and Comunidad y Biodiversidad (COBI), a Mexican NGO, certification of the fishery is a model for successful collaboration between government, fishermen and conservation organisations. Each of the nine cooperatives belonging to FEDECOOP fishes an exclusive area under a long-term concession (or license) granted by the government. Unusually, each has its own biologist or technician to assist with data collection and provide scientific advice. Areas can be closed if there are concerns about stock, there is a minimum legal size for lobsters, females with eggs cannot be taken and only certain gear types are permitted. All traps must be fitted with escape gaps so under-size lobsters do not get caught.

Such measures, along with the type of boat (8m skiffs with outboard engines) and the size of the fleet (about 20 vessels per cooperative), meant the fishery was

low-impact – but few studies had been done to prove it. One condition of certification was that, within two years, the fishery should initiate “at least one research programme on ecosystem impacts”. Within a year, the Stanford CIBNOR Joint Project was under way, part of the ongoing Baja Biocomplexity Project led by Dr Fiorenza Micheli of Stanford University, California. One element was a dissertation by Geoff Shester, then a PhD student at Stanford. He and others monitored bycatch; left traps in the water for 10 days to simulate gear lost at sea, checking to see if lobsters were permanently retained (known as ‘ghost fishing’); tested biodegradable trap releases (a legal requirement since 2007) which rot in half the time, minimising the period in which ghost fishing can occur; and scuba-dived down to drop traps directly on top of sponges and corals, recording any habitat damage on video camera.

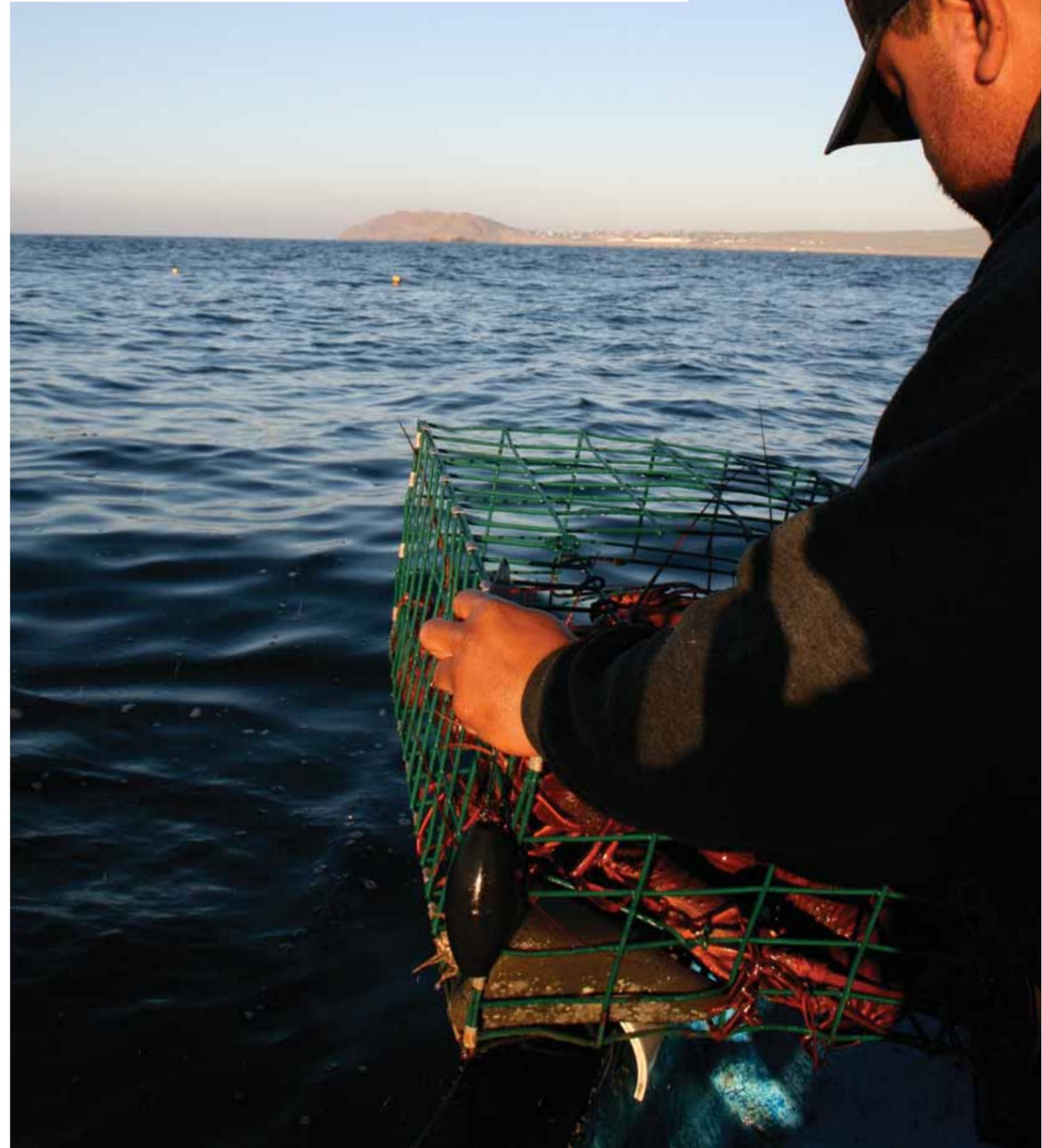
The research confirmed what the fishermen suspected. Traps had a minimal impact on the ecosystem, and ghost fishing was not occurring at levels that would significantly increase lobster mortality. “The studies reported here generally corroborate that the Baja California red lobster fishery has low ecosystem impacts,” Shester wrote in his 2008 thesis, “and is a shining example of a sustainable fishery that deserves continued MSC certification.”

### Retaining markets

This year, as the fishery enters reassessment (required every five years to remain MSC-certified), that hypothesis will be put to the test – but why did the fishery opt for a second term? “Right now, 95 per cent of our lobster is sold to Asia without the MSC label,” Ramade explains, “but we think the market will demand more and more MSC product. One day, the blue ecolabel will be obligatory – just as HACCP is for food safety – and without it, we will lose out. This community has no other alternative resources to develop. The fishery, especially lobster, is everything to us. We need to stay in this programme.”

“ The Baja rock lobster fishery has demonstrated that MSC certification not only improves community fisheries that are already well managed, but also empowers the people who depend on them for their livelihood ”

Meredith Lopuch, Deputy Director, WWF-US Sustainable Seafood Initiative  
(WWF is one of two NGOs that supported the fishery through the MSC assessment process)



“ Our initial target was to achieve a market premium because of MSC certification, but the real gain has been an intangible one – power to lobby the authorities for a better, fairer organisation of our community ”

Mario Ramade, Senior Biologist  
with FEDECOOP

# Bering Sea / Aleutian Islands Pollock and Gulf of Alaska Pollock



© At-sea Processors Association



DATE CERTIFIED 14 February 2005;  
April 2005; recertified  
29 January 2009

SPECIES Pollock  
(*Theragra chalcogramma*)

FISHING METHOD Pelagic trawl

COUNTRY United States



The Pacific Ocean, in the eastern Bering Sea north of the Aleutian Islands; and the Gulf of Alaska, to the south and east of the Aleutian Islands

FISHERY TONNAGE 815,000 tonnes; 19,000 tonnes, 50,000 tonnes (2009)

“FOR SOME TIME, efforts to introduce pollock into the UK market fell flat on their face because it wasn’t cod,” says Jim Gilmore, Public Affairs Director of the At-Sea Processors Association (APA) whose members trawl the icy waters of these vast, iconic and commercially valuable fisheries. “Next thing I know, Young’s is running out MSC-certified pollock products – and they’re selling!”

### New markets for a ‘new’ fish

These days, shoppers in Britain take for granted their Co-op Alaska pollock fish cakes and Young’s Chip Shop Jumbo Specials (“two extra-large wild Alaska pollock fillets in a crisp bubbly batter”), bringing them more in line with consumers in the US, where pollock has been declared on labels for years in everything from Bake ‘N Broil fish fillets and Batter ‘N Brew portions to Healthybake Bites and Trident’s The Ultimate Fish Stick sold in stores throughout North America. In Britain prior to 2005, by comparison, pollock was simply labelled ‘white fish’ in order not to alarm conservative shoppers wedded to cod and haddock.

### Sustainable fisheries management

In fact, pollock has been harvested sustainably for decades. Fishery managers take a precautionary approach and set the annual allowable catch below acceptable biological levels, as recommended by a panel of federal, state and academic scientists. Where there is uncertainty, managers opt for conservative limits. All vessels carry at least one federal fishery observer to monitor and record catches and conduct scientific research. Observers are also assigned to all onshore processing facilities for pollock.

Bycatch and waste are low – pollock makes up 99 percent of what is caught in the net – and all parts of the fish are used in a variety of products. To protect Steller sea lion rookeries and feeding areas, the fishery has established significant closed areas throughout the fishing grounds. A system is also in place whereby a portion of the pollock quota is allocated to remote communities in Alaska.

As with other MSC-certified fisheries, however, the Alaska pollock certification carried some conditions to ensure the fishery continues, as it has done historically, to expand scientific research and action to protect the stock and environment of this important marine ecosystem.

### Market access and retention

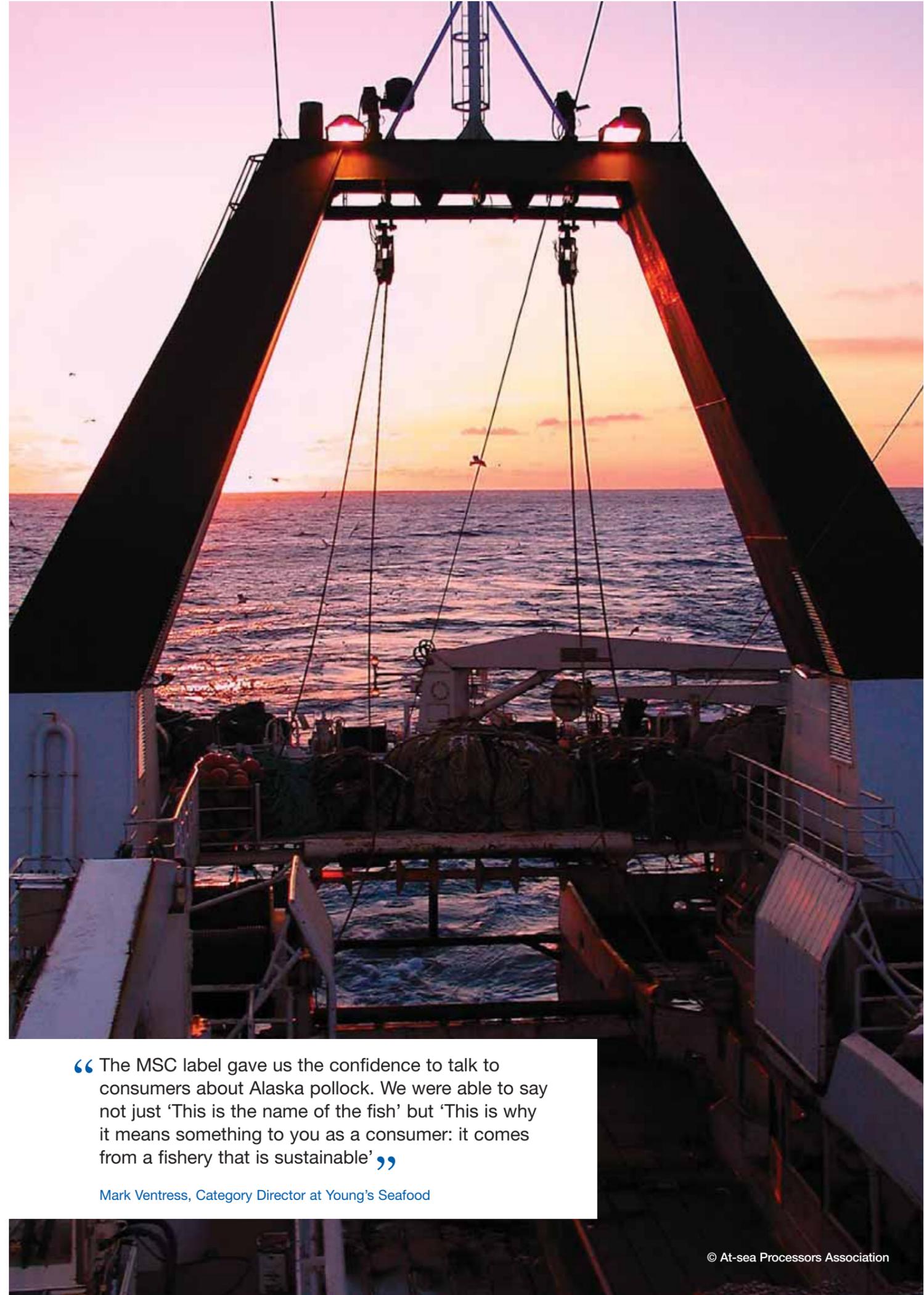
“We entered this programme because we believed we met the MSC standard,” Gilmore stresses, “but what the MSC does, through its third-party validation, is provide an added assurance – and recognition in the seafood community that it is a well managed fishery. It gives us enhanced visibility.”

The real surge in visibility, however, has been for the fish itself. Japan is traditionally a big buyer of Alaska pollock (minced, as surimi, and for roe products) but Europe and the US are the growth markets. In the US, for example, McDonald’s is using Alaska pollock almost exclusively in its fish sandwiches. “McDonald’s appreciates the fact that Alaska pollock is MSC certified, even if it doesn’t tout it,” says Gilmore. “In Europe and the UK, there is no doubt that there are benefits to us from being in the MSC programme in terms of market access and retention.”

Hard facts and figures are harder to come by – but in Britain, sales of pollock generally (including Alaska pollock) have doubled in the past two years from 11 percent by volume to 23 percent, according to TNS market research. It’s a trend that can only benefit those who fish for MSC certified pollock.

“I don’t think we can give all the credit to the MSC for putting pollock on the map,” says Pat Shanahan, programme director of Genuine Alaska Pollock Producers (GAPP), “but certainly it was helpful. We had a concerted effort going on already to change the words ‘white fish’ to pollock. Companies like Young’s, which made a commitment to the MSC early on, were more likely to move in that direction because of the MSC label. The MSC did play a part.”

In January 2009, the Bering Sea/Aleutian Islands pollock and the Gulf of Alaska pollock fisheries announced they were entering reassessment, the process required every five years in order to remain certified. “Our members said, ‘OK, we’re going to take the plunge because it’s useful to us – especially in Europe,’” Gilmore says. “It was their choice. I’m confident that we have created markets, maintained markets and provided assurances because of it.”



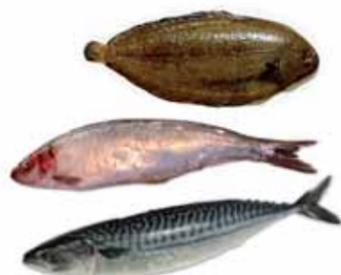
“ The MSC label gave us the confidence to talk to consumers about Alaska pollock. We were able to say not just ‘This is the name of the fish’ but ‘This is why it means something to you as a consumer: it comes from a fishery that is sustainable’ ”

Mark Ventress, Category Director at Young’s Seafood

# Hastings Dover Sole, Herring and Mackerel



© MSC



DATE CERTIFIED	16 September 2005
SPECIES	Dover sole ( <i>Sole solea</i> ), herring ( <i>Clupea harengus</i> ) and mackerel ( <i>Scomber scombrus</i> )
FISHING METHOD	Demersal trawl, gill-net, trammel-net and drift-net
COUNTRY	United Kingdom
LOCATION	

Eastern English Channel, between Beachy Head and Dungeness, and offshore to the six-mile limit

FISHERY TONNAGE 72 tonnes Dover sole, 10 tonnes herring and mackerel

“WHEN THE WIND is southwesterly, we push the boats off the shingle with a bulldozer,” says Paul Joy of the Hastings Fishermen’s Protection Society (HFPS), explaining the *modus operandi* of Britain’s only beach-launched fleet. “It’s like Bondi Beach when the weather is rough, except it’s a lot colder. The boats are really surfing. When they come back in, you hook into them with a winch and pull them out of the sea before the next wave smashes them up.”

## Environmental best practice

The 24 vessels – all less than 10m long – use different gear types depending on the species targeted. For Dover sole, fixed trammel nets anchored at both ends are left out overnight (“because sole swim in the dark”, says Joy), then cleared of fish the following day. Their 100mm mesh size is 10mm wider than the legal requirement, meaning it catches fewer juveniles – an example of voluntary best practice. At the bottom of the net is “a very light leadline,” Joy explains, “that does little or no damage to the flora and fauna of the seabed.” Off Hastings, these include soft corals, starfish, urchins, crabs and small fish such as dragonets and dabs that would otherwise be disrupted.

The drift nets used for mackerel and herring, too, have a weighted bottom line that brushes the seabed only occasionally so inflicts little damage. “Our families have fished this way for generations,” says Joy, who can trace his lineage all the way back to before the Norman Conquest. “The way we fish has always been sustainable, but we wanted to portray ourselves as an environmentally-friendly fishery. MSC certification was the way to do that.”

As expected, few modifications were needed to pass – so any ecological gains from joining the programme are hard to quantify. To begin with, there were no economic gains either. “For two years, we didn’t make one penny from MSC,” says Joy. “We were getting the same price as everybody else.”

Then, in 2007, the fishermen set up a not-for-profit Community Interest Company (CIC) to market their catch as MSC-certified and gain a price advantage in the marketplace. Any premium paid would go back to the fishermen themselves, rather than be absorbed by processors or merchants.

## Market benefits

“That strategy paid off,” says Joy, “because now we are getting premiums. Our Dover sole goes to Holland, which is pushing for MSC in a big way. The premium there is 10 per cent, that’s what we’ve been insisting on.” In France, the giant Casino retail group has offered him up to 15 per cent more for MSC fish sold in certain stores. “The MSC has put us on the map where exports are concerned,” Joy reckons. “Without them, we couldn’t have achieved this.”

## Political strength

In subtler ways, too, there have been benefits. “Politically, it makes us stronger,” Joy maintains. “We use the MSC as a badge to stand behind, a lobbying tool if you like. If we are proven to be a sustainable fishery, we then have a stronger, better argument for a fair proportion of quota, for example.”

More than anything, the Hastings fishery is “proud to be MSC” to guarantee the future of fishing. “We’ve got very healthy stocks now,” says Joy, “and that’s how we want to keep it. I want to make sure we still have a fleet in 100 years’ time. Each boat has a crew to sustain, and that in turn sustains the fish market, which provides jobs. There is a whole infrastructure built around us.”

“ Working together with the Hastings Dover sole fishery made me even more aware that this is the only way forward. That is why Fishes works only with MSC certified sustainable fisheries. By doing this and communicating the message to consumers in order to educate them, we take our responsibility in conserving our oceans ”

Bart van Olphen, Managing Director, Fishes Wholesale BV



“ I don’t want to get rich by taking everything out of the sea, only for my son to go fishing and not catch anything at all. Fish stocks, damage to the seabed, bycatch... the MSC looks at the whole picture ”

Paul Joy, Chairman, HFPS

# Bering Sea and Aleutian Islands Alaska (Pacific) Cod – Freezer Longline



Photo provided courtesy of Bering Select Seafoods Company



DATE CERTIFIED	10 February 2006
SPECIES	Cod ( <i>Gadus macrocephalus</i> )
FISHING METHOD	Bottom hook and line gear (longline)
COUNTRY	United States
LOCATION	
FISHERY TONNAGE	103,000 tonnes (2009)

Pacific Ocean, in the Bering Sea and Aleutian Islands

“IN 2005, THERE were concerns over cod in the North Sea, cod in the Baltic Sea and even cod in the Barents Sea,” says Paul Gilliland, Managing Director of Bering Select Seafoods. “People said: ‘I don’t know which cod is the responsible buying choice any more. I’m not going to buy cod.’ At that time, awareness of the sustainability of Alaska cod was not well recognised. We took this fishery down the MSC route to demonstrate that, with the science-based MSC programme, consumers could buy this product with confidence.”

That product was MSC-certified Alaska cod, caught by longline and frozen at sea on vessels ranging from 35m to 60m in length. This historically important fish is salted or made into battered fillets, fishcakes or fish fingers (or breaded and battered fish sticks). Like other Alaska fisheries, this one has been well managed by the North Pacific Fisheries Management Council and the National Marine Fisheries Service, which operates a programme of monitoring and enforcement. The Alaska cod fishery “obtained excellent results,” the MSC certifiers said in 2006, and stock is maintained at levels that ensure the abundance of Alaska cod and the safety of the ecosystem.

### Minimizing environmental impacts

In longlining, a ground line is laid in a straight line along the seabed, having been baited automatically on a drum that adds tension to it as the gear is set. This tautness minimises movement of the gear and damage to the sea floor. Hours later, the gear is lifted upwards – not dragged sideways – by the retrieving vessel. “Talk to anyone in the business, and they will tell you longline gear doesn’t damage the seabed,” Gilliland says.

In fact, only three issues were of sufficient concern to warrant a special condition from the certifier – two of them environmental, one to do with management practices. The fishery

must address these conditions in order to remain MSC-certified. The first concerned bycatch of Northern fulmars, birds which, like other species, can dive on baited hooks and become entangled; the other concerned damage to the seabed by longline gear engaged in fishing or lost at sea. In both cases, not enough scientific research had been done to know the extent of any impacts. The fishery pledged to identify and monitor any such research in the future – and Bering Select, along with other longline companies, has been pressing the federal government to approve a \$500,000 federal grant for research into impacts from lost longline gear.

### Access to new markets

Prior to certification, Bering Select’s markets were primarily specialised in the salted Alaska cod, either wet or dried, that is traditionally eaten in Italy, France, Portugal, Spain and Brazil. “Very little of our Alaska cod during the past 15 years went into value-added, breaded and battered products,” Gilliland reports. “This is an emerging and large market for us, and that came as a result of MSC certification. We are seeing new customers – initially for consumption in the UK, though volumes are starting to grow elsewhere in Europe.” Asda, Sainsbury’s and Young’s Seafood are among the major companies selling MSC-certified Alaska cod.

Gilliland estimates that the premium paid for MSC-certified Alaska cod has been as much as two to three percent when demand was strong, but “the most significant benefit has been the access to new markets,” he says, “and these continue to expand. Japan will be a market of growth, though the interest there is more in traceability than in sustainability. Fortunately, traceability is an inherent part of the MSC programme too.”

“ Hook-and-line is one of our preferred, low-impact fishing methods and we are delighted to offer line-caught Alaska cod, certified as sustainable by the MSC. As the world leader in certification of wild capture fisheries, the MSC is a fundamental component of our fish sourcing policies ”

Ally Dingwall, Aquaculture and Fisheries Manager, Sainsbury’s PLC



Photo provided courtesy of Bering Select Seafoods Company

# Australia Mackerel Icefish



© Dylan Skinns



DATE CERTIFIED	31 March 2006
SPECIES	Australia mackerel icefish ( <i>Champscephalus gunnari</i> )
FISHING METHOD	Bottom and midwater trawl
COUNTRY	Australia
LOCATION	
FISHERY TONNAGE	Approximately 1,000 tonnes

Off Heard Island and McDonald Islands (HIMI), a volcanic group in the Southern Ocean – 4,000km south-west of Perth and close to Antarctica

“THE MSC HAS put mackerel icefish on the map,” says David Carter, CEO of Austral Fisheries, the Australian company that harvests mainly Patagonian toothfish but regards this pale and delicate Antarctic fish, complete with its own natural anti-freeze, as “a secondary species to our core business”.

When he mentions maps, I look at one myself to check the location of this Australian overseas territory where Austral Fisheries’ one and only mackerel icefish vessel operates. Close to the ever-shifting outline of Antarctica, HIMI (as the islands are known) is bang in the middle of the Southern Ocean – a “closed ecosystem”, contained within the biological barrier formed when cold Antarctic waters meet warmer currents from the north. HIMI is the only example in the world of an untouched sub-Antarctic island ecosystem, providing breeding and feeding areas for many marine mammals and birds. These islands – and the seas around them – were declared a Wilderness

### ‘Extremely high’ level of monitoring and compliance

Reserve in 1992, and the territory is on the World Heritage list. Not surprisingly, the adjacent mackerel icefish fishery has been subject to rigorous policing and management by, respectively, the Australian Fisheries Management Authority (AFMA) and CCAMLR (Commission for the Conservation of Antarctic Marine Living Resources) – an international commission of 25 nations which seeks to manage Antarctic fisheries with biodiversity and ecosystem stability in mind.

To combat illegal fishing of Patagonian toothfish, the Australian government has committed several hundred million dollars to surveillance using a permanent patrol vessel. Monitoring meets “extremely high standards”, the MSC certifiers wrote in 2006, compliance measures are “excellent” and the catch, of both target and non-target species, is accurately recorded on a haul-by-haul basis. Quantitative stock assessment is “world class”, they added.

### Increased scientific rigour

Despite this, there were uncertainties about the methodology used, so the certifiers imposed a condition that the fishery should “provide evidence” that “the current stock designations are the best choice for conservation, and more precautionary” (ie, erring on the conservative side) than other methods.

“For us,” says Carter, “the real gain of MSC certification has been in that area of greater scientific rigour, peer review and outside thinking on the science of stock assessment. It threw up some alternative approaches – other hypotheses to test in the way the stock was managed – and that has been a useful process. It has added to the quality of the stock assessment we are doing with icefish.”

Similarly, a condition requiring the fishery to assess the ecological risk of bottom trawling, including benthic impacts, “spun off quite a bit of research”, Carter says. “We’ve been down there with cameras mounted on trawls, to see how the net interacts with the bottom. That whole area of inquiry, which came with the imperative of an MSC condition, kick-started a project that is partly funded by the Australian Fisheries Research and Development Corporation.”

In this fishery, the certifiers noted, there is a detailed knowledge of the gear types used (both bottom and midwater trawl) and each is used in particular locations and at certain times, in order to reduce the risk of impact on threatened, protected or iconic species. “We ticked all the MSC boxes,” says Carter, an achievement in such an ecologically fragile area. “Meeting the gold standard is a way of saying to the world: we think we are damn good, the fishery is in good hands and there are high levels of quality science and transparency in our day-to-day operations. It was something we had to do.”

“ Before certification, we were making certain assumptions in our stock assessments and modelling arrangements for mackerel icefish. By running these past the MSC team, we found we had other brains to draw on, people who were also highly skilled in fisheries management. Our assumptions were tested, and the fishery is better for that experience ”

David Carter, CEO, Austral Fisheries, Perth, Western Australia



“ Australian mackerel icefish are managed to CCAMLR standards or better, which already include precautionary targets and limits and an extensive review at its annual meetings. Nevertheless, MSC certification provides a public acknowledgement of the high standards used in the management of this resource and provides a much more recognizable face to the consumer ”

Dr Malcolm Haddon, Chair of Commonwealth Sub-Antarctic Resource Assessment Group

# US North Pacific Halibut



© Peter Thompson



DATE CERTIFIED April 2006

SPECIES Halibut (*Hippoglossus stenolepis*)

FISHING METHOD Bottom hook and line (longline)

COUNTRY United States



Bering Sea, Alaska, Washington

FISHERY TONNAGE 24,000 tonnes

“THE PREFERRED SIZE is a 30 pounder,” says Bob Alverson, Executive Director of the Fishing Vessel Owners Association in Seattle, showing me some photographs of a huge halibut being hauled from the water by two grown men – their legs braced as if for a tug-of-war. It must be as heavy as both of them and these giant flatfish can weigh 500lb (225kg) – as much as three men. This one is as long as one of the female crew members is tall.

### Environmental impact

In fact, it is the halibut’s vast size that makes it relatively easy to fish without catching juveniles or non-target species. By using appropriately large hooks, set at 5.5m intervals along a 550m ‘skate’ (or groundline) that lies in a straight line along the seabed but does little damage, fishermen largely avoid bycatch and discards. “They do catch some redfish, which are marketable,” says Alverson, “and some lingcod, which they are allowed to keep.” Cod, too, can legally account for up to 20 per cent of the catch but most of it gets used as bait, saving money. “They have to log that, of course,” says Alverson.

In the halibut fishery, jointly managed by the National Marine Fisheries Service and the International Pacific Halibut Commission, these and other regulations are strictly enforced. “You can’t retain halibut less than 32 inches (0.8m) long,” says Alverson, “which is the size of the fish when it starts to be sexually mature. We call it a 10/20, because it weighs between 10lb and 20lb. They [the marine scientists] want to get the fish up to that size before we start catching them. It’s good for us, because we get paid better for larger fish.”

In other respects, too, fishermen and conservationists seem to be on the same trajectory. “Years ago we had a bird bycatch problem,” Alverson says, “so we worked with the University of Washington, got a grant and dedicated six of our vessels as research platforms over two years. They tested out ‘tori lines’, little flappers that fly up behind

the boat. They found that, if the crews hung them right, they resulted in a significant reduction in bird interactions with the bait.” For three years, tori lines have been mandatory on all longlining vessels in the North Pacific, reducing bird bycatch by about 80 per cent.

### Political influence

Only in one respect was there notable room for improvement. “We have no observer programme for bycatch in the halibut fishery, though we do have extremely tight management shoreside and a good logbook system,” Alverson says. In other words, commercially valuable bycatch is weighed and recorded back in port and fishermen keep their own records – but there are no independent scientists monitoring bycatch on board vessels. One condition of MSC certification was that the fishery should approach government agencies to implement such a programme. “In the next three years,” Alverson reckons, “there will be significant changes to the North Pacific Council’s observer programme that will meet the MSC’s concerns.” This may have happened anyway, he adds, but the extra pressure certainly helped.

### Promotion and new markets

A far more concrete benefit of certification has been its appeal to ethically-minded chefs who have mentioned it on their daytime television shows. “They say, ‘This is MSC certified, it’s a wonderful product, we recommend you eat it,’” Alverson says. “On the West Coast, there isn’t a seafood restaurant that’s considered a seafood restaurant where halibut isn’t featured. I’d say we have benefited indirectly from the zeal of television chefs.”

Traditionally, 80 per cent of sales from the fishery have been in North America, split between Canada and the United States – but, slowly, that is changing. “The MSC label has been important in terms of the amount we now sell to Europe,” Alverson says. “It’s becoming the vogue there, I would say. That has generated new demand, which I think has helped us enormously.”



© Peter Thompson

“ We believe our North Pacific halibut fishery, managed by a joint United States and Canadian commission (International Halibut Commission), is a model for future generations. The MSC label is further verification that all stakeholders are – and should be – committed to sustainability. Our children’s children can expect to fish for, process, sell and consume this wonderful resource ”

Dana Besecker, President, Dana F Besecker Co, Inc



Photo provided courtesy of Bering Select Seafoods Company

# Pelagic Freezer-Trawler Association North Sea Herring



© PFA



DATE CERTIFIED	9 May 2006
SPECIES	Herring ( <i>Clupea harengus</i> )
FISHING METHOD	Pelagic trawl
COUNTRY	PFA vessels are based in the Netherlands, Germany, the United Kingdom, France, Ireland and Lithuania
LOCATION	
FISHERY TONNAGE	About 65,000 tonnes

The North Sea and eastern English Channel

“WE WERE A kind of pioneer,” says Gerard van Balsfoort, President of the Pelagic Freezer-Trawler Association whose 26 vessels, up to 140m long, not only catch North Sea herring but grade, freeze and pack it on board. “There were some small fisheries certified before us, but we were the first major fishery in Europe to be certified. For the MSC, that was a bit of a breakthrough.”

## Changing the face of EU fishing negotiations

Three years later, MSC certification appears to have become the norm. The Swedish, Danish and Scottish pelagic fleets have followed, and “During this year,” van Balsfoort says, “we expect that the majority of North Sea herring fisheries will be MSC certified.” That critical mass, he argues, has changed the face of EU fishing negotiations for this stock.

One pillar of the Common Fisheries Policy reform of 2002 was the creation of Regional Advisory Councils (RACs) which prepare recommendations on fisheries management and transmit them to the Commission or to the relevant national authorities. Scientists participate in meetings as experts, and representatives of member states may be present as observers. However, it is the fishery stakeholders (both from the industry and NGOs) that contribute most around the table.

“Our RAC deals with pelagic stocks,” van Balsfoort says, by which he means fish that swim in shoals in the middle of the water column rather than on the bottom. “All the major herring players in Europe are now MSC certified, or under assessment, and this has led to a certain kind of behaviour in the advisory process. From the point of view of stocks, you can’t just ask for a higher quota if it isn’t scientifically based. We all know the certifying bodies are looking at our conduct not just at sea, but in the process of advising on quotas. If we are certified, we must be precautionary. It is an MSC side effect.”

## Stock rebuilding plan

With herring, this is especially pertinent. “We were certified in 2006 when stocks were at their highest,” van Balsfoort says. Since then, for complex biological reasons that have nothing to do with fishing, the number of herring in the North Sea has declined. “There has been a failure of recruitment, there are relatively few newcomers – so the stock has got smaller since then.”

In 2006, the MSC certifiers took into account such an eventuality. “To be certified, we had to sit down with scientists and make a stock rebuilding plan – and that is what we have done. Without the certificate, we would have done this only in the context of the Pelagic RAC.”

Even if a stock is sustainably exploited, he explains, “it flows and dips, it goes up and down. If you manage the downside well, you can still be certified. You have to adapt, and one adaptation we had to do was to make this stock recovery plan and accept strong cuts in the TAC.”

## Demonstrating sustainability

It helped, too, that the herring fishery is selective, targeting one species with virtually no bycatch. “This is mostly because of the nature of the species” van Balsfoort says, because herring tend to swim in distinct shoals, meaning other species are rarely caught. There is a low level of discards, ranging from two to five per cent, he adds, and because the trawl is towed in midwater, impacts on the seabed are not an issue.

“That is why we went for MSC certification,” van Balsfoort says. “We knew we were responsible and sustainable, but we wanted to prove it. That is especially reassuring for consumers of herring – a well-known species that is close to the hearts and minds of all people who live around the North Sea.”



“As the only well recognised independent label, the MSC makes it easy for consumers to choose sustainable fish. By our own criteria on stock management, effects on the environment, bycatch and habitat destruction, MSC-certified North Sea herring gets a green light”

Christien Absil, Fisheries Policy Officer, North Sea Foundation

## US North Pacific Sablefish



© Dean Adams



DATE CERTIFIED	19 May 2006
SPECIES	Sablefish ( <i>Anoplopoma fimbria</i> )
FISHING METHOD	Bottom hook and line (longline)
COUNTRY	United States
LOCATION	
FISHERY TONNAGE	18,100 tonnes

COMMERCIALY KNOWN AS black cod, sablefish is not in fact a member of the cod family. Its flesh is white and flaky like cod, but oilier – giving it a rich, nutty flavour preferred by chefs and gourmets. According to The Young’s Lexicon of Fish, a comprehensive guide to flavour, it features “both a sweet artichoke-like note and an oily undertone not dissimilar to that of mackerel” which “works well with assertive herbs and spices”. Black cod marinated in miso is the signature dish of Japanese restaurateur and chef Nobu Matsuhisa, and 90 per cent of the catch from this fishery goes to Asia – especially Japan.

### New markets

There, unlike most other markets, consumers buy sablefish not because it is sustainable – but because it is a delicacy. As a result, it has been harder to attribute new sales directly to the MSC programme. “Recently, for the first time, we had a group call and specifically say ‘We want MSC sablefish’,” says Bob Alverson, Executive Director of the Fishing Vessel Owners Association in Seattle. “We asked them, ‘Where is this fish going?’ and they said ‘It’s going to Spain.’ Black cod is becoming fashionable in Europe – and that is entirely due to the MSC.”

The fruits have been a long time coming – but tapping into new markets in Europe was one reason why Alverson decided, in 2004, to have this and the North Pacific halibut fishery certified to the MSC standard. “At that time, Europe was reacting far better to MSC product than the United States, where all this stuff was still very much in its infancy,” he explains. “Commercially and politically, we thought it would be a very good thing to have in our country.”

### Sustainable fisheries management

While the US lagged behind Europe in terms of sales, in many areas it was

ahead in terms of fisheries management – particularly in Alaska. Since 1977, when the Magnuson Fishery Conservation and Management Act kicked in, stocks have been sustainably managed. The National Marine Fisheries Service (NMFS), which monitors and polices the fishery, reports that “sablefish population levels are high” and, depending on the area, are running at between 96 and 105 per cent of the population size required to maximise sustainable yield.

“We have an observer programme and a logbook system for bycatch,” says Alverson, and the gear type is highly selective due to the size of the hook and the fact that “half-skates”, the industry term for the 275m longlines used, are laid along the seabed only in known sablefish habitat. Quotas are allocated to individual vessels – and all landings are recorded using electronic cards. “When you deliver, you swipe your card on a machine that every buyer must have,” says Alverson, “and that logs in with the federal government.” Fishermen must alert the ‘transaction station’ six hours prior to their arrival, so NMFS officials can observe landings.

### Political influence

“Given all this, we knew the fishery was sustainable even before certification,” Alverson says, “but being able to prove it is what matters.” For him, belonging to the MSC programme “is 15 per cent political,” he explains. “Right now, with the Obama administration wanting to be green, it is worth something to us to be able to go to Washington DC and say, ‘Oh, by the way, we have this MSC certification; we went through an independent analysis and they say we are doing everything right’.” Armed with such a tool, fishermen feel they will be listened to on issues that affect them. “From a political standpoint, our MSC certification is worth an awful lot to us,” Alverson says.



“As a ‘wild-only’ seafood buyer, processor and marketer, Harbour Marine Products Inc has a vested interest in a healthy and sustainable fishing industry. MSC certification has opened up new commercial opportunities for us, including new value-added business. It is our MSC products that help differentiate us from the competition and show significant new volume potential. MSC is proving to be good for consumers, the supply chain, and the fisheries”

Ron F Habijanac, President and CEO, Harbour Marine Products Inc

# Lake Hjälmaren Pikeperch Fish Trap; Pikeperch Gill Net



© Mikael Johansson / Swedish Board of Fisheries



DATE CERTIFIED 7 August 2006

SPECIES Pikeperch  
(*Sander lucioperca*)

FISHING METHOD Fish trap, gill net

COUNTRY Sweden

LOCATION



Lake Hjälmaren, in the south, about 160km west of Stockholm

FISHERY TONNAGE 166 tonnes

THESE DAYS, LAKE Hjälmaren is as fecund and teeming beneath the water as it is above, where ospreys, sea eagles and cormorants soar – but it hasn't always been so. In the early 20th century, the crayfish traditionally targeted by fishermen were wiped out by a plague, so attention was switched to the pikeperch, a predatory freshwater fish with lean, juicy and tender white flesh that can weigh up to 11kg in Sweden. By the late 20th century, it too was in serious decline and desperate management measures were introduced to save it.

### Environmental measures

Under the 1994 Fisheries Act in Sweden, all fishermen were required to be licensed – but the detail of fisheries regulation could be agreed locally. On Lake Hjälmaren, the minimum legal size of pikeperch was increased voluntarily to 45cm (compared to 40cm elsewhere) and the mesh size of gill nets to 60cm, meaning even larger fish could escape and mature for longer.

“The bigger a female fish grows, the more eggs she will produce,” says Inger Näslund, a Marine Fisheries Conservation Officer at WWF Sweden who was instrumental in the fishery's MSC certification. “The fishermen wanted a healthy fish stock, because that is the key to a healthy lake. They also limit licences to 25 boats, about 6m long – and they will be limited to no more than 25.”

As a result, stock has increased rapidly and is robustly healthy. In summer, the fishermen use highly selective fish traps – submerged, then hauled up into boats to be emptied quickly of unwanted species or under size fish. Raised from a depth of only 5m, fish suffer minimal expansion of their swim bladder. (Rapid expansion can cause buoyancy problems which make discarded fish prey for gulls.) Survival rates are excellent. In one study, 28 of 2,299 pikeperch tagged were found to have been caught and released at least 10 times.

Gill nets are used mainly in winter, when fishermen drive on to the frozen lake in

snow scooters, cut holes in the ice and use a device called an *is häst* ('ice horse') to carry a line between them under the surface. This is then used to set the net under the ice and haul it manually. Due to the ice cover, it does not trap cormorants or other diving birds as it may occasionally do in summer.

“The fishermen knew they already had a sustainable fishery,” Näslund says, “but they wanted to see if their fish could be labelled. In 2004, I came with my WWF colleague Lennart Nyman, to give a presentation about certification and what the MSC label can do in the marketplace. We thought we would have to leave the room while they thought about it, but the chair just stood up and said, ‘How about it guys? Shall we go for MSC?’ Everyone said yes. We were stunned.”

### Increased prices and environmental awareness

Now, 80 per cent of their pikeperch goes to Hjälmarfisk in Gothenburg, a supplier with MSC chain of custody who sells it on, mainly to Germany. “The fishermen get a slightly higher price per kilo if they are certified,” Näslund confirms, but MSC certification has brought subtler, longer-lasting benefits.

“Now, they want to increase the mesh size further so they can have secure stock reproduction,” Näslund says. Their minds were focused, she thinks, by the MSC assessment which made it a condition of certification that fishermen develop an action plan to cope with reduced stock levels in the future. They were also required to collect data on the sex ratio, size and age of pikeperch to spot any shifts in population that might affect their reproductive capacity.

“The fishermen were already on the track of thinking sustainably,” Näslund says, “but the MSC awakened them further. Recently we heard that, on other lakes, the minimum size for pikeperch has also been increased.” Clearly, the message about sustainability is spreading beyond Lake Hjälmaren's shores.



“As one of the largest suppliers of freshwater fish from Scandinavian lakes, we are proud to offer our customers, both at home and abroad, MSC labelled pikeperch from Lake Hjälmaren. We feel a growing interest on the market for MSC product guaranteed to be from a sustainable fishery and we are delighted to be able to meet demand”

Sören Jensen, Managing Director, Hjälmarfisk AB, Göteborg



© Mikael Johansson / Swedish Board of Fisheries

# Patagonian Scallop



DATE CERTIFIED	8 December 2006
SPECIES	Patagonian scallop <i>Zygochlamys patagonica</i>
FISHING METHOD	Otter trawl
COUNTRY	Argentina
LOCATION	

The South Atlantic Ocean, within the Argentine continental shelf stretching from the border with Uruguay (in the north) to an imaginary line drawn between the Malvinas Islands and Tierra del Fuego (in the south)

FISHERY TONNAGE 45,000 tonnes

MOST FISHERIES HAVE a history of exploitation behind them, but this one began with a clean slate in 1996 when it was set up as a kind of living experiment in sustainability that could be studied scientifically. Throughout the previous year, the vessel Erin Bruce had completed 15 surveys, authorised by the Argentine government, to evaluate stocks and assess the commercial viability of a scallop fishery in these waters. Then, in January 1996, the government approved the application by two fishing companies for permits to harvest Patagonian scallops in Argentina, under a legal regulation requiring the fishery to be developed in a way that followed the best scientific advice.

“It has been a great opportunity to study a fishery from zero,” says Eduardo Gonzalez Lemmi, President of Glaciar Pesquera SA, one of the two companies (each with two freezer-trawlers) licensed to harvest and process scallops. From the outset, bycatch, mortality and the impact of trawl gear on seabed ecosystems were studied, using 100 per cent observer coverage. “Every time the fleet sails, there is a scientist on board,” Gonzalez Lemmi confirms.

### Modified sustainable practices

On other issues, too, the fishery is progressive. Trawling takes place only in areas where the bottom is known to be flat and featureless. “Ninety-nine per cent of it is sand and mud,” Gonzalez Lemmi says – a habitat less likely to be damaged by gear. The net is towed for only ten minutes, limiting the time in which mortalities can occur – and under size scallops are returned to the water alive within two or three minutes, maximising their chances of survival. Bycatch, too, is “often alive and active after passing through the capture and sorting processes,” the MSC certifiers found. Finally, scallops can only be retained if their shell height is 55mm or more (they are sexually mature at 40mm), protecting future stock. “Normally with this species, most are caught after the first spawning,” Gonzalez Lemmi says. “They then

spawn again at 44mm to 48mm. When we catch them at 55mm, they have already spawned three times. That is a phenomenal assurance of sustainability.”

### MSC certification adds expertise

From the outset, the Argentine Federal Fisheries Council showed “enormous commitment” to strong research, monitoring the scallop biomass in order to develop best management practice. Given all this, how has MSC certification helped? “It obliged us to go even deeper,” Gonzalez Lemmi says. “The level of expertise brought in by the MSC certifier was impressive. These are number one scientists from around the world, recognised people who know what they are talking about. That helped create a positive environment for professional discussion, not ego discussion.”

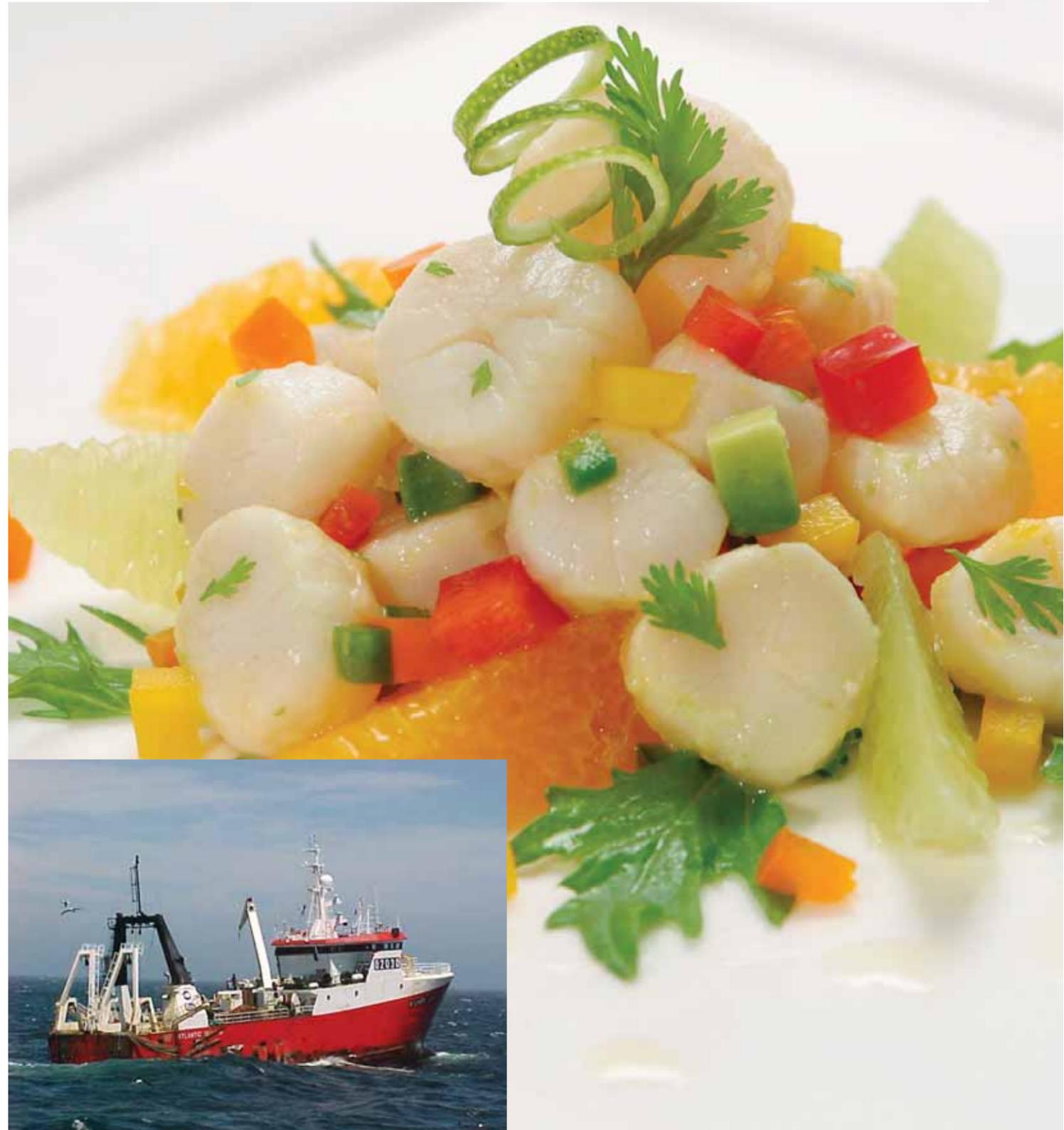
### New markets

The main gain, however, has been commercial. “We now receive requests from customers in Europe, especially France, that we never expected,” Gonzalez Lemmi says. “That is because of the MSC logo, which is an independent recognition of our sustainable policy and responsible behaviour. For us, it is a big advantage.”

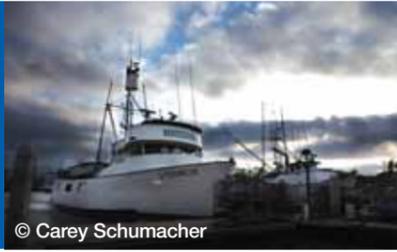
That benefit may grow if the EU lifts its ban on scallops from China, bringing a major player back into the marketplace and requiring other countries to be more resourceful in the way they sell their products. Before the ban, imposed in 1998 after a series of food scares, scallops from China were sold at a price that “did not even cover our costs”, Gonzalez Lemmi says. “We knew there were quality issues in China and sustainability would be hard for them to prove,” he explains. “Then, when we heard about the MSC, we realised certification would differentiate us on the issue of sustainability – so we went for it.” Then, ironically, the EU ban kicked in – but Gonzalez Lemmi knew it wouldn’t last forever. “Now, when China comes back, customers will know our product, like our product and have confidence in it because it is MSC-certified. It gives us a strong tool against the competition that hurt our business badly.”

“The MSC is important to both Young's and our parent group, Foodvest, and its label lends added reassurance to customers as to the sustainability of the fish concerned. We are proud to sell MSC Argentine scallops, which have proved very popular with British consumers”

Mark Ventress, Category Director, Young's Seafood



# American Albacore Fishing Association Pacific Albacore Tuna



DATE CERTIFIED 23 August 2007

SPECIES **Albacore tuna**  
*(Thunnus alalunga)*

FISHING METHOD **Pole-and-line; troll and jig**

COUNTRY **United States**



North Pacific fishery: waters off the US Pacific coast (California, Oregon and Washington) and British Columbia, Canada; South Pacific fishery: waters of the South Pacific

FISHERY TONNAGE **About 10,000 tonnes**  
(both fisheries)

“IN THE LATE 1990s, my husband would finish the season here in November, do some work on the boat, then head off for the South Pacific,” says Natalie Webster, Director of Operations for the American Albacore Fishing Association (AAFA). “He’d fish that, come back in April, then start all over again in June – so he was fishing for ten months of the year.” Now, due to the high price of fuel, only four or five boats make the long trip from their fishing communities in California, Oregon and Washington state to ply the waters off Fiji, Tahiti, Pago Pago and Samoa. Many more fish closer to home in the North Pacific fishery. In 2008, more than 50 vessels were recognised as meeting AAFA requirements. Together, AAFA fishermen account for more than half of all albacore tuna landed on the West Coast.

### Traditional fishing methods

Apart from the names of the islands, the ‘pole and troll’ fishing they do is no less romantic. One method is pole-and-line, in which up to six fishers per boat use a stout pole, with a short line and a single barbless hook attached, to flick the wriggling tuna (each weighing 8-9kg) on to the deck of their 20m long boat. Immediately they cast the line again, catching a fish every few seconds.

In troll-and-jig fishing, an artificial lure (again with a barbless hook) is towed on a line behind a boat at about six knots. On striking the jig, the fish is pulled up immediately with a hydraulic gurdy or line-puller. Both are ‘clean’ methods that catch only one fish at a time. Bycatch is negligible and discards are low. Schools of albacore tend to be segregated by size, and fishers avoid smaller fish – not just for conservation reasons, but because they fetch lower prices.

“This is how it all started,” Webster points out. “Tuna harvesting began as pole and troll.” Over time, it was overtaken by other fishing methods which, depending on their application, can have bigger impacts on the environment and on tuna stocks. “Maybe we have to step back, rather than just plough on forward,” Webster says. “Our fishery was always sustainable.”

### New markets in Europe

However, pole and troll tuna was not

marketed as a niche product but “pushed into the tuna commodity trading programme with the rest,” Webster explains. “Due to low prices, there wasn’t a good future – and because of instability, the next generation wasn’t following in the traditional footsteps of their parents and grandparents. In our minds, the fishery would cease to exist because the fishers were all in their late fifties.”

Then, five years ago, AAFA heard about the MSC. “We felt it would be one of the building blocks in telling our story, the story of our families, in more of an international forum,” says Webster. “We went through full assessment and, in the interim, established good relationships in Europe. People were waiting for our certification. As soon as it went through, they began ordering.”

Consumers then began to learn about the ‘pole and troll’ albacore fishery and its community of traditional fishing families. “They wanted to support this fishery as a source of high quality, sustainable tuna,” Webster says.

### Stable prices and socio-economic benefits

Assured of their new market in Europe, the fishermen were able to set a stable price for the whole season instead of being at the whim of dockside price-setting. In April, the AAFA board agreed a price of \$2,260 per short tonne compared to a typical market price of \$1,700, meaning fishermen could invest in repairing crumbling vessels knowing there was a future for them and for the fishery. “It was historical,” Webster says.

“Without the MSC, that would not have happened,” she adds. “We couldn’t have created the new market without the ecolabel.” Now, that label is conspicuous on AAFA albacore sold in jars, in cans and as a smoked product. “We have good penetration in Switzerland, Germany and France,” Webster confirms. “Our product was never in the UK before, but now Sainsbury’s, Tesco and all the big chains stock our albacore. Thailand is looking at processing it; the Loblaw’s grocery chain in Canada is demanding it from a processor in British Columbia. It’s an example for fisheries around the world.”



“ The MSC has allowed us to develop new markets and create more awareness of sustainable fisheries around the world – such as the AAFA, which has been using sustainable fishing methods for generations. That is why we work together. MSC certification was another acknowledgement of their efforts made in sustainable tuna fishing ”

Andrew Bassford, Operations Manager, Fishes Wholesale BV



“ With the MSC, consumers can be reassured that sustainability is not just a word on a label. Our albacore tuna is traceable back to the vessel that harvested it – which has helped us tell our story to the world. The more market we build, the more stability we are creating for our fishery ”

Natalie Webster, Director of Operations, AAFA

# North Eastern Sea Fisheries Committee Sea Bass



© David McCandless / North East Sea fisheries committee



DATE CERTIFIED 3 December 2007

SPECIES Sea bass  
(*Dicentrarchus labrax*)

FISHING METHOD Intertidal fixed gill nets

COUNTRY United Kingdom

LOCATION



Between low- and high-water marks on the Holderness coast of north-east England, UK, from Flamborough Head lighthouse to Spurn Point

FISHERY TONNAGE 7 tonnes

THIS UNSPOILT STRETCH of the Yorkshire coast is the marine equivalent of Piccadilly Circus, with migratory sea bass, sea trout and salmon making their seasonal passage off the Flamborough Head cliffs. Of these, sea bass was least protected by byelaws until local fishermen opted for MSC certification.

The taking of salmonids (salmon and sea trout) during the summer months had always been well controlled, but sea bass in winter was a different matter. "There was no regulation in most of the district between November and March," says David McCandless, Chief Fishery Officer for the North Eastern Sea Fisheries Committee (NESFC). "It was pretty much an open season."

### Low impact fishing

However, the fishing method had a very low impact on the seabed and the wider environment. This is beach net fishing, in which nets with cork floats and a weighted groundrope are set at low tide, running up to 180m straight out from the beach and anchored. As the tide comes in, they assume their proper shape for fishing and are cleared twice a day when the tide goes out.

The gear is highly selective, targeting the size and species intended with an occasional bycatch of sole, cod and whiting – all of which are retained and marketed, apart from under size fish. These are mainly small whiting, peaking at five to ten fish per tide in the autumn and dropping away sharply after that. In four years, no live seals, porpoises or other cetaceans have been caught – and large sea mammals are rarely seen in these shallow waters unless it is due to unexplained stranding or sickness. Despite this, the Holderness fishermen had voluntarily fitted acoustic "pingers" to their nets – small electronic devices that emit a regular sonic noise to scare cetaceans away.

While the accidental netting of sea birds (mainly guillemots) had been observed, the incidence was low and the fishery had very few adjustments to make to meet the MSC standard. It was pretty

much sustainable anyway.

### Tangible environmental benefits

However, it is the changes made as a condition of certification that have brought the most tangible benefits for the environment. The main one has been the implementation of a new byelaw, limiting fixed-net permits to just five fishermen (for a district running from the River Tyne in the north to the River Humber in the south, a distance of about 100 miles) between mid-October and April. Each would have to submit a monthly catch report, detailing the species and weight of all fish caught off the Holderness beaches – including bycatch. The aim was to monitor all impacts on the marine environment, not just those on the target species.

"If it hadn't been for the MSC, we wouldn't have considered requirements like these for our fisheries regulations," says McCandless, candidly. "All the improvements will help strengthen the fishery and its future management."

### Market benefits

What he also hoped was that fishermen would find themselves in a stronger market position if their product carried the MSC label. As anticipated, they have racked up premiums of up to 25 per cent (compared to local values prior to certification) when selling to top London restaurants.

### A future for fisheries

Frank Powell, 55, has fished since he was 15 – from Hull-based trawlers ploughing the seas off Iceland and Greenland, as well as the East Riding's beaches. He, too, is glad the sea bass fishery is MSC certified. At a time when inshore fisheries in Britain are threatened with closure, he says, "It may help prolong the life of ours. We can say, 'We are sustainable. It is proven that we are, so why shut us down?' It gives us something to fight with."

Less theoretical is his propulsion into the media firmament and the world of celebrity chefs. "We've had the BBC here," he says – "and you know that Tom Aikens from down where you are? He stopped at our house for the night."

“ The MSC assessment has driven and speeded up our management improvements. It gave us the impetus to move our plan forward more quickly. We simply could not have achieved this without the MSC ”

David McCandless, Chief Fishery Officer, NESFC

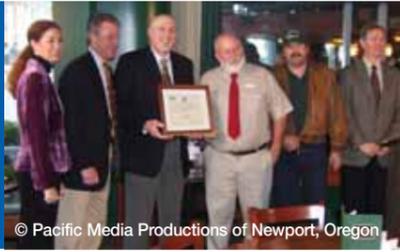
“ What the MSC does is bring all these like-minded people together and give them a sense of direction, a sense of community. Nowhere have I seen this more than with the the sea bass fishermen of Bridlington ”

Caroline Bennett, Restaurateur and Owner of the Moshi Moshi sushi chain



© David McCandless / North East Sea fisheries committee

# Oregon Pink Shrimp



© Pacific Media Productions of Newport, Oregon



DATE CERTIFIED 6 December 2007

SPECIES Oregon pink shrimp (*Pandalus jordani*)

FISHING METHOD Otter trawl

COUNTRY United States

LOCATION



The Pacific Ocean off the states of Oregon, Washington and California, on the west coast of the US

FISHERY TONNAGE 11,570 tonnes (landed 2008)

"I'M TIRED OF being attacked by groups that wouldn't know sustainability if it bit them in the butt," says Brad Pettinger, Director of the Oregon Trawl Commission – a state agency representing fishermen, processors and distributors that operates under the umbrella of the Oregon Department of Agriculture.

### Demonstrating sustainable management

Like most fisheries that trawl for shrimp, this one had been dogged in the past by criticism relating to bycatch of fish and damage to the seabed by bottom trawling gear. Pettinger knew the reality in Oregon was otherwise, due to the progressive nature of the Oregon Department of Fish and Wildlife (ODF&W) that manages the shrimp fishery to a high environmental standard.

"That is why we went for MSC certification," Pettinger says, "to differentiate ourselves from others. In today's world, when the government says a fishery is well managed, it doesn't mean as much as it used to. When you have an independent, outside party like the MSC coming in and saying it, that is of huge value. The certification offers a guarantee – to NGOs, to the public, to retailers, to the officials and politicians who control our livelihoods from afar – that a fishery is managed to the highest standards in the world."

For a number of years, the ODF&W had worked with the fleet on perfecting a bycatch reduction device (BRD) (a grid fitted at the entrance of the net to avoid larger fish being caught) suitable for shrimp trawlers that are double-rigged – towing two nets, not one, from booms extending on both sides of the vessel. "On a double-rigger, you sometimes run for a while with the gear on top of the water," says Pettinger, "and the Nordmore grate [the traditional, square grid inside a shrimp trawl that directs fish upwards and out of the net] would spin badly and foul the net. Through a lot of trial and error, we developed a round grate that solved the spinning problem."

Mandatory since 2002, BRDs have significantly reduced bycatch of species such as hake, sole and rockfish. Studies

have shown that a BRD with 32mm bar spacing reduces bycatch to less than six per cent, while one with 19mm spacing reduces it further to just two per cent. Use of the device, the MSC certifiers concluded, makes "the Oregon pink shrimp fishery ... one of the cleanest shrimp fisheries in the world" in terms of bycatch.

### Improving knowledge for better management

To achieve MSC certification, some adjustments were needed. "We added a few things to our logbooks," says Pettinger, "to get more information about discards of small shrimp – which is something we didn't have before." Fortunately, the condition coincided with the ODF&W's plan to re-order logbooks the following year, so columns for new data were simply added.

The same serendipity occurred with a second condition, requiring the fishery to complete, within two years of certification, a study that would provide better understanding of the impacts of shrimp trawling on seabed ecosystems. While these were considered to be low, the aim was to map a scenario for how the ecosystem might recover if there were found to be significant impacts. In fact, the ODF&W had in the planning stages an ROV study (using unmanned submersibles) of benthic impacts inside and outside an area closed to bottom trawlers.

"It was moving forward," Pettinger says, "but I think the certification helped. It gave the Department an easier buy-in, to say 'We'd like to do this'. I think the MSC gives leverage to individuals to get things done, it brings a sense of momentum to projects that government agencies and others may be looking at already. If they're not, you prod them and wade in where you can to get things accomplished."

More than anything, certification has brought a sense of optimism about the future. "It gives an assurance that we will be in business next year," Pettinger says, "because third-party certification is a fact of life now. Shoppers don't just want vegetables, they want organically certified vegetables. Everyone is looking for something extra, and that is what the MSC provides. We're all in."



“ Certification of the Oregon’s pink shrimp trawl fishery is a huge achievement. The MSC is an internationally recognized organization with very high scientific standards for approving the certification of a wild fishery. Certainly, this certification will help our pink shrimp fishermen maintain existing market access and gain access to new markets ”

Katy Coba, Director of the Oregon Department of Agriculture



© Pacific Media Productions of Newport, Oregon, © Oregon Trawl Commission

# Astrid Fiske North Sea Herring



© Saskia van Osnabrugge



DATE CERTIFIED 9 June 2008

SPECIES North Sea herring  
(*Clupea harengus*)

FISHING METHOD Pelagic purse seine

COUNTRY Sweden

LOCATION



The north and central North Sea, from the south-west coast of Norway across to the Shetland Islands and the north-east coast of Scotland

FISHERY TONNAGE 5,000 tonnes

NATURALLY FERMENTED, CURED and eaten raw, *maatjes* herring – the type landed by this fishery – is regarded as a delicacy in the Netherlands, Belgium and Germany. “It is fat herring without the milk or roe,” says Werner Larsson, Manager of Astrid Fiskexport, the Swedish fishing company that targets the herring just as the females’ ovaries are ripening. “They are spring-spawning, so we fish in a small part of the year – from mid-May until July.”

### Low-impact fishing

Purse seine nets are ‘set’ around a shoal, then drawn in gradually like the strings of a purse. Fishing the mid-water column only, they have little or no contact with the seabed, avoiding damage to it – and the fish in the net continue to swim as the ‘purse’ is closed. Gear type was one reason why the MSC certifiers were satisfied that this was a low-impact fishery.

Oddly, the *maatjes* herring’s own habits help make the fishery sustainable too. They tend to be found in ‘clean’ shoals comprising only pre-spawning virgin herring of exactly the type required, with very few mackerel netted by mistake. Bycatch runs at less than two per cent, and no discarding occurs. Using their vast experience, plus sonar and electronic fish-finding equipment, the skippers of the Astrid Fiske fleet (three modern vessels ranging from 36m to 45m long) target only shoals of the correct species, density and size.

As well as being fat, the fish must have fed on small shrimp – the ‘red feed’ spewed out when a *maatjes* herring’s belly is pressed. “Even when we were going through MSC assessment, we were registering all slippages,” Larsson says – meaning the release of fish from the net after sampling has shown them to be too small or not to the *maatjes* specification. “We now carry out audits and, since certification, there has not been one occasion when we have slipped fish.” However, since the

practice is common in North Sea herring fisheries, among the conditions of certification were that Astrid Fiske should co-operate fully with any future research into slippage survival rates, and actively seek discussions with the Swedish Fisheries Board about taking scientific observers on trips. “I know the skippers will welcome an independent observer at any time,” says Larsson.

“The actions required were small,” he adds, “but now we can prove we are acting sustainably and responsibly, for our children and for our children’s children.”

### New markets

As the first *maatjes* herring fishery to be MSC certified, Astrid Fiske has had a bumper year. “For us, it has opened up new markets,” Larsson confirms. “We are doing business with a couple of new wholesalers whose customers are demanding MSC products. We sold more fish last year because of that.”

The pressure, he says, is coming from supermarkets – especially in the Netherlands – many of which have pledged to buy all their fish from MSC sources by 2011. “It is a question of being allowed to sell to them, or not being allowed to sell,” Larsson says. “There is no choice. Now, all the other fisheries are following us. In a couple of years, being MSC-certified will not even be discussed. It will just be something natural, which all fisheries must have.”

“ We are very pleased to be able to offer MSC *maatjes* to our customers as the result of a classic example of co-operation between NGOs, the MSC and all suppliers in the supply chain. It is major step in our effort to make our assortment of fishery products more sustainable ”

Caspar Woolthuis, Sustainability Manager, Super de Boer supermarkets, NL



“ We told our skippers, ‘If you don’t do this, if you don’t act responsibly and go for MSC certification, you won’t sell any fish in the future.’ All the supermarkets are saying they will only buy MSC fish. You have to look beyond your own nose tip, you have to look ahead many years ”

Werner Larsson, Manager, Astrid Fiskexport, Sweden

# Lakes and Coorong, South Australia



© Leonard Fäustle



DATE CERTIFIED 13 June 2008

SPECIES 'Callop' or golden perch (*Macquaria ambigua*), yellow-eyed mullet (*Aldrichetta forsteri*), mulloway (*Argyrosomus hololepidotus*) and 'pipi' or cockle (*Donax deltooides*)

FISHING METHOD Nets (mesh, swinger, hauling and drum); plus cockle rakes, drop lines and longlines

COUNTRY Australia

LOCATION



The Coorong lagoon, Lake Alexandrina and Lake Albert near Adelaide, South Australia; and the coastal waters of the Southern Ocean adjacent to it, extending 150km south from Goolwa Beach to Kingston jetty

FISHERY TONNAGE n/a

IN THE HEARTLAND of the Ngarrindgeri – an Aboriginal people descended from the Yaraldi, whose archaeological footprint is everywhere in the Lakes and Coorong region – the place names are as evocative as the landscape: Narrung, Mundoo Island, Tauwitchere Island, Pelican Point, Snake Pit.

## Management in line with the environment

The two lakes (Alexandrina and Albert) and the 3km-wide Coorong lagoon, separated from the ocean by a ribbon of dunes 140km long, comprise one of the most important wetlands in Australia. Declared a National Park in 1966 and listed as a RAMSAR wetland of international importance in 1985 its fragile ecology depends on a mix of freshwater from the Murray River and sea water from the ocean, and the fishery draws upon three distinct ecosystems.

"If one species is seasonally quiet in, say, the freshwater component, which is the golden perch, the guys can move into the estuarine system where there is mulloway and mullet," says Garry Hera-Singh, Chairman of the Southern Fisherman's Association. "Some fishers will go out and fish for pipis," he adds, meaning cockles, hand raked from the surfline of the Southern Ocean beaches. Approximately 600 tonnes are harvested per year, compared to 100 tonnes for each of the other species.

This rotational harvest is the main reason why the fishery is sustainable. "The fishers are not flogging the guts out of any one species," Hera-Singh says. Secondly, licenses are limited to just 32 fishers using traditional low-impact methods. For them, as well as the fish, the rotational harvest guarantees a secure future. "If there is a flood of one species on the market, and the price drops, they can move to another," Hera-Singh explains. "That way, they can get a reasonable return for their effort on another product that probably isn't so abundant but higher in value"

## Economic benefits

Since achieving certification, reasonable returns have not been a problem. "I'd say we are commanding premiums of 30 to

50 per cent more for produce carrying the MSC label," Hera-Singh says. "It is way above average because there are so few MSC-certified products in Australia." In the past 12 months, he has seen a "substantial increase" in demand, primarily from restaurants and hotels whose customers are suddenly demanding sustainable seafood.

"I'm getting calls from all over Australia," Hera-Singh says, "asking 'What product do you have and how much is it going to cost?' We catch such small volumes, I can tell them the fishery is more focused on niche markets that are clearly prepared to pay a premium."

In a community where fishing and its related services (processing, transport, retail and food service) keep 100 people employed and account for 60 per cent of household income, MSC certification has brought clear economic benefits – but have there been environmental gains? "Our fishery was well managed before," Hera-Singh says, "and we have constantly improved and modified our fishing practices over decades with only sustainability in mind. We knew that, if you are impacting on bycatch and juveniles, there is no future. What we lacked was quantitative data about these impacts. We needed some bums on our boats to count the discards and the bycatch."

## Research and funding

The fishery therefore applied for funding to implement a bycatch study, and the Fisheries Research and Development Corporation (FRDC) obliged with a two-year grant. "One reason why they were interested in funding us," Hera-Singh says, "was that we were seeking a bycatch study to help us achieve MSC certification. The federal research body said, 'That is an excellent initiative for small community-based fisheries in Australia.'"

The study was already under way when certification took place. However, data from it will help the fishery fulfil a condition of certification requiring it to "provide evidence of the composition and magnitude of the bycatch" and establish monitoring programs "for any key bycatch species determined as a result of the FRDC project". The two are symbiotic; each benefits the other.

“ In the Coorong, we have the best-practice fin-fish fishery in Australia – an amazing thing to be proud of, and a shining light for other fisheries here to follow. With MSC recognition, we can one day take the uncertainty out of buying Australian seafood that is environmentally safe ”

Neil Perry, Chef and Director, Rockpool restaurant group, Australia

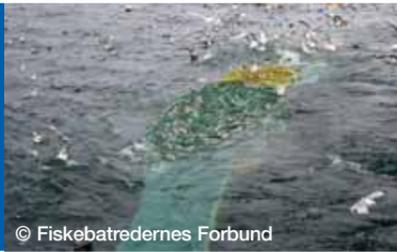


© Randy Larcombe

“ The reality is that most westernised fisheries are not managed on biological or sustainability criteria, but to give one sector a bigger slice of the pie than others. The main reason why we pursued MSC certification was to defuse the politicisation of fisheries management and establish a purer model ”

Garry Hera-Singh, Chairman, Southern Fisherman's Association

## Norway North Sea Saithe; Norway North-East Arctic Saithe



© Fiskebåtredernes Forbund



DATE CERTIFIED	14 June 2008
SPECIES	North Sea saithe and North-east Arctic saithe (both <i>Pollachius virens</i> )
FISHING METHOD	Trawl, gill net, purse seine, Danish seine, handline
COUNTRY	Norway
LOCATION	
FISHERY TONNAGE	296,000 tonnes (both fisheries combined)

The North Sea; and the Norwegian Sea, within the Norwegian Exclusive Economic Zone

BETWEEN THEM, THESE two fisheries land well over quarter of a million tonnes of saithe – described by the Norwegian Seafood Export Council as “the fish lover’s fish” and “a well-kept secret among seafood aficionados”. Earlier this year, when white fish prices in Norway dropped sharply due to the global economic crisis, saithe bucked the trend. “Prices actually rose,” says Webjorn Barstad, Head of the White Fish Division of the Norwegian Fishing Vessel Owners Association, “and the feedback from exporters remained very positive. Now, as then, they just can’t sell enough MSC-certified saithe.”

How much of that is due to the MSC label, and how much due to thrift, is open to debate. “Saithe is also cheap,” Barstad says, “and the survivors in these times of crisis are the more affordable fish such as saithe and herring.”

### Ecological gains

The ecological gains from certification are more tangible, he reckons. Even though stocks are sustainably managed using strategies approved by ICES (the International Council for the Exploration of the Sea), some aspects of management at the national level require further improvement. “The recording and analysis of bycatch in the saithe fishery, particularly of PET (Protected, Endangered or Threatened) species, is not done in a systematic way in Norway,” Barstad says. Bycatch of sharks, skates, dab and seabirds is “reported to be low”, the certifier wrote in 2008. This conclusion is supported by the use of sorting grids and large mesh sizes which allow non-target species to escape. However, there was too little concrete information about bycatch, due to the way in which data is collected.

“We have a discard ban in Norway,” Barstad adds, “so you would probably see the composition of the catch through landing notes anyway. There is also a ‘reference fleet’ – 20 offshore vessels and 20 coastal fishing vessels

– doing sampling programmes on behalf of the Institute of Marine Research. They will have a fairly good idea of the composition of catches, but there is no robust statistical procedure for registering these commercially uninteresting species.”

One condition of MSC certification was that, within 12 months, sampling programmes should be initiated to estimate bycatch more scientifically, especially where PET species were concerned. “That is something we are now addressing,” Barstad says. “It will definitely lead to improvements in Norwegian management systems – as a direct result of MSC procedures.”

Another condition related to the impact of saithe fishing on cold-water coral reefs. Within three years, the fishery has to complete an assessment of the damage done to coral structures in ‘closure areas’ where trawlers are banned, to see if gill nets, purse seines and handlines have a negative effect.

### Mapping coral areas

“The Mareano Programme, co-ordinated by the Institute of Marine Research, is already mapping vast areas of the seabed,” Barstad says. “We are proposing that the Institute re-route research vessels to the coral closure areas, to see if static gear such as nets or lines has caused any depletion, reduction or damage to the reefs since the trawlers were banned,” he adds.

“We also wrote in our MSC action plan that we would be providing information on known coral structures from the fishermen, and conveying it to the Institute,” Barstad explains. “I sat down with a group of captains and we drew a map. All Norwegian vessels are now using electronic charts that are continually updated. By mapping all the coral areas, you will not hit them by mistake. If we can avoid shipwrecks or oil and gas installations, we can avoid coral reefs. All these things have evolved directly from the MSC conditions.”

“After Norwegian saithe became MSC certified in 2008, we experienced a considerable increase in demand – which, even now, is greater than the availability of fresh raw material”

Morten Hyldborg Jensen, Sales and Marketing Director, Aker Seafoods

“Meeting the conditions of MSC certification has had a very positive effect. There will definitely be improvements, even to Norwegian management systems – which are among the best in the world”

Webjorn Barstad, Norwegian Fishing Vessel Owners Association

# Scottish Pelagic Sustainability Group North Sea Herring



© James Simpson / MSC



DATE CERTIFIED 9 July 2008

SPECIES North Sea herring  
(*Clupea harengus*)

FISHING METHOD Pelagic trawl

COUNTRY United Kingdom

LOCATION



Mainly the Buchan sub-stock of herring in the north and central North Sea, inside the exclusive economic zone (EEZ) of the EU and Norway

FISHERY TONNAGE 15,000 tonnes (2009)

THIS IS THE serious face of UK fishing – 25 modern trawlers 60-70m long, fitted with tanks of refrigerated seawater into which fish are pumped direct from the net without manual handling. Equipped with sonar, they track down shoals of herring in the far reaches of the North Sea and, returning to port, discharge them into one of six processing plants. The fish is exported to Russia, Germany, Ukraine and West Africa. Given all this, the fleet has had its share of critics.

“For us, MSC certification was a way of demonstrating that these criticisms were not properly founded”, says John Goodlad, Chairman of the Scottish Pelagic Sustainability Group (SPSG). Derek Duthie, Company Secretary of the SPSG, puts it another way: “We can claim that we are sustainable until the cows come home, and whether people believe it or not is their choice. When an independent certifier comes along and confirms it, that gives credibility to those claims.”

### Modern technology for better targeted fishing

So what makes this fishery sustainable? To begin with, modern electronic equipment – such as sonar, net and catch monitors – has made the method of fishing more precise. “We are targeting one type of fish,” Duthie explains, “and the seasons are different for herring, mackerel and blue whiting. You know, when you are going out of the harbour, what species you are going to target.”

Because sonar can distinguish shoals of herring from mackerel (which don't have a swim bladder), bycatch is low – about two per cent, according to the MSC certification report. Most of it is mackerel, which is fed into the SPSG mackerel fishery certified in January 2009. Investment in technology such as ‘size discriminators’ (which send out echo beams to determine the size and species of fish in a shoal) has improved selectivity. If a mixed shoal is landed,

the skipper announces it over the radio so other vessels stay away.

Observers who, under a mandatory EU ruling, sail on some vessels, say there has been no bycatch of cetaceans – marine mammals such as whales and porpoises. Midwater trawls do not pass over the seabed, so they neither damage it nor catch demersal species such as cod, haddock and whiting.

### Action plan to strengthen stock

Nevertheless, some conditions had to be met before the fishery could be certified. For example, together with the Pelagic Freezer-Trawler Association (PFA) – another MSC-certified herring fishery – it had to draw up an action plan to help rebuild the herring stock that it fishes in the North Sea.

### Maintain market share

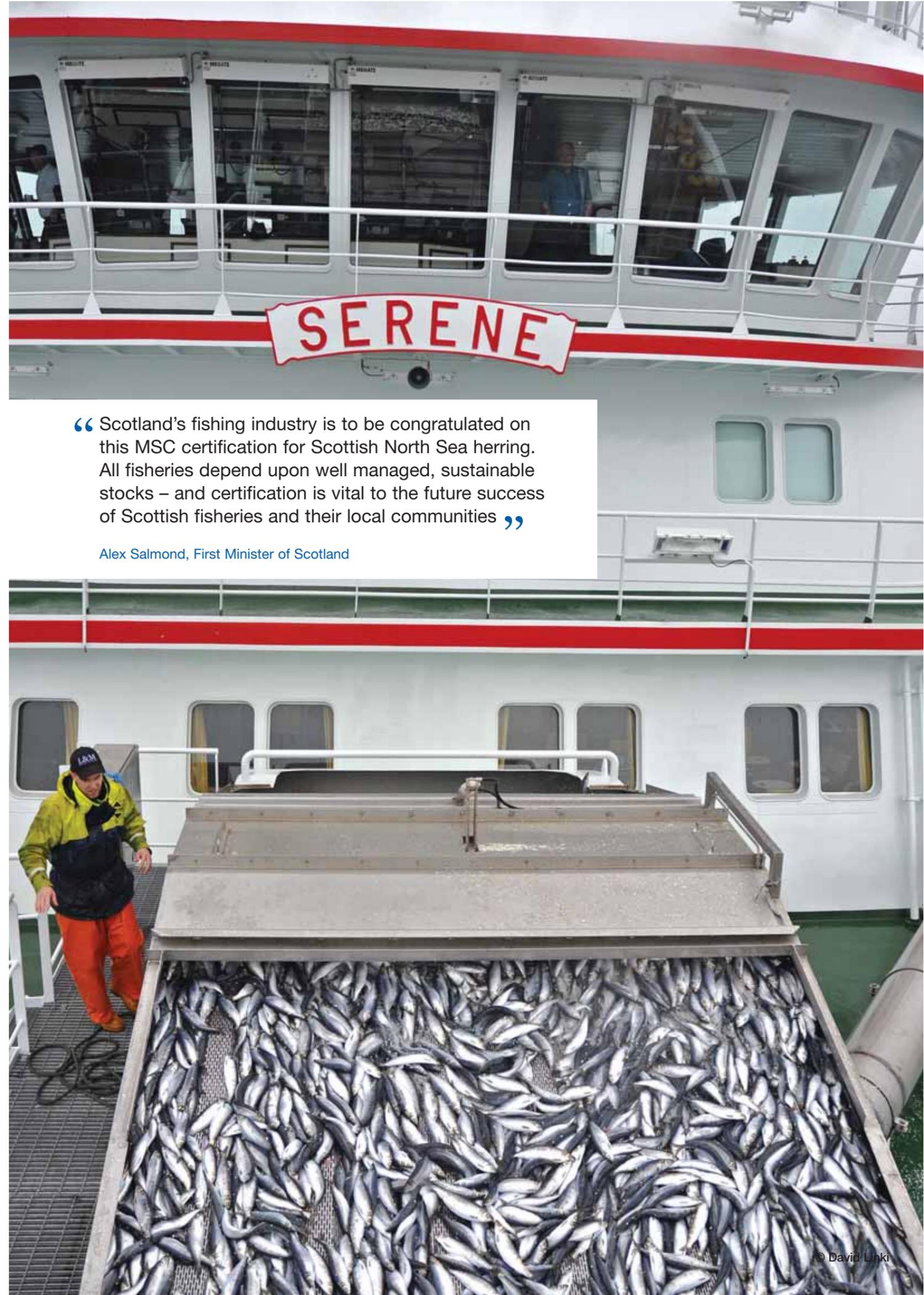
“We are doing this primarily because it is the right thing to do,” Goodlad stresses. “There is a big focus now on sustainability, and if we as an industry don't move that way, we will be out of step with the world.” Carrying the MSC logo on the entire catch is also a marketing consideration, he says. “If we don't do this, and other people are doing it, we might lose our market.”

So far, after just one summer of fishing, there has been no sign of a price premium: in Russia, Ukraine and West Africa, MSC “doesn't mean a lot at the moment”, says Goodlad. In other “small but significant” markets that the fishery sells into, retailers are recognising the importance of the MSC label.

“Even during certification,” says Goodlad, “some of our German customers were saying, ‘Look, we really want to go down the MSC route. Is there a real prospect of you getting this certification?’ We told them there was, and they said, ‘That's great. When is it going to happen?’ The two slotted together quite nicely. Our existing market wanted us to do it just as we were completing it.”

“Scotland's fishing industry is to be congratulated on this MSC certification for Scottish North Sea herring. All fisheries depend upon well managed, sustainable stocks – and certification is vital to the future success of Scottish fisheries and their local communities”

Alex Salmond, First Minister of Scotland



“There is no contradiction in being modern, technologically efficient, highly productive, profitable – and yet being sustainable. Recognition of that is the huge thing the MSC has achieved for this sector”

John Goodlad, Chairman, Scottish Pelagic Sustainability Group

Canada Northern Prawn /  
Gulf of St Lawrence  
Northern Shrimp Trawl  
Esquiman Channel



© Otis Bath



DATE CERTIFIED 5 August 2008;  
30 March 2009

SPECIES Northern prawn/shrimp  
(*Pandalus borealis*)

FISHING METHOD Otter trawl

COUNTRY Canada

LOCATION



The Atlantic Ocean,  
Atlantic Canadian  
waters, northern Gulf of  
St Lawrence and St.  
Lawrence River estuary

FISHERY TONNAGE 68,000 tonnes;  
8,867 tonnes

The Gulf of St Lawrence northern  
shrimp trawl Esquiman Channel  
fishery is the result of a  
harmonization process to  
coordinate activities in an area of  
certification assessment overlap.

IN 1992, WHEN the cod trawlers began returning from the Grand Banks with nothing but ice in their holds, it was hard to see a silver lining. The cod had been fished to commercial extinction, but their depletion triggered a surge in numbers for the northern prawn on which they fed, transforming *Pandalus borealis* into one of Newfoundland's most valuable species.

**Precautionary management**

"Given the size of that biomass, our exploitation rate is conservative," says Derek Butler, Executive Director of the Association of Seafood Producers in St John's, Newfoundland. "Biomass has grown but fishery quotas have not gone up in proportion, which is good. "This is one of the things – not being more aggressive on the stock – that contributed to our successful MSC assessment."

While fishing effort has increased, Fisheries and Oceans Canada (DFO) – the government department that manages the fishery – is "careful" to restrict licences, Butler says. "There are still only 300 boats fishing shrimp, compared to 3,000 for crab," he adds. All boats use otter trawls with a mesh size of 40mm or more, fitted with a Nordmore grate. Prawns pass through the grate, while fish are directed upwards to an escape panel – a mandatory requirement. This reduces fish bycatch, the biggest problem in most shrimp fisheries. Bobbins or rubber discs are also fitted to the groundrope so the leading edge of the net 'flies' clear of the bottom. Any flatfish disturbed by it can therefore pass below the net's entrance. If bycatch in a trawl exceeds five per cent, vessels must move at least five miles before they resume fishing.

Measures like these made the fishery well-managed, but a few conditions had to be met as a requirement of certification. "One was that our management plan should dictate what would happen if biomass declined, because shellfish fisheries are cyclical," says Butler. "If it did, how would we reduce the number of vessels fishing?"

While the DFO had a broad policy goal, "It had to be clarified and made explicit, to prove that measures were in place to reduce fishing effort as the biomass declined" – a clarification that Butler welcomes.

"That is something we did not have with cod," he laments. "Imagine if we'd had the MSC during the cod days. All of a sudden, they would have seen the catches declining in certain areas and said, 'What is your management response to that?' It would have been written into their action plan. All things being equal, we might not have lost the cod fishery if the MSC had existed."

**Retaining existing and expanding into new markets**

However, the reason for seeking certification was commercial, not just environmental. More than half the fishery's harvest has always gone to Britain (the figure is more like 80 per cent now) where, in 2004, shrimp producers spotted a trend. "In the UK, the big retailers were saying, 'We want only MSC-certified product on our shelves' – and the deadline was soon. Our shrimp producers said, 'We'd better get the label before somebody stops carrying our product'."

As well as retaining markets, his members have grown them as a result of MSC certification. "We've had increased expression of interest, since getting the label, from markets that didn't carry our product before," Butler confirms.

More poetically, the label represents closure of a chapter in history – and a commitment not to see it repeated. "The MSC was created by WWF and Unilever on the back of the Grand Banks groundfish collapse," says Butler. "In Newfoundland and Labrador, we have certified a fishery to say to the world, 'Our track record is unfortunate, but we are doing better. Our fishery is now good – and here is the stamp of approval that says so to the consumer.' By getting ourselves certified, we have come full circle."



“ Clearwater is proud of our efforts in environmental stewardship. Pursuit of MSC designation for our Cooked & Peeled Coldwater Shrimp products from the Canada northern prawn fishery was a natural fit to Clearwater's commitment to sustainability. The commercial value of the certificate is evident from new market access, customer and consumer recognition and demand ”

Dennis Coates, Business Development Manager, Clearwater



“ The most notable achievement in our fishery in recent years is clearly becoming MSC certified. It will be a proud legacy for those who supported this initiative when they look back on the success this represents ”

Derek Butler, Association of Seafood Producers, St John's, Newfoundland

# Kyoto Danish Seine Fishery Federation Snow Crab And Flathead Flounder



© Tom Seaman / Fishing News International



DATE CERTIFIED 19 September 2008

SPECIES Snow crab (*Chionoecetes opilio*); flathead flounder (*Hippoglossoides dubius*)

FISHING METHOD Danish seine net

COUNTRY Japan

LOCATION



The Sea of Japan, within Japan's Exclusive Economic Zone

FISHERY TONNAGE 91 tonnes snow crab (2009); 220 tonnes flathead flounder

“OUR OBJECTIVE IS to pass on bounteous seas to future generations,” said Tetsuya Kawaguchi, Chairman of the Kyoto Danish Seine Fishery Federation (KDSFF), on achieving MSC certification last year. “We will continue to improve the Danish seine fishery with our love of the Sea of Kyoto.”

It sounds sentimental, but the 315km stretch of coast where the fleet is based inspires a deep, almost mystical affection. Situated to the north of Kyoto, its midpoint is the rugged spur of Cape Kyogamisaki. To the west are dunes, cays and reefs bathed by the Tushima Warm Ocean Current; to the east is Wakasa Bay, a quasi-national park.

### Low-impact fishing

The 15 vessels of the KDSFF fleet operate in the Kyoto Offshore Fishing Area that begins about 50km out from the Kyoto Prefecture coast, as it is called. Each fishes with a single Danish seine net, a gear type that does not have the heavy chains associated with impacts on seabed ecosystems.

Towed on very long warps, the Danish seine is hauled until the ropes become parallel, signalling that the net is full. This occurs after an hour to 90 minutes, and haul time cannot be extended after that – unlike in a trawl fishery. Anecdotally, the shorter the haul time, the lower the incidence of damaged fish and the higher the market return. This provides an economic incentive to comply with regulations in terms of haul times and net design.

The size of net, mesh size and cod end (the back of the net) vary depending on whether flounder or crab is being targeted. To minimise bycatch, the Kyoto Institute of Oceanic and Fishery Science (KIOFS) developed a variation – the selective seine net – which uses angled panels to retain flounder and larger sized fishes while returning snow crab, star fish, sea anemones and shrimp on to the seabed.

Selective seine nets have been mandatory since 2006, and other local government controls include vessel permits, closed fishing seasons and sanctuaries (around nursery and

spawning areas) where snow crab cannot be fished due to the installation of concrete blocks that prevent bottom trawling.

### Beyond legal requirements

In 1999, when snow crab numbers were in decline, KDSFF members opted voluntarily for further controls. These included a minimum size of 100mm carapace width for immature ‘soft shell’ males that have not yet bred. This and other self-imposed restrictions go way beyond the legal requirements for vessels from the two other prefectures that are also allowed to fish in the area. Since achieving MSC certification, there has been an additional voluntary measure prompted directly by the certifiers’ recommendations. “To stimulate snow crab recovery further, we have, under the guidance of the Institute (KIOFS), prohibited the fishing of all soft-shell males on a trial basis,” Hamanaka says. “This marks a major step towards furthering stock preservation.”

### Stock recovery plan

Though recovery plans were in place for flathead flounder and snow crab, initiated by the Japanese government in 2003, the MSC has given them a new impetus. One condition of certification was that, by September 2009, a date should be specified for complete snow crab recovery. “We are in the process of discussing that,” Hamanaka says. “Given the life cycle of the species, we believe that around ten years is appropriate.” Until then, stocks will be harvested according to a recovery plan based on precautionary measures.

For the Kyoto fishery, of course, a decade is nothing. Flathead flounder has been fished here since the 1340s and snow crab since 1800. “We hope that acquiring MSC certification will encourage fishers to work even harder towards improving and strengthening our eco-fishery operations,” Hamanaka says – and already it is paying commercial dividends. Immediately after certification, the major Japanese retailer Aeon placed its first order for flathead flounder – and local consumer cooperatives are about to follow suit.



“Effective and sustainable fisheries management requires not only the participation of fisheries operators, but of consumers as well. The Kyoto Danish Seine Fishery Federation has a long history of sustainable fisheries management. MSC certification helps the fishery communicate about their sustainable management practices and gives consumers a possibility to go for the best environmental choice when buying seafood and with this choice reward sustainable fisheries management”

Dr Atsushi Yamasaki, Fisheries Biologist of the Kyoto Institute of Oceanic and Fishery Science

“Even when a fishery is making an effort to preserve and increase fish stocks using eco-friendly fishing practices, it is hard to get this across to consumers. That is why we decided to aim for MSC certification”

Takashi Hamanaka, Secretariat, Kyoto Danish Seine Fishery Federation

## Gulf of St Lawrence Northern Shrimp and Gulf of St Lawrence Northern Shrimp Trawl Esquiman Channel



© Daniel Suddaby / MSC



DATE CERTIFIED 23 September 2008;  
30 March 2009

SPECIES Northern shrimp  
(*Pandalus borealis*)

FISHING METHOD Otter trawl

COUNTRY Canada

LOCATION



The Gulf of St Lawrence, off eastern Canada

FISHERY TONNAGE 28,800 tonnes;  
8,867 tonnes

The Gulf of St Lawrence northern shrimp trawl Esquiman Channel fishery is the result of a harmonization process to coordinate activities in an area of certification assessment overlap.

IN APRIL, JUST six months after this fishery was certified, marine scientists were plying the waters of the Gulf of St Lawrence, collecting mud samples as part of a study into possible impacts on the seabed from shrimp trawling. Co-funded by local government and the seven client companies that are eligible to use the MSC logo, it will first assess the abundance and diversity of organisms living in the bottom sediment, then look at how they may be affected by trawls.

### Researching possible environmental impacts

"If we weren't MSC certified, we would not at this time be hiring a firm to do the research and find out if we are affecting the fishing grounds or not," says Jules Pepin, vice-president of marketing at Les Pêcheries Marinard Ltd, one of the client organisations. The initiative came as a direct result of one of the conditions set in order to meet the MSC standard, even though the fishery scored highly. It was already extremely well managed by Fisheries and Oceans Canada (DFO), the government department responsible. Fishing is limited by permits, allocated to 100 or so small boats; the TAC (Total Allowable Catch) for each area is reviewed every year, taking into account stock status; a mesh size of 40mm or more is enforced (to allow under size shrimp to escape); and use of a separator device, called a Nordmore grid, is mandatory on trawls to exclude any bycatch of non-target species. The existing management plan also requires that endangered species, such as northern and spotted wolffish, must be returned to the water.

"Our methods of fishing are right," Pepin says, "but this research will protect the grounds further". Researchers from ISMER (the Institute of Marine Sciences at the University of Quebec, in Rimouski) will initially work with DFO scientists and, by 2011, DFO Quebec will convene a workshop to report the findings. "At the moment, we are not in a position to prove that we are not affecting the fishing grounds," says

Pepin. "If we are, we will take the necessary measures to correct that. We may have to make a few changes to avoid these softer, sedimented areas of seabed."

Serge Haché, director of supply at L'Association Cooperative des Pêcheurs de L'Île Ltd, another client organisation, suspects there will be few changes to make. "Using Scanmar sensors and cameras mounted on trawls, we have already demonstrated scientifically that damage to the seabed is minimal," he says. "What we have to provide is more specific data over the next two years."

### Access to new markets

Meeting the condition will pay dividends commercially, as the fishery cannot afford to lose its certification. "We get calls from new clients, saying they want the little blue label on shipments," Haché says. "The certification has definitely helped us to make some new sales. Two months after we were certified, a buyer said he wanted only MSC shrimp, with the label on the box and everything. If we hadn't been able to provide it, he would have gone elsewhere."

Eighty-five per cent of shrimp from the fishery is sold to Europe, where many supermarkets will only take MSC certified product. "In 2006, Walmart – the biggest retailer in the world – led the way with its powerful commitment to MSC," Haché says. "It is like a snowball starting to roll. We want to be a part of it now, before it is imposed."

In a market where wild-caught shrimp is under pressure from the farmed variety, cheaply produced in Asia, the MSC logo also helps. "I think it was a very important decision to promote the natural, coldwater shrimp by taking it down this route," Haché says. "It is one more good thing to put on the label: that it comes from a fishery proven to be sustainable and well managed."

“Nordic Seafood was delighted to see the Gulf of St Lawrence northern shrimp fishery become MSC certified. In recent years we have been faced with increasing demand for sustainable seafood by customers. We feel that MSC certification was a great step that will ensure a bright future and strong demand for the northern shrimp”

Lars Olsen, Sales Director for Nordic Seafood A/S



# Germany North Sea Saithe Trawl



© Marnie Bammert / MSC



DATE CERTIFIED 8 October 2008

SPECIES Saithe (*Pollachius virens*)

FISHING METHOD Demersal otter trawl

COUNTRY Germany

LOCATION



The North Sea, mostly in deep water near the Northern Shelf and the Norwegian Deep, between southern Norway and north-east Scotland

FISHERY TONNAGE 9,700 tonnes

“IN THE END, we must look at everything from a commercial point of view – but we also have to bear in mind long-term perspectives,” says Jörg Petersen, general manager of Kutterfisch, the German company that processes the saithe from the North Sea fishery. In his view, the two are complementary: forward-looking measures to protect the oceans often result in cost cutting.

### Minimizing environmental impacts

Without that observation, one might have assumed his company’s investment in the fleet was all about environmental zeal. “We’ve conducted trials with soft-bottom trawl doors,” he says, referring to a new type of gear that has little or no contact with the seabed, minimising ecosystem impacts. Then there is the issue of mesh size, which determines the size of saithe caught. “For years, even before certification, our minimum mesh size was 125mm when the EU requirement was 100mm,” he says. “Our guys said, ‘We don’t want to catch small fish. They’re the next generation and we’re throwing them away. With a bigger mesh, we’ll catch only mature fish.’”

In fact, discarding saithe is “relatively rare”, according to the MSC certification report, because juveniles tend to be distributed inshore (where trawlers do not fish) until they are three years old. Nevertheless, this and the trawl-door issue show how environmental and commercial interests overlap.

Trawl doors are pairs of heavy metal boards that keep the mouth of the net open when it is towed. “There are different angles you can use, and the length of cable attaching them to the net is adjustable,” Petersen says. “You can make them travel 1m or 2m off the seabed, so the net is touching the bottom from time to time, or not at all.” Hence the name soft-bottom trawl doors.

### Environmental measures save production costs

Made by Thyboron in Denmark, this type of equipment requires other changes to the fishing gear. Due to lower friction with the seabed, less power is needed for

towing the doors. “In addition we introduced a type of net made from a different yarn, which is 30 per cent lighter than conventional material,” says Petersen. “We found it reduced fuel consumption by 20 to 30 per cent.”

Using a larger mesh size also paid commercial dividends. “Catching smaller fish brings a bigger workload and higher processing costs,” say Petersen. “To supply 10kg of fish, you may need 100 fillets. With larger fish, you may need only 60. Larger fillets of 150-200g are a lot easier to sell than 100g fillets.”

### Action plan to improve environmental performance

In its assessment, the fishery scored highly against the MSC standard and, as a result, few conditions were attached to the certification decision. Trials were already under way with trawl doors and lighter gear, for example, and bycatch was put at only two per cent. “However, the MSC conditions of certification meant we had to implement an action plan to improve the environmental performance of the fishery,” Petersen says, “and we agreed we would try to reduce the impact of bottom trawling.” That is why gear is refined almost continually, fulfilling the condition but also improving the business.

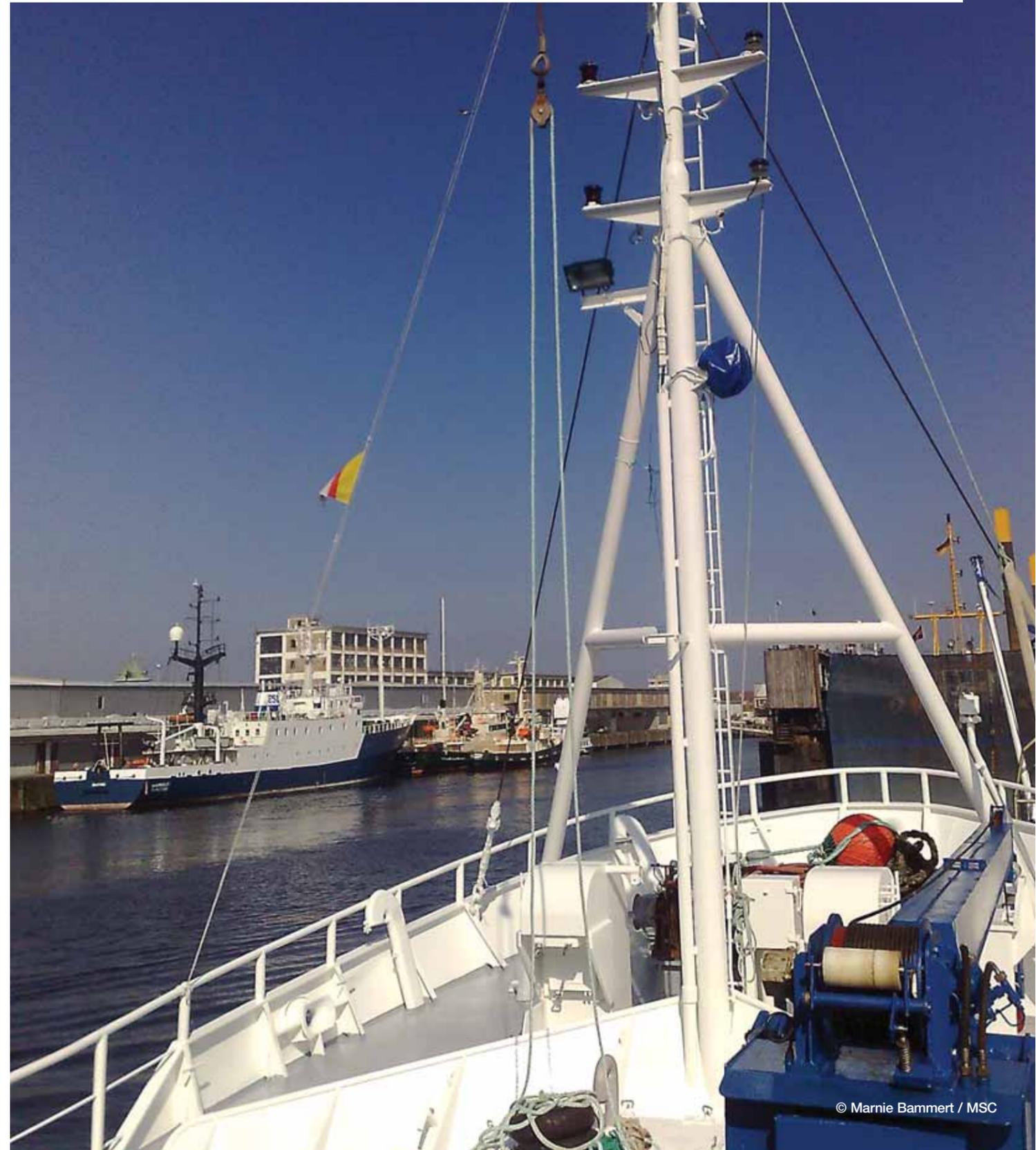
### Economic benefits

The reward has been in the marketplace – not in the form of a consistent price premium, but in access to new product areas. “We are now getting freezing contracts for fillets,” Petersen says, “because the frozen market is looking for MSC fish.” The big demand is coming from discounters such as Aldi and Lidl, which are in turn seeing increased demand from customers.

“It’s a very positive development for us,” Petersen says, “because it gives us a second leg to stand on. Now, we are not so dependent on the fresh fish market where auction prices vary from day to day. It gives us a more stable base – and that definitely would not have happened without the MSC logo.”

“ Germany is the world’s biggest market for MSC labelled products, an important contribution to sustainable fisheries. Through the MSC certification of its saithe fishery, Kutterfisch-Zentrale from Cuxhaven is the first German fishery to prove that economic success and the protection of marine ecosystems are compatible. My wish is that consumers support this by choosing sustainable seafood ”

Bart van Olphen, Managing Director, Fishes Wholesale BV



© Marnie Bammert / MSC

# Scottish Pelagic Sustainability Group Western Mackerel



DATE CERTIFIED 21 January 2009

SPECIES Mackerel  
(*Scomber scombrus*)

FISHING METHOD Pelagic trawl

COUNTRY United Kingdom

LOCATION



The Northeast Atlantic and North Sea – specifically off the west coast of the United Kingdom, Ireland and France, targeting the western component of the stock

FISHERY TONNAGE 140,000 tonnes  
(2009 quota)

“THE WESTERN COMPONENT is where we derive almost all our mackerel quota from,” says Derek Duthie, Company Secretary of the Scottish Pelagic Sustainability Group (SPSG), explaining how a fishery catching Northeast Atlantic mackerel – a depleted stock in some areas – can be certified as sustainable. In fact, it is only the North Sea component (spawning in waters to the east of Britain) that continues to require special protection measures following overfishing in the 1960s, while the western component is “in a good state”, according to the MSC certification report.

Like the SPSG North Sea herring fishery certified in July 2008, this one is a major player. It lands about three-quarters of the entire UK quota for mackerel from the Western component (an £80m market), selling it mainly to Russia, Eastern Europe and Japan. What, then, makes the UK’s largest fishery sustainable?

### Highly selective fishing

First, it uses fishing methods that are highly selective. “Vessels use fish-finding equipment to locate shoals of mackerel, then tow at whatever depth the instruments tell them,” Duthie explains. What skippers don’t necessarily know is whether the shoal is made up of larger mackerel, smaller juveniles or a mixture of both – hence the use of automated jiggers, a novel technology introduced on all SPSG vessels last October to improve selectivity further.

“We know from hand-lining that mackerel bite on hooks,” says Duthie, “so operators programme their machines to suspend lines with hooks at the depth where the shoal is located. When the mackerel bite, the machine automatically winds the line up – and each fish caught is weighed on electronic scales. The skipper will see the weight of individual mackerel, but also the average size. Based on that sample of a couple of baskets – 100 mackerel, say – he will decide whether to tow on that mark (or shoal) or to move on elsewhere. If the factories are looking for a particular size of fish, you can go out and tailor your catch to what the market is asking for. Generally, a better price is paid for bigger mackerel, so you can target those and try to avoid catching juveniles.”

In their report, the MSC certifiers concluded that ‘slippage’ [i.e., opening the net and releasing under size fish before they are

pumped out of the water] “is not a significant issue” here, compared to other pelagic fisheries. That conclusion is based on records kept by Fisheries Research Sciences (FRS) in Aberdeen, which deploys scientific observers on board some SPSG vessels.

For a decade before certification, trawlers from the Scottish pelagic fleet also carried observers from the Sea Mammal Research Unit (SMRU) at the University of St Andrews – a voluntary initiative. “Observations have shown nil cetacean bycatch in the mackerel fishery,” Duthie confirms. When observers became mandatory under EU law, “The SMRU continued that work on behalf of the government,” Duthie says, “and we co-operate with that programme.” Now, as part of its MSC action plan, the SPSG is required to work further with the SMRU to see how any future interactions can be “meaningfully recorded”.

### Third-party endorsement

In 2007, when the SPSG was formed out of the former Pelagic Strategy Group (a government-industry joint venture), one of its stated goals was to obtain MSC certification. It had already developed a sustainability policy but it lacked the credibility of third-party endorsement. “We wanted to prove to people, independently, that our fisheries were in good shape and that we were fishing responsibly,” Duthie says.

Initiatives such as automated jigging were not directly in response to a condition of certification, he stresses. However, when entering MSC assessment, “knowing the kinds of things the certifiers would be looking for” was a catalyst. “We were aware we had to minimise discards,” Duthie says, “and the MSC process focused our minds and helped us push through on that. It made us think about the overall state of the stock and the responsibilities that we have.”

### Protecting existing markets

The other big reason for seeking certification, Duthie says, was to protect existing markets. “It provided an opportunity to ensure that our competitive position is not eroded in any way,” he explains. “There are a number of mackerel fisheries under assessment now, so it’s a way of guaranteeing our future. We didn’t want to be the last of the pack to have these credentials.”

“The achievement of MSC certification – the gold standard of sustainability – for Scotland’s mackerel fishery is a welcome boost for our fishing industry and communities. It also benefits consumers as they now have evidence that when they are choosing Scottish mackerel, they are buying a top-quality product from a sustainable source”

Richard Lochhead, Cabinet Secretary for Rural Affairs and the Environment



“We were confident from day one that what we were doing was sustainable – but there are always things that can be improved on. The MSC process focused our minds on certain aspects of the fishery and made us think about the overall state of the stock and the responsibilities that we have”

Derek Duthie, Company Secretary, Scottish Pelagic Sustainability Group

# Domstein Longliner Partners North East Arctic Cod and Haddock



DATE CERTIFIED 27 February 2009

SPECIES Cod (*Gadus morhua*); haddock (*Melanogrammus aeglefinus*)

FISHING METHOD Longline

COUNTRY Norway



In the Norwegian Sea, in the southern Barents Sea and in the Svalbard area

FISHERY TONNAGE 5,000 tonnes cod (2009); 3,000 tonnes haddock (2009)

“FOR MANY YEARS now, Norwegian fish stock management has been considered the best in the world,” says Rolf Domstein, CEO of Domstein, the processor and exporter that manages these two important fisheries in partnership with the Ervik Havfiske longlining fleet. When communicating such matters to consumers far from home, the MSC logo has proved invaluable.

### New markets

“In Norway, I think people have a lot of trust in the way our fisheries are managed,” Domstein explains, “but in more distant markets it is very important to have a neutral, third-party acknowledgment of that. We are getting lots of attention now in Germany, in Holland and in the United Kingdom. Indeed, Asda [the third largest retailer in the UK], to whom we have not sold anything before, began taking our MSC cod the very first week after certification.”

Domstein has traditionally made value-added products using the low-value parts of the fillet – but all that may be changing. “I believe we will sell more fresh fish in the future,” Domstein says, “and get even better prices. We do not need a price premium. If we can increase our sales volumes and get our fish into better-paying markets, we will achieve better economy without one.”

### Sustainable fishing

The big gain for consumers is that they can buy Atlantic cod (a species of concern when discussing sustainability) with a clear conscience – thanks to exemplary stock management in the Barents Sea, under a joint arrangement between Norway and Russia. “We have always adjusted the fishing to the biomass,” Domstein says, “so the fishery has never been in the kind of crisis seen in other parts of the world.” In its report, the MSC certifier confirmed the stock “to be consistently maintained at levels above the precautionary limits”, meaning more than enough fish are left in the ocean for the species to spawn a healthy generation the following year.

In terms of selectivity, too, both fisheries performed strongly. “The fishermen know by experience what species they will catch at different times of year,” Domstein says – mainly cod from October to March and haddock in the summer. “They know which areas to fish and at what depth, and the size of the bait and hooks they use determines what they catch. Our bycatch record is very good.”

However, as part of their MSC action plan, both fisheries are required to provide “more robust estimates” of all bycatch, to help understand better the potential impacts on other species. In particular, a sampling programme must be developed and implemented within 12 months of certification, providing data that will allow scientists to assess the distribution, ecology and abundance of commercial and non-commercial species, mammals and birds.

### Focusing minds on sustainability

“Every fisherman taking up a fish will be responsible for this reporting,” says Domstein. “They will be a lot more involved. Our whole organisation is more focused on making environmental improvements as a result of the MSC assessment. It opened our eyes, and we learned a lot. We always reported our catch in Norway – but now we will be reporting in a more formalised way.”

In other respects, too, Domstein is taking sustainability seriously. “We have always paid attention to fuel consumption because oil is one of our biggest cost elements,” Rolf Domstein says. “All our vessels use technology that boosts fuel-efficiency – but during the past year, we have become more aware of the pollution side, too, in particular our carbon footprint.” With this in mind, every seafood item that Domstein sells is subjected to life-cycle analysis to measure its CO2 emissions from raw material through to the finished product.



“ Because of the MSC logo, we are getting into more interesting markets paying higher prices. We are moving away from being a mass producer of a commodity, selling big quantities to big customers, towards working with smaller customers who specialise in sustainable seafood ”

Rolf Domstein, CEO, Domstein Fish AS, Norway

“ Asda and its customers support the MSC, whose ecolabel gives assurance on the sustainability of the fish we offer. We’re proud that we were able to bring the first MSC certified Atlantic cod and haddock to our customers, enabling the nation’s favourite fish-and-chips to be a green choice ”

Chris Brown, Head of Ethical and Sustainable Sourcing, ASDA

**info@msc.org**  
**www.msc.org**

**MSC HEAD OFFICE**  
**(Europe, Africa and Middle East)**  
3rd Floor Mountbarrow House  
6-20 Elizabeth Street  
London SW1W 9RB  
UK  
Tel: +44 20 7811 3300  
Registered Charity: 1066806

**MSC REGIONAL OFFICE**  
**(Americas)**  
2110 North Pacific Street  
Suite 102  
Seattle WA  
98103  
USA  
Tel: +1 206 691 0188/9  
Non-profit status 501(c)(3)

**MSC REGIONAL OFFICE**  
**(Asia-Pacific)**  
10/46-48 Urunga Parade  
Miranda  
NSW 2228  
Australia  
Tel: +612 9524 8400  
ABN: 69 517 984 605

**MSC LOCAL OFFICE**  
**(Japan)**  
3rd Floor, AIG Kabuto-cho Bldg  
5-1 Nihonbashi Kabuto-cho  
Chuo-ku, Tokyo  
Japan 103-0026  
Tel: +81 (0)3 6861 7515

**MSC LOCAL OFFICE**  
**(Netherlands)**  
Sweelinckplein 9-11, Unit 12  
2517 GK, Den Haag  
Netherlands  
Tel: +31 (0)70 360 5979

**MSC LOCAL OFFICE**  
**(Scotland)**  
4th Floor Thorn House  
5 Rose Street  
Edinburgh  
EH2 2PR  
Scotland  
UK  
Tel: +44 (0)131 243 2617

**MSC LOCAL OFFICE**  
**(Germany, Switzerland, Austria)**  
Schwedter Straße 9a  
10119 Berlin  
Germany  
Tel: +49 (0)30 8849 7008

**MSC LOCAL OFFICE**  
**(Southern Africa)**  
Postal address:  
P.O. Box 7107  
Roggebaai 8012  
Cape Town  
South Africa  
Tel: +27 (0)21 4255086

