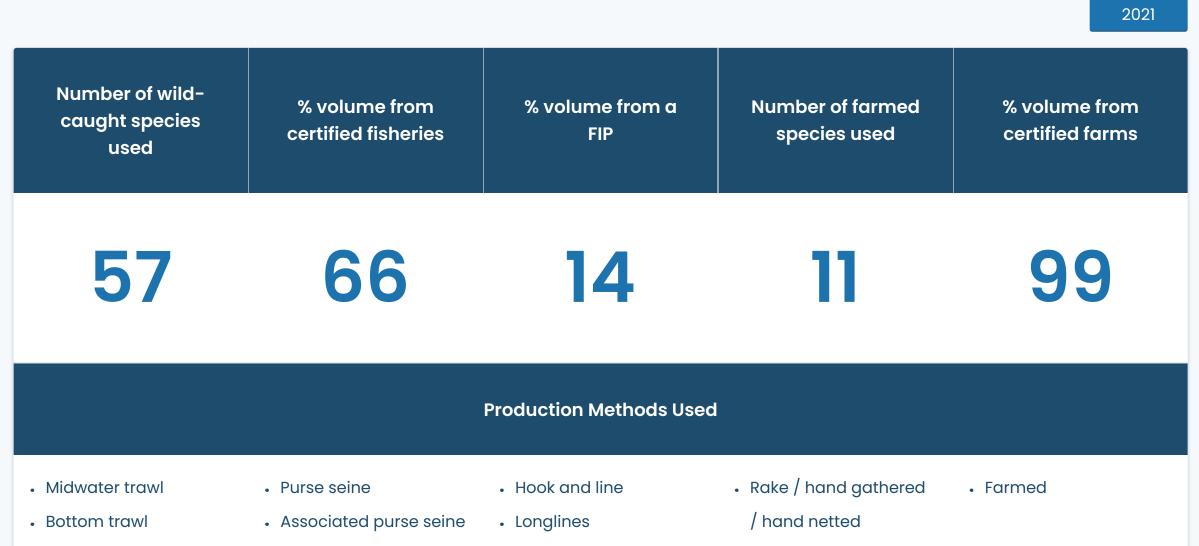




Morrisons

Morrisons is a major British supermarket retailer, with more than 110,000 colleagues in 498 stores serving over 9 million customers every week. Morrisons operates its own sites making meat, fruit and veg, fish, bakery and fresh food products – 20 in all – and is unique in preparing and making more than half of the fresh food sold in its stores, supported by over 9,000 trained butchers, bakers, fishmongers, cheesemongers and other skilled in-store specialists. Morrisons currently offers its customers a range of nearly 70 seafood species, with its range of wild caught seafood covering more than 50 species.



- Dredge
- FAD-free
- Handlines and pole-
 - Pots and traps

News

- (unassociated) purse lines Miscellaneous
- seine
- Seine nets
- Gillnets and entangling

nets

Summary

As members of the Sustainable Seafood Coalition, Morrisons are working to support and ambition that all seafood sold in the UK comes from sustainable sources. They offer one of the broadest ranges of fresh seafood of any major UK supermarket and work with a range of partners, including Sustainable Fisheries Partnership, to help inform their approach to sourcing and support improvements in global fisheries.

Much of this broad range is sourced locally from mixed fisheries in the south west of the UK, an approach that supports Morrisons belief that encouraging consumption of a broader range of locally sourced species is pivotal to the sustainability of global fish stocks and the sustainability of food supply chains. Helping to reduce pressure on major commercial species, reduce transport miles and supporting thriving coastal communities. Morrisons are partners of Project UK, a collaboration between the Marine Stewardship Council, the fishing sector and key industry stakeholders helping to support improvements within eight important UK British fisheries – more information on this work can be found here – https://www.projectukfisheries.co.uk/

In 2015, Morrisons became one of the first companies to disclose its seafood sourcing list through the Ocean Disclosure Project. This disclosure represents both wild caught and farmed fish and seafood used in Morrisons products and includes minor ingredients.

Morrisons has a tuna-specific policy stating that it will only source tuna from pole and line fisheries or fisheries that do not use fish aggregating devices (FADs). In support of this commitment to sustainable tuna, the retailer is also a member and participant in the Global Tuna Alliance. A collaboration across business working to ensure that ultimately meet the highest environmental and social standards – more information on the Alliance and its work can be found here - <u>https://www.globaltunaalliance.com/</u>

<u>https://www.morrisons-corporate.com/cr/seafood/</u>

<u>https://www.morrisons-corporate.com/cr/policy/</u>

Associated Fisheries



Google				Map data ©2022
Species and Location	Production Methods	Certification or Improvement Project	Sustainability Ratings	Notes
Aesop shrimp Pandalus montagui	Bottom trawl	Certified	FishSource Well Managed	~

Eastern Assessment Zone - Davis Strait

Fishery countries: Canada

> **Seafood Watch** Eco-Certification Recommended

Ocean Wise Recommended

Environmental Notes

- This fishery is unlikely to impact PET species.
- Measures are in place to minimize bycatch in this fishery.
- Bottom trawls will directly impact on the sea bed.

General Notes

References

Acoura Marine, October 2016, MSC Public Certification Report for Canada Northern and Striped Shrimp



Certified

FishSource Well Managed



Alaska pollock

Theragra chalcogramma

Aleutian Islands, E Bering Sea, Gulf of Alaska

Fishery countries:

United States

Seafood Watch Eco-Certification Recommended

Good Fish Guide Best Choice 1

Ocean Wise Recommended

NOAA FSSI

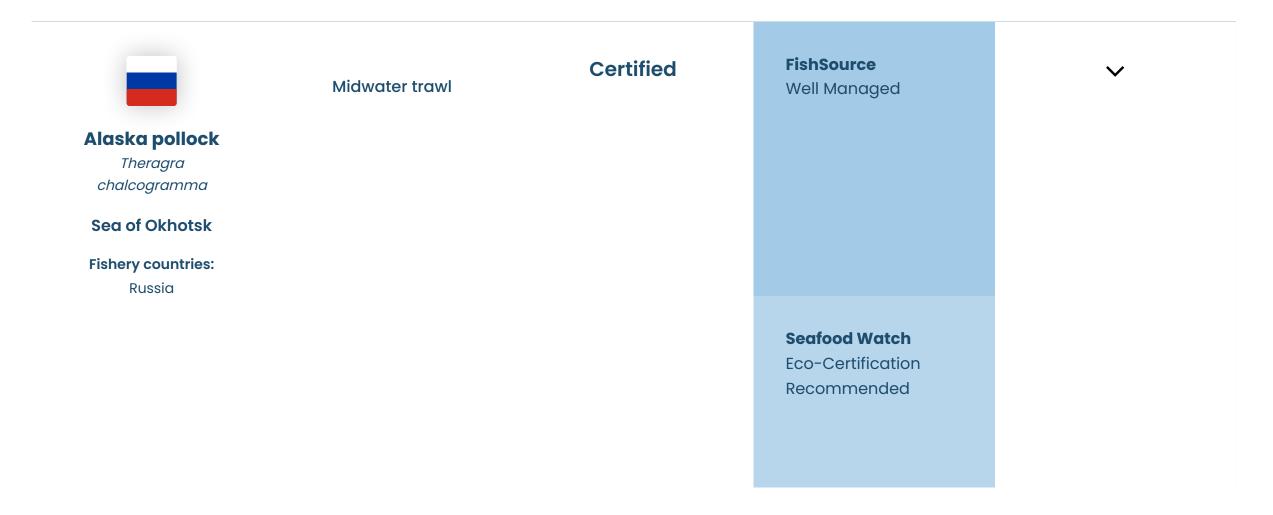
4

Environmental Notes

- This fishery is unlikely to have direct impacts on PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This fish plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.





Ocean Wise Recommended

Environmental Notes

- This fishery is unlikely to have direct impacts on PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This fish plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.



Certified

FishSource Well Managed

 \checkmark

pole-lines

Albacore Thunnus alalunga

North Atlantic

Fishery countries:

Spain

Seafood Watch **Eco-Certification** Recommended

Good Fish Guide Best Choice 1

Ocean Wise Recommended

Environmental Notes

- This fishery is unlikely to impact PET species; incidental capture of PET species by pole-and-line gear is uncommon.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Bureau Veritas Iberia, June 2016, MSC Public Certification Report for North Atlantic albacore artisanal fishery

FishSource Well Managed



Homarus americanus	Pots and traps	Certified		\sim
Gulf of St. Lawrence			_	
South			Ocean Wise	
Fishery countries:			Not recommended	
Canada				

Environmental Notes

- The most significant environmental concern for this fishery relates to potential impacts on PET species. The risk of entanglement of the endangered North Atlantic right whale in lobster gear is a serious concern, although actual impacts of the fishery are thought to be low as management measures are in place to reduce the likelihood of the fishery interacting with whales.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

FishSource Well Managed

Seafood Watch Eco-Certification Recommended

American sea

scallop

Placopecten magellanicus

US Atlantic

Fishery countries: United States Dredge

Certified

NOAA FSSI 4

Ocean Wise

Recommended



 \checkmark

Environmental Notes

- This fishery is unlikely to impact PET species.
- This fishery is unlikely to have significant impacts on bycatch species.
- Dredges will directly impact on the sea bed, but the fishery is considered highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm.

General Notes

References

SCS Global Services, October 2018, MSC Public Certification Report for US Atlantic Sea Scallop

	Purse seine	FIP	Good Fish Guide Think 3	~
Anchoveta Engraulis ringens				
Peruvian Northern- Central				
Fishery countries: Peru				

- This fishery is unlikely to have direct impacts on PET species but may impact food availability to PET species. The FIP aims to better understand the impacts of the fishery on PET species.
- Bycatch for this fishery is considered low. However, anomalous environmental conditons observed since 2013 have been associated with an increased catch of non-target species.
- This fishery is unlikely to have a significant impact on the sea bed. The FIP aims to better understand the impacts of the fishery on habitats.

General Notes

- This fishery entered into two FIPs in January 2017, one for the small scale purse-seine fishery and one for the industrial purse-seine fishery.
- This fish plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.



Environmental Notes

- There are risks to sharks, skates and rays with this fishery. Occasional interactions with marine mammals occur.
- Bycatch is a risk for this fishery, but there is insufficient data available to assess significance.
- Bottom trawls will directly impact on the sea bed. However, management measures are in place.

General Notes

References

FisheryProgress - UK monkfish - gillnet/trawl



Midwater trawl

Certified

FishSource Well Managed

 $\mathbf{\vee}$

Argentine

anchovy

Engraulis anchoita

North of 41°S to Santa

Catarina

Fishery countries: Argentina

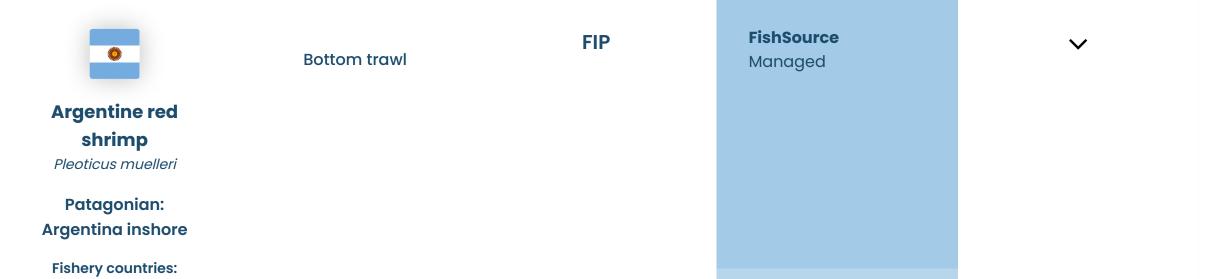
> **Seafood Watch Eco-Certification** Recommended

Environmental Notes

- Occasional interactions with seabirds and marine mammals are known to occur within this fishery, but data is too limited to state whether this hinders their recovery. An MSC condition is in place to provide evidence of effects on PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This fish plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.



Argentina

Seafood Watch Avoid

Ocean Wise Not recommended

- There is a lack of public information on interactions with PET species for this fishery.
- There is limited information on bycatch in this fishery but bycatch of hake is a risk.
- Bottom trawls will directly impact on the sea bed.

General Notes

References

Fishery Progress, Argentina onshore red shrimp - bottom trawl FIP



Atlantic cod Gadus morhua

Bottom trawl

Certified

Fishery countries:

Barents Sea

Norway

Good Fish Guide Best Choice 2

FishSource

Well Managed

Seafood Watch Eco-Certification Recommended

 \checkmark



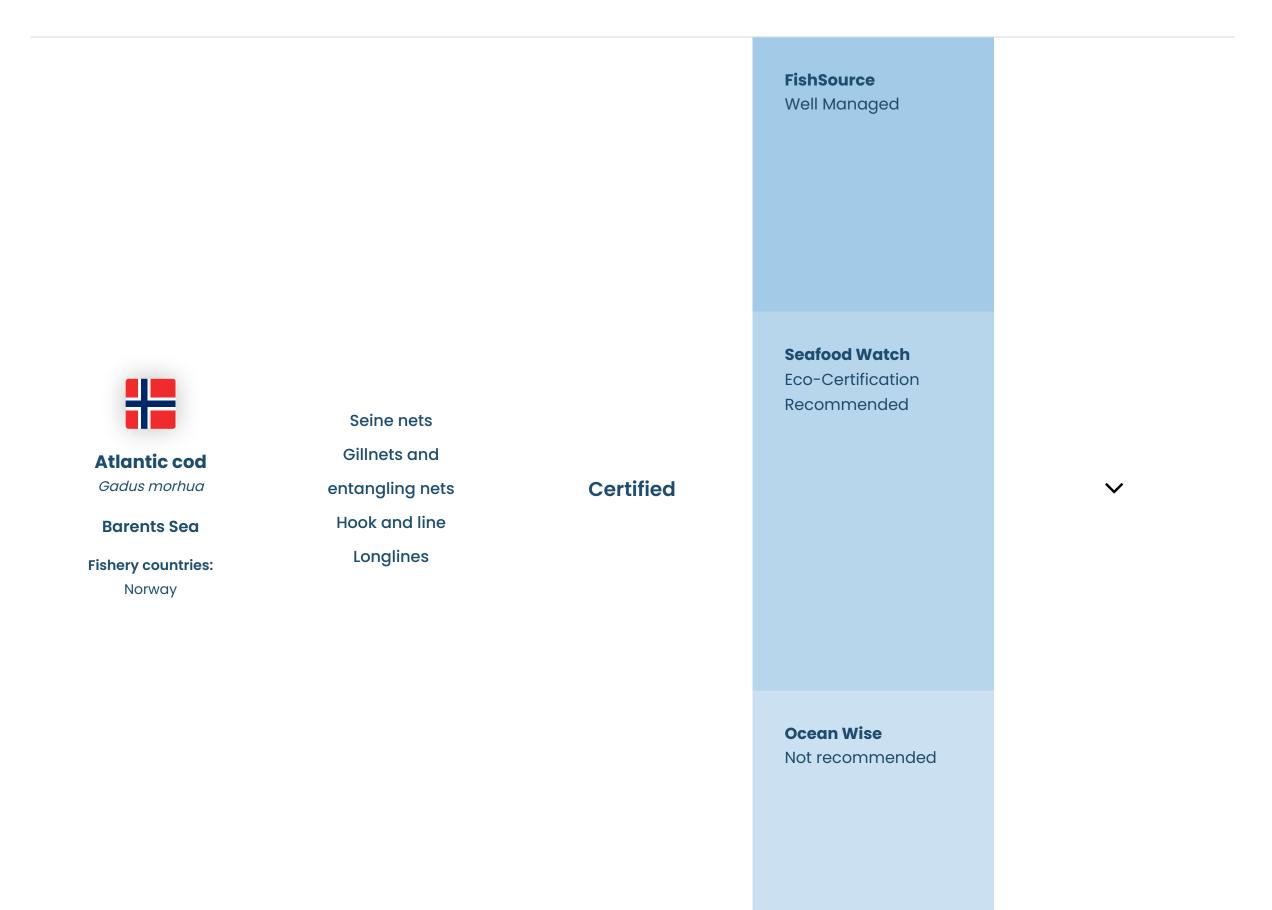
Environmental Notes

• There are concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish.

- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts on retained species.
- Bottom trawls will directly impact on the sea bed. Management measures are in place to limit impacts on benthic habitats.

General Notes

• No additional notes.



Environmental Notes

- There are concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish.
- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts on retained species.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.



Seafood Watch

Eco-Certification Recommended

Good Fish Guide Best Choice 2

Ocean Wise Recommended

Environmental Notes

- There are concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish.
- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts on retained species.
- Bottom trawls will directly impact on the sea bed. Management measures are in place to limit impacts on benthic habitats.

General Notes

• No additional notes.





- There are concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish.
- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts on retained species.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.

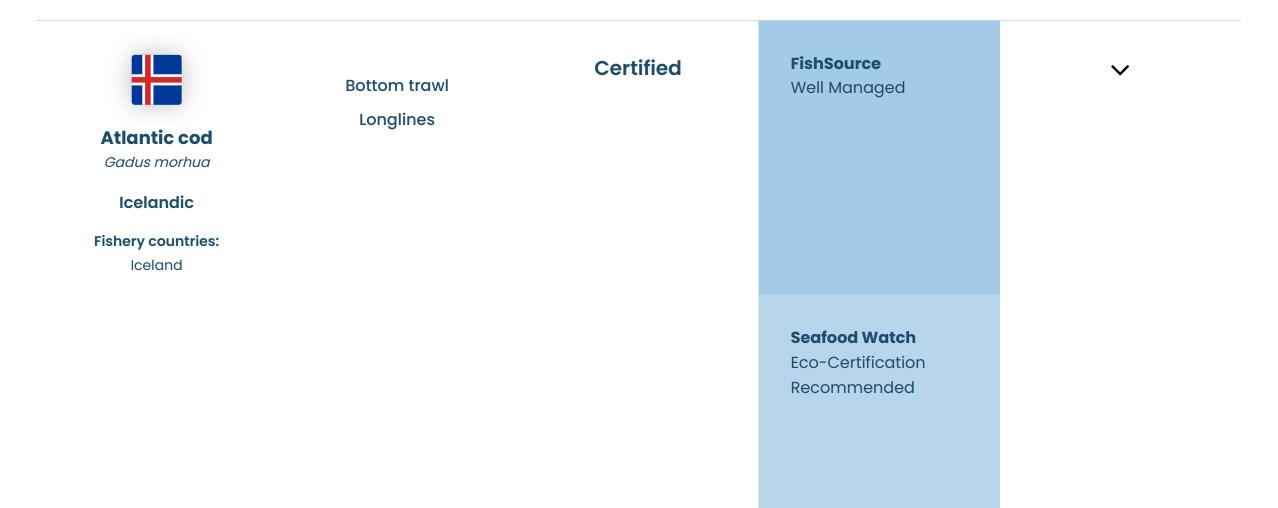


Good Fish Guide Best Choice 2

- There are concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish.
- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts on retained species.
- Bottom trawls will directly impact on the sea bed. Management measures are in place to limit impacts on benthic habitats.

General Notes

• No additional notes.



Good Fish Guide Best Choice 1

Ocean Wise Recommended

- This fishery is unlikely to have direct impacts on PET species.
- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts on retained species.
- The impact depends on the gear type. Bottom trawls will have the greatest impact on the sea bed.

General Notes

• No additional notes.



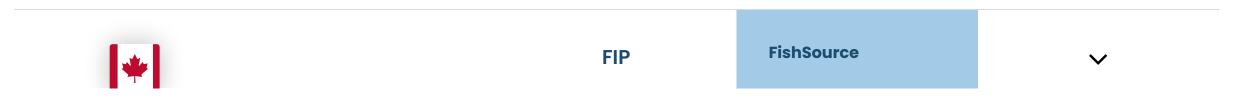


Environmental Notes

- This fishery is unlikely to have direct impacts on PET species.
- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts on retained species.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.



•

Atlantic cod Gadus morhua

Newfoundland

Fishery countries:

Canada

Bottom trawl

Needs Improvement

Good Fish Guide Improver 5

Environmental Notes

- The fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- Bottom trawls will directly impact the sea bed. However, management measures are in place.

General Notes

• This fishery is in the Canada Atlantic cod (2J3KL) - longline/trawl/gillnet/hook & line FIP.



Seafood Watch Eco-Certification Recommended

Good Fish Guide Best Choice 1



- This fishery is unlikely to have direct impacts on PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Good Fish Guide - Herring or sild, Pelagic trawl, Irish Sea (North)

			FishSource Well Managed	
Atlantic herring Clupea harengus	Midwater trawl		Seafood Watch	
NE Atlantic Spring spawners	Purse seine	Certified	Eco-Certification Recommended	\checkmark
Fishery countries:				

Denmark, United

Kingdom

Environmental Notes

- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• Certification for this fishery was suspended, effective 30th December 2020 (the end of the reporting period) and subsequently the fishery withdrew from the certification program in 2021. The fishery has since transitioned to a FIP.

References

FisheryProgress, Northeast Atlantic Ocean mackerel and herring - hook & line, trawl, and purse seine



- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- Dredges will directly impact on the sea bed, however the fishery is considered highly unlikely to reduce habitat structure or function to a point where there would be serious or irreversible harm.

General Notes

References

MSC Public Certification Report for DFA Dutch North Sea ensis, January 2018





- There are risks to PET species with this fishery, but there is insufficient data available to assess significance.
- Bycatch in this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

- Certification for this fishery was publicly suspended in March 2019 due to concerns regarding overfishing.
- In response to the suspension of the fishery, a supply chain-led initiative called the North Atlantic Pelagic Advocacy (NAPA) Group was formed by retailers and processors in the UK, and has since expanded to include European retailers and processors. NAPA aims to develop a shared solution to sustainability issues in the North East Atlantic fisheries for mackerel, herring and blue whiting, and is seeking a formal agreement on catch limits for North East Atlantic Pelagic fisheries that reflects the scientific advice.
- The fishery is now in an active FIP.

References

FisheryProgress, Northeast Atlantic Ocean mackerel and herring - hook & line, trawl, and purse seine.



Fishery countries: United Kingdom

Environmental Notes

- There is a lack of information regarding impacts on PET species for this fishery.
- Bycatch in this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• The fishery is now in an active FIP.

References

FisheryProgress, Northeast Atlantic Ocean mackerel and herring - hook & line, trawl, and purse seine.



Salmo salar

Norway

Fishery countries:

Norway



Environmental Notes

- Salmon rely on wild capture fisheries for feed, but responsible sourcing of inputs is encouraged for certified salmon.
- There are concerns about the impact of farmed salmon escapes and disease outbreaks on wild salmonids. In addition, concerns have been expressed about the impact on wild wrasse populations used as cleaner fish to control sea lice.
- Impacts on water quality are localized, but there is potential for cumulative impacts in densely farmed areas. Chemical inputs of pesticides used to control sea lice are of particular concern for farmed Norwegian salmon, but the use of non-chemical treatments for sea lice is increasing.

General Notes

- The environmental impacts described are addressed to some degree by certification.
- The Norwegian salmon industry has adopted a zonal approach to aquaculture management.

References:

FishSource - salmon, Norway

Good Fish Guide - Salmon, Atlantic (Farmed), Scotland and Norway, Aquaculture Stewardship Council (ASC) certification

Seafood Watch, Recommended Eco-Certifications for Atlantic salmon, Aquaculture Stewardship Council (ASC) Certified

Seafood Watch report for farmed salmon, Norway

	Farmed	Certified	Good Fish Guide Think 3	\checkmark
Atlantic salmon Salmo salar				
Norway				
Fishery countries: Norway				

- Salmon rely on wild capture fisheries for feed, but responsible sourcing of inputs is encouraged for certified salmon.
- There are concerns about the impact of farmed salmon escapes and disease outbreaks on wild salmonids. In addition, concerns have been expressed about the impact on wild wrasse populations used as cleaner fish to control sea lice.
- Impacts on water quality are localized, but there is potential for cumulative impacts in densely farmed areas. Chemical inputs of pesticides used to control sea lice are of particular concern for farmed Norwegian salmon, but the use of non-chemical treatments for sea lice is increasing.

General Notes

- The environmental impacts described are addressed to some degree by certification.
- The Norwegian salmon industry has adopted a zonal approach to aquaculture management.

References:

FishSource - salmon, Norway

Good Fish Guide - Salmon, Atlantic (Farmed), Scotland, Norway and Faroe Islands, GlobalG.A.P. certification

Seafood Watch report for farmed salmon, Norway



Environmental Notes

- Salmon rely on wild capture fisheries for feed, but responsible sourcing of inputs is encouraged for certified salmon.
- There are concerns about the impact of farmed salmon escapes and disease outbreaks on wild salmonids. In addition, concerns have been expressed about the impact on wild wrasse populations used as cleaner fish to control sea lice.
- Impacts on water quality are localized, but there is potential for cumulative impacts in densely farmed areas. Chemical inputs of pesticides used to control sea lice are of particular concern for farmed Scottish salmon.

General Notes

- The environmental impacts described are addressed to some degree by certification.
- The industry follows a zonal approach to aquaculture management with respect to planning, siting, licensing, and operation.

References:

FishSource - salmon, United Kingdom

Good Fish Guide - Salmon, Atlantic (Farmed), Scotland, Norway and Faroe Islands, GlobalG.A.P. certification

Seafood Watch report for farmed salmon, Scotland



• No information was found regarding impacts for this gear type.

General Notes

• This fishery was in an inactive FIP in 2020, which has since been reinstated.

References

<u>FisheryProgress, Indonesia South Kalimantan shrimp - trammel net</u>

Seafood Watch Eco-Certification Recommended

FishSource

Well Managed



Miscellaneous

Certified

Good Fish Guide Best Choice 1

Ireland

Fishery countries: Ireland

Ocean Wise Recommended

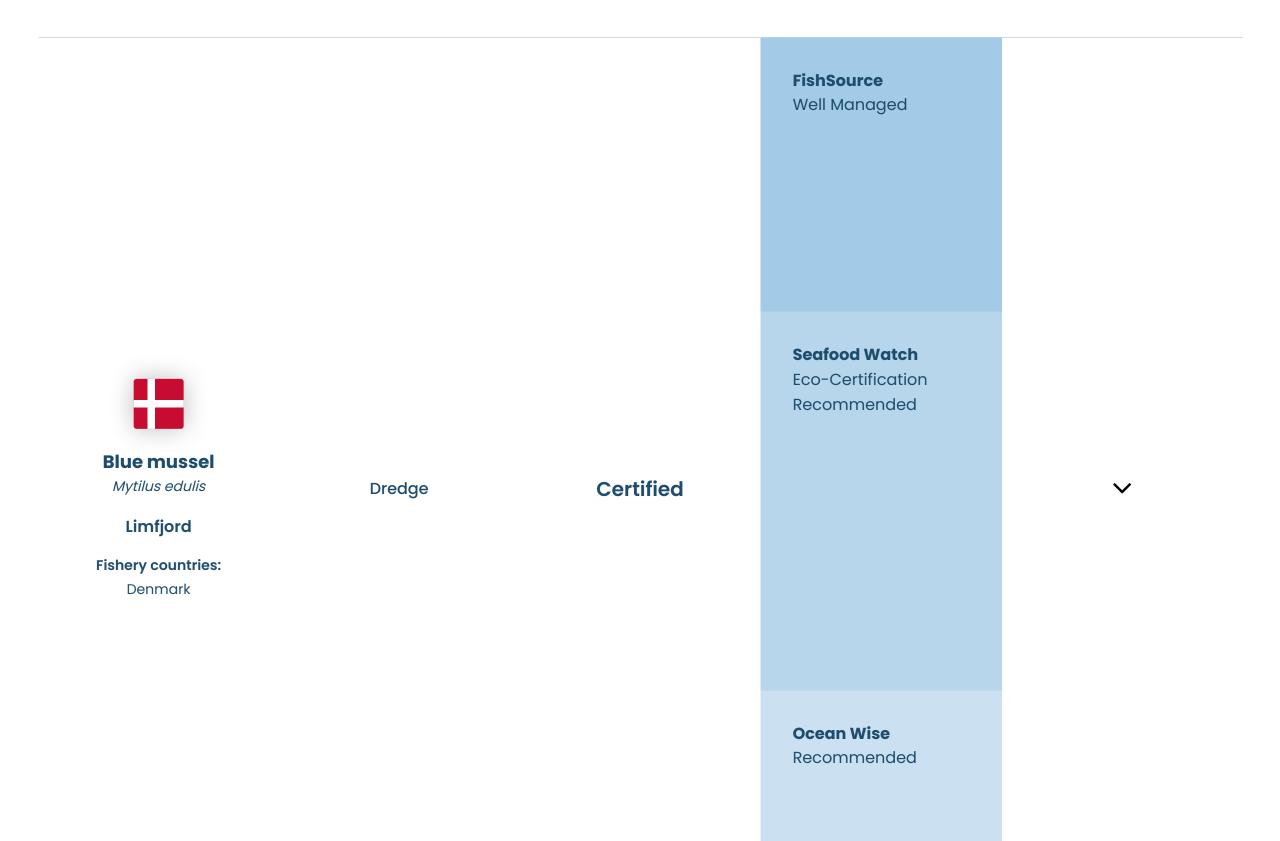
- This fishery is unlikely to impact PET species.
- Bycatch is not an issue for this fishery.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This is an enhanced fishery, which comprises a wild harvest (seed collection) followed by a grow-out phase.

References

SAI Global, 2019, MSC Public Certification Report for Ireland rope grown mussel

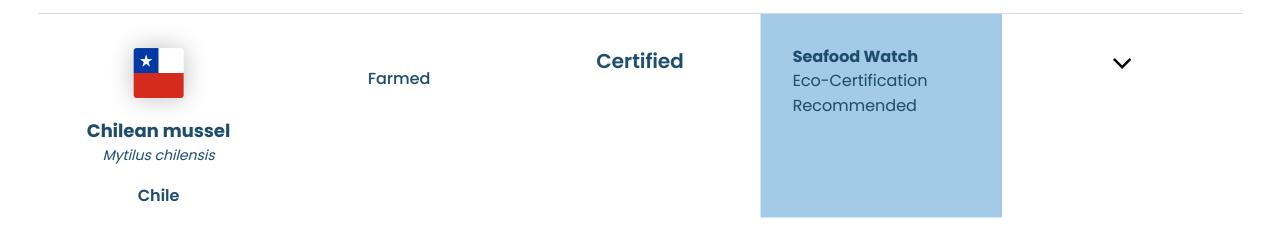


Environmental Notes

- This fishery is unlikely to impact PET species.
- Bycatch in this fishery is considered low.
- Dredges will directly impact on the sea bed. An MSC condition is in place to assess the impact of mussel dredges on the sea floor.

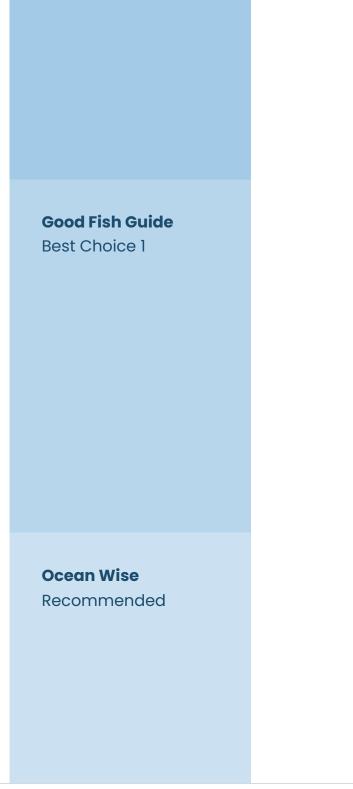
General Notes

• No additional notes.



Fishery countries:

Chile



Environmental Notes

- No feed inputs are used to support farmed mussels.
- The larval phase of mussels may be transported away from farm sites. The spread of non-native mussels and unintentionally introduced species beyond their natural range may be a cause for concern.
- There is no concern regarding pollution from nutrients or organic matter. No feed or nutrient fertilization inputs are used to support farmed mussels, and water quality has been shown to improve at farmed mussel sites.

General Notes

• The environmental impacts described are addressed to some degree by certification.

References





Ocean Wise Recommended

Environmental Notes

- This fishery is unlikely to impact PET species.
- Management measures are in place to minimise bycatch of non-target salmon stocks.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

MRAG Americas, 2019, 3rd Re-Assessment Report Alaska Salmon Fishery MSC Public Certification Report

FishSource Well Managed

Chum salmon Oncorhynchus keta	Purse seine	Certified		~
Russia - Iturup Island				
Sakhalin			Ocean Wise	
Fishery countries:			Not recommended	
Russia				

Environmental Notes

- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low and non-target species are released alive.

• This fishery is unlikely to have a significant impact on the benthic habitat.

General Notes

References

SCS Global Services, 2015, MSC Public Certification Report for Iturup Pink & Chum Salmon Fisheries

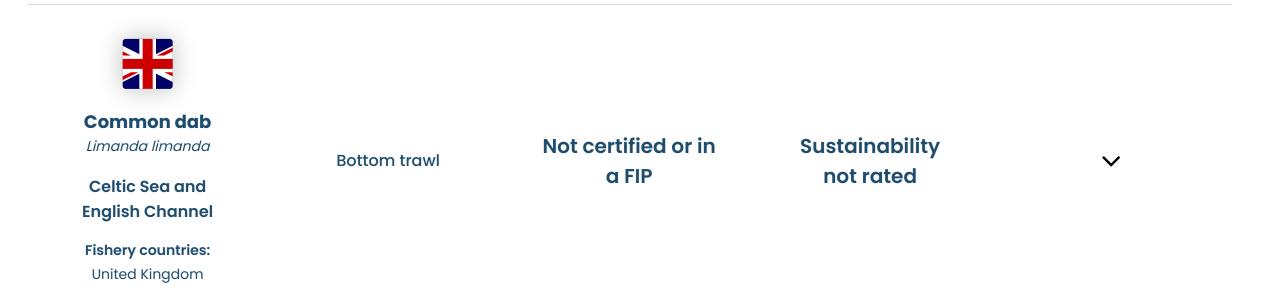


Environmental Notes

- Bycatch may include PET species.
- Bycatch is a risk for this fishery.
- Bottom trawls will directly impact on the sea bed.

General Notes

• Sourcing from this fishery has ceased following a downgrading of the fisheries rating.

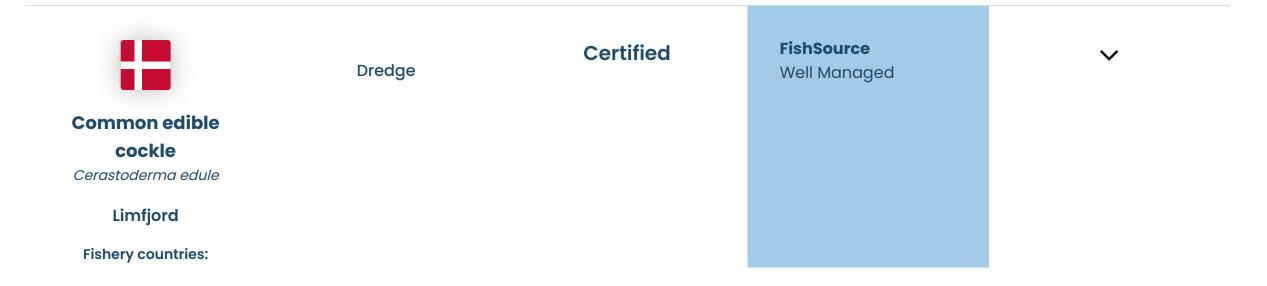


Environmental Notes

- There are risks to skates and rays with this fishery.
- This fish is caught as a bycatch species.
- Bottom trawls will directly impact on the sea bed.

General Notes

• Morrisons is currently working with Seafish on an ecological impact assessment for mixed south west fisheries to help improve management.



- This fishery is unlikely to impact PET species.
- Bycatch in this fishery is considered low.
- Dredges will directly impact on the sea bed. However, habitat impacts from the fishery are monitored and controlled.

General Notes

References

MRAG Americas, January 2016, MSC Public Certification Report for DFPO Limfjord Mussel and Cockle Fishery



Environmental Notes

- No feed inputs are used to support farmed oysters.
- Pacific oysters are non-native to the UK and may compete with native oyster species.
- There is no concern regarding pollution from nutrients or organic matter. No feed or chemical inputs are used to support farmed oysters.

General Notes

References:

Good Fish Guide - Oyster, Pacific, oysters (Farmed), UK

Seafood Watch Recommendations for farmed oysters, Worldwide





Bottom trawl

Certified

Deep-water Cape

hake Merluccius paradoxus

South Africa

Fishery countries:

South Africa

Seafood Watch

Eco-Certification Recommended

Good Fish Guide Think 3

Ocean Wise Not recommended

Environmental Notes

- There are risks to seabirds with this fishery, but there are mitigation measures in place. An MSC condition is in place to gather information on fishery impacts on bird species.
- Bycatch is a risk for this fishery but there are mitigation measures in place.
- Bottom trawls will directly impact on the sea bed. An MSC condition is in place to investigate options for protecting benthic habitats.

General Notes

• No additional notes.



Good Fish Guide Think 3

Environmental Notes

- There are risks to sea turtles and marine mammals of entanglement in pot ropes with this fishery.
- Bycatch for this fishery is considered low. Non-target species are usually released alive.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.



Environmental Notes

- This fishery is unlikely to impact PET species.
- Bycatch in this fishery is likely to be low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.





Eco-Certification Recommended

Environmental Notes

- This fishery is unlikely to impact PET species.
- Measures are in place to prevent fishing from hindering the recovery and rebuilding of the main bycatch species.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This fish plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.

References

Bureau Veritas, April 2020, MSC Public Certification Report for Cantabrian Sea Purse Seine Anchovy Fishery



Midwater trawl

Purse seine

Not certified or in a FIP FishSource Needs Improvement

 \checkmark

European anchovy

Engraulis encrasicolus

Black Sea

Fishery countries:

Turkey

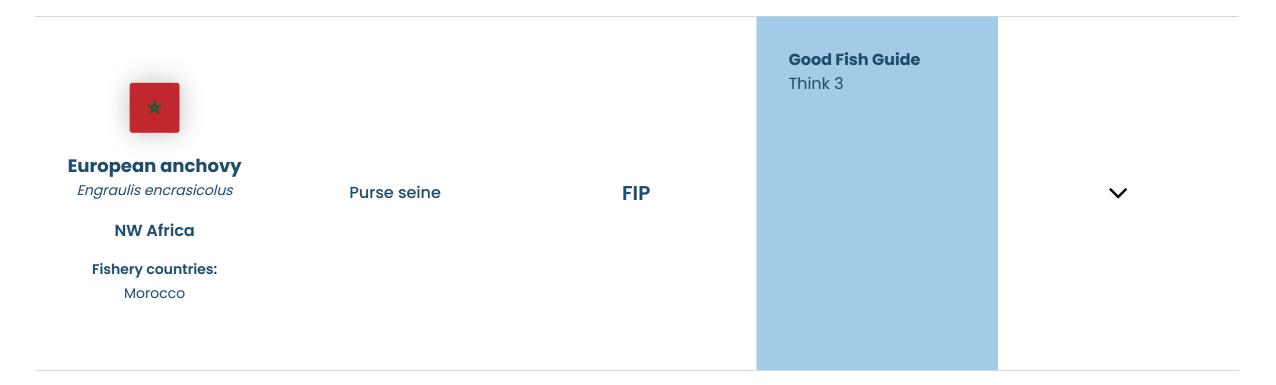
Seafood Watch Avoid

Ocean Wise Not recommended

- Incidental capture of dolphins presents a risk in the Black Sea.
- The common bycatch species in the Black Sea is the Mediterranean horse mackerel.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This fish plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.



Environmental Notes

- There are risks to marine mammals and sharks with this fishery.
- Bycatch is a risk for this fishery.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This fish plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.

References



European hake

Merluccius merluccius

NE Atlantic northern stock

Fishery countries:

United Kingdom

Gillnets and

entangling nets

Certified

FishSource Well Managed

 \checkmark

Seafood Watch Eco-Certification Recommended



- There are risks to marine mammals, sharks, skates and rays with this fishery, but there is insufficient data available to assess significance.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.



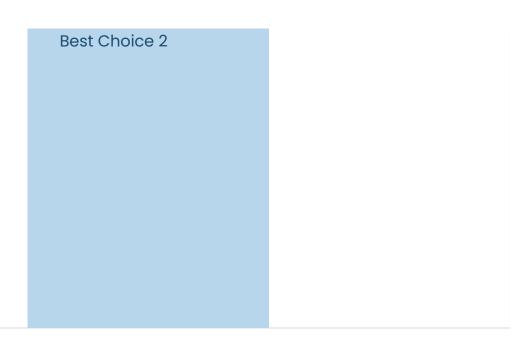
Environmental Notes

- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This fish plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.





- Available data is still limited, but work is underway in the Moroccan FIP to determine fishery interactions with PET species.
- Bycatch in this fishery is considered low, but available data is still limited. Work is in progress in the Moroccan FIP to identify and quantify discards.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

- This fishery is covered by the Morocco sardine pelagic trawl and seine FIP.
- This fish plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.



Environmental Notes

- Available data is still limited, but work is underway in the Moroccan FIP to determine fishery interactions with PET species.
- Bycatch in this fishery is considered low, but available data is still limited. Work is in progress in the Moroccan FIP to identify and quantify discards.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

- This fishery is covered by the Morocco sardine pelagic trawl and seine FIP.
- This fish plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.



Bottom trawl

Certified

FishSource Well Managed

 \checkmark

European plaice

Pleuronectes platessa

North Sea and Skagerrak

Fishery countries:

Denmark, Netherlands, United Kingdom

Seafood Watch Eco-Certification Recommended

Good Fish Guide Best Choice 2

Environmental Notes

• This fishery is unlikely to cause unacceptable impacts to PET species.

Bottom trawl

- There is bycatch for this fishery but management measures are in place to reduce impacts.
- Bottom trawls will directly impact on the sea bed.

General Notes

• No additional notes.

European plaice *Pleuronectes platessa*

North Sea and

Skagerrak

Fishery countries: United Kingdom Some product from FIP fisheries FishSource Well Managed

Good Fish Guide Best Choice 2 $\mathbf{\vee}$

- Profile not yet complete.
- Profile not yet complete.
- Bottom trawls will directly impact on the sea bed.

General Notes

References

FisheryProgress, United Kingdom European plaice & lemon sole - seine/trawl.



Environmental Notes

- There are risks to PET species with this fishery, but there is insufficient data available to assess significance.
- Bycatch is a risk for this fishery.
- Bottom trawls will directly impact the sea bed.

General Notes

• Morrisons is currently working with Seafish on an ecological impact assessment for mixed south west fisheries to help improve management.



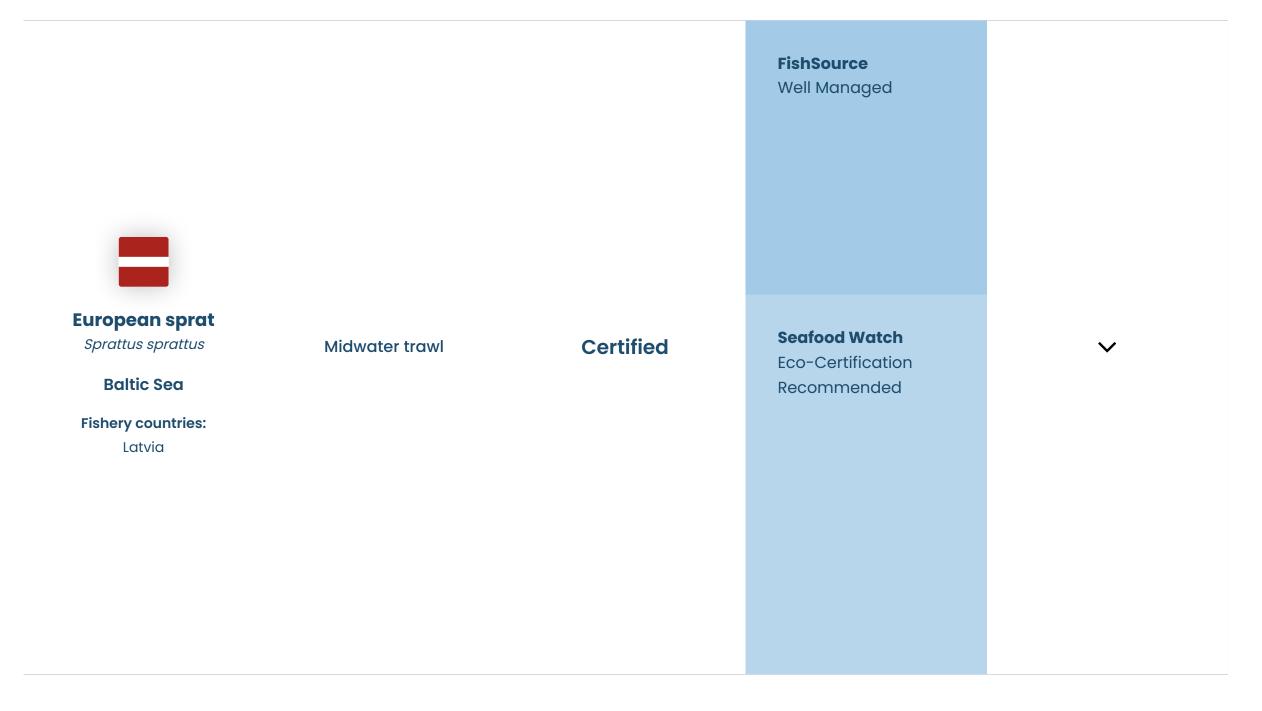
- Seabass require fishmeal and fishoil from marine feed sources in their diet. Concerns about the sustainability of feed inputs are relatively minor though they are not necessarily certified sustainable.
- Escapes are a concern and little is known about the risk of disease transfer to wild species.
- Impacts on water quality are localized and have not been shown to have cumulative impacts beyond the immediate farm site. Chemical inputs are only used for health management and are applied in a controlled manner. Reports indicate responsible use, but there is a lack of data on the quantity of chemical inputs.

General Notes

• The environmental impacts described are addressed to some degree by certification.

References:

Good Fish Guide - Seabass (Farmed), Europe, GlobalG.A.P. certification



Environmental Notes

- Effects on PET species are considered highly likely to be within acceptable limits.
- The main bycatch species, Baltic herring, is well managed.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Bureau Veritas, 2017, MSC Public Certification Report for LFPO Pelagic Trawl Sprat (Sprattus sprattus)



- There is a lack of information on interactions with PET species for this fishery.
- There is limited information on bycatch in this fishery but bycatch of herring is a risk.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This fish plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.

References

Good Fish Guide - Sprat, whitebait, Pelagic trawl, West of Scotland, Southern Celtic Seas



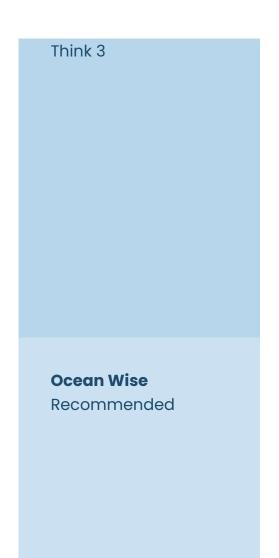
Environmental Notes

- This fishery is unlikely to have direct impacts on PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This fish plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.





- Fishmeal and fishoil from marine feed sources are used. Feed inputs are generally not traceable to species level and are not certified sustainable.
- Disease transfer between farmed and wild prawns is a risk
- Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality.

General Notes

• The environmental impacts described are addressed to some degree by certification.

References:

<u>Good Fish Guide - Prawn, Tiger prawns (Farmed), ASC</u>

Seafood Watch Recommended Eco-Certification for Giant tiger prawn



Farmed

Certified

Seafood Watch Eco-Certification Recommended

 \checkmark

Vietnam

Penaeus monodon

Fishery countries:

Vietnam

Good Fish Guide Think 3

- Fishmeal and fishoil from marine feed sources are used. Feed inputs are generally not traceable to species level and are not certified sustainable.
- Disease transfer between farmed and wild prawns is a concern.
- Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality.

General Notes

• The environmental impacts described are addressed to some degree by certification.

References:

Good Fish Guide - Prawn, Tiger prawns (Farmed), Global, Aquaculture Stewardship Council (ASC) certification

Seafood Watch Recommended Eco-Certification for Giant tiger prawn

Seafood Watch Eco-Certification Recommended



Penaeus monodon

Farmed

Good Fish Guide Think 3

Certified

Vietnam

Fishery countries:

Vietnam

Ocean Wise Not recommended

Environmental Notes

- Fishmeal and fishoil from marine feed sources are used. Responsible sourcing of inputs is encouraged for certified production.
- Disease transfer between farmed and wild prawns is a concern.
- Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality.

General Notes

• The environmental impacts described are addressed to some degree by certification.

References:

<u>Good Fish Guide - Prawn, Tiger prawns (Farmed), Global, GAA BAP certification (4*)</u>

Seafood Watch Recommended Eco-Certification for Giant tiger prawn



Environmental Notes

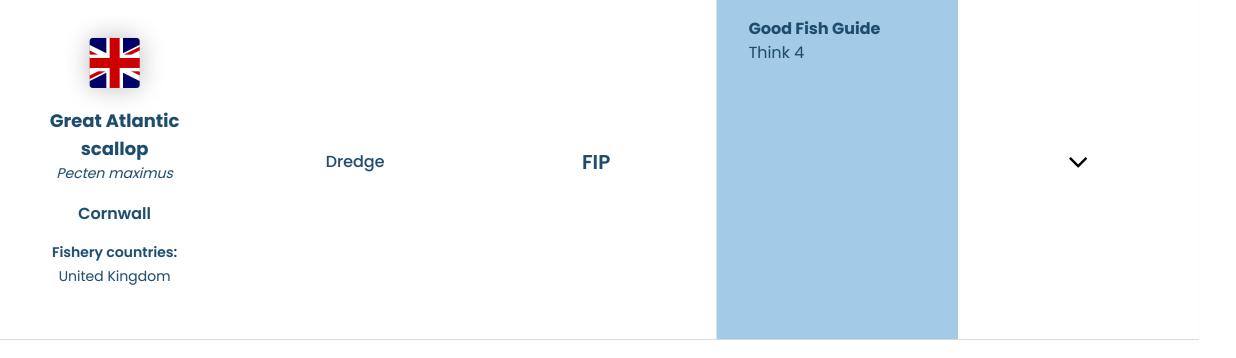
- Bream require fishmeal and fishoil from marine feed sources in their diet. Concerns about the sustainability of feed inputs are relatively minor though they are not necessarily certified sustainable.
- Escapes are a concern and little is known about the risk of disease transfer to wild species.
- Pollution from nutrients and organic matter are a concern with open net pens. But impacts from effluent are localized. Chemical inputs are only used for health management and are applied in a controlled manner. Reports indicate responsible use, but there is a lack of data on the quantity of chemical inputs.

General Notes

• The environmental impacts described are addressed to some degree by certification

References:

<u>Good Fish Guide - Bream, Gilthead (Farmed), Europe, GLOBALG.A.P. certification</u>



Environmental Notes

- There is no information on the impact of this fishery on PET species.
- Information on bycatch is not available for this fishery.
- Benthic impacts are the primary risk in this fishery. Dredges will directly impact on the sea bed but gear and effort restrictions are in place to reduce impacts.

General Notes

Morrisons support <u>Project UK Fisheries improvement</u> programme, helping deliver improvements and oversee the transition of the English channel fishery to third party certification.

References

MCS's Good Fish Guide - Scallop, King, scallops, Cornwall

Cornwall Good Seafood Guide - Scallop



Haddock Melanogrammus aeglefinus

Barents Sea

Fishery countries: Faroe Islands, Greenland Bottom trawl

Certified

Good Fish Guide Best Choice 2 \checkmark

FishSource

Well Managed

Seafood Watch Eco-Certification Recommended

Ocean Wise Recommended

Environmental Notes

- This fishery is unlikely to impact PET species.
- All fish caught must be retained, recorded and landed.
- Bottom trawls will directly impact on the sea bed.

General Notes

Haddock

Melanogrammus aeglefinus

Barents Sea

Fishery countries:

France

Bottom trawl

Certified

FishSource Well Managed

Seafood Watch Eco-Certification Recommended

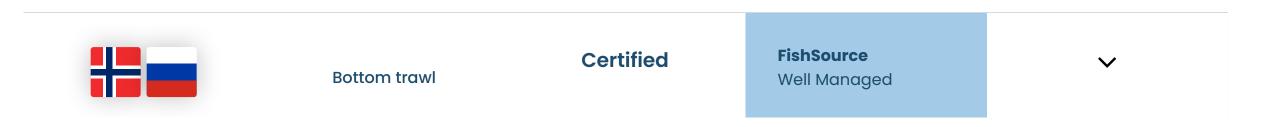
Good Fish Guide Best Choice 2 \checkmark

Ocean Wise Recommended

Environmental Notes

- This fishery is unlikely to impact PET species. However, there are concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish.
- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts on retained species.
- Bottom trawls will directly impact on the sea bed.

General Notes



Haddock

Melanogrammus aeglefinus

Barents Sea

Fishery countries:

Norway, Russia

Seafood Watch Eco-Certification Recommended

Good Fish Guide Best Choice 2

Ocean Wise Recommended

Environmental Notes

- Gear specific information on interactions with PET species is limited, but an MSC condition is in place to address this.
- MSC conditions are in place to assess the impact of the fishery on bycatch species.
- Bottom trawls will directly impact on the sea bed.

General Notes



Seafood Watch Eco-Certification Recommended

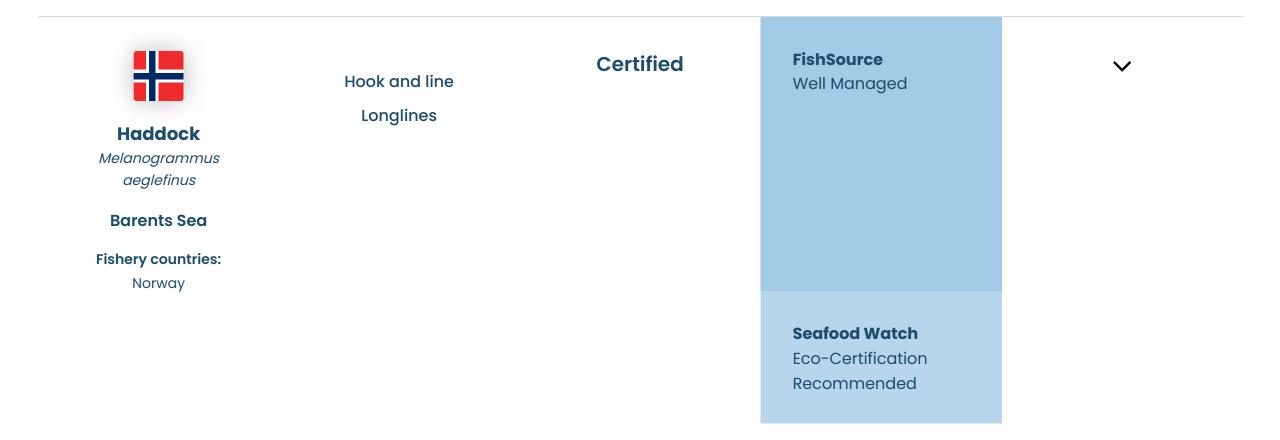
Good Fish Guide Best Choice 2

Ocean Wise Not recommended

Environmental Notes

- Information on interactions with PET species is not yet adequate to assess the impact of the fishery, but an MSC condition is in place to address this.
- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts on retained species.
- the second s
- Bottom trawls will directly impact on the sea bed.

General Notes





Ocean Wise Recommended

Environmental Notes

- Gear specific information on interactions with PET species is limited, but an MSC condition is in place to address this.
- MSC conditions are in place to assess the impact of the fishery on bycatch species.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.



Haddock Melanogrammus aeglefinus

Barents Sea

Fishery countries:

Norway

Seine nets

Gillnets and

entangling nets

Certified

Well Managed

FishSource

 \checkmark

Seafood Watch Eco-Certification Recommended



- Gear specific information on interactions with PET species is limited, but an MSC condition is in place to address this.
- MSC conditions are in place to assess the impact of the fishery on bycatch species.
- Measures to protect vulnerable habitats such as cold water coral reefs are in place.

General Notes

• No additional notes.



Good Fish Guide Best Choice 2

Ocean Wise Not recommended

- This fishery is unlikely to impact PET species.
- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts on retained species.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.

FishSource Well Managed



Haddock Melanogrammus aeglefinus

Bottom trawl

Certified

 \checkmark

Barents Sea

Fishery countries: United Kingdom **Good Fish Guide** Best Choice 2

Ocean Wise Not recommended

- This fishery is unlikely to impact PET species.
- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts on retained species.
- Bottom trawls will directly impact on the sea bed.

General Notes

• No additional notes.

Seafood Watch Eco-Certification Recommended

FishSource

Well Managed



Haddock Melanogrammus aeglefinus

Icelandic

Fishery countries: Iceland Bottom trawl

Seine nets

Certified

Good Fish Guide Best Choice 2 \checkmark



Environmental Notes

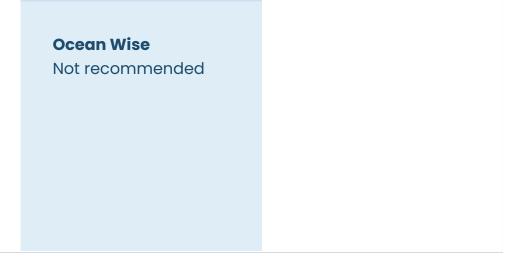
- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.

• Impacts will vary by gear type. Bottom trawls will directly impact on the sea bed. Measures to protect vulnerable habitats such as cold water coral reefs are in place.

General Notes

• No additional notes.





Environmental Notes

- This fishery is unlikely to impact PET species, although there is a risk of seabird entanglement.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

	Bottom trawl	Not certified or in a FIP	Good Fish Guide Best Choice 2	\checkmark
Haddock Melanogrammus aeglefinus				
Irish Sea Fishery countries: United Kingdom				

- There is a moderate risk to PET species including sharks, skates and rays.
- Irish Sea cod may be caught as bycatch in this fishery.
- Bottom trawls will directly impact on the sea bed.

General Notes

References

<u>Good Fish Guide - Haddock, Demersal otter trawl, Irish Sea</u>

Haddock Haddock Melanogrammus aeglefinus Northern shelf Fishery countries: United Kingdom	Bottom trawl Seine nets	Certified	FishSource Well Managed	~
ermeer migererm			Seafood Watch Eco-Certification Recommended	

Good Fish Guide Best Choice 2

- This fishery is unlikely to impact PET species.
- There is bycatch for this fishery but management measures are in place to reduce impacts on retained species.
- Impacts vary by gear type. Bottom trawls will directly impact on the sea bed. But, the fishery is considered highly unlikely to irreparably reduce habitat structure and function.

General Notes

• As a mixed fishery, the effects of management measures on other species need to be considered within an ecosystem context.



Environmental Notes

• Profile not yet complete.

General Notes

• No additional notes.

			Good Fish Guide Think 4		
Horned octopus Eledone cirrhosa	Bottom trawl	Not certified or in a FIP		~	
British waters		u i i			
Fishery countries:					
United Kingdom					

Environmental Notes

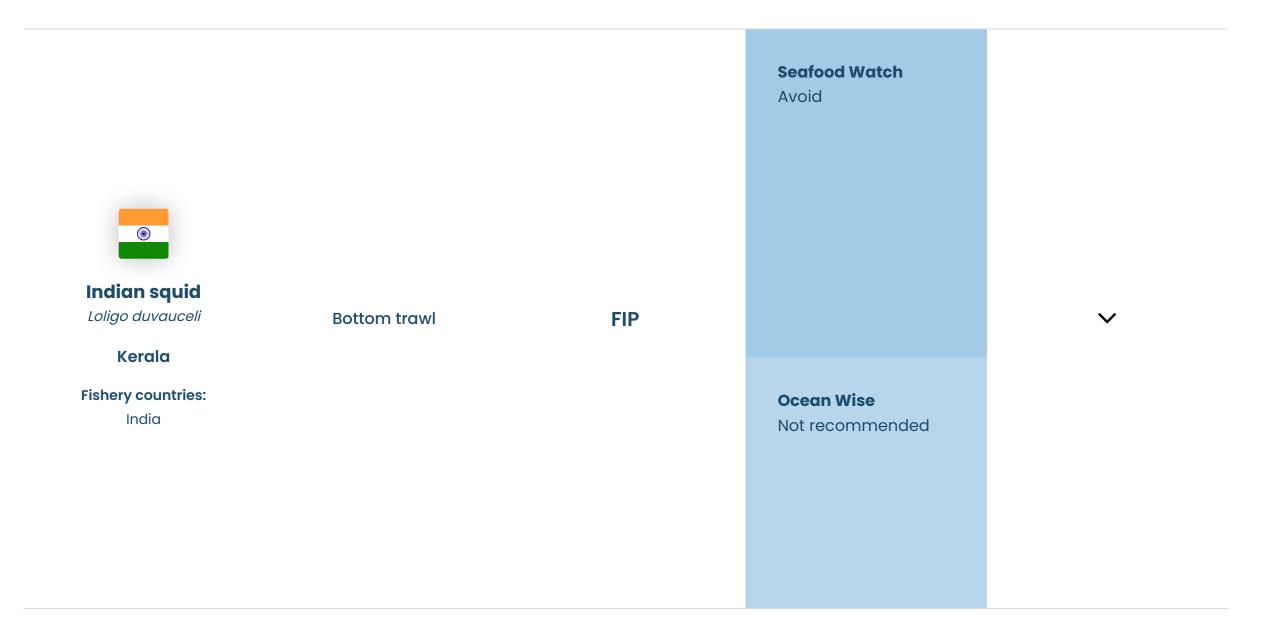
- Profile not yet complete.
- Octopus is caught as bycatch in the trawl fishery.
- Bottom trawls will directly impact on the sea bed.

General Notes

- Morrisons is currently working with Seafish on an ecological impact assessment for mixed south west fisheries to help improve management.
- Sourcing is restricted to Cornwall.

References

Cornwall Good Seafood Guide - Octopus



Environmental Notes

- The impact of the squid fishery on PET species is unknown, however, bottom trawls in India are considered a threat to sea turtles.
- There is a lack of information on bycatch in this fishery.
- Bottom trawls will directly impact on the sea bed.

General Notes

• Squid plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.

References

FisheryProgress, India Kerala shrimp and cephalopods - trawl



Inshore squids nei Loliginidae	Bottom trawl	Not certified or in a FIP	Sustainability not rated	\checkmark
NE Atlantic shelf				
Fishery countries: United Kingdom				

Environmental Notes

- Profile not yet complete.
- Profile not yet complete.
- Bottom trawls will directly impact on the sea bed.

General Notes

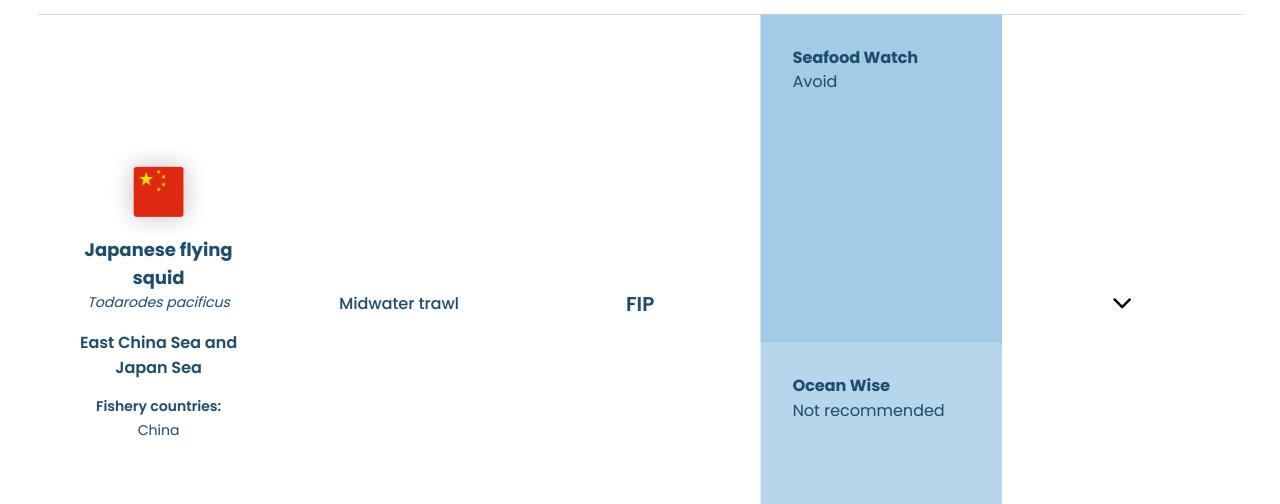
	Dredge	Certified	FishSource Well Managed	\checkmark
Japanese carpet				
shell				
Ruditapes philippinarum				
Poole Harbor				
Fishery countries:				
United Kingdom				

- This fishery is unlikely to impact PET species.
- Bycatch include cockles and Manila clams.
- Dredges will directly impact on the sea bed.

General Notes

References

MRAG Americas, February 2018, MSC Public Certification Report The Poole Harbour Clam & Cockle Fishery



Environmental Notes

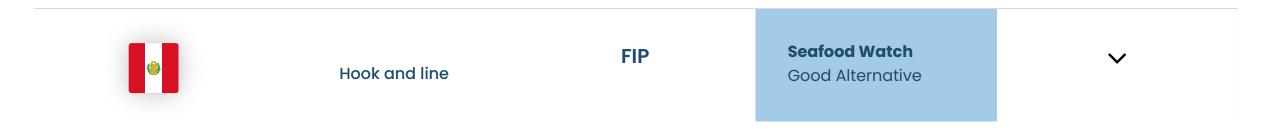
- There is no information on the impact of this fishery on PET species.
- Information on bycatch is not available for this fishery.
- The midwater trawl fishery is unlikely to have a significant impact on the sea bed, however, the combined impacts from the multi-gear fishery are unknown.

General Notes

• There is a lack of information on stock status and mortality rates for Japanese flying squid in Chinese waters.

References

Fishery Progress, East China Sea and Yellow Sea Japanese flying squid - trawl



Jumbo flying

squid

Dosidicus gigas

SE Pacific

Fishery countries:

Peru

Ocean Wise Recommended

Environmental Notes

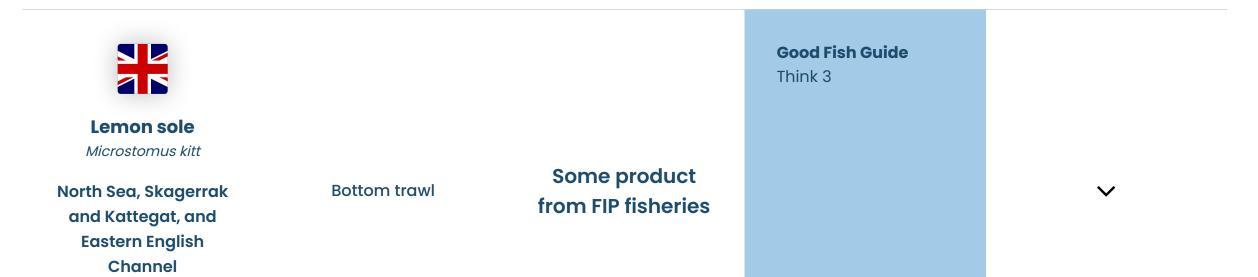
- This fishery is unlikely to impact PET species.
- Bycatch in this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

FisheryProgress - Peru jumbo flying squid - jig

Seafood Watch Recommendation for Jumbo flying squid, Southeast Pacific Ocean, Peru, Jig



Fishery countries:	
United Kingdom	

Environmental Notes

- There is insufficient information available to assess risks to PET species in this fishery.
- This fish is caught as a bycatch species in mixed fisheries.
- Bottom trawls will directly impact on the sea bed.

General Notes

References

FisheryProgress - UK European plaice & lemon sole - seine/trawl



Microstomus kitt

Western English Channel

Fishery countries: United Kingdom

> **Good Fish Guide** Think 4

Environmental Notes

- There are risks to marine mammals, sharks, skates and rays with this fishery, but there is insufficient data available to assess significance.
- Bycatch is a risk for this fishery, but available information is limited.
- Bottom trawls will directly impact on the sea bed.

General Notes

• Morrisons is currently working with Seafish on an ecological impact assessment for mixed south west fisheries to help improve management.

References

Cornwall Good Seafood Guide - Lemon Sole

FishSource Well Managed



Lyrate hard clam		
Meretrix lyrata	Miscellaneous	Certified
Ben Tre, Vietnam		
Fishery countries:		
Vietnam		

Seafood Watch Eco-Certification Recommended

 \checkmark

Environmental Notes

- This fishery is unlikely to have direct impacts on PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.

Mitre squidLoligo chinensisIndonesian watersFishery countries:Indonesia	Handlines and pole-lines	Not certified or in a FIP	Sustainability not rated	
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Environmental Notes

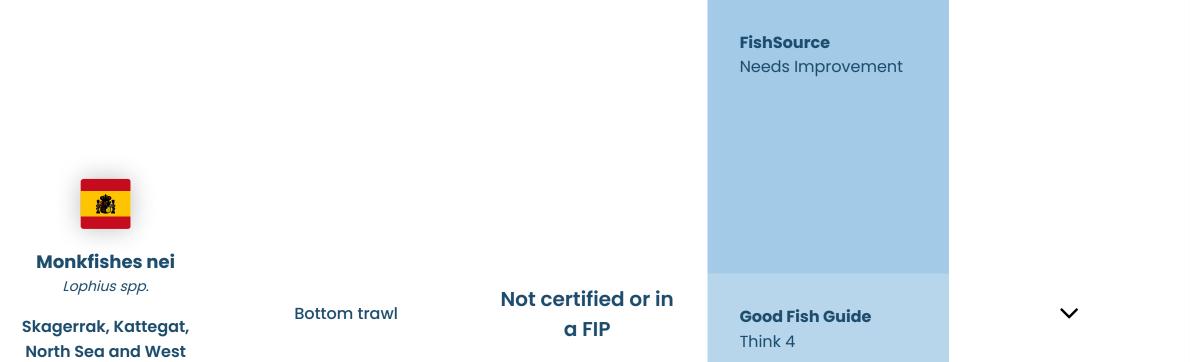
- Profile not yet complete.
- Profile not yet complete.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

- This species plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.
- This fishery is now in an active FIP.

References

FisheryProgress, Indonesia North Sumatra squid - handline



of Scotland

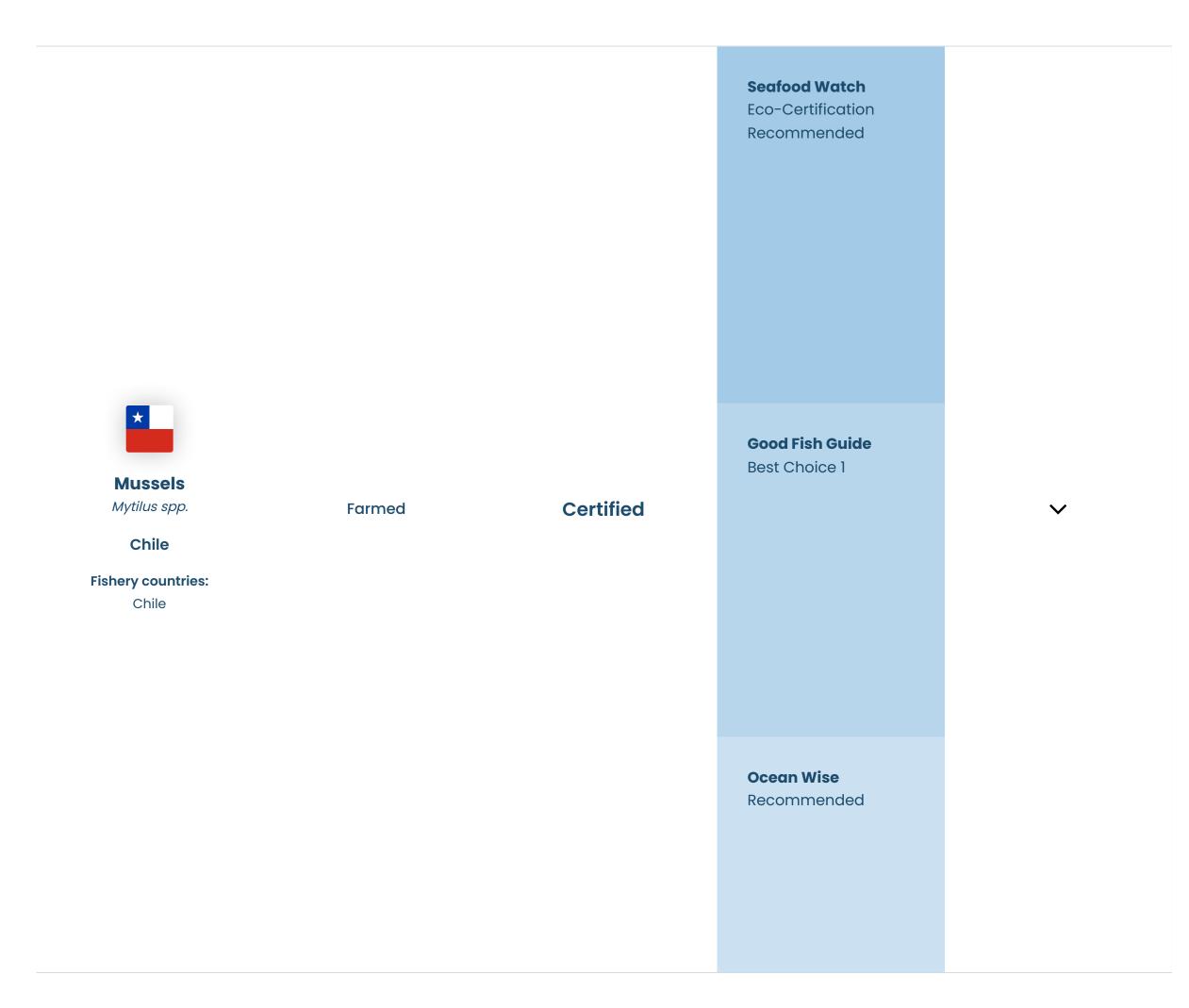
Fishery countries:

Spain

Environmental Notes

- There are risks to marine mammals, sharks, skates and seabirds with this fishery, but there is insufficient data available to assess significance.
- This fish is caught as a target species and as bycatch in mixed trawl fisheries. Bycatch is a risk for this fishery, but available information is limited.
- Bottom trawls will directly impact on the seabed.

General Notes



- No feed inputs are used to support farmed mussels.
- The larval phase of mussels may be transported away from farm sites. The spread of non-native musels and unintentionally introduced species beyond their natural range may be a cause for concern.
- There is no concern regarding pollution from nutrients or organic matter. No feed or nutrient fertilization inputs are used to support farmed mussels, and water quality has been shown to improve at farmed mussel sites.

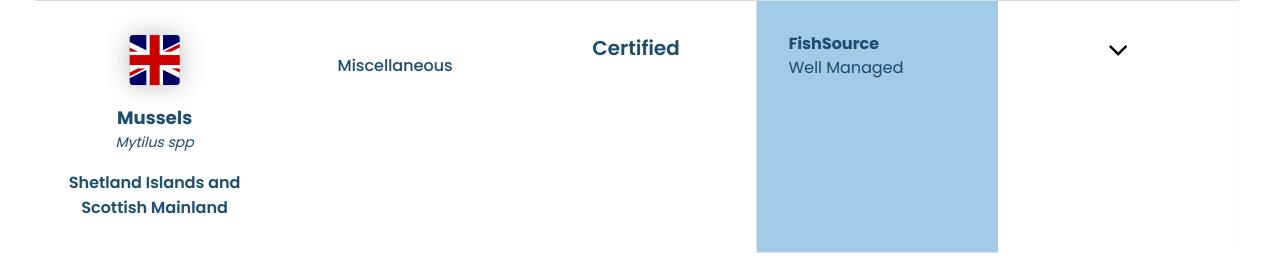
General Notes

• The environmental impacts described are addressed to some degree by certification.

References

<u>Good Fish Guide - Mussels, Chilean (Farmed), Chile, Suspended Rope Culture and Bottom Culture</u>

Seafood Watch Recommended Eco-Certifications for Chilean mussels



Fishery countries:

United Kingdom

Seafood Watch

Eco-Certification Recommended

Good Fish Guide Best Choice 1

Ocean Wise Recommended

Environmental Notes

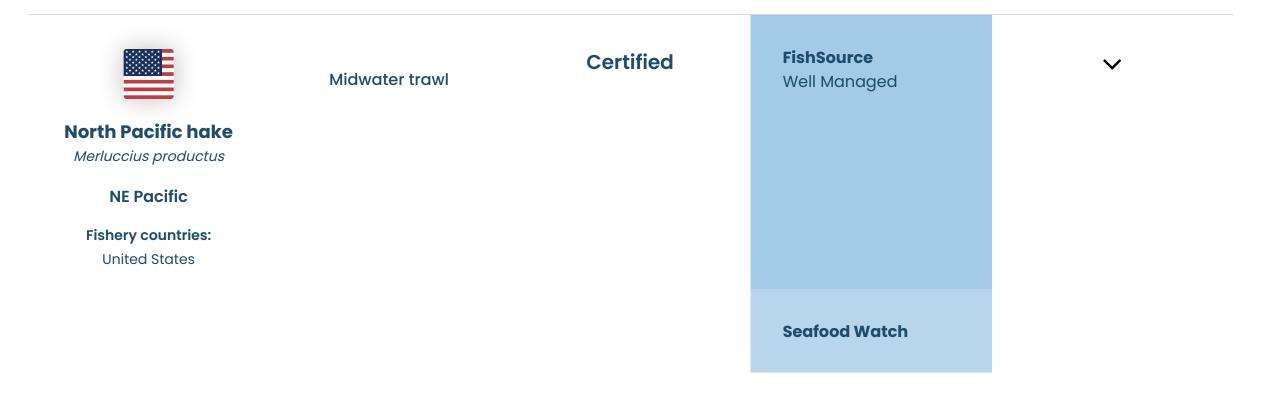
- This fishery is unlikely to impact PET species.
- Bycatch is not an issue for this fishery.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This is an enhanced fishery, which comprises a wild harvest (seed collection) followed by a grow-out phase.

References

Acoura Marine, 2017, MSC Public Certification Report for Shetland and Scottish Mainland Rope Grown mussel Enhanced fishery





- This fishery is unlikely to impact PET species.
- Bycatch in this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.

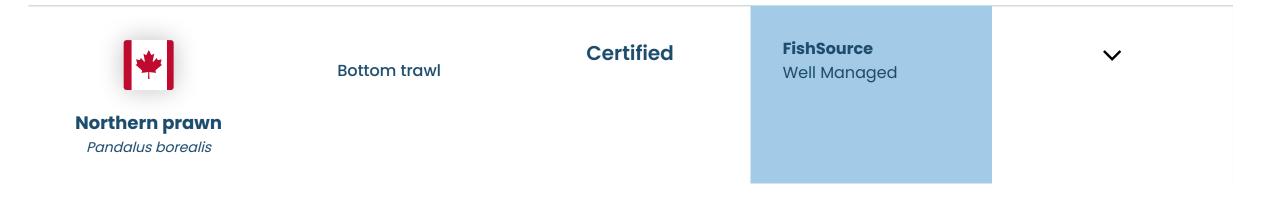
			FishSource Well Managed	
Northern prawn Pandalus borealis	Bottom trawl	Certified	Seafood Watch	~
Atlantic Canada: SFAs 1-3, 5-7		Continiod	Eco-Certification Recommended	
Fishery countries: Canada				

Environmental Notes

- There are risks to seabirds with this fishery, but there is insufficient data available to assess significance.
- Bycatch of non-target species is considered low and mitigation measures are in place.
- Bottom trawls will directly impact on the sea bed.

General Notes

• This species plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.

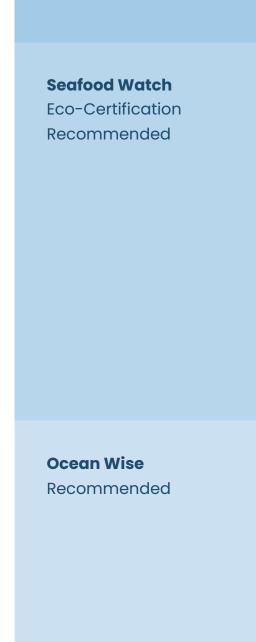


Atlantic Canada:

SFAs 9-10

Fishery countries:

Canada



Environmental Notes

- Bycatch of PET species is low. This fishery interacts with spotted wolffish and northern wolffish, but the fishery is not thought to jeopardise survival or recovery of these two species.
- Bycatch for this fishery is considered low.
- Bottom trawls will directly impact on the seabed. It is thought unlikely that this fishery will cause serious harm to identified sensitive areas.

General Notes

References

Lloyds Register, March 2020, MSC Final Public Report for Gulf of St Lawrence Northern shrimp trawl



Certified

FishSource Well Managed

 \checkmark

Northern prawn Pandalus borealis

Atlantic Canada: SFAs 13-15 (E Scotian Shelf)

Fishery countries:

Canada

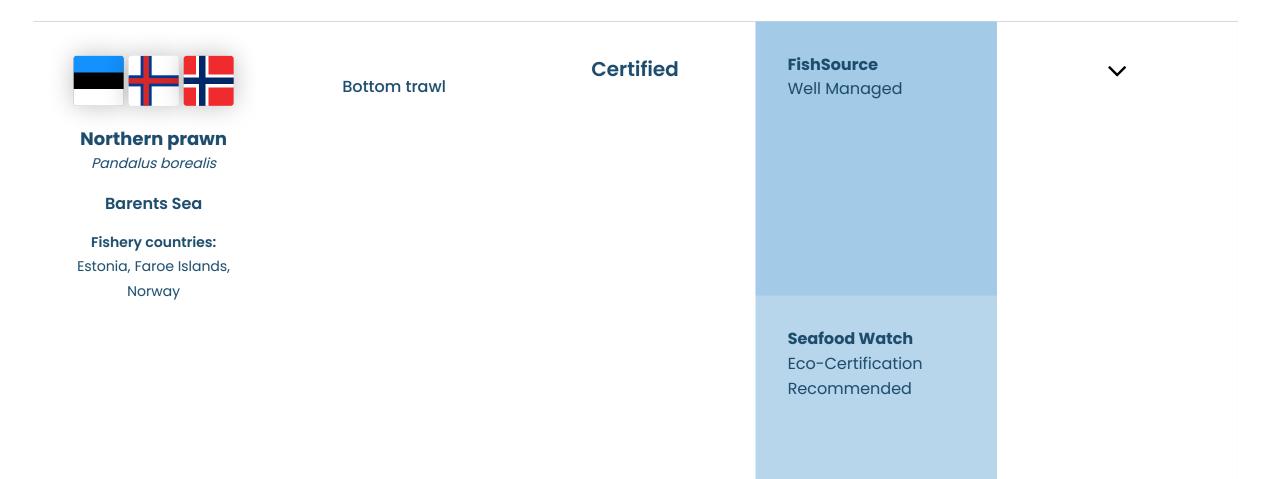
Seafood Watch Eco-Certification Recommended

- The trawl fishery is unlikely to impact PET species.
- Bycatch for this fishery is low due to the use of the Nordmore grate.
- Bottom trawls will directly impact on the sea bed, however, this fishery is considered highly unlikely to have an irreversible impact on habitat structure and function.

General Notes

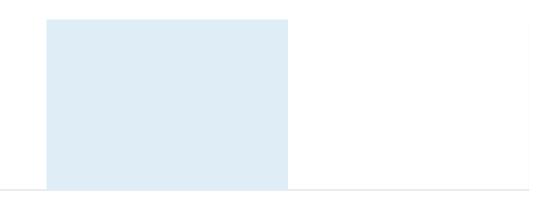
References

Lloyd's Register, September 2019, MSC 2nd Reassessment Public Certification Report for the Canada Scotian Shelf Northern Prawn Trawl and Trap Fishery



Good Fish Guide Best Choice 2

Ocean Wise Recommended



- This fishery is unlikely to impact PET species.
- Bycatch in this fishery is considered low.
- Bottom trawls will directly impact on the sea bed.

General Notes

• This species plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.



Environmental Notes

- Seabirds and marine mammals are present in the fishery area, but no information on interactions was found.
- Bycatch is a risk for this fishery, but there are mitigation measures in place.
- Bottom trawls will directly impact on the sea bed.

General Notes

- This species plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.
- This fishery was certified after the reporting period.

References

FIUN Russian Barents Sea shrimp



Northern prawn Pandalus borealis	Bottom trawl	Not certified or in a FIP	Sustainability not rated	\checkmark
Denmark Strait				
Fishery countries: Iceland				

Environmental Notes

• Profile not yet complete.

General Notes

• No additional notes.



FishSource



Northern prawn

Pandalus borealis

Icelandic inshore and offshore

Fishery countries: Iceland <section-header><section-header>

Well Managed

Environmental Notes

• This fishery is unlikely to have direct impacts on PET species. While halibut is landed by the offshore fleet, regulations are in place to manage impacts on the species. No interactions with any other PET species are thought to occur.

Certified

- Management measures are in place to reduce impacts on bycatch species. The most commonly caught bycatch species are cod and Greenland halibut. Fishing area closures are implemented if catches of small redfish, cod or halibut exceed thresholds.
- Bottom trawls will directly impact on the sea bed, however, this fishery is considered highly unlikely to have an irreversible impact on habitat structure and function.

General Notes

• This species plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.

	Bottom trawl	Certified	FishSource Well Managed	\checkmark
Northern prawn Pandalus borealis				
Skagerrak and Norwegian deep				
Fishery countries: Denmark				
			Good Fish Guide Think 3	



- This fishery is unlikely to impact PET species.
- Bycatch is dominated by cod and saithe. Deep- sea species are also caught in this fishery.
- Bottom trawls will directly impact on the sea bed. However, management measures are in place.

General Notes

• This species plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.



Good Fish Guide Best Choice 2

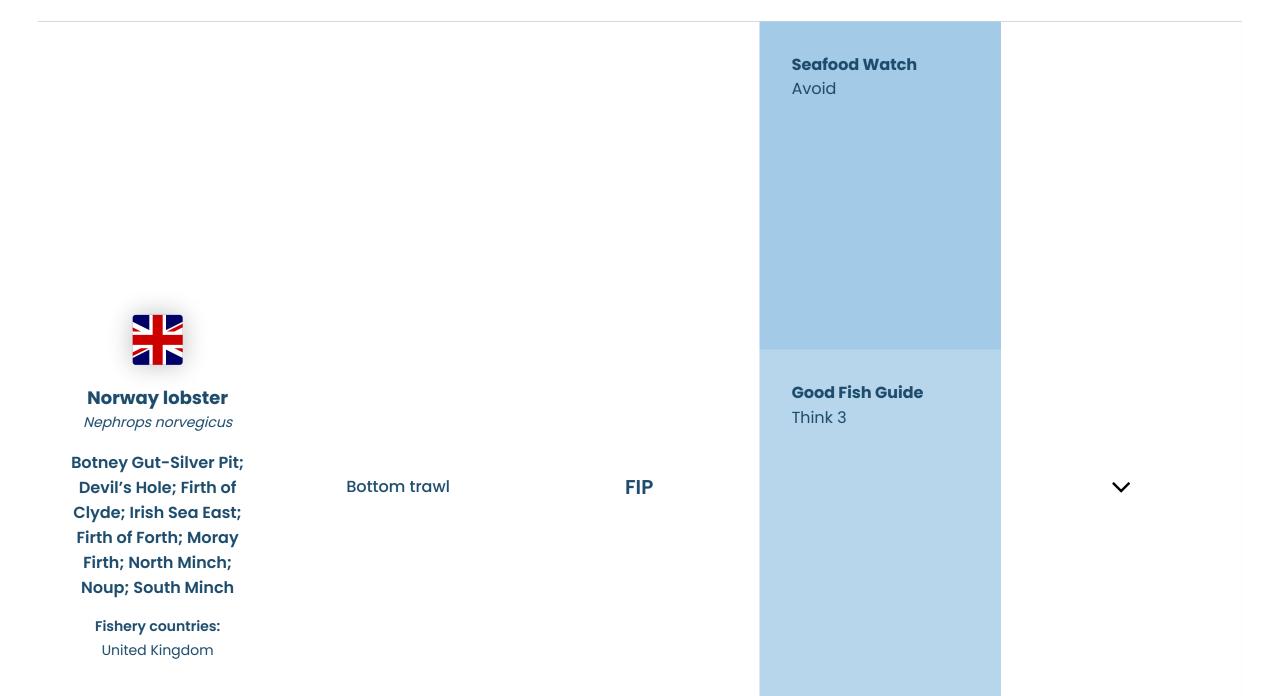
Ocean Wise

Recommended	
	Recommended

- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- Bottom trawls will directly impact on the sea bed.

General Notes

• This species plays an important role in the marine food web and so potential impacts on the wider marine ecosystem must be monitored.



Ocean Wise Not recommended

Environmental Notes

- This fishery is unlikely to impact PET species.
- Bycatch is a risk for this fishery.
- Bottom trawls will directly impact on the sea bed. However, management measures are in place.

General Notes

References

Fishery Progress - UK Norway lobster - bottom trawl and creel

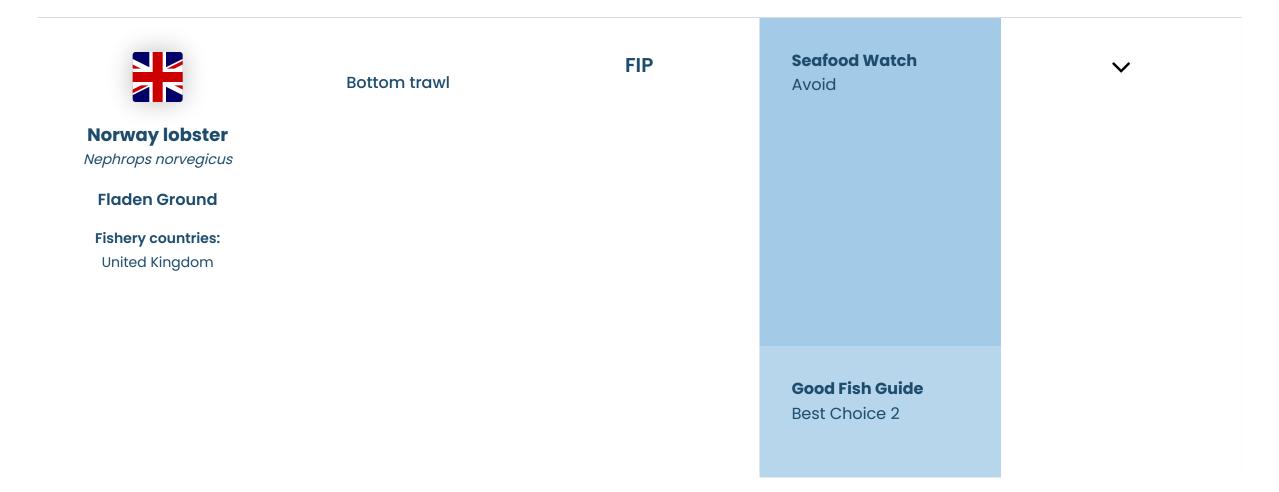


- This fishery is unlikely to impact PET species.
- Bycatch is a risk for this fishery.
- Bottom trawls will directly impact on the sea bed. However, management measures are in place.

General Notes

References

Fishery Progress - UK Norway lobster - bottom trawl and creel





- This fishery is unlikely to impact PET species.
- Bycatch for this fishery includes cod, haddock and whiting. Mitigation measures, including the use of more selective gears, have been implemented to reduce unwanted catch.
- Bottom trawls will directly impact on the sea bed. However, management measures are in place.

General Notes

References

Fishery Progress - UK Norway lobster - bottom trawl and creel



Good Fish Guide Think 3

Ocean Wise Not recommended

- There is no specific information on the impact of this fishery on PET species
- Bycatch is a risk for this fishery.
- Bottom trawls will directly impact on the sea bed.

General Notes

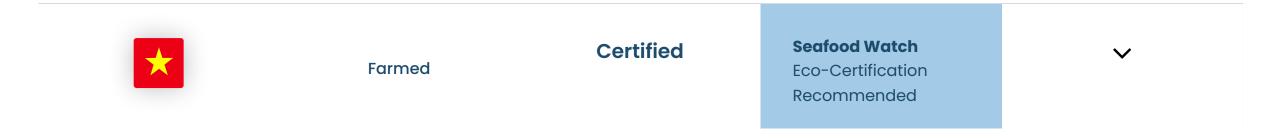
• No additional notes.



Environmental Notes

- There is no information about the impact of this fishery on PET species.
- Bycatch is a risk for this fishery.
- Bottom trawls will directly impact on the sea bed.

General Notes



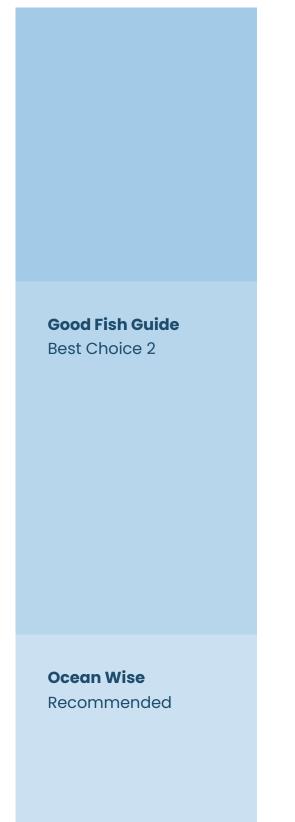
Pangas

Pangasius spp.

Vietnam

Fishery countries:

Vietnam



Environmental Notes

- Pangasius feed includes low levels of fishmeal and fish oil from marine feed sources. Feed inputs are required to be responsibly sourced where possible.
- As a native species, the risk to wild populations from escapes is low. Juveniles used in pangasius farming come from Vietnamese hatcheries and the trade of wild-caught broodstock is limited.
- Panagsius farming in Vietnam is linked to illegal disposal of waste into adjoining waterways with cumulative impacts that contribute to water pollution. However, certified farms are assumed to dispose of waste properly.

General Notes

- The environmental impacts described are addressed to some degree by certification.
- The government requires pangasius farms to be managed under a zonal approach.

References:

FishSource - Pangasius, Vietnam

Good Fish Guide - Basa, Tra, Catfish or Vietnamese River Cobbler, Global, Aquaculture Stewardship Council (ASC)

Seafood Watch Recommended Eco-Certifications for farmed pangasius, Vietnam





- Pangasius feed includes low levels of fishmeal and fish oil from marine feed sources. Feed inputs are not required to be responsibly sourced.
- As a native species, the risk to wild populations from escapes is low. Juveniles used in pangasius farming come from Vietnamese hatcheries and the trade of wild-caught broodstock is limited.
- Pangasius farming in Vietnam is linked to illegal disposal of waste into adjoining waterways with cumulative impacts that contribute to water pollution. However, certified farms are assumed to dispose of waste properly.

General Notes

- The environmental impacts described are addressed to some degree by certification.
- The government requires pangasius farms to be managed under a zonal approach.

References:

FishSource - Pangasius, Vietnam

Seafood Watch Recommended Eco-Certifications for farmed pangasius, Vietnam, BAP Standard: Finfish and Crustacean Farms (2, 3, 4-star)



Eco-Certification Recommended

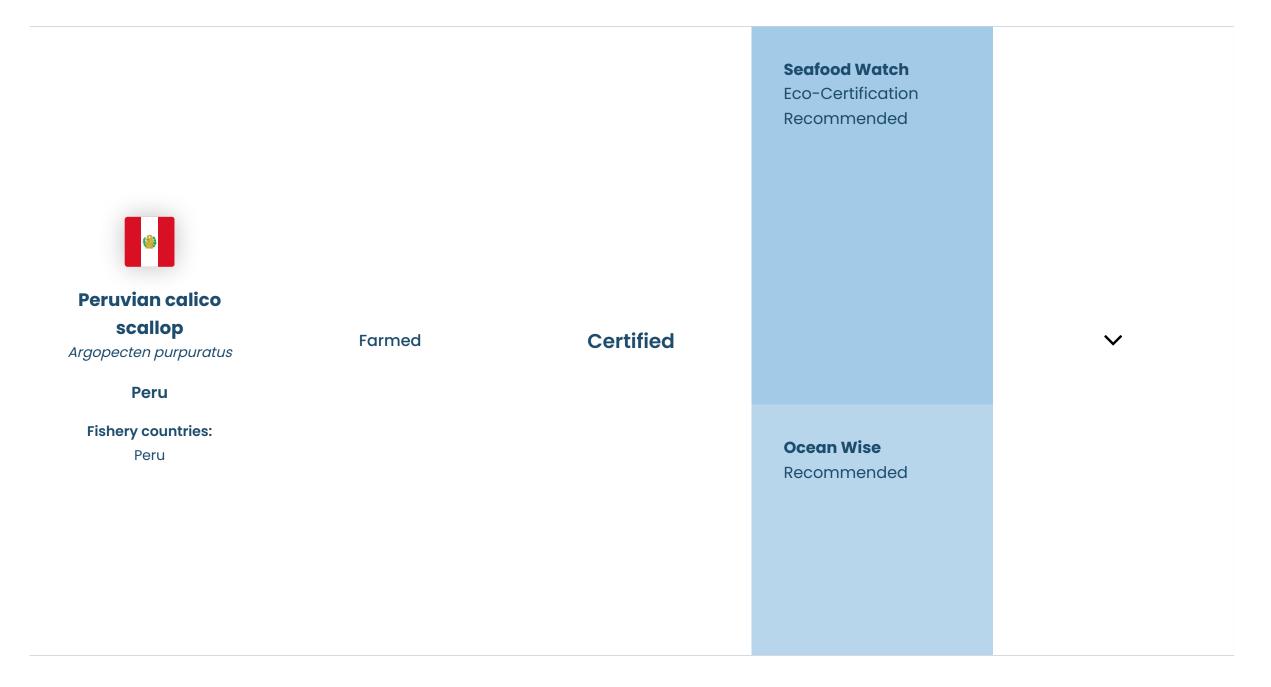
Ocean Wise Recommended

- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- Bottom trawls will directly impact on the sea bed. However, management measures are in place.

General Notes

References

Organizacion Internacional Agropecuaria (OIA), June 2017, Public Comment Draft Report for Patagonian Scallop Bottom Otter Trawl Fishery in Argentine Sea



Environmental Notes

- No feed inputs are used to support farmed scallops.
- The larval phase of scallops may be transported away from farm sites. But, scallops are mostly farmed within their native range and pose little risk from escapes. Predator control methods used are low-impact and there is little risk of direct or accidental mortality of predators and other wildlife.
- There is no concern regarding pollution from nutrients or organic matter as no feed or nutrient fertilization inputs are used to support farmed scallops.

General Notes

• The environmental impacts described are addressed to some degree by certification.

References:

Seafood Watch Recommended Eco-Certification for Peruvian Scallop



Seafood Watch Eco-Certification Recommended

Good Fish Guide Best Choice 2

Ocean Wise Recommended

Environmental Notes

- While encounters with marine mammals and birds have been documented in this fishery, the impact on PET species is not thought to be significant.
- There is no risk of bycatch for this fishery. Catches of other salmon species are accounted for in the pink salmon management.
- This fishery is unlikely to have a significant impact on the benthic habitat.

General Notes

References

SCS Global Services, April 2017, MSC Fishery Assessment Report Annette Islands Reserve Salmon Fishery Public Certification Report

MRAG Americas, April 2019, MSC 3rd Assessment Report Public Certification Report for the Alaska Salmon Fishery



Ocean Wise Recommended

Eco-Certification

Recommended

Environmental Notes

- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the benthic habitat.

General Notes

References

SCS Global Services, September 2015, MSC Public Certification Report for Iturup Pink & Chum Salmon Fisheries

MRAG Americas, September 2016, MSC Public Certification Report for VA-Delta Kamchatka Salmon Fisheries

MRAG Americas, May 2018, MSC Public Certification Report for Narody Severa Bolsheretsk Salmon Fisheries

MRAG Americas, June 2018, MSC Public Certification Report for Olyutorskiy Bay Salmon Fisheries



Pouting Trisopterus luscus

Dottopo trouvi

Not certified or in

Sustainability

Trisopterus luscus	Bottom trawl			\checkmark
		a FIP	not rated	
British waters				
Fishery countries:				
United Kingdom				

Environmental Notes

- There are risks to skates and rays with this fishery.
- This fish is caught as a bycatch species of other whitefish fisheries.
- Bottom trawls will directly impact on the sea bed.

General Notes

• Morrisons is currently working with Seafish on an ecological impact assessment for mixed south west fisheries to help improve management.



Rainbow Trout, Steelhead Trout

Oncorhynchus mykiss

United Kingdom

Fishery countries: United Kingdom

Environmental Notes

- Trout have a high requirement for fish in their diet.
- Escapes are unlikely to have a significant impact on wild trout populations. Producers are permitted to use lethal control on predators.
- Impacts on water quality depend on the farming method used. Production using open net cages and ponds results in the discharge of waste and nutrients directly into the surrounding water.

General Notes

• The environmental impacts described are addressed to some degree by certification.

References

Good Fish Guide - Rainbow trout



Environmental Notes

- Trout have a high requirement for fish in their diet.
- Escapes are unlikely to have a significant impact on wild trout populations. Producers are permitted to use lethal control on predators.
- Impacts on water quality depend on the farming method used. Production using open net cages and ponds results in the discharge of waste and nutrients directly into the surrounding water.

General Notes

This product is certified to a non-GSSI recognised aquaculture certification standard - Quality Trout UK.

The Good Fish Guide rates rainbow trout farmed in the UK differently depending on farming method.

- Rainbow trout farmed in freshwater ponds without recirculation are rated 2 (pale green).
- Rainbow trout farmed in open net pens and cages are rated 3 (yellow).

References

Good Fish Guide - Rainbow Trout



- There are risks to PET species including the angel shark, which is vulnerable to fishing in this area.
- Multiple species are likely to be caught in this fishery. Rays are often caught as bycatch.
- Bottom trawls will directly impact on the sea bed.

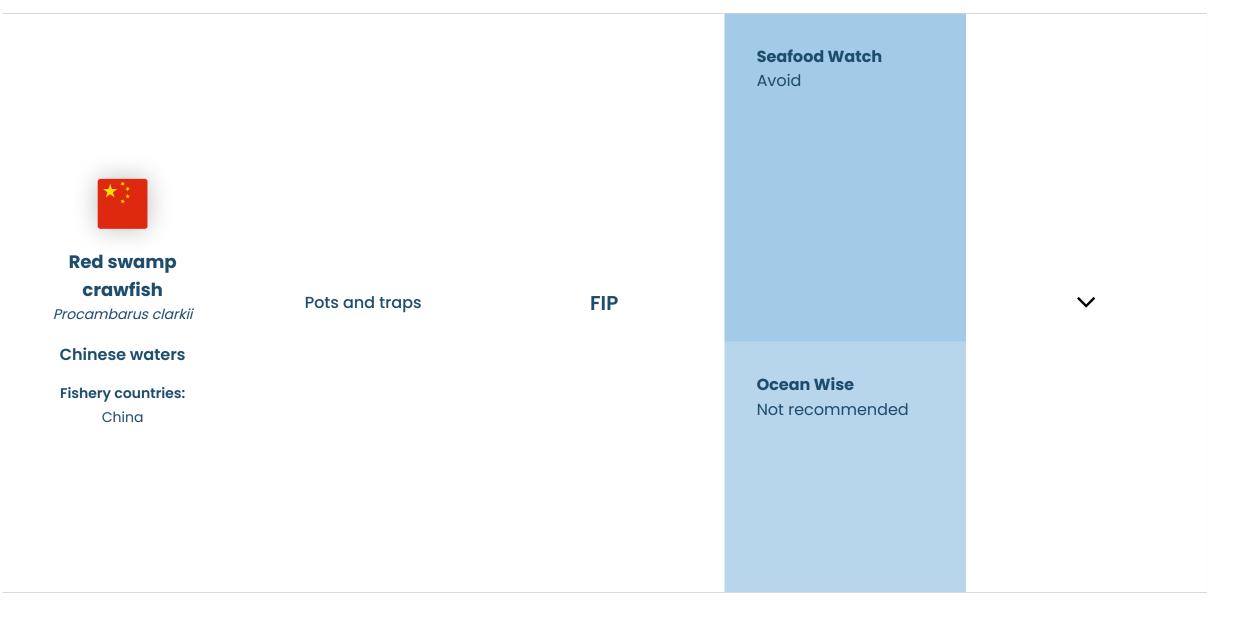
General Notes

References

Good Fish Guide - Cuckoo ray, West of Scotland, Southern Celtic Sea, Western English Channel and Bay of Biscay, Bottom trawl (otter)

Good Fish Guide - Spotted ray, Southern Celtic Seas, Bottom trawl (otter)

Good Fish Guide - Thornback ray, Irish and Celtic Seas, Bottom trawl (otter)



Environmental Notes

- There is a lack of information on interactions with PET species in this fishery, but the introduced red swamp crawfish presents a risk to native crawfish species.
- Bycatch for this fishery is likely to be low.
- This fishery takes place in natural freshwater systems and rice fields and is unlikely to have a significant impact on the benthic habitat.

General Notes

• As an introduced species, the impacts of the fishery on native species and ecosystems need to be considered.

References

<u>Fishery Progress, China crayfish - pot/trap</u>

MRAG, 2016, Red swamp crayfish Pre-Assessment Report



Fishery countries:

Iceland

Seafood Watch

Eco-Certification Recommended

Good Fish Guide Best Choice 1

Environmental Notes

- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- Bottom trawls will directly impact on the sea bed.

General Notes

• As a mixed fishery, the effects of management measures on other species need to be considered within an ecosystem context.



Handlines and

pole-lines

Some product from FIP fisheries

FishSource Needs Improvement

 \checkmark

Skipjack tuna

Katsuwonus pelamis

Eastern Atlantic

Ocean

Fishery countries:

Ghana, Ivory Coast,

Spain

Seafood Watch Good Alternative

Good Fish Guide Think 3

Ocean Wise Not recommended

Environmental Notes

- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• The Ghana fishery is part of the <u>Ghana tuna - pole & line FIP</u>.



Ecuador

Seafood Watch Good Alternative

Good Fish Guide Think 4

Ocean Wise Not recommended

Environmental Notes

- There are risks to sea turtles with this fishery.
- Bycatch of sharks and other fish is a risk for this fishery.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This fishery was part of the now complete Eastern Pacific Ocean tropical tuna - purse seine (TUNACONS) FIP.



Good Fish Guide Best Choice 2

Ocean Wise Recommended

- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

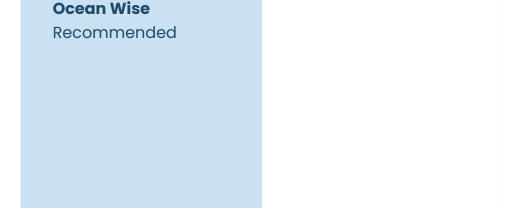
General Notes

References

<u>FisheryProgress, Indonesia Indian Ocean skipjack tuna - pole & line</u>



FishSource Well Managed

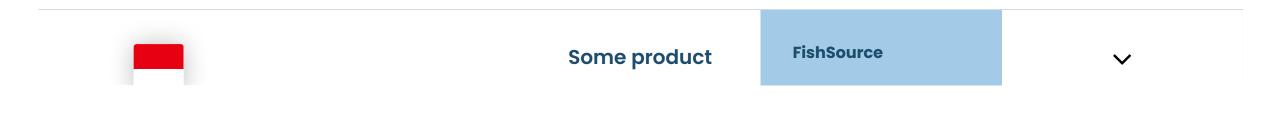


Environmental Notes

- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.



	Handlines and	from FIP fisheries
Skipjack tuna Katsuwonus pelamis	pole-lines	
Western and Central		
Pacific Ocean -		
WCPFC		

Fishery countries:

Indonesia

Good Fish Guide Best Choice 2

Needs Improvement

Ocean Wise Recommended

Environmental Notes

- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

FisheryProgress, Indonesia Western and Central Pacific Ocean skipjack tuna - pole and line

Gillnets and

entangling nets



Sockeye salmon

Oncorhynchus nerka

Alaska

Fishery countries:

United States

Certified

FishSource Well Managed

 \checkmark

Seafood Watch Eco-Certification Recommended



Ocean Wise Recommended

Environmental Notes

- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the benthic habitat.

General Notes

References

MRAG Americas, 2019, MSC 3rd Assessment Report Public Certification Report for the Alaska Salmon Fishery



Farmed

Certified

Seafood Watch Eco-Certification Recommended

 \checkmark

Honduras

Whiteleg shrimp Penaeus vannamei

Fishery countries:

Honduras

Good Fish Guide Think 3

- The use of wild fish in Honduran shrimp feed inputs is low.
- Disease transfer between farmed and wild prawns is a concern and is exacerbated by the practice of frequent water exchanges. Information on escapes from shrimp farms is limited. Whiteleg shrimp are native to Honduras, therefore lowering the environmental risk from escapes, however there is still potential for interbreeding with wild shrimp populations to result in reduced genetic fitness.
- Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality. Impacts on water quality vary depending on farm practices including the frequency of waste discharge from ponds. Some farms have been found to exceed regulatory limits for waste discharge.

General Notes

• The environmental impacts described are addressed to some degree by certification.

References:

Good Fish Guide - Prawns, King (whiteleg), prawns, Aquaculture Stewardship Council (ASC) certification

Seafood Watch Recommended Eco-Certification for Whiteleg shrimp

Seafood Watch report for farmed shrimp, Honduras



Good Fish Guide Think 3

Ocean Wise Recommended

- Fishmeal and fish oil from marine feed sources are used. Certification criteria encourage the use of responsibly sourced marine products in feed.
- Disease transfer between farmed and wild prawns is a concern but infrequent water exchange on whiteleg shrimp farms moderates the risk. Whiteleg shrimp are not native to India and there is potential for ecological impacts from escapes.
- Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality. Waste discharge from whiteleg shrimp ponds is typically limited to once per production cycle.

General Notes

- The environmental impacts described are addressed to some degree by certification.
- The aquaculture industry is currently managed under a farm-based approach.

References:

Good Fish Guide - Prawns, King (whiteleg), prawns, Aquaculture Stewardship Council (ASC) certification

Seafood Watch Recommended Eco-Certification for Whiteleg shrimp

Seafood Watch report for farmed shrimp, India

Seafood Watch Eco-Certification Recommended

Good Fish Guide

Think 3



Whiteleg shrimp Penaeus vannamei

Farmed

Certified

 \checkmark

Indonesia

Fishery countries:

Indonesia

Ocean Wise Not recommended

Environmental Notes

- Fishmeal and fish oil from marine feed sources are used. Certification criteria encourage the use of responsibly sourced marine products in feed.
- Disease transfer between farmed and wild prawns is a concern. Whiteleg shrimp are not native to Indonesia and there is potential for ecological impacts from escapes.
- Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality and cumulative impacts across a region may occur.

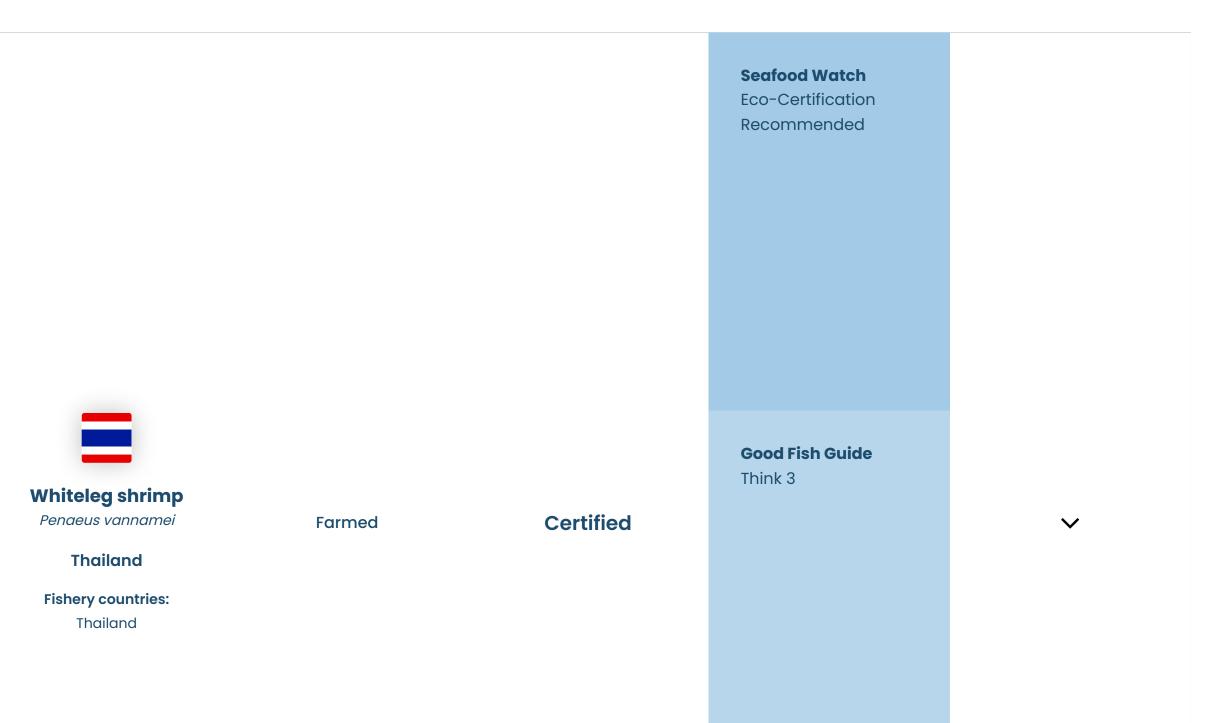
General Notes

- The environmental impacts described are addressed to some degree by certification.
- Legislation on zonal planning that is relevant to aquaculture does exist. A zonal approach to aquaculture is being introduced via an Aquaculture Improvement Project (AIP) in Muncar, Banyuwangi district, East Java.

References:

<u>Good Fish Guide - Prawn, King (whiteleg), prawns, Global, Global Aquaculture Alliance Best Aquaculture Practices (GAA BAP) 4*</u>

Seafood Watch Recommended Eco-Certifications for Whiteleg shrimp, Farmed





Environmental Notes

- Fishmeal and fish oil from marine feed sources are used. At least 50% of the feed used in certified production is required to be responsibly or sustainably sourced.
- Disease transfer between farmed and wild prawns is a concern but infrequent water exchange on whiteleg shrimp farms moderates the risk. Whiteleg shrimp are not native to Thailand and there is potential for ecological impacts from escapes.
- Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality. Impacts on water quality vary depending on the frequency of waste discharge from ponds.

General Notes

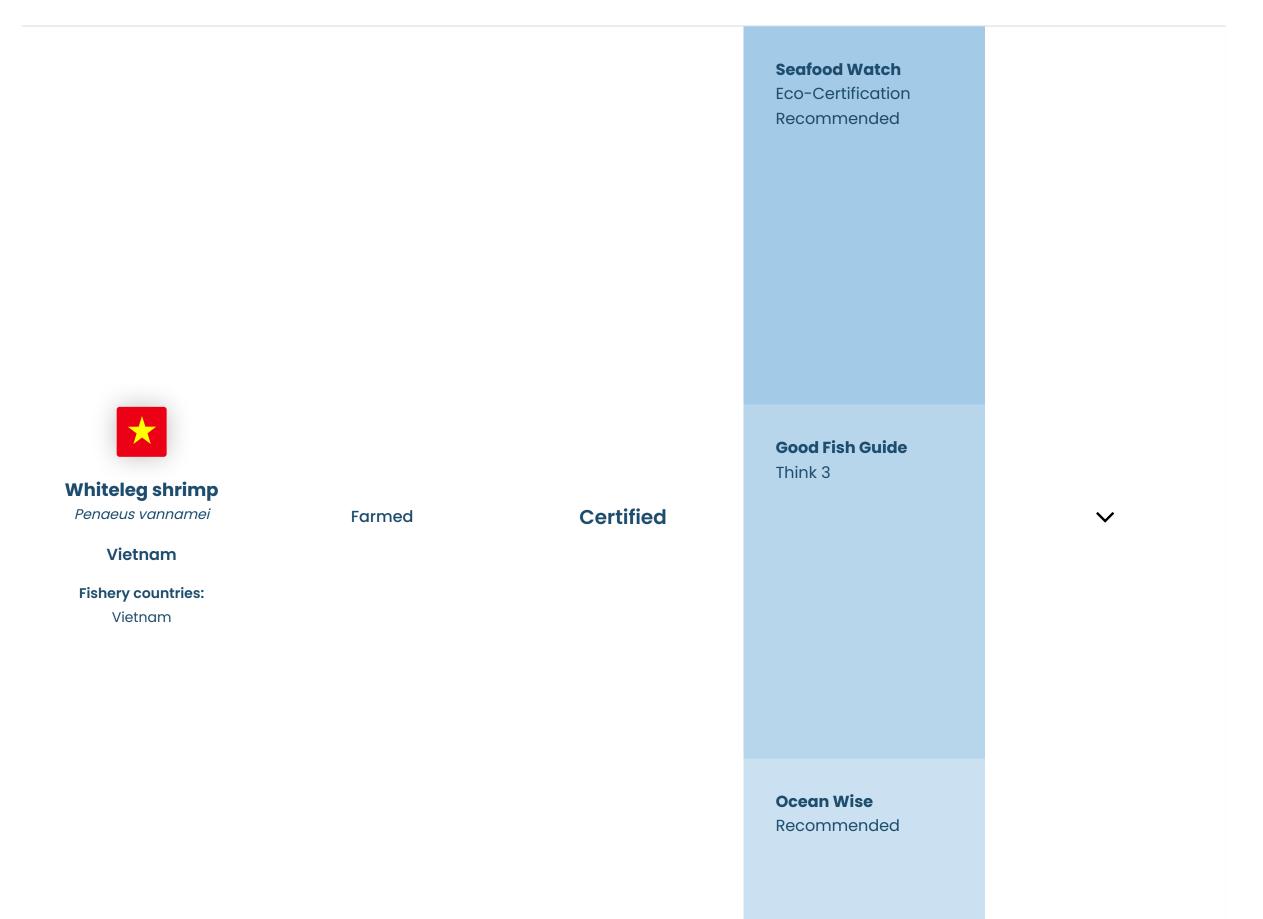
- The environmental impacts described are addressed to some degree by certification.
- Public information on zonal approaches to planning and production of shrimp farming in Thailand is limited.

References:

FishSource - Shrimp, Thailand

Good Fish Guide - King prawn, Global, Global Aquaculture Alliance Best Aquaculture Practices (GAA BAP) 4* certification

Seafood Watch Recommended Eco-Certifications for Whiteleg shrimp, Farmed



Environmental Notes

- Fishmeal and fishoil from marine feed sources are used. Feed inputs are generally not traceable to species level and are not certified sustainable.
- Disease transfer between farmed and wild prawns is a concern but infrequent water exchange on whiteleg shrimp farms moderates this risk. Whiteleg shrimp are not native to Vietnam and there is potential for ecological impacts from escapes.
- Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality. Waste discharge from whiteleg shrimp ponds is typically limited to once per production cycle, moderating the impact of effluents on water quality. There is a lack of data on the quantity of chemical inputs, but evidence suggests that illegal antibiotics are sometimes used on Vietnamese shrimp farms.

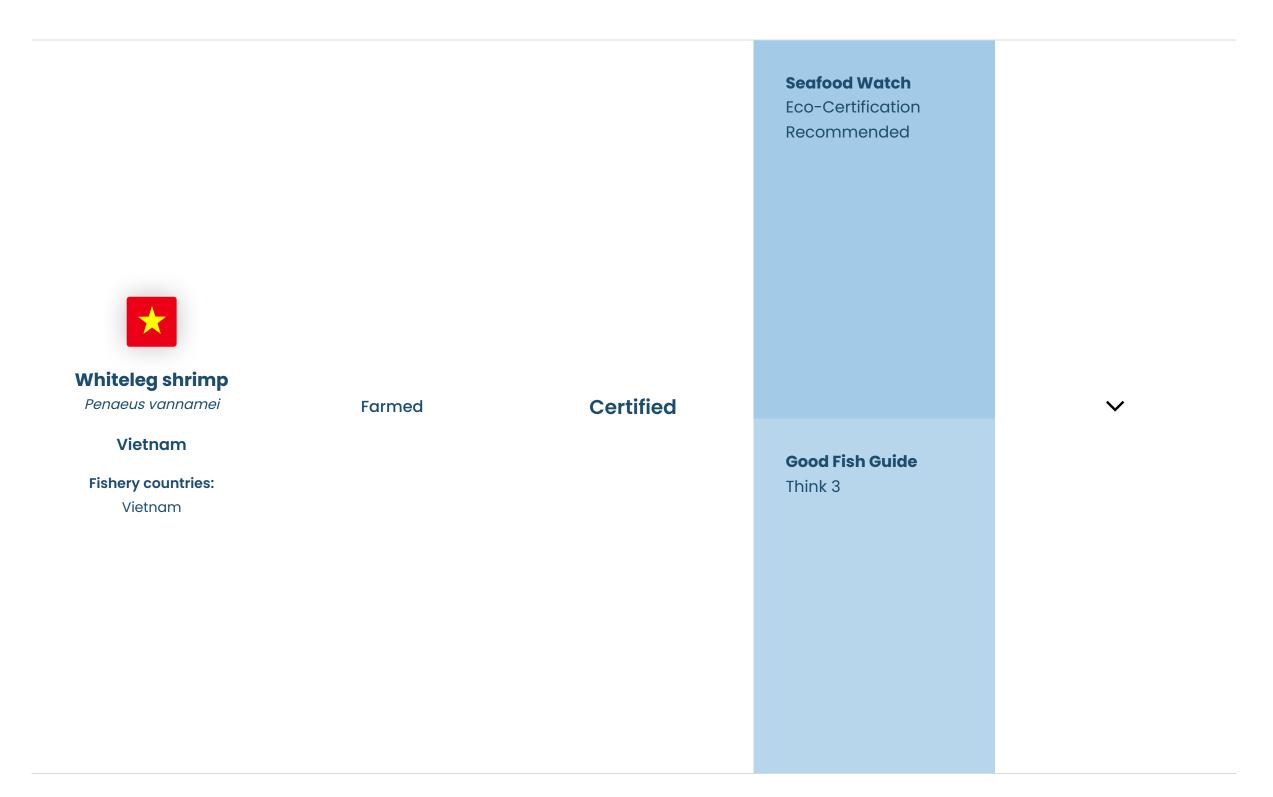
General Notes

- The environmental impacts described are addressed to some degree by certification.
- The aquaculture industry is currently managed under a farm-based approach.

References:

<u>FishSource - Shrimp, Vietnam</u>

Good Fish Guide - Prawns, King (whiteleg), prawns, Aquaculture Stewardship Council (ASC) certification



- Fishmeal and fish oil from marine feed sources are used. At least 50% of the feed used in certified production is required to be responsibly or sustainably sourced.
- Disease transfer between farmed and wild prawns is a concern but infrequent water exchange on whiteleg shrimp farms moderates this risk. Whiteleg shrimp are not native to Vietnam and there is potential for ecological impacts from escapes.
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General Notes

- The environmental impacts described are addressed to some degree by certification.
- The aquaculture industry is currently managed under a farm-based approach

References:

FishSource - shrimp, Vietnam

Good Fish Guide - King prawn, Global, Global Aquaculture Alliance Best Aquaculture Practices (GAA BAP) 4* certification

Seafood Watch Recommended Eco-Certifications for Whiteleg shrimp, Farmed

Seafood Watch report for farmed shrimp, Vietnam



Good Fish Guide Think 3

Environmental Notes

- This fishery is unlikely to have a significant impact on PET species.
- Bycatch is a risk in this fishery, but there is insufficient data available to assess significance.
- Bottom trawls will directly impact on the sea bed.

General Notes

• MSC certifications for whiting in the North Sea were suspended after the 2019 stock assessment. The certificate has since been reinstated following the most recent surveillance audit.

References

SFSAG Northern Demersal Stocks

Notice of Suspension, October 2019



Environmental Notes

• Profile not yet complete.

General Notes

• No additional notes





- Risks to PET species vary by gear type. Longlines present a hazard to seabirds, sea turtles, marine mammals and sharks.
- Bycatch varies for this fishery depending on gear type. Longlines present the greatest risk, while bycatch for pole and line gear is considered very low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.



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