

Why Participate?

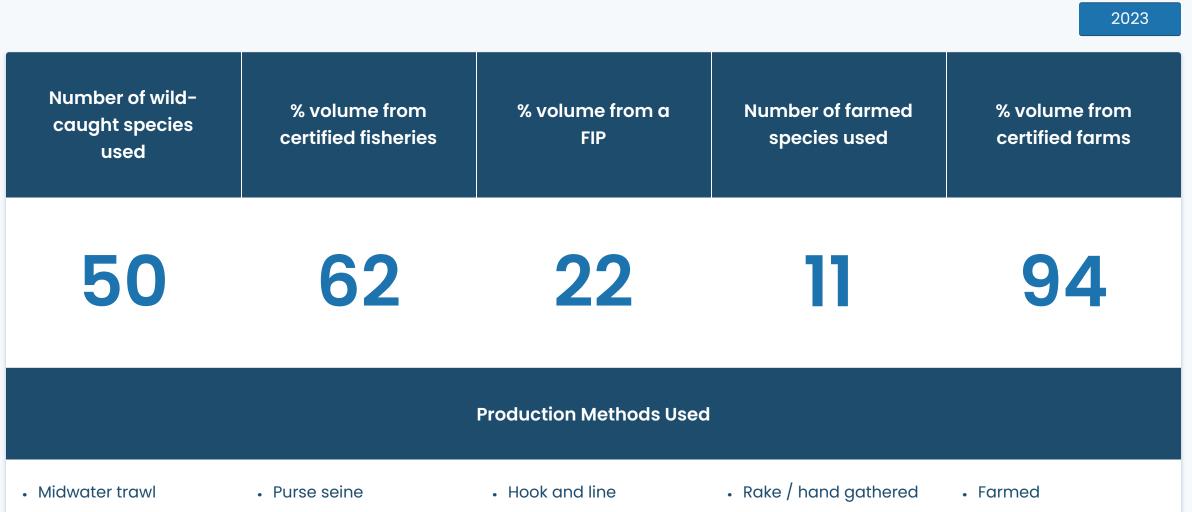
How ODP Works

What's Included?



Morrisons

Morrisons is British-born and bred. We're proud to have grown from a simple market stall in 1899 to one of the largest retailers in the UK today. We're the only British supermarket to buy fresh products directly from fishermen and farmers, process through our own manufacturing sites, and distribute through our own network. By controlling the whole supply chain, we know where our food comes from, and we can provide our customers with what they want, when they want it, at the right price. We are a team of food makers, distributors, wholesalers, and retailers, all with fresh food at our heart. Our colleagues across the business work hard each day to deliver great service. With fully trained craftspeople, including butchers, bakers, fishmongers, and cheesemongers, we have more skilled specialists on hand to prepare fresh food in-store than any other retailer.



| Bottom trawl | Seine nets | Longlines | / hand netted | |
|--------------|-------------------------|---|----------------|--|
| • Dredge | Gillnets and entangling | Handlines and pole- | Pots and traps | |
| | nets | lines | | |
| | | | | |
| | | | | |

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>

https://www.morrisons-corporate.com/cr/policy/

Associated Fisheries



| Species and Location | Production Methods | Certification or Improvement Project | Sustainability Ratings | Notes |
|--|-----------------------|--|-----------------------------------|-------|
| Aesop shrimpPandalus montaguiEastern AssessmentZone - Davis Strait | Bottom trawl | Certified | FishSource Well Managed | ~ |
| Fishery countries: | | | | |

Seafood Watch Eco-Certification Recommended

Ocean Wise Recommended

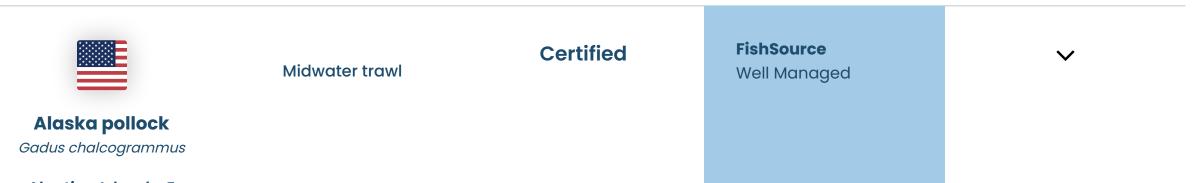
Environmental Notes

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

General Notes

References

LRQA, June 2022, MSC Public Certification Report for Canada Northern and Striped Shrimp



Aleutian Islands, E

Bering Sea

Fishery countries:

United States

Seafood Watch Eco-Certification Recommended

Good Fish Guide Best Choice 1

- This fishery is unlikely to have direct impacts on ETP 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.

Midwater trawl

Alaska pollock Gadus chalcogrammus

Sea of Okhotsk

Fishery countries:

Russia

Certified

FishSource Well Managed

Ocean Wise Recommended

NOAA FSSI

4

Good Fish Guide Think 3 $\mathbf{\vee}$



- This fishery is unlikely to have significant impacts on ETP species. But some impacts on Steller sea lions and Short-tailed albatross may occur. There are measures in place to avoid interactions with ETP species.
- Bycatch of herring and juvenile pollock occurs in this fishery.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.

| | | | FishSource Well Managed | |
|--|----------------|-----------|-----------------------------------|---|
| | | | | |
| | | | | |
| | | | | |
| * | | | Good Fish Guide Think 3 | |
| American lobster Homarus americanus | Pots and traps | Certified | | ~ |
| Bay of Fundy - | | | | |

Fishery countries:

Canada LFA 35

Canada

Ocean Wise Not recommended

Environmental Notes

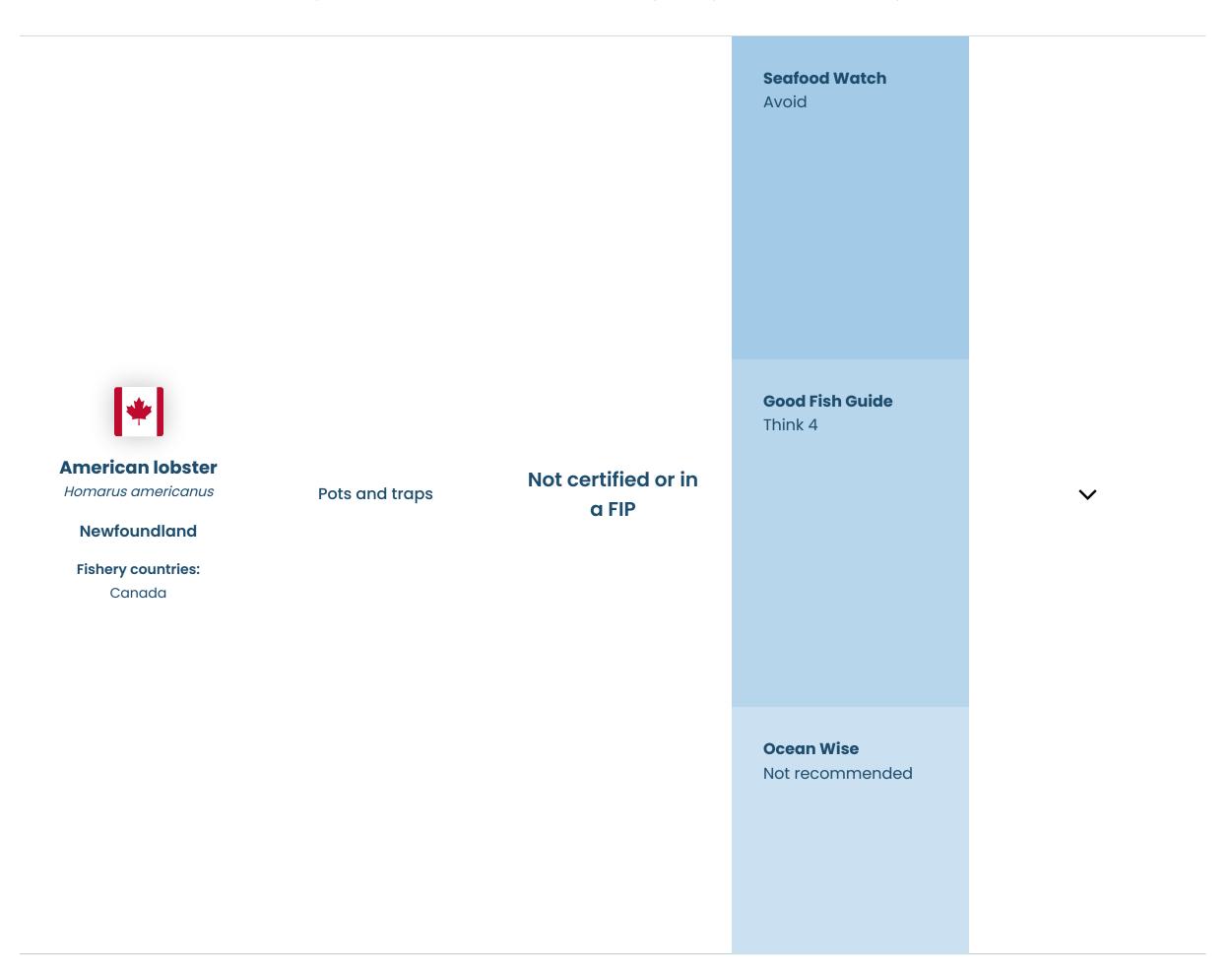
- Interactions with ETP species are low. But entanglement in lobster gear presents a risk to marine mammals, in particular to the critically endangered North Atlantic Right whale. Management measures such as seasonal closures are in place to reduce the risk of interactions with the species.
- Bycatch in this fishery is considered low.

• This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Global Trust Certification, February 2021, Maritime Canada inshore lobster trap fishery Public Certification Report



Environmental Notes

- Interactions with ETP species are low. But entanglement in lobster gear presents a risk to marine mammals, in particular to the critically endangered North Atlantic Right whale. Management measures such as seasonal closures are in place to reduce the risk of interactions with the species.
- Bycatch in this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Good Fish Guide - American lobster, Canada (Newfoundland and Labrador, LFA 3-14): All areas, Pot, trap or creel

Seafood Watch, September 6, 2022, American Lobster, Canada: Northwest Atlantic, Pots



Peruvian Northern-Central Artisanal

Fishery countries: Peru

> **Good Fish Guide** Best Choice 2

Environmental Notes

- The fishery interacts with seabirds and marine mammals. Indirect impacts on ETP may also occur through impacts on food availability. Findings from the FIP suggest the fishery is unlikely to hinder the recovery of ETP species.
- Bycatch for this fishery is considered low. Main bycatch species are recorded by the FIP.
- 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

Fishery Progress, Peruvian anchovy - small scale purse-seine

 FishSource

 Needs Improvement

 Angler

 Lophius piscatorius

| | Bollom trawi | FIP | Good Fish Guide | \mathbf{v} |
|----------------------|--------------|-----|-----------------|--------------|
| Southern Celt | tic Sea | | Think 3 | |
| and Bay of Bi | iscay | | | |
| Fishery count | tries: | | | |
| United Kingd | dom | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Environmental Notes

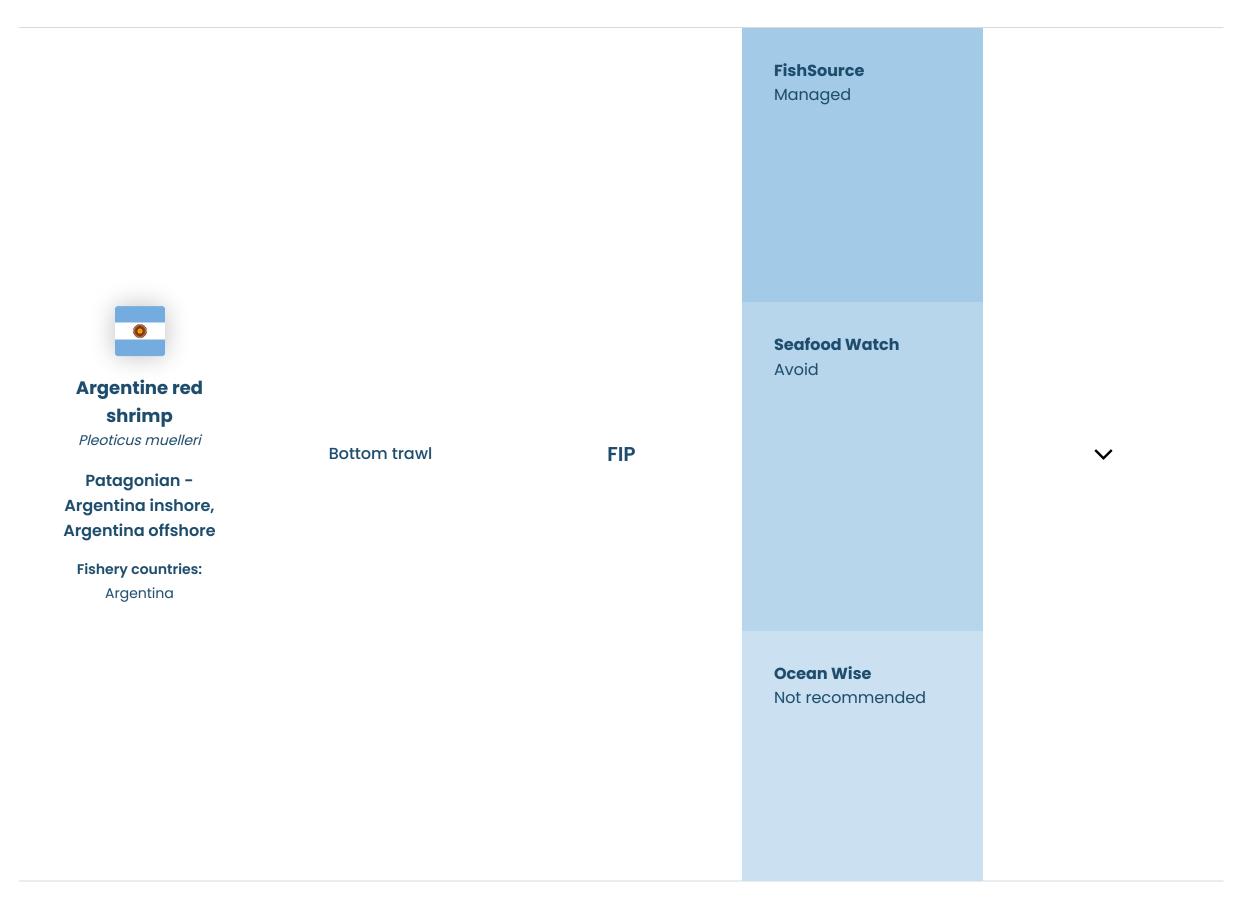
- • There are risks to sharks, skates and rays with this fishery.
 - There is potential for the fishery to have high quantities of bycatch, but there is insufficient data.
 - Bottom trawls will directly impact on the sea bed. However, management measures are in place to protect vulnerable deep-sea habitats.

General Notes

References

FisheryProgress - UK monkfish - gillnet/trawl

Good Fish Guide - White monkfish, Celtic Seas (South), Bay of Biscay, Bottom trawl (beam)



Environmental Notes

- There are risks to sharks and rays with this fishery.
- Bycatch of hake is a risk with this fishery.
- Bottom trawls will directly impact the sea bed.

General Notes

References

Fishery Progress, Argentina onshore red shrimp - bottom trawl FIP

Fishery Progress, Argentina offshore red shrimp - bottom trawl FIP



Environmental Notes

• Profile not yet complete.

General Notes

• No additional notes.



Atlantic cod Gadus morhua

Bottom trawl

Certified

Barents Sea

Fishery countries: Norway, Russia FishSource Well Managed

Seafood Watch Eco-Certification Recommended

Good Fish Guide Think 3 \checkmark

Ocean Wise Recommended

Environmental Notes

- There are significant concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish, which is currently classified as Vulnerable.
- 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

FishSource Well Managed

Seafood Watch Eco-Certification Recommended

#

Atlantic cod Gadus morhua

Barents Sea

Fishery countries: Norway Hook and line

Longlines

Certified

Good Fish Guide Best Choice 2 \checkmark

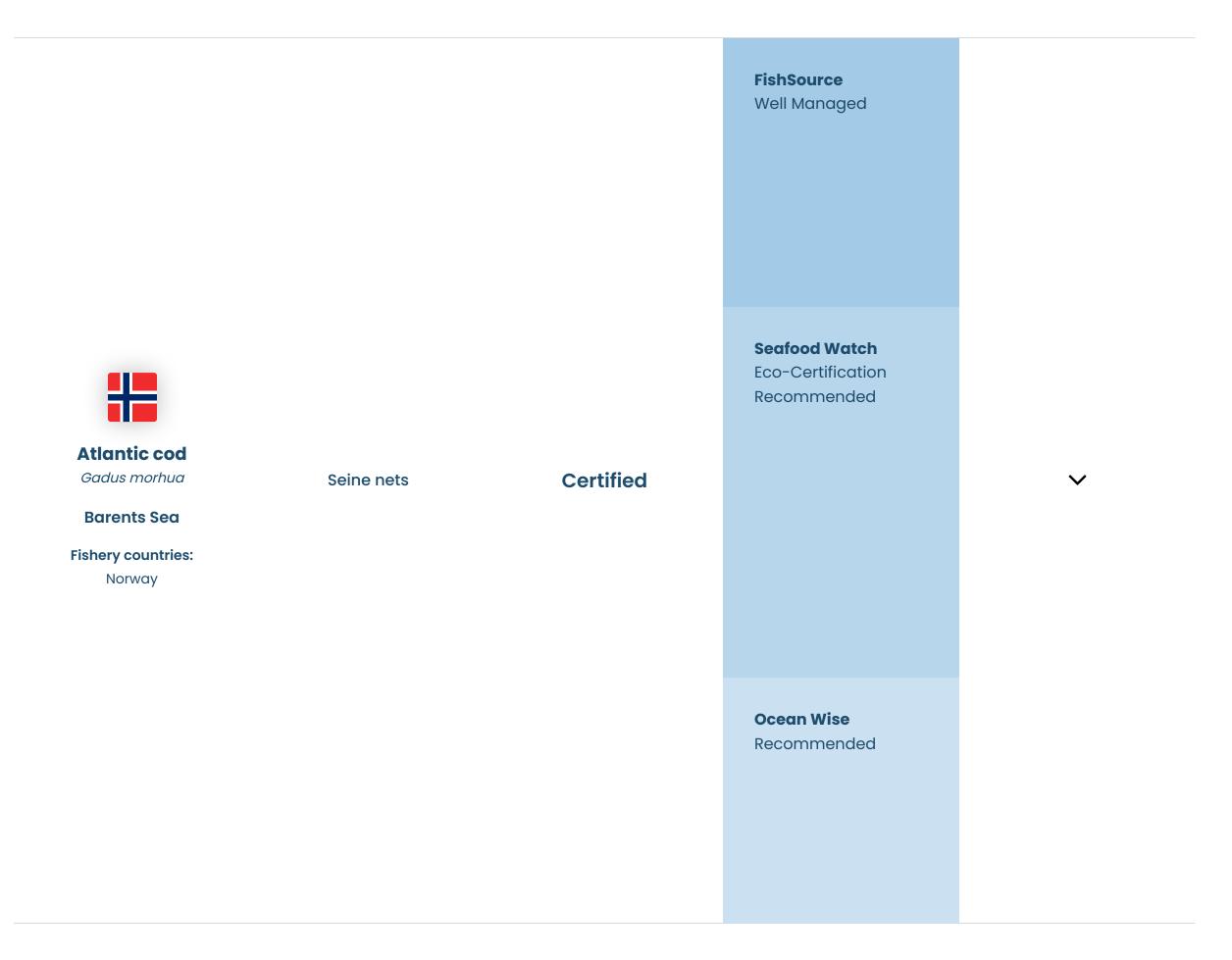
Ocean Wise Recommended

Environmental Notes

- There are significant concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish, but most of the catch is taken by bottom trawls.
- 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

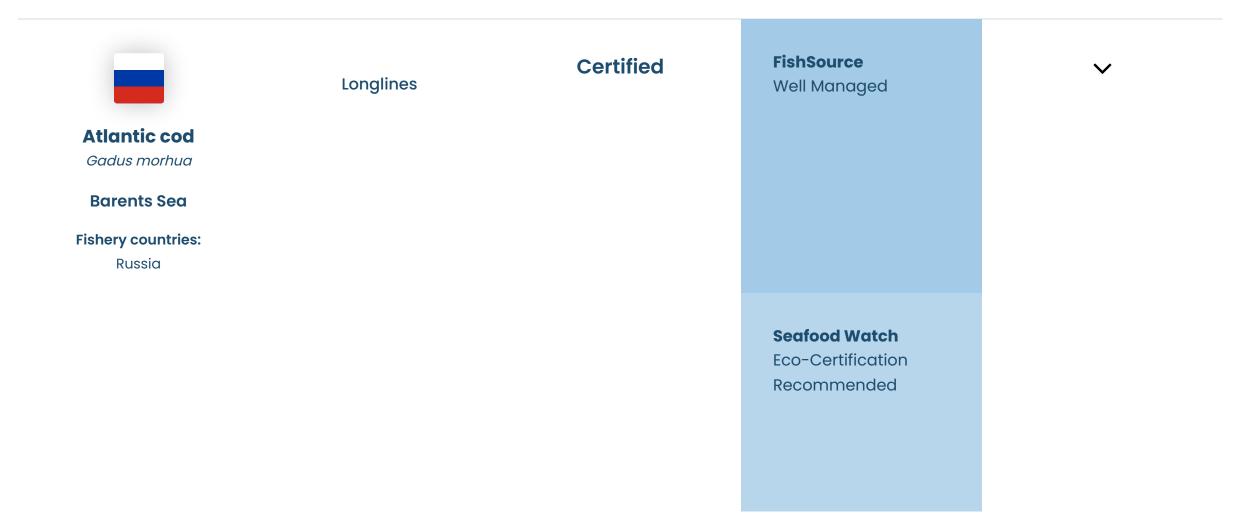
• No additional notes.

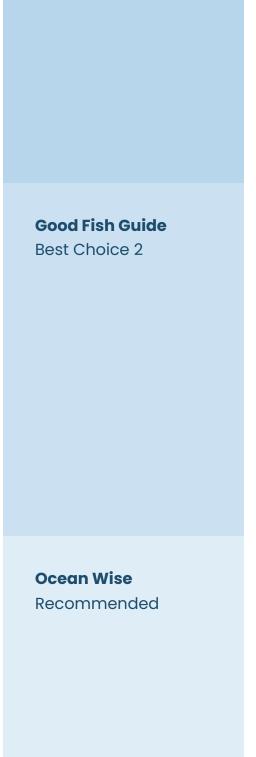


- There are significant concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish, but most of the catch is taken by bottom trawls.
- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts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

General Notes

• No additional notes.





- There are significant concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish, but most of the catch is taken by bottom trawls.
- There is bycatch for this fishery but non-target species are retained. Management measures are in place to reduce impacts on retained species.

Certified

• This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.



Bottom trawl

Atlantic cod

Gadus morhua

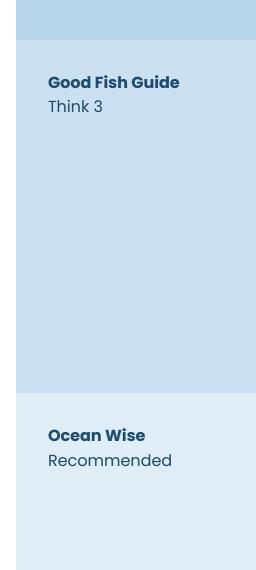
Icelandic

Fishery countries:

Iceland

FishSource Well Managed

Seafood Watch Eco-Certification Recommended \checkmark



- Bycatch of the vulnerable spotted wolffish and beaked redfish is a concern.
- 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 directly impact on the sea bed. However, the fishery operates at a depth where it is unlikely to impact vulnerable marine ecosystems.

General Notes

References

Good Fish Guide - Atlantic cod, Iceland, Bottom trawl (otter), Marine Stewardship Council (MSC)



Gillnets and

Certified

FishSource Well Managed

 \checkmark

Atlantic cod

Gadus morhua

Icelandic

Fishery countries: Iceland entangling nets

Longlines

Seafood Watch Eco-Certification Recommended



- Measures to record and reduce bycatch of marine mammals and sea birds in the gillnet and longline component of the fishery are needed.
- 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. Gillnets and longlines will have less impact on the sea bed than bottom trawls.

General Notes

References

<u>Good Fish Guide - Atlantic cod, Iceland, Net (gill or fixed), Marine Stewardship Council (MSC)</u>

Good Fish Guide - Atlantic cod, Iceland, Hook & line (longline), Marine Stewardship Council (MSC)



Seine nets

Certified

FishSource Well Managed

 \checkmark

Atlantic cod Gadus morhua

Icelandic

Fishery countries:

Iceland

Seafood Watch Eco-Certification Recommended

Ocean Wise Recommended

- This fishery is unlikely to have direct impacts on ETP 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

References

Vottunarstofan Tún ehf, April 2017, Public Certification Report ISF Iceland Cod Fishery

| | | | FishSource Needs Improvement | |
|-------------------------|------------|-----|--|--------------|
| Atlantic herring | | | | |
| Clupea harengus | Seine nets | FIP | Good Fish Guide | \checkmark |
| Baltic Sea Central | | | Think 4 | |
| Fishery countries: | | | | |
| Denmark | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Environmental Notes

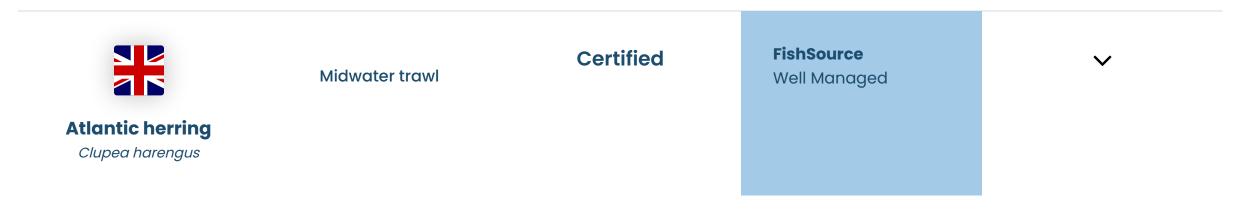
- This fishery is unlikely to impact ETP species.
- Bycatch is thought to be low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This fishery is part of the <u>North East Atlantic mackerel</u> <u>and Atlanto-Scandian herring FIP</u>.

References

Good Fish Guide - Herring, Baltic Sea (Central) (Subdivisions 25-29 and 32) excluding Gulf of Riga: All areas, Net (pelagic trawl; purse seine)



English and Bristol

Channels

Fishery countries:

United Kingdom

Seafood Watch Eco-Certification Recommended

Good Fish Guide Best Choice 2

Ocean Wise Recommended

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

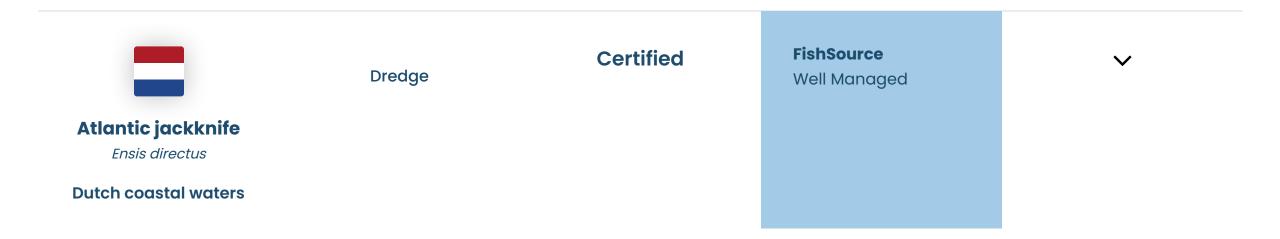
General Notes

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

References

<u>Good Fish Guide - Herring, North Sea Autumn Spawners: North Sea, Skagerrak and Kattegat, English Channel (East), Net (pelagic trawl), Marine</u> <u>Stewardship Council (MSC)</u>

Lloyd's Register, November 2019, Northern Ireland Pelagic Sustainability Group (NIPSG) Irish Sea Herring Public Certification Report



Netherlands

Seafood Watch **Eco-Certification** Recommended

Ocean Wise Recommended

Environmental Notes

- This fishery is unlikely to impact ETP 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



FIP

FishSource Needs Improvement

 \checkmark



Atlantic mackerel

Scomber scombrus

NE Atlantic

Fishery countries: United Kingdom

> **Good Fish Guide** Think 3

- This fishery is unlikely to have direct impacts on ETP species but mackerel plays an important role in the marine food web so potential impacts on the wider marine ecosystem must be monitored.
- 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 a FIP.

References

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

North Atlantic Pelagic Advocacy Group, Fishery Improvement Projects

Good Fish Guide Think 3

Needs Improvement

FishSource





Atlantic mackerel

Scomber scombrus

Purse seine

FIP

NE Atlantic

Fishery countries:

Denmark

Ocean Wise Not recommended $\mathbf{\vee}$

- This fishery is unlikely to have direct impacts on ETP species but mackerel plays an important role in the marine food web so potential impacts on the wider marine ecosystem must be monitored.
- Bycatch in this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

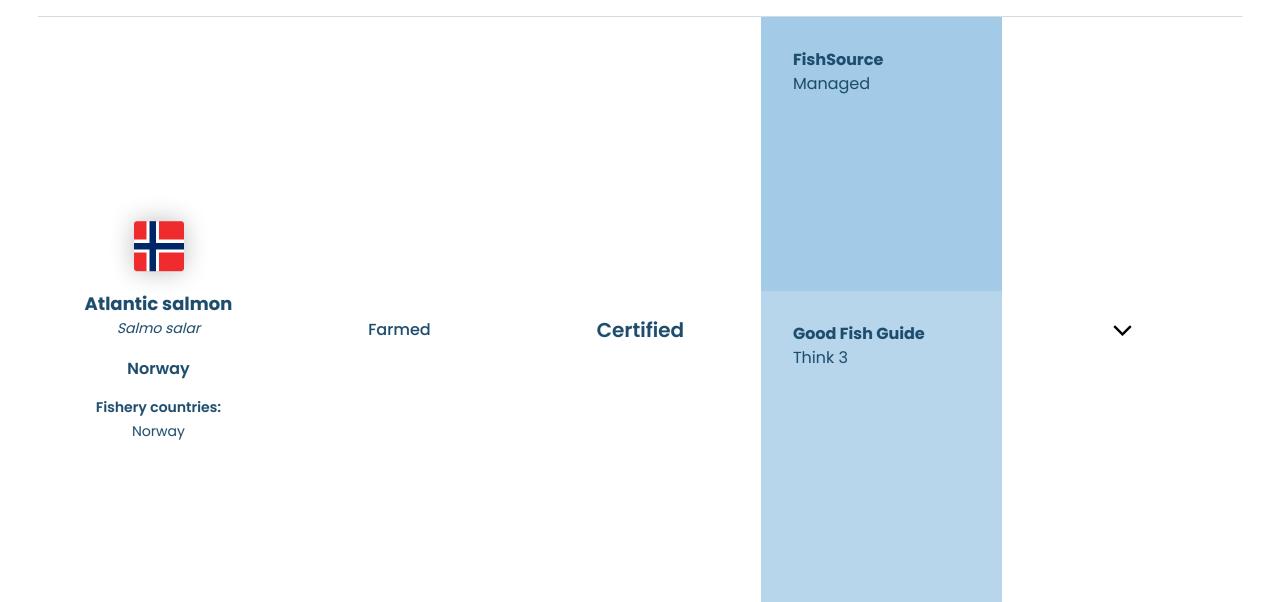
General Notes

- 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 a FIP.

References

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

North Atlantic Pelagic Advocacy Group, Fishery Improvement Projects



Environmental Notes

- Salmon production relies on wild capture fisheries for feed. The sustainability of fisheries supplying fishmeal and fish oil varies.
- There are concerns about the impact of farmed salmon escapes and disease outbreaks on wild salmonids. Escapes are a critical conservation concern in Production Areas 3, 4, 8, 9, 10 and 11. 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. The use of chemical pesticides has been reduced over the last five years but varies by Production Areas.

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 for licensing and disease management through the use of 13 Production Areas nationwide.

References

FishSource - salmon, Norway

Good Fish Guide - Atlantic Salmon, Scotland, Norway and Faroe Islands, Open net pen, marine, GlobalG.A.P.

FishSource Well Managed

Seafood Watch Eco-Certification Recommended

Atlantic salmon

Salmo salar

United Kingdom

Fishery countries:

United Kingdom

Farmed

Certified

Good Fish Guide Best Choice 2 \checkmark

Ocean Wise Not recommended

Environmental Notes

- Salmon rely on wild capture fisheries for feed. Marine ingredients are sourced from fisheries that currently have no serious conservation concerns.
- 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. The use of chemical pesticides has declined over the last decade but varies by region.

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.

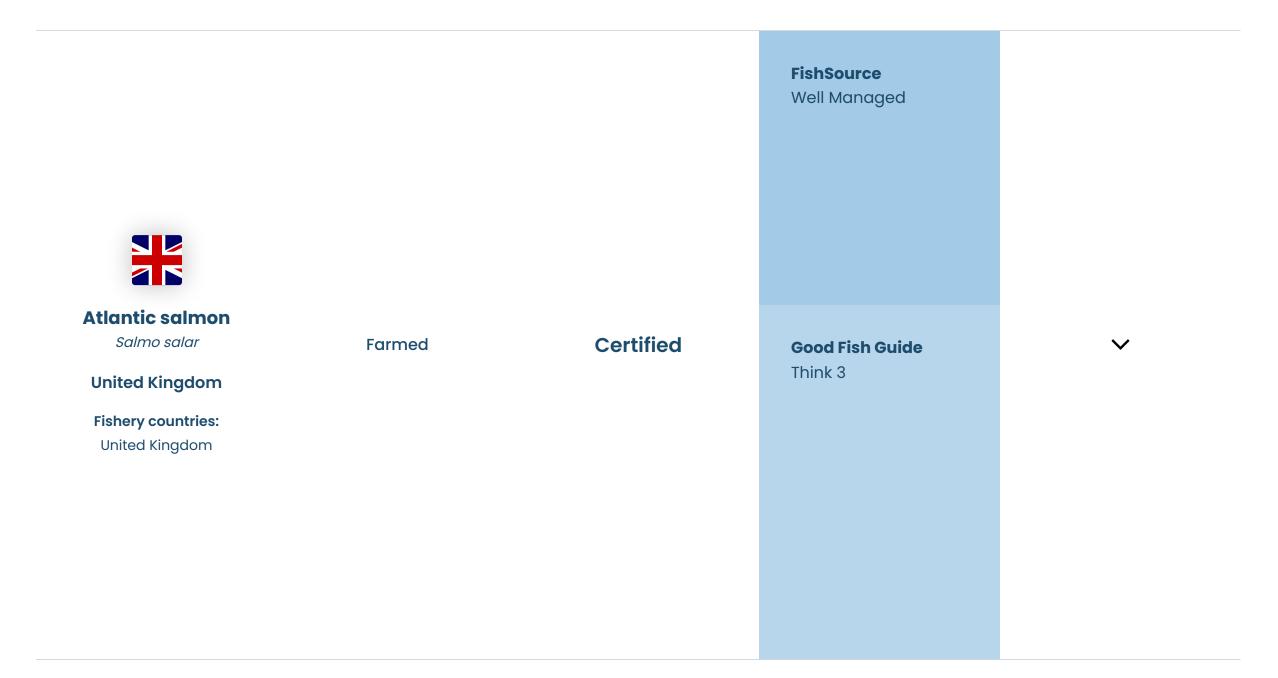
References:

FishSource - salmon, United Kingdom

Good Fish Guide - Atlantic Salmon, Europe: UK, Scotland, Open net pen, marine

Good Fish Guide - Atlantic salmon, Europe: Scotland and Norway, Open net pen, marine, Aquaculture Stewardship Council (ASC)

Seafood Watch, December 2021, Atlantic Salmon, Scotland, Marine Net Pens



Environmental Notes

- Salmon rely on wild capture fisheries for feed. Marine ingredients are sourced from fisheries that currently have no serious conservation concerns.
- 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. The use of chemical pesticides has declined over the last decade but varies by region.

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.

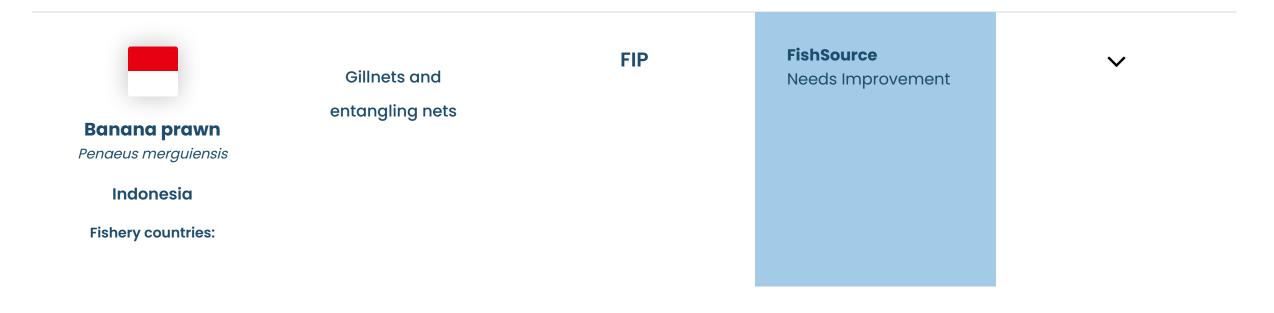
References:

FishSource - salmon, United Kingdom

Good Fish Guide - Atlantic Salmon, Europe: UK, Scotland, Open net pen, marine

Good Fish Guide - Atlantic salmon, Europe: Scotland, Norway, Faroe Islands, Open net pen, marine, GLOBALG.A.P.

Seafood Watch, December 2021, Atlantic Salmon, Scotland, Marine Net Pens



• There is a lack of data regarding impacts for this gear type.

General Notes

References

Fishery Progress, Indonesia Central Java white prawn - trammel net and trap



Environmental Notes

- This fishery may occasionally interact with ETP species including blue skate and flapper skate.
- Multiple species are likely to be caught in this fishery. Bycatch can include juvenile skate
- Bottom trawls will directly impact on the sea bed. Some management measures are in place.

General Notes

References

Good Fish Guide - Blonde ray, Irish Sea, Bristol Channel, Celtic Sea North, Bottom trawl (otter)



Certified

FishSource Managed

 \checkmark

Mytilus chilensis

Chile

Fishery countries:

Chile

Seafood Watch Eco-Certification Recommended

Ocean Wise

- 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

References

<u>Good Fish Guide - Chilean mussel, Chile, Culture, bottom, Culture, suspension</u>

Seafood Watch, August 2020, Marine Mussels, Mytilus spp, Perna spp., Worldwide, On and Off Bottom Culture

Seafood Watch Recommendations, Chilean mussel, Worldwide, Aquaculture Stewardship Council Certified Bivalve Standard

| | | | FishSource Managed | |
|---|--------|-----------|---|---|
| | | | Good Fish Guide Best Choice 1 | |
| Chilean mussel <i>Mytilus chilensis</i> Chile | Farmed | Certified | | ~ |

Fishery countries:

Chile

Ocean Wise Recommended

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

References

Good Fish Guide - Chilean mussel, South America, Chile, Culture, bottom, Culture, suspension



Environmental Notes

- Bycatch may include ETP species.
- Bycatch is a risk for this fishery.
- Bottom trawls will directly impact on the sea bed. Some management measures are in place.

General Notes

References

Good Fish Guide - Common cuttlefish, English Channel and Celtic Seas: Cornwall IFCA District (0-6nm), Bottom trawl (otter)

Good Fish Guide - Common cuttlefish, English Channel and Celtic Seas: Offshore (beyond 6nm), Bottom trawl (otter)



Common dab Limanda limanda

Celtic Sea and English Channel Bottom trawl

Not certified or in a FIP Sustainability not rated

 \checkmark

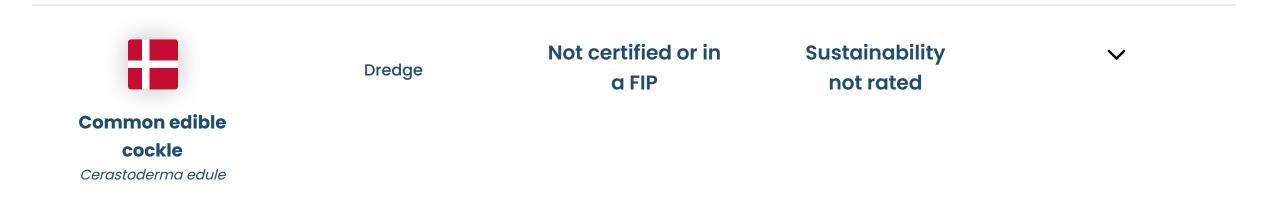
Fishery countries: United Kingdom

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 has worked with Seafish on an ecological impact assessment for mixed south west fisheries to help improve management.



Limfjord

Fishery countries: Denmark

Environmental Notes

• Profile not yet complete.

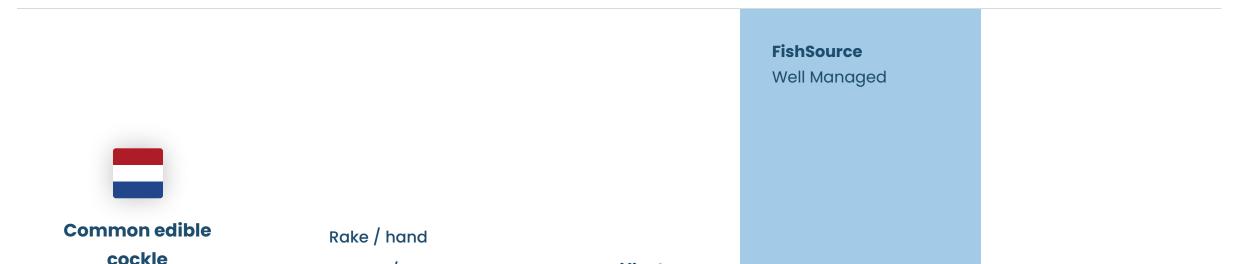
General Notes

• No additional notes.

| Dredge | Not certified or in a FIP | Sustainability not rated | ~ |
|--------|------------------------------|-----------------------------|--------|
| | | | |
| | Dredge | Dredge | Dredge |

General Notes

• No additional notes.



| COCKIE Cerastoderma edule | gathered / hand | Certified | | \checkmark |
|--|-----------------|-----------|-----------------|--------------|
| | netted | | | |
| Oosterschelde | | | Ocean Wise | |
| Fishery countries: Netherlands | | | Not recommended | |
| | | | | |

Environmental Notes

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

General Notes

References



- There are risks to ETP species including blue and flapper skate, which are occasionally caught.
- There is a risk of bycatch in this fishery. Cuckoo ray is caught as bycatch.
- Bottom trawls will directly impact on the sea bed. Some management measures are in place to protect the sea bed.

General Notes

References

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





| Cupped oysters nei Crassostrea spp. | Farmed | Not certified or in an AIP |
|---|--------|-------------------------------|
| United Kingdom | | |
| Fishery countries: | | |
| United Kingdom | | |

Ocean Wise Recommended \checkmark

- 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

• Production is certified to the Friend of the Sea standard (a non-GSSI recognised aquaculture certification standard).

References:

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

Seafood Watch Recommendations for farmed oysters, Worldwide



Environmental Notes

- There are risks to 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.

FishSource Needs Improvement

| Edible crab | | Not certified or in | | |
|--------------------|----------------|---------------------|-----------------|--------------|
| Cancer pagurus | Pots and traps | a FIP | Good Fish Guide | \checkmark |
| Orkney | | | Think 4 | |
| Fishery countries: | | | | |
| United Kingdom | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

- 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.



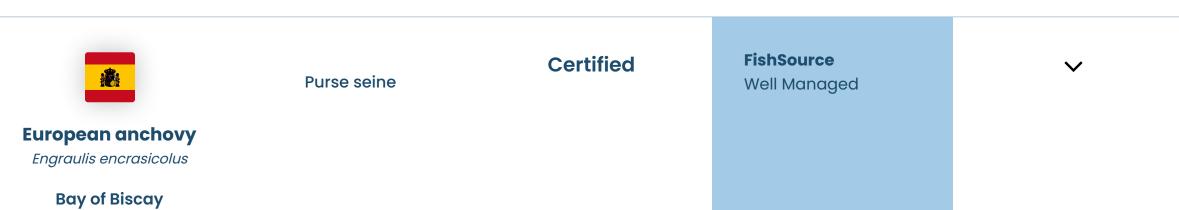
Environmental Notes

- This fishery is unlikely to impact ETP species.
- 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

References

Good Fish Guide - Brown crab



Fishery countries:

Spain

Seafood Watch **Eco-Certification** Recommended

Good Fish Guide Best Choice 2



- This fishery is unlikely to impact ETP 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



Seafood Watch Avoid

Ocean Wise Not recommended

- There are risks to marine mammals, sea turtles, seabirds, sharks and rays but bycatch in purse seine gear is infrequent.
- Bycatch species include sprat and 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.



Ocean Wise Recommended

Environmental Notes

- There are risks to marine mammals, sharks, skates and rays with this fishery. Measures are in place to reduce the likelihood of interactions with marine mammals.
- The fishery uses gillnets with a larger mesh size than the legal requirement to reduce bycatch.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Cornwall Good Seafood Guide - Hake

Cornish hake gill net



Environmental Notes

- This fishery is unlikely to impact ETP 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.



Environmental Notes

- This fishery is unlikely to impact ETP 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.



Environmental Notes

- Available data on interactions with ETP species is still limited. Commonly reported bycatch in the area includes sharks and rays, sea turtles, marine mammals, and sunfish.
- No more than 3% of the total catch for Moroccan small pelagic fisheries is allowed to comprise bycatch.
- This fishery is unlikely to have a significant impact on the sea bed.

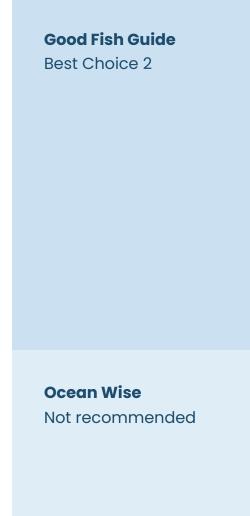
General Notes

- This fishery was covered by the Morocco sardine pelagic trawl and seine FIP, which is now listed as 'INACTIVE' as it did not meet reporting requirements.
- 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 - Sardine, Northwest Africa: Zone A and B (Central), Net (pelagic trawl; purse seine)

| * | Purse seine | Not certified or in a FIP | FishSource Managed | ~ |
|--|-------------|------------------------------|--|---|
| European pilchard Sardina pilchardus | | | | |
| NW Africa central | | | | |
| Fishery countries: Morocco | | | | |
| | | | Seafood Watch Good Alternative | |
| | | | | |



- Available data is still limited, but interactions with ETP species are likely to be low in the purse seine fishery. Commonly reported bycatch in the area includes sharks and rays, sea turtles, marine mammals, and sunfish.
- No more than 3% of the total catch for Moroccan small pelagic fisheries is allowed to comprise bycatch.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

- This fishery was covered by the Morocco sardine pelagic trawl and seine FIP, which is now listed as 'INACTIVE' as it did not meet reporting requirements.
- 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 - Sardine, Northwest Africa: Zone A and B (Central), Net (pelagic trawl; purse seine)

| | Bottom trawl | Not certified or in a FIP | FishSource Managed | ~ |
|---|--------------|------------------------------|-----------------------------------|---|
| European plaice Pleuronectes platessa | | | | |
| Celtic Sea | | | | |
| Fishery countries: United Kingdom | | | | |
| | | | Good Fish Guide Think 3 | |
| | | | | |
| | | | | |

- There are risks to sharks, skates and rays with this fishery.
- Bycatch is a significant risk for this fishery.
- Bottom trawls will directly impact on the sea bed. Some management measures are in place to limit impacts on benthic habitats.

General Notes

• No additional notes.



Environmental Notes

- Bycatch of ETP species is a risk for this fishery, however, available information is limited.
- Bycatch is a risk for this fishery.
- Bottom trawls will directly impact on the sea bed. Some management measures are in place to limit impacts on benthic habitats.

General Notes

References

Good Fish Guide - Plaice, English Channel (East), Bottom trawl (otter)



Environmental Notes

• Profile not yet complete.

General Notes

• No additional notes.



Environmental Notes

- There are risks to ETP species with this fishery including sharks, skates and rays.
- Bycatch is a risk for this fishery.
- Bottom trawls will directly impact on the sea bed. Some management measures are in place to limit impacts on benthic habitats.

 \checkmark

General Notes

References

Good Fish Guide - Plaice, North Sea, Skagerrak, Bottom trawl (otter)

Project UK - Plaice & Lemon Sole

| European plaice Pleuronectes platessa | Bottom trawl | Not certified or in a FIP | FishSource Managed |
|--|--------------|------------------------------|-----------------------------------|
| Western English Channel | | | |
| Fishery countries: United Kingdom | | | |
| | | | Good Fish Guide Think 3 |
| | | | |

- There are risks to ETP species including sharks, skates and rays.
- Bycatch is a risk for this fishery.
- Bottom trawls will directly impact the sea bed. Beam trawls are associated with higher impacts on the sea bed than otter trawls. Some management measures are in place to limit impacts on benthic habitats.

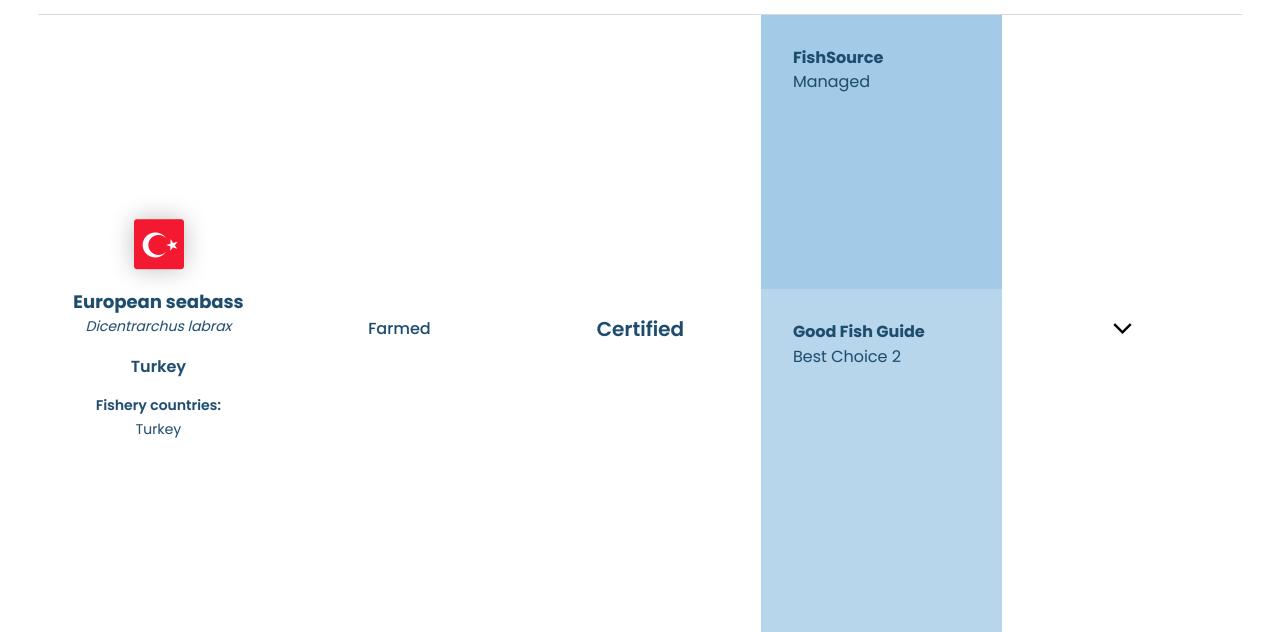
General Notes

• Morrisons has worked with Seafish on an ecological impact assessment for mixed south west fisheries to help improve management of the mixed fisheries this species is sourced from.

References

Good Fish Guide - Plaice, English Channel (West), Bottom trawl (otter)

Good Fish Guide - Plaice, English Channel (West), Bottom trawl (beam)



Environmental Notes

- 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.

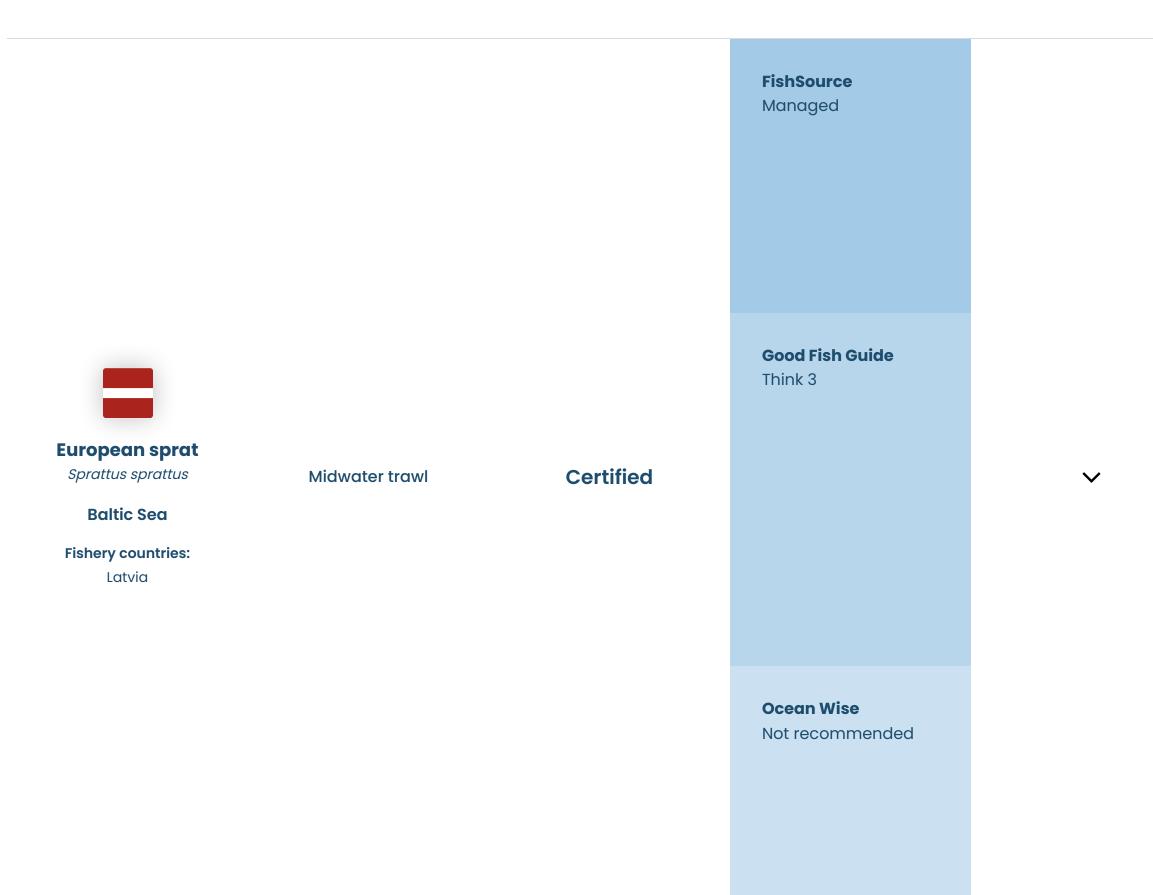
References:

FishSource - seabass/seabream, Turkey

Good Fish Guide - Seabass, European Union and Turkey, Open net pen, marine

<u>Good Fish Guide - Seabass, European Union and Turkey, Open net pen, marine, GlobalG.A.P.</u>

Seafood Watch, July 2020, Gilthead Seabream, European Seabass and Meagre, European Union, Turkey, Egypt



- This fishery is unlikely to impact ETP species.
- Management measures are in place for the main bycatch species, Baltic herring.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• This fishery withdrew from certification after the sourcing period.



Environmental Notes

- This fishery is unlikely to have direct impacts on ETP species.
- Sprat is often caught together with herring, either as the target species or as bycatch.
- 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 is a lack of information on interactions with ETP 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 fishery will form part of Project UK round 3.
- 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



Fishery countries:

United Kingdom

Environmental Notes

- This fishery is unlikely to have direct impacts on ETP 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.

 \star

Giant tiger prawn

Penaeus monodon

Vietnam

Fishery countries:

Vietnam

Farmed

Certified

Good Fish Guide Think 3 \checkmark

Ocean Wise Recommended

FishSource Managed

Seafood Watch Eco-Certification Recommended

Environmental Notes

- Giant tiger prawns are farmed in intensive and extensive systems that may require supplementary inputs of fishmeal and fish oil from marine feed sources.
- Disease transfer and escapes are not a concern as giant tiger prawns are native to Vietnam, therefore lowering the risk to wild populations. However, the use of wild-caught juveniles to supply or supplement the stock on some farms may present a risk.
- Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality. The use of illegal antibiotics is a particular concern.

General Notes

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

References

<u>Good Fish Guide - Tiger prawns, Global, Pond, freshwater, Aquaculture Stewardship Council (ASC)</u>

Good Fish Guide - Tiger Prawn, Vietnam, India, Indonesia, Pond, improved extensive, Pond, semi-intensive



Managed

Seafood Watch Eco-Certification Recommended



Giant tiger prawn

Penaeus monodon

Vietnam

Fishery countries:

Vietnam

Farmed

Certified

Good Fish Guide Think 3 \checkmark

Ocean Wise Not recommended

Environmental Notes

- Giant tiger prawns are farmed in intensive and extensive systems that may require supplementary inputs of fishmeal and fish oil from marine feed sources.
- Disease transfer between farmed and wild prawns is a concern. Although escapes do occur, giant tiger prawns are native to Vietnam, therefore lowering the risk to wild populations. However, the use of wild-caught juveniles to supply or supplement the stock on some farms may present a risk.
- Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality. The use of illegal antibiotics is a particular concern.

General Notes

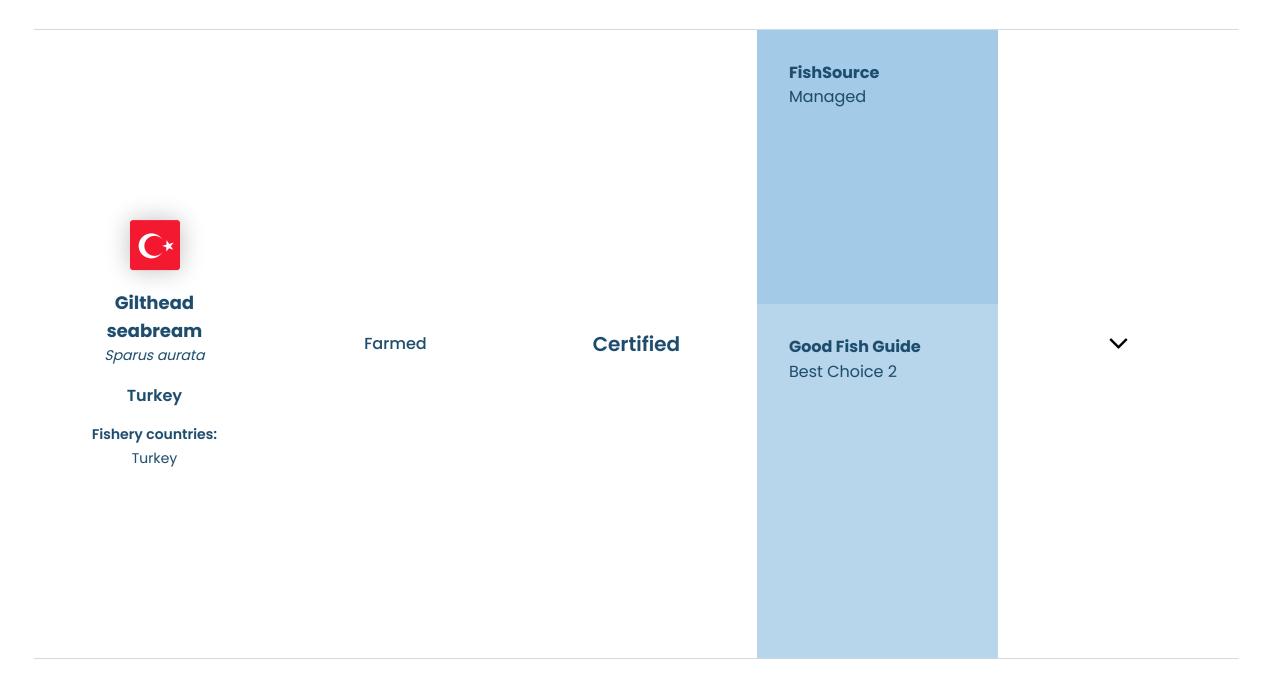
• The environmental impacts described are addressed to some degree by certification.

References

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

Good Fish Guide - Tiger Prawn, Vietnam, India, Indonesia, Pond, improved extensive, Pond, semi-intensive

Seafood Watch, January 2023, Whiteleg Shrimp, Giant Tiger Prawn, Vietnam, Ponds



Environmental Notes

- Bream require fishmeal and fish oil 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

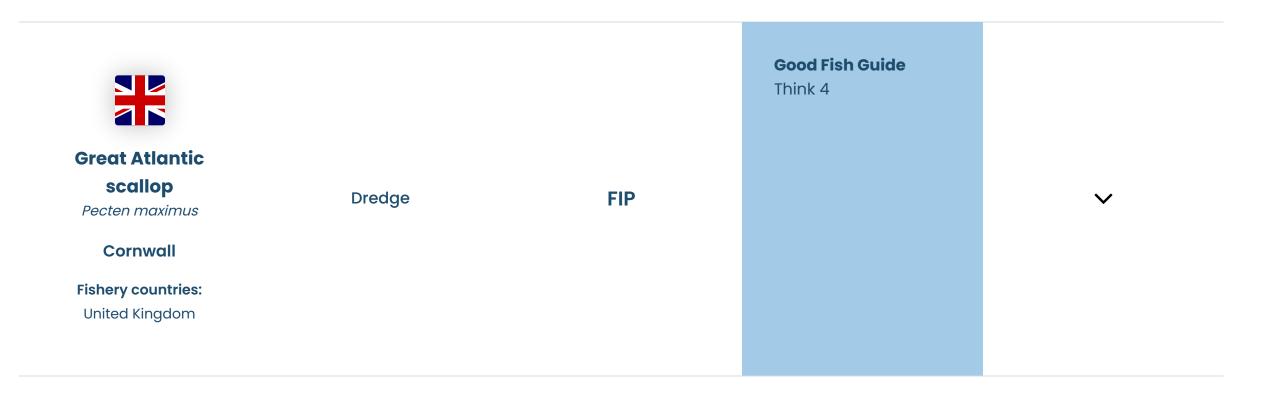
• The environmental impacts described are addressed to some degree by certification.

References:

Good Fish Guide - Gilthead bream, European Union and Turkey, Open net pen, marine

Good Fish Guide - Gilthead bream, European Union and Turkey, Open net pen, marine, GLOBALG.A.P.

Seafood Watch, July 2020, Gilthead Seabream, European Seabass and Meagre, European Union, Turkey, Egypt



Environmental Notes

- The FIP aims to identify interactions with ETP species.
- Information on bycatch is not available for this fishery. The FIP is working to understand the catch composition.
- Benthic impacts are the primary risk in this fishery. The FIP is working to assess the impacts of the fishery on habitats and vulnerable marine ecosystems.

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

Cornwall Good Seafood Guide - Scallop



Haddock Melanogrammus aeglefinus

Barents Sea

Fishery countries: Faroe Islands, Norway, Russia Bottom trawl



Good Fish Guide Think 3 \checkmark

FishSource

Well Managed

Seafood Watch Eco-Certification Recommended



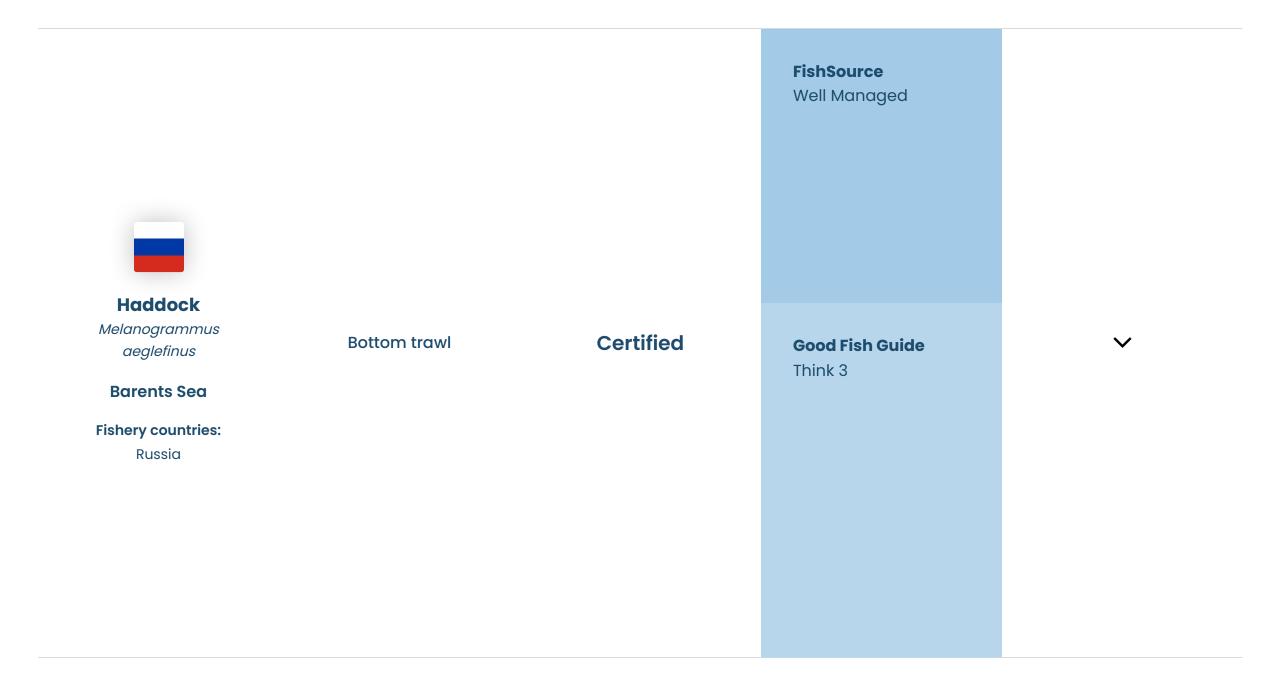
Environmental Notes

- There are significant concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish.
- Bycatch in this fishery is considered low. With some exceptions, all commercial species caught must be retained, recorded and landed.

• 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 significant concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish, but most of the catch is taken by bottom trawls.
- Bycatch in this fishery is considered low. With some exceptions, all commercial species caught must be retained, recorded and landed.
- 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.



Certified

FishSource Well Managed

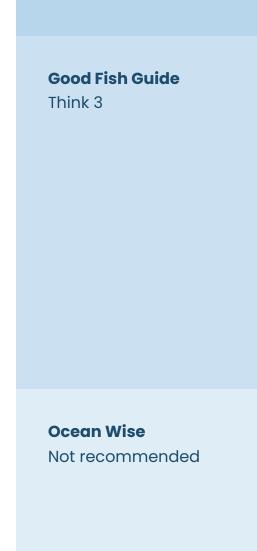
Haddock Melanogrammus aeglefinus

Barents Sea

Fishery countries: United Kingdom

 \checkmark

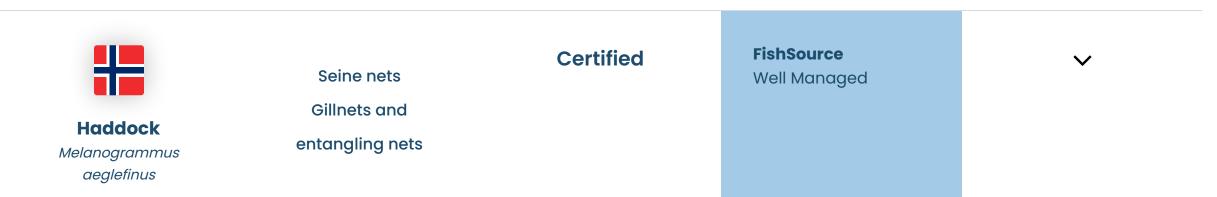
Seafood Watch Eco-Certification Recommended



- There are significant concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish.
- Bycatch in this fishery is considered low. With some exceptions, all commercial species caught must be retained, recorded and landed.
- 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.



Barents Sea

Fishery countries:

Norway

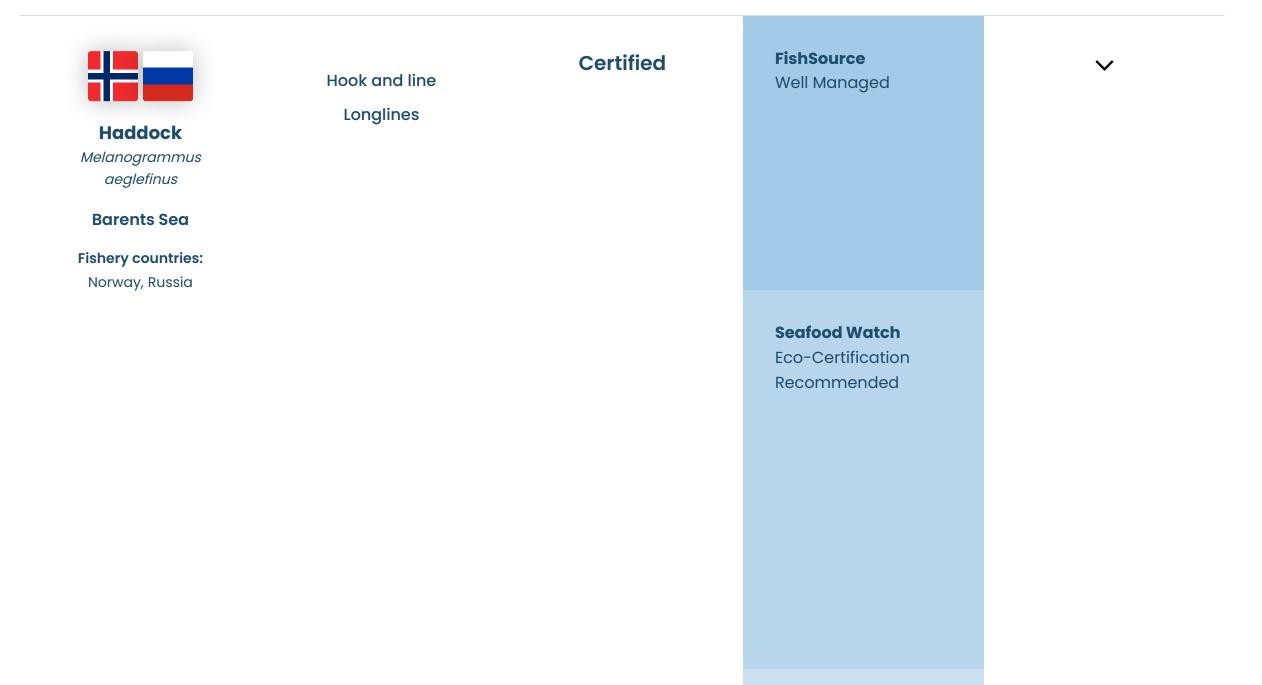
Seafood Watch Eco-Certification Recommended

Ocean Wise Recommended

- There are significant concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish, but most of the catch is taken by bottom trawls.
- Bycatch in this fishery is considered low. With some exceptions, all commercial species caught must be retained, recorded and landed.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.



Good Fish Guide Best Choice 2

Ocean Wise Recommended

- There are significant concerns about the cumulative impacts of the Barents Sea fishery upon the endangered species, golden redfish, but most of the catch is taken by bottom trawls.
- Bycatch in this fishery is considered low. With some exceptions, all commercial species caught must be retained, recorded and landed.
- Longlines are unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.



FishSource

Well Managed



Haddock Melanogrammus aeglefinus

Icelandic

Fishery countries: Iceland Bottom trawl

Seine nets

Certified

Good Fish Guide Best Choice 2 \checkmark

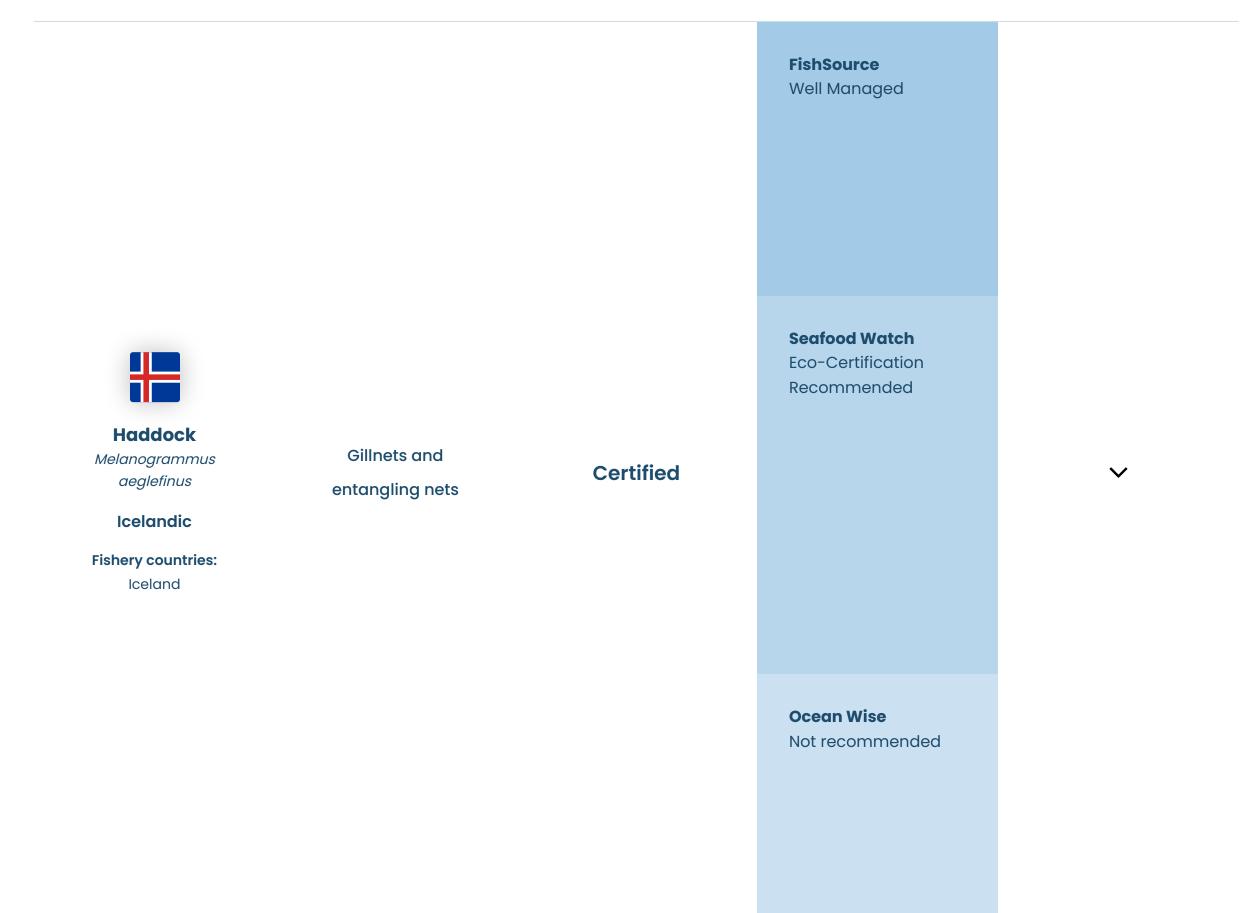
Ocean Wise Recommended

Environmental Notes

- This fishery is unlikely to impact ETP 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

- Interactions with seabirds and marine mammals may occur in the gillnet fishery. Some measures are in place to limit impacts.
- An MSC condition is in place to improve information on bycatch in the gillnet fishery.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Vottunarstofan Tún ehf., April 2017, MSC Public Certification Report for ISF Iceland Haddock Fishery



Fishery countries:

Iceland

Seafood Watch Eco-Certification Recommended

Good Fish Guide Best Choice 2

Ocean Wise Not recommended

- This fishery is unlikely to impact ETP 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

• No additional notes.



• Profile not yet complete.

General Notes

• No additional notes.



Haddock Melanogrammus aeglefinus

North Sea, West of Scotland and Skagerrak

Fishery countries: Denmark, United Kingdom Bottom trawl

Certified

Good Fish Guide Best Choice 2

Well Managed

FishSource

Seafood Watch Eco-Certification Recommended

 \checkmark

Ocean Wise Not recommended

Environmental Notes

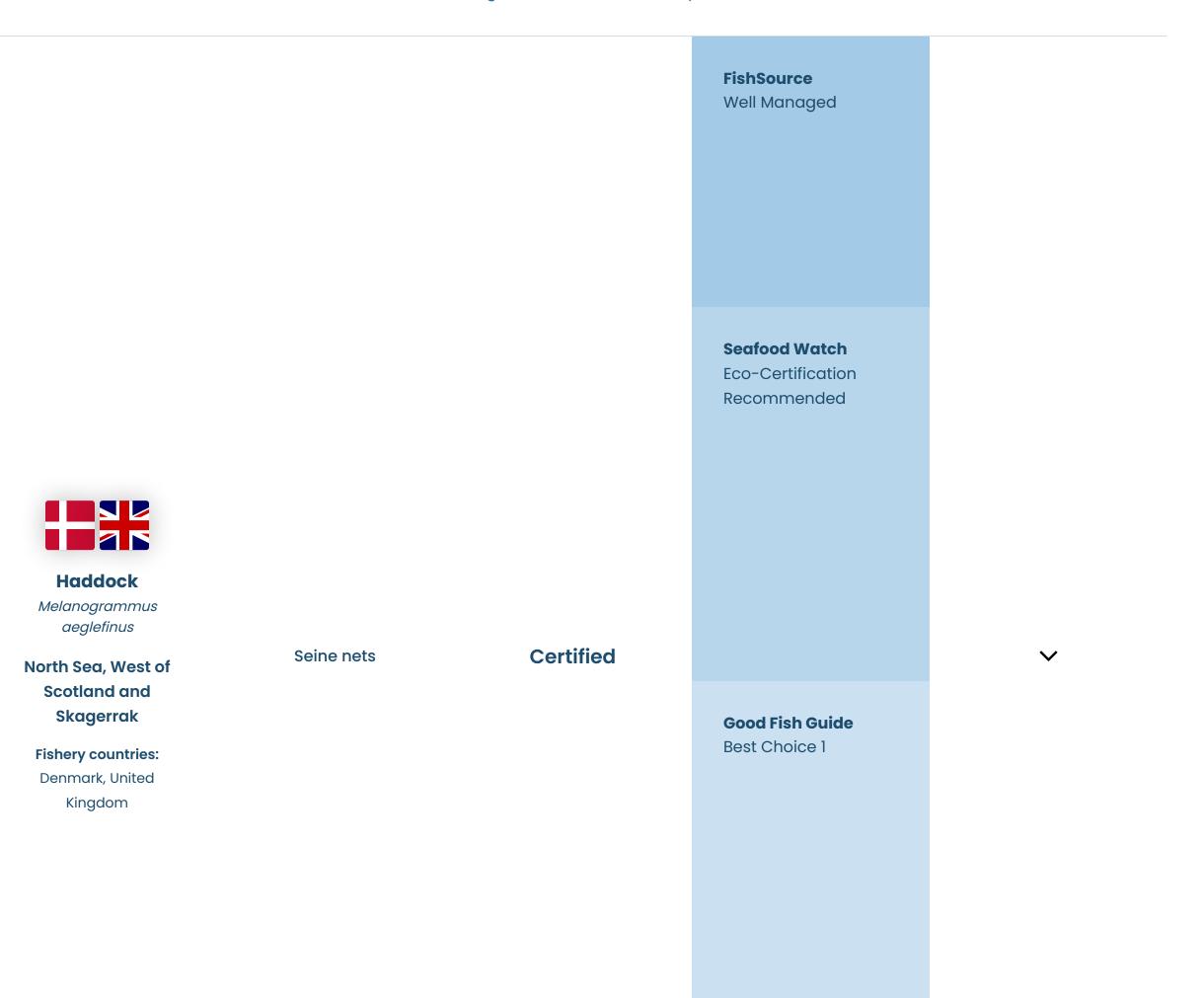
- This fishery is unlikely to impact ETP species.
- There is bycatch for this fishery but management measures are in place to reduce impacts on retained species.
- Bottom trawls will directly impact on the sea bed.

General Notes

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

References

Good Fish Guide - Haddock, North Sea, West of Scotland, Skagerrak: Certified fleets only, Bottom trawl (otter)



Ocean Wise Not recommended

Environmental Notes

- This fishery is unlikely to impact ETP 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. Impacts from seine gear are less than those of bottom trawls.

General Notes

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

References

| Hardenberg's anchovy Stolephorus insularis Thailand Fishery countries: | Purse seine | Not certified or in a FIP | Sustainability not rated | V |
|--|-------------|------------------------------|-----------------------------|---|
| Fishery countries: Thailand | | | | |

• Profile not yet complete.

General Notes

• No additional notes.

| | | | Good Fish Guide Think 4 | |
|--------------------------------------|--------------|---------------------|-----------------------------------|--------------|
| Horned octopus Eledone cirrhosa | Bottom trawl | Not certified or in | | \checkmark |
| British waters | | a FIP | | |
| Fishery countries: United Kingdom | | | | |
| | | | | |

Environmental Notes

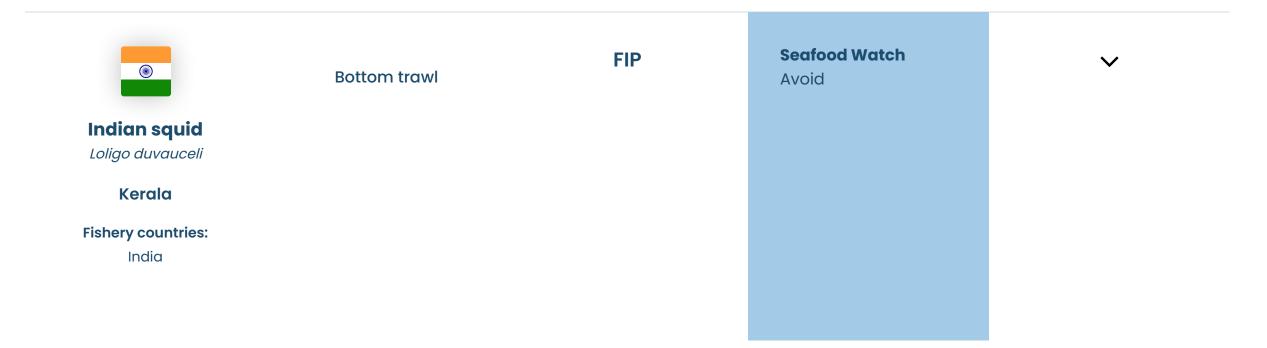
- Profile not yet complete.
- Octopus is caught as bycatch in the trawl fishery.
- Bottom trawls will directly impact on the sea bed.

General Notes

- Morrisons has worked with Seafish on an ecological impact assessment for mixed south west fisheries to help improve management of the mixed fisheries this species is sourced from.
- Sourcing is restricted to Cornwall.

References

Cornwall Good Seafood Guide - Octopus



- The impact of the squid fishery on ETP species is unknown, however, bottom trawls in India are considered a threat to sharks and 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

Seafood Watch Recommendation for Indian Squid, India, Bottom trawls



Environmental Notes

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

General Notes

• No additional notes.

| Japanese flying squid Todarodes pacificus | |
|---|--|
| Todarodes pacificus | |
| | |
| | |
| East China Sea, | |
| Yellow Sea, Sea of | |
| Japan and NW | |
| Pacific Ocean | |
| Fishery countries: Seafood Watch | |
| China Avoid | |

Environmental Notes

- There is no information on the impact of this fishery on ETP 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

• Information on Chinese fisheries targeting Japanese flying squid is very limited.



Environmental Notes

- Bottom trawls can affect ETP species.
- This species is caught as bycatch.
- Bottom trawls will directly impact on the sea bed.

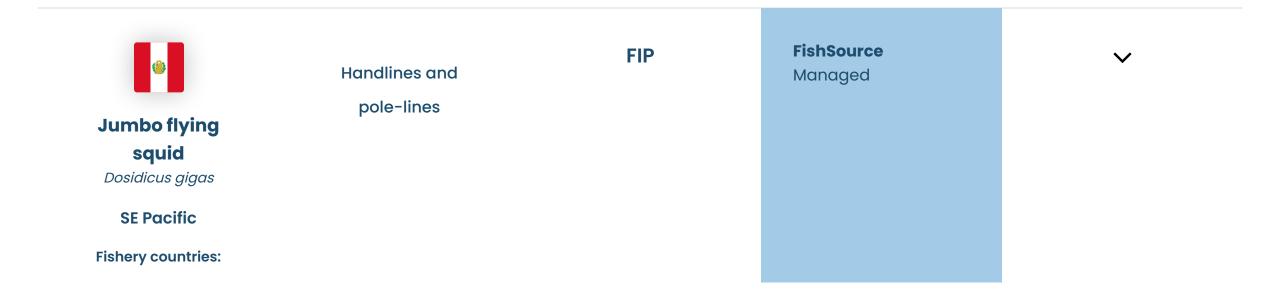
General Notes

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

References

Cornwall Good Seafood Guide - John Dory

Good Fish Guide - John dory, North East Atlantic, All areas, Bottom trawl (otter)



Seafood Watch Good Alternative

Ocean Wise Recommended

Environmental Notes

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

General Notes

References

<u>FisheryProgress - Peruvian jumbo flying squid - jig</u>



Fishery countries:

China

Seafood Watch Good Alternative

Ocean Wise Recommended

- This fishery is unlikely to have a significant impact on ETP species.
- Bycatch in this fishery is considered low but more data is needed to fully understand the risk in all management areas.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

• No additional notes.



Environmental Notes

- There is insufficient information available to assess risks to ETP 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

Project UK - Plaice & lemon sole

FishSource

Needs Improvement

| 2 | |
|---|--|

Lemon sole Microstomus kitt

Western English Channel

Fishery countries: United Kingdom Bottom trawl

Not certified or in a FIP

Good Fish Guide Think 4 \sim

- 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

References

Cornwall Good Seafood Guide - Lemon Sole



Environmental Notes

- This fishery is unlikely to have direct impacts on ETP 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.



West and Southwest of Ireland, Bay of Biscay

> **Fishery countries:** United Kingdom

Good Fish Guide Think 3

Environmental Notes

- Bottom trawls can affect ETP species.
- This species is caught as bycatch.
- Bottom trawls will directly impact on the sea bed.

General Notes

References

Good Fish Guide - Megrim, Celtic Sea, west and southwest of Ireland, Bay of Biscay: All areas, Bottom trawl (otter)



Environmental Notes

- There is insufficient information available to assess risks to ETP species in this fishery.
- Bycatch of non-squid species is likely to be low.
- 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.

References

FisheryProgress - Indonesia North Sumatra squid - handline



- This fishery is unlikely to impact ETP 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

LRQA, December 2022, Shetland and Scottish Mainland Rope Grown Mussel Enhanced Fishery Public Certification Report



Ocean Wise Recommended

Environmental Notes

- This fishery is unlikely to have a significant impact on ETP 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.

Seafood Watch **Eco-Certification**

FishSource

Well Managed



| * | | | E |
|--------------------|--------------|-----------|---|
| Northern prawn | | | |
| Pandalus borealis | Bottom trawl | Certified | |
| Atlantic Canada: | | | |
| SFAs 1-3,7 | | | |
| Fishery countries: | | | |
| Canada | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Recommended

 \checkmark

Ocean Wise Recommended

- The only ETP species recorded in the catch are Atlantic wolffish, spotted wolffish and Northern wolffish. Annual catches are low and the shrimp fishery is unlikely to hinder their recovery.
- Bycatch of non-target species is considered low and mitigation measures are in place.
- Bottom trawls will directly impact on the sea bed. But, the fishery is considered highly unlikely to irreparably reduce habitat structure and function. Management measures are in place to limit impacts on vulnerable habitats.

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.

References

LRQA, June 2022, Canada Northern and Striped Shrimp MSC Public Certification Report

Well Managed

FishSource

Seafood Watch Eco-Certification Recommended



Northern prawn Pandalus borealis

Bottom trawl

Certified

 \checkmark

Barents Sea

Fishery countries: Latvia, Norway Good Fish Guide Best Choice 2

Ocean Wise Recommended

Environmental Notes

- Management measures are in place to limit catch of redfish, which may include the endangered species, golden redfish. While catches are low in this fishery, there are significant concerns about the cumulative impacts of the Barents Sea fisheries upon the golden redfish.
- Bycatch for this fishery is low due to the use of Nordmøre sorting grids and other management measures.
- 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.

References

DNG GL, March 2018, Public Certification Report for the Re-assessment of the Norway North East Arctic cold water prawn fishery

DNV GL, October 2018, Public Certification Report for the Re-assessment of the Estonia North East Arctic cold water prawn fishery



Environmental Notes

• Profile not yet complete.

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.



Fishery countries: United States

Environmental Notes

- Multiple ETP species are found in the Gulf of Maine. However, there is insufficient information on interactions with ETP species in this fishery.
- There is a lack of information on bycatch in this fishery.
- 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.

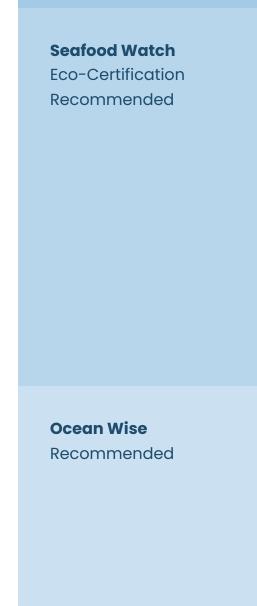


Icelandic inshore and

offshore

Fishery countries:

Iceland



Environmental Notes

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

References

DNV GL, October 2018, Public Certification Report for the Initial assessment of the ISF Iceland Northern shrimp fishery (inshore and offshore).

Northern prawn Pandalus borealis

Western Greenland

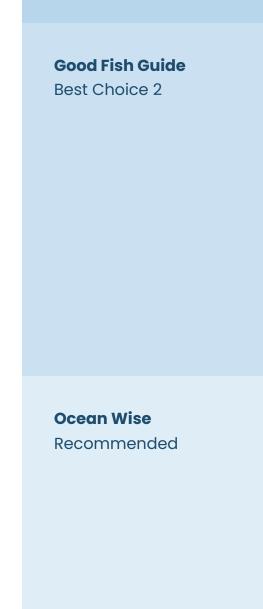
Fishery countries: Greenland **Bottom trawl**

Certified

FishSource Well Managed

 $\mathbf{\vee}$

Seafood Watch Eco-Certification Recommended



- This fishery is unlikely to impact ETP species.
- Bycatch for this fishery is low due to the use of Nordmøre sorting grids and other management measures.
- Bottom trawls will directly impact on the sea bed. Measures are in place to protect vulnerable marine ecosystems.

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.

References

Acoura Marine, August 2018, Public Certification Report for the West Greenland Coldwater prawn fishery



FIP

Seafood Watch Avoid

 \checkmark

Norway lobster

Nephrops norvegicus

Botney Gut- Silver Pit

Fishery countries: United Kingdom

> **Good Fish Guide** Think 4

Environmental Notes

- This fishery is unlikely to impact ETP 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

Good Fish Guide - Scampi or langoustine, Botney Cut to Silver Pit (FU 5):, Bottom trawl (otter), Fishery Improvement Project: Stage 5

| | | | Seafood Watch Avoid | |
|--|--------------|-----|-----------------------------------|---|
| Norway lobster Nephrops norvegicus | Bottom trawl | FIP | Good Fish Guide Think 3 | ~ |

Celtic sea

Fishery countries:

Ireland

Ocean Wise Not recommended

Environmental Notes

• Sharks, skates, and rays may be caught in this fishery.

- Bycatch is a risk for this fishery. Bycatch of Celtic Sea cod is a particular concern. Mitigation measures, including the use of more selective gears, have been implemented across around half of the Irish fleet to reduce unwanted catch.
- Bottom trawls will directly impact on the sea bed. However, management measures are in place.

General Notes

References

Fishery Progress - Ireland Area 7 prawn - trawl

Good Fish Guide - Scampi or langoustine, Labadie, Jones and Cockburn (FU 20-21), Bottom trawl (otter), Fishery Improvement Project: Stage 4



Ocean Wise Not recommended

Environmental Notes

- Sharks, skates, and rays may be caught in this fishery.
- Bycatch is a risk for this fishery. Bycatch of cod is a particular concern.
- 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

<u>Good Fish Guide - Scampi or langoustine, Devil's Hole (FU 34), Bottom trawl (otter), Fishery Improvement Project: Stage 5</u>

<u>Good Fish Guide - Scampi or langoustine, South Minch (FU 12), Bottom trawl (otter), Fishery Improvement Project: Stage 5</u>



Ocean Wise Not recommended

Environmental Notes

- Sharks, skates, and rays may be caught in this fishery.
- Bycatch is a risk for this fishery. Bycatch of cod is a particular concern.
- 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 - Scampi or langoustine, Farn Deeps (FU 6), Bottom trawl (otter), Fishery Improvement Project: Stage 5



- Sharks, skates, and rays may be caught in this fishery.
- Bycatch is a risk for this fishery. Bycatch of cod is a particular concern. Mitigation measures, including the use of more selective gears, have been implemented in Fladen Ground to reduce unwanted catch.
- Bottom trawls will directly impact on the sea bed. However, management measures are in place.

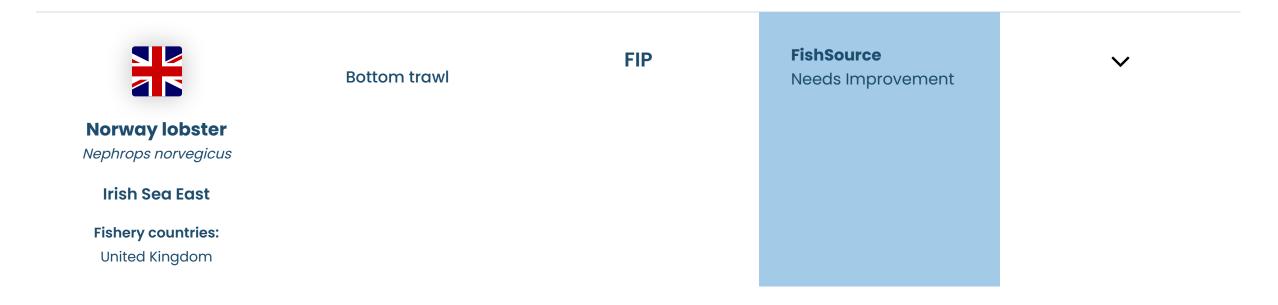
General Notes

References

Fishery Progress - UK Norway lobster - bottom trawl and creel

Good Fish Guide - Scampi or langoustine, Firth of Forth (FU 8), Bottom trawl (otter), Fishery Improvement Project: Stage 5

Good Fish Guide - Scampi or langoustine, Fladen Ground (FU 7), Bottom trawl (otter), Fishery Improvement Project: Stage 5



Seafood Watch Avoid

Good Fish Guide Think 3

Ocean Wise Not recommended

Environmental Notes

- Sharks, skates, and rays may be caught in this fishery.
- Bycatch is a risk for this fishery. Bycatch of Irish Sea cod and whiting is a particular concern.
- Bottom trawls will directly impact on the sea bed. Although the fishing area overlaps with a marine conservation zone, no management measures are in place to control fishing in the area.

General Notes

References

Fishery Progress - UK Norway lobster - bottom trawl and creel

Good Fish Guide - Scampi or langoustine, Irish Sea East (FU 14), Bottom trawl (otter), Fishery Improvement Project: Stage 4





Environmental Notes

- Sharks, skates, and rays may be caught in this fishery.
- Bycatch is a risk for this fishery. Bycatch of Irish Sea cod and whiting is a particular concern.
- Bottom trawls will directly impact on the sea bed.

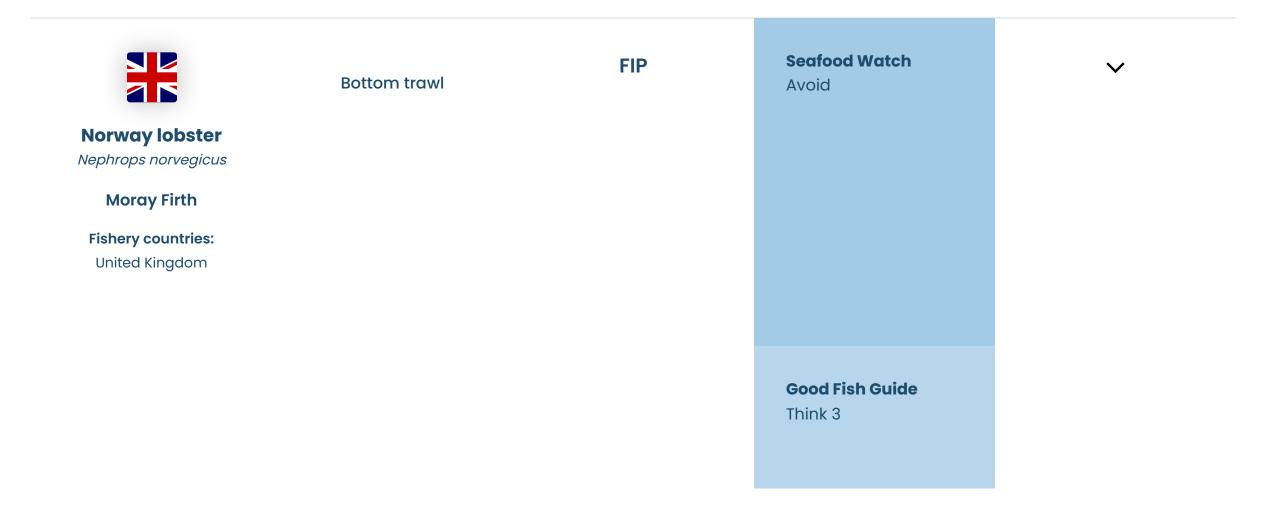
General Notes

References

<u>Fishery Progress - Ireland Area 7 prawn - trawl</u>

Fishery Progress - UK Norway lobster - bottom trawl and creel

Good Fish Guide - Scampi or langoustine, Irish Sea West (FU 15), Bottom trawl (otter), Fishery Improvement Project: Stage 4



Environmental Notes

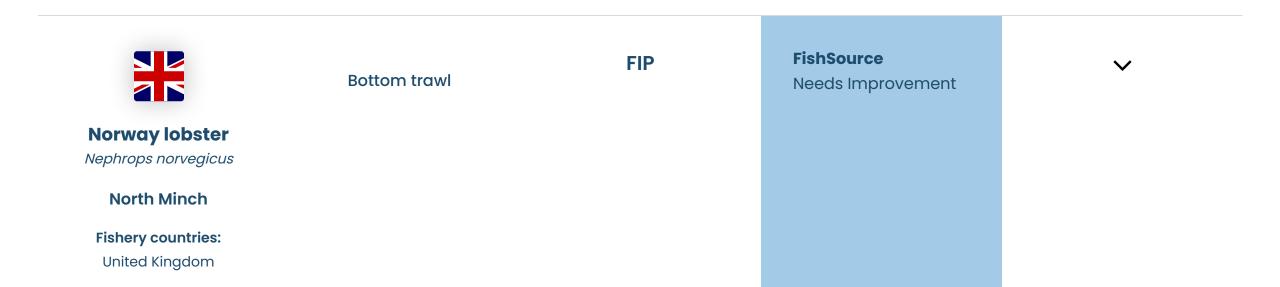
- Sharks, skates, and rays may be caught in this fishery.
- Bycatch is a risk for this fishery. Bycatch of cod is a particular concern in the Moray Firth.
- Bottom trawls will directly impact on the sea bed.

General Notes

References

Fishery Progress - UK Norway lobster - bottom trawl and creel

<u>Good Fish Guide - Scampi or langoustine, Moray Firth (FU 9), Bottom trawl (otter), Fishery Improvement Project: Stage 5</u>



Seafood Watch Avoid

Good Fish Guide Think 3

Environmental Notes

- Sharks, skates, and rays may be caught in this fishery.
- Bycatch is a risk for this fishery. Bycatch of West of Scotland juvenile cod is a particular concern.
- Bottom trawls will directly impact on the sea bed. However, management measures are in place.

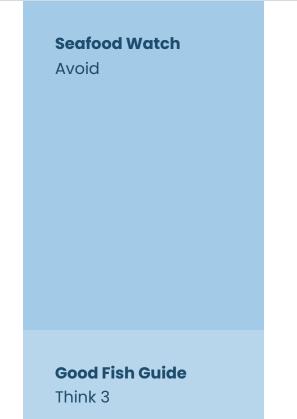
General Notes

References

Fishery Progress - UK Norway lobster - bottom trawl and creel

<u>Good Fish Guide - Scampi or langoustine, North Minch (FU 11), Bottom trawl (otter), Fishery Improvement Project: Stage 5</u>

FIP





| Norway | lobster | |
|--------|---------|--|
| | | |

Nephrops norvegicus

Bottom trawl

Noup

Fishery countries: United Kingdom

> Ocean Wise Not recommended

- Sharks, skates, and rays may be caught in this fishery.
- Norway lobster in the Noup is caught as bycatch by fishing vessels targeting whitefish. This fishery uses fishing gear with a larger mesh size that results in less risk of bycatch than in other fisheries catching Norway lobster.
- Bottom trawls will directly impact on the sea bed. However, management measures are in place.

General Notes

References

<u>Fishery Progress - UK Norway lobster - bottom trawl and creel</u> <u>Good Fish Guide - Scampi or langoustine, Noup (FU 10), Bottom trawl (otter), Fishery Improvement Project: Stage 5</u>

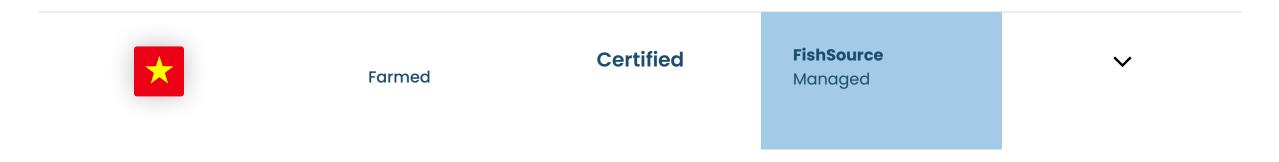


Environmental Notes

- This fishery is unlikely to have significant impacts on ETP species.
- Bycatch in this fishery is considered low and vessels use bycatch reduction devices.
- Bottom trawls directly impact on the seabed. But vessels in the fishery have taken steps to reduce their habitat impact by using gear technology and areas closures are in place to protect vulnerable marine habitats.

General Notes

• No additional notes.



Pangas catfishes nei (multispecies)

Pangasius spp.

Vietnam

Fishery countries:

Vietnam

Seafood Watch Eco-Certification Recommended

Good Fish Guide Best Choice 2

Ocean Wise Recommended

Environmental Notes

- Small inputs of fishmeal and fishoil from marine feed sources are required. Feed inputs are not required to be certified as sustainable or responsibly sourced.
- Pangasius is native to the Mekong and therefore escaped fish are unlikely to have direct impacts on local ecosystems. However, the effects of disease on pangasius farms upon wild fish populations is unknown. Juveniles used in pangasius farming come from Vietnamese hatcheries and the trade of wild-caught broodstock is limited.
- Pollution from nutrients and organic matter occurs on a relatively small scale when compared to the wider nutrient load in the Mekong. Nevertheless, the cumulative input of effluent from pond water exchange and the disposal of pond sludge contributes to the region's pollution problem. The improper disposal of sludge waste from pond bottoms is especially problematic. Environmental issues are mitigated by the certification standards but discharge limits need improvement. Chemical inputs to Vietnamese pangasius culture are high and there are concerns about the use of antibiotics important to human health.

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

<u>Good Fish Guide - Basa (Pangasius bocourti & Pangasius hypophthalmus), Global, Aquaculture Stewardship Council (ASC)</u>



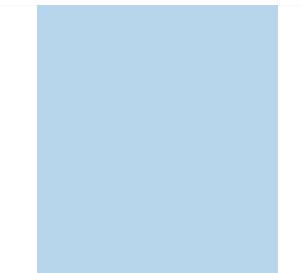
- This fishery is unlikely to impact ETP species.
- Bycatch for this fishery is considered low.
- Bottom trawls will directly impact on the sea bed. However, management measures are in place, including the use of area closures to protect vulnerable habitats.

General Notes

References

Organización Internacional Agropecuaria S.A. (OIA), September 2020, Public Certification Report Assessment against MSC Principles and Criteria for: Patagonian Scallop Bottom Otter Trawl Fishery in Argentine Sea





- 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, Aquaculture Stewardship Council Certified: Bivalve Standard

| Pink salmon Oncorhynchus gorbuscha Alaska Fishery countries: United States | Purse seine Seine nets Gillnets and entangling nets | Certified | FishSource Well Managed | ~ |
|---|--|-----------|--|---|
| | | | Seafood Watch Eco-Certification Recommended | |

Good Fish Guide Best Choice 2

- While encounters with marine mammals and birds have been documented in this fishery, the impact on ETP 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

MRAG Americas, April 2019, MSC 3rd Reassessment Report for Alaska Salmon Fishery



Environmental Notes

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

General Notes

• Catches of pink salmon generally comprise a small proportion of the total salmon harvest in the Kamchatka River fishery and are incidental

to the catch of other species.

References

MRAG Americas, 01 August 2022, Kamchatka River Salmon Fishery Announcement Comment Draft Report



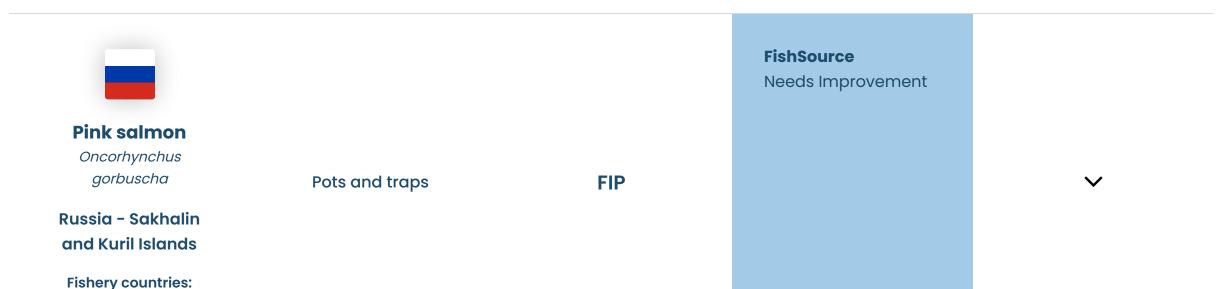


- While interactions with marine mammals have been documented in this fishery, entanglement in fishing gear is unlikely, and the impact on ETP species is not thought to be significant. Overall, few ETP species are present in the fishery area.
- Bycatch for this fishery is considered low. Salmon species account for the majority of the catch. No significant bycatch of seabirds has been observed but there is a risk that some entanglement of seabirds in the fishing gear may occur.
- This fishery is unlikely to have a significant impact on the benthic habitat.

General Notes

References

SCS Global Services, February 2021, MSC Public Certification Report for Iturup Pink & Chum Salmon Fisheries





Environmental Notes

- Impacts on ETP species are thought likely to be low but more data is needed to assess significance.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the benthic habitat.

General Notes

References

Fishery Progress - Russia Kunashir salmon - trap/net

ForSea Solutions, March 2021, MSC Preassessment of the Kunashir Island salmon fishery



Trisopterus luscus

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 has worked with Seafish on an ecological impact assessment for mixed south west fisheries to help improve management of the mixed fisheries this species is sourced from.



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.
- The industry follows a zonal approach to aquaculture management with respect to planning, siting, licensing, and operation.

References

Good Fish Guide - Rainbow trout, UK, Norway, Turkey, Pond, freshwater, GLOBALG.A.P.



- 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

- Production is certified to the British Quality Trout standard (a non-GSSI recognised aquaculture certification standard).
- The industry follows a zonal approach to aquaculture management with respect to planning, siting, licensing, and operation.



Environmental Notes

- No protected species are affected by the fishery.
- Bycatch is a risk for this fishery.
- Fyke nets have minimal benthic impact.

General Notes

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



Handlines and

Some product from FIP fisheries **FishSource** Managed



pole-lines

Skipjack tuna Katsuwonus pelamis

Eastern Atlantic Ocean

Fishery countries:

Ghana

Seafood Watch Good Alternative

Good Fish Guide Best Choice 2

Ocean Wise Not recommended

Environmental Notes

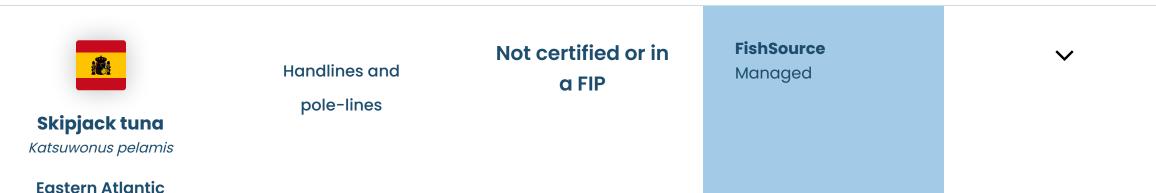
- This fishery is unlikely to impact ETP species.
- Bycatch for this fishery is considered low. But the use of live fish for bait may affect baitfish populations.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

<u>FisheryProgress - Ghana tuna - pole & line</u>

<u>Good Fish Guide - Skipjack tuna, East Atlantic, Hook & line (pole & line), Hook & line (troll)</u>



Ocean

Fishery countries:

Spain

Seafood Watch Good Alternative

Good Fish Guide

Best Choice 2



- This fishery is unlikely to impact ETP species.
- Bycatch for this fishery is considered low. But the use of live fish for bait may affect baitfish populations.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

<u>Good Fish Guide - Skipjack tuna, East Atlantic, Hook & line (pole & line), Hook & line (troll)</u>



Seafood Watch Good Alternative

Good Fish Guide Think 4

Ocean Wise Not recommended

Environmental Notes

- Catch of sharks is a concern. In addition, there are risks to sea turtles with this fishery, but management measures are in place.
- Bycatch is a risk in this fishery. The risk of bycatch in unassociated (FAD-free) purse seine fisheries is lower than in associated purse seine fisheries.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

FisheryProgress - Eastern Pacific Ocean bigeye and skipjack tuna - purse seine (TUNACONS)

FisheryProgress - Eastern Pacific Ocean tuna - purse seine (Marpesca)

FisheryProgress - Eastern Pacific Ocean yellowfin tuna - purse seine (OPAGAC)



Good Fish Guide Best Choice 2

- This fishery is unlikely to impact ETP species.
- Bycatch for this fishery is considered low. But the use of live fish for bait may affect baitfish populations.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

FisheryProgress, Indonesia Indian Ocean skipjack tuna - pole & line

| | | | FishSource Well Managed | |
|---|--------------------------|-----------|---|---|
| | | | Good Fish Guide Best Choice 2 | |
| Skipjack tuna Katsuwonus pelamis Indian Ocean | Handlines and pole-lines | Certified | | ~ |

Fishery countries:

Maldives

Ocean Wise Recommended

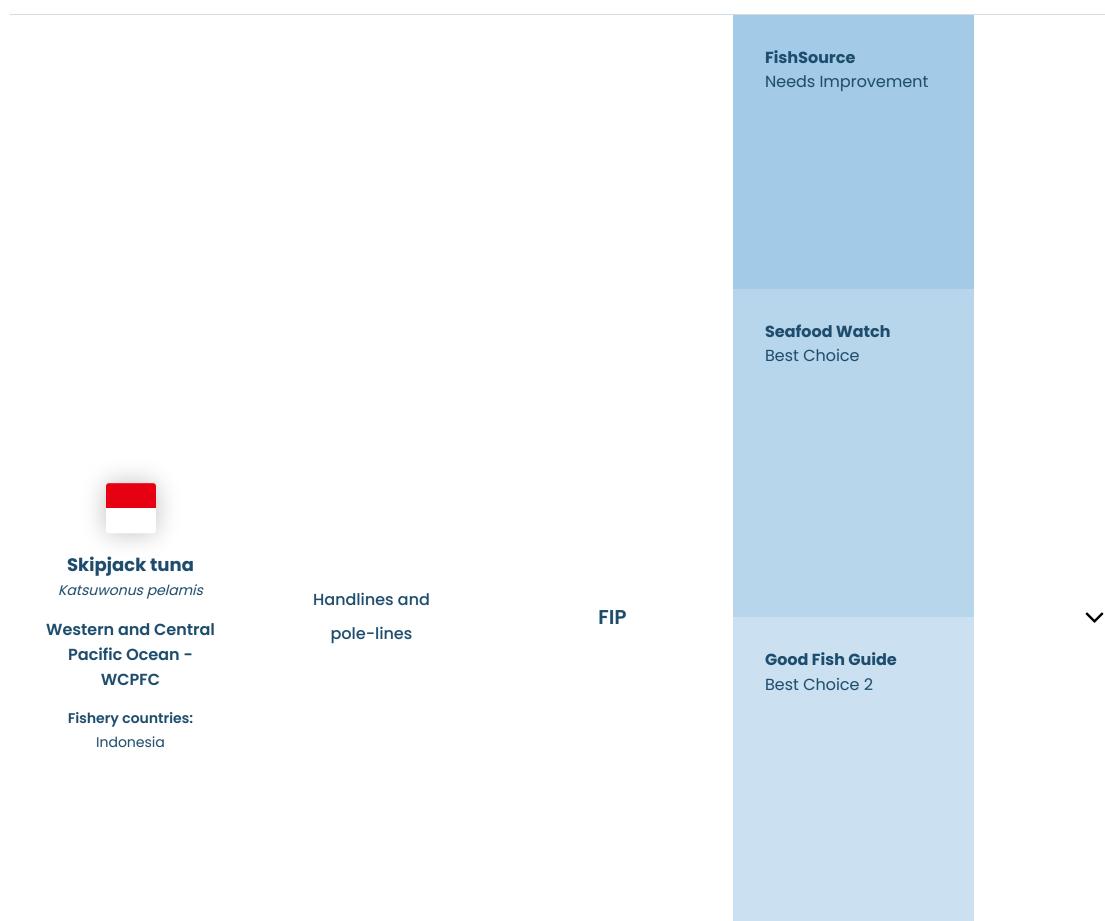
Environmental Notes

- This fishery is unlikely to impact ETP species.
- Bycatch for this fishery is considered low. There is some catch of yellowfin tuna but management measures are in place. The use of live baitfish is monitored and the Maldives has a livebait management plan.
- This fishery is unlikely to have a significant impact on the sea bed.

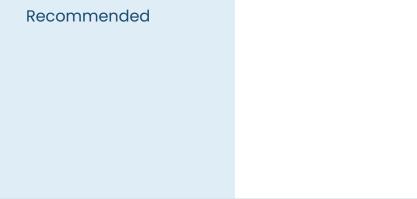
General Notes

References

Good Fish Guide - Skipjack tuna, Indian Ocean: Certified fleets only (Maldives), Hook & line (pole & line)



Ocean Wise



Environmental Notes

- This fishery is unlikely to impact ETP species.
- Bycatch for this fishery is considered low. But the use of live fish for bait may affect baitfish populations.
- 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

Skipjack tuna Katsuwonus pelamis

Western and Central Pacific Ocean -WCPFC

> Fishery countries: Indonesia

Handlines and

pole-lines

FIP

FishSource Needs Improvement

Seafood Watch Best Choice

Good Fish Guide Best Choice 2 \checkmark

Ocean Wise Recommended

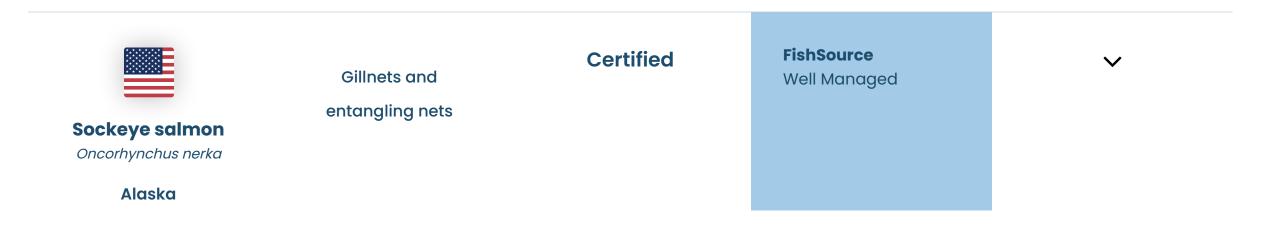
Environmental Notes

- This fishery is unlikely to impact ETP species.
- Bycatch for this fishery is considered low. But the use of live fish for bait may affect baitfish populations.
- 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



Fishery countries:

United States

Seafood Watch Eco-Certification Recommended

Good Fish Guide Best Choice 2

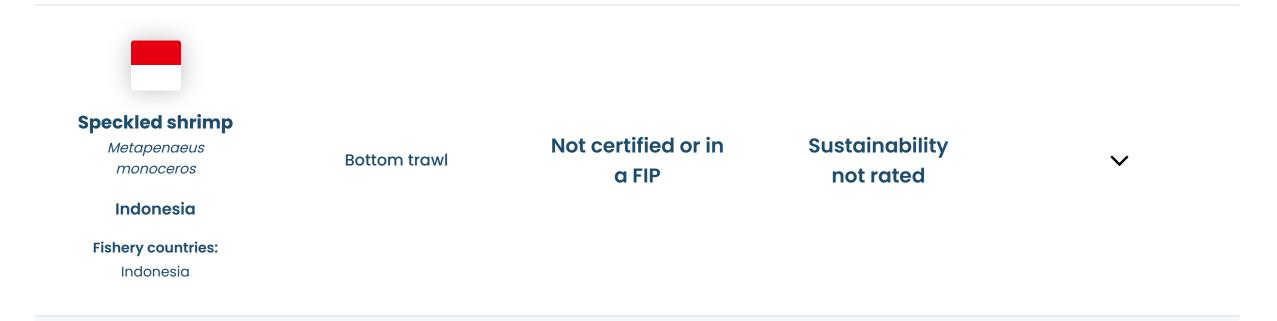
Ocean Wise Not recommended

- This fishery is unlikely to impact ETP 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, April 2019, MSC Public Certification Report for the Alaska Salmon Fishery



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

General Notes

• No additional notes.



Striped catfish

Pangasianodon hypophthalmus

Farmed

Certified

Vietnam

Fishery countries: Vietnam **Good Fish Guide** Best Choice 2 \checkmark

FishSource Managed

Seafood Watch Eco-Certification Recommended



Environmental Notes

- Small inputs of fishmeal and fishoil from marine feed sources are required. Feed inputs are not required to be certified as sustainable or responsibly sourced.
- Pangasius is native to the Mekong and therefore escaped fish are unlikely to have direct impacts on local ecosystems. However, the effects of disease on pangasius farms upon wild fish populations is unknown. Juveniles used in pangasius farming come from Vietnamese

hatcheries and the trade of wild-caught broodstock is limited.

 Pollution from nutrients and organic matter occurs on a relatively small scale when compared to the wider nutrient load in the Mekong. Nevertheless, the cumulative input of effluent from pond water exchange and the disposal of pond sludge contributes to the region's pollution problem. The improper disposal of sludge waste from pond bottoms is especially problematic. Environmental issues are mitigated by the certification standards but discharge limits need improvement. Chemical inputs to Vietnamese pangasius culture are high and there are concerns about the use of antibiotics important to human health.

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

<u>Good Fish Guide - Basa (Pangasius bocourti & Pangasius hypophthalmus), Global, Aquaculture Stewardship Council (ASC)</u>

<u>Seafood Watch Recommended Eco-Certifications for farmed pangasius, Vietnam, Aquaculture Stewardship Council Certified</u>



| Wellington flying squid Nototodarus sloanii NZ Southern Islands | Bottom trawl | Not certified or in a FIP | Sustainability not rated | ~ |
|--|--------------|------------------------------|-----------------------------|---|
| Fishery countries: New Zealand | | | | |

Environmental Notes

- The fishery interacts with marine mammals and seabirds but there are management measures in place.
- Information on bycatch is limited.
- 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.

References

OpenSeas New Zealand, May 2019, Arrow squid



Whiteleg shrimp Penaeus vannamei

Honduras

Fishery countries: Honduras Farmed

Certified

FishSource Managed

Seafood Watch Eco-Certification Recommended



- The use of wild fish in Honduran shrimp feed inputs is low.
- Disease transfer between farmed and wild prawns is a concern for the region but the low stocking densities used in Honduras help to reduce the risk of outbreaks. 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.
- Feed and chemical inputs are limited, thereby reducing the risk of impacts on local water quality. Impacts 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:

FishSource - shrimp, Honduras

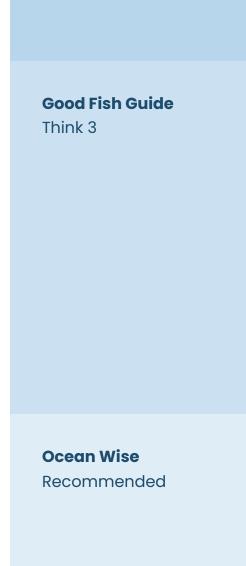
<u>Good Fish Guide - King prawn, South America: Ecuador and Honduras, Pond, semi-intensive</u>

<u>Good Fish Guide - King prawn, Global, Pond, freshwater, Aquaculture Stewardship Council (ASC)</u>

Seafood Watch, July 2015, Farmed Whiteleg Shrimp, Honduras, Ponds

Seafood Watch, Whiteleg shrimp, Worldwide, Aquaculture Stewardship Council Certified Shrimp Standard





- Fishmeal and fish oil from marine feed sources are used. Certification criteria encourage the use of responsibly sourced marine products in feed. But there is little transparency on the ingredients used in feed across the sector.
- 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 but there is no evidence of the species becoming established in the wild.
- 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. The use of antibiotics important to human health and continued use of illegal antibiotics is a concern.

General Notes

- The environmental impacts described are addressed to some degree by certification.
- The aquaculture industry is currently managed under a farm-based approach. Shrimp farms are managed by the Coastal Aquaculture Authority through the Coastal Aquaculture Authority (CAA) Act and Guidelines, which acknowledge the importance of zonal management.

References

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

Good Fish Guide - King prawn, Asia: Vietnam, India and Indonesia, Pond, semi-intensive and intensive

<u>Good Fish Guide - King prawn, Global, Pond, freshwater, Aquaculture Stewardship Council (ASC)</u>

Seafood Watch, October 2021, Whiteleg Shrimp, Giant Tiger Prawn, India, Ponds

Seafood Watch, Whiteleg shrimp, Worldwide, Aquaculture Stewardship Council Certified Shrimp Standard

| | Farmed | Certified | FishSource Managed | \checkmark |
|-----------------|--------|-----------|------------------------------|--------------|
| Whiteleg shrimp | | | | |

Indonesia

Fishery countries:

Indonesia

Seafood Watch Eco-Certification Recommended

Good Fish Guide Think 3

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:

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

Seafood Watch Recommended Eco-Certifications for Whiteleg shrimp, Farmed

Whiteleg shrimp

Penaeus vannamei

Nicaragua

Fishery countries: Nicaragua

Farmed

Certified

Good Fish Guide Think 3

V

Ocean Wise Recommended

Managed

Seafood Watch **Eco-Certification** Recommended

FishSource

Environmental Notes

- Most shrimp culture in Nicaragua relies on inputs of fishmeal and fish oil from marine feed sources. The sustainability of source fisheries is unknown, but certification criteria encourage the use of responsibly sourced marine products in feed.
- Habitat conversion for Nicaraguan shrimp farms has affected areas important to shore birds. Escapes can occur during water exchanges and flooding incidences. Shrimp farmed in Nicaragua are native to the country and interbreeding with wild populations may result in reduced genetic fitness. Information on the use of wild shrimp populations as a source of stock is limited. Disease transfer from farmed shrimp to wild shrimp populations in Nicaragua has not been reported.
- 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.

General Notes

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

References:

<u>Good Fish Guide - King prawn, Global, Aquaculture Stewardship Council (ASC)</u>

Seafood Watch, November 2018, White-leg shrimp, Nicaragua, Ponds





Whiteleg shrimp Penaeus vannamei

Thailand

Fishery countries: Thailand

Farmed

Certified

Ocean Wise



V

Environmental Notes

- Fishmeal and fishoil 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 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.
- Shrimp farming is restricted to designated shrimp aquaculture zones, however, the cumulative impact of multiple farms does not appear to have been considered.

References:

FishSource - Shrimp, Thailand

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

Seafood Watch, July 2020, Whiteleg Shrimp, Thailand, Intensive ponds

Seafood Watch Recommended Eco-Certifications for Whiteleg shrimp





Whiteleg shrimp Penaeus vannamei

Farmed

Vietnam

Fishery countries: Vietnam Certified

Good Fish Guide Think 3 \checkmark



Environmental Notes

- Fishmeal and fish oil from marine feed sources are used. Certification criteria encourage the use of responsibly sourced marine products in feed. But there is little transparency on the ingredients used in feed across the sector.
- 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 escape but there is no evidence of the species becoming established in the wild.

• Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality. Intensive shrimp farms with higher nutrient inputs produce more waste and are associated with greater concerns around pollution. The use of antimicrobials important to human health and evidence of continued use of illegal antimicrobials is a concern.

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, Asia: Vietnam, India and Indonesia, Pond, semi-intensive and intensive

Good Fish Guide - King prawn, Global, Pond, freshwater, Aquaculture Stewardship Council (ASC)

Seafood Watch, January 2023, Whiteleg Shrimp, Giant Tiger Prawn, Vietnam, Ponds

Seafood Watch, Whiteleg shrimp, Worldwide, Aquaculture Stewardship Council Certified Shrimp Standard



Seafood Watch Eco-Certification Recommended



Whiteleg shrimp Penaeus vannamei

Farmed

Certified

Vietnam

Good Fish Guide

Fishery countries:

Vietnam

Think 3

Ocean Wise Not recommended

- Fishmeal and fish oil from marine feed sources are used. Certification criteria encourage the use of responsibly sourced marine products in feed. But there is little transparency on the ingredients used in feed across the sector.
- 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 escape but there is no evidence of the species becoming established in the wild.
- Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality. Intensive shrimp farms with higher nutrient inputs produce more waste and are associated with greater concerns around pollution. The use of antimicrobials important to human health and evidence of continued use of illegal antimicrobials is a concern.

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 Seafood Alliance Best Aquaculture Practices (GAA BAP) 2-3*

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

Seafood Watch, January 2023, Whiteleg Shrimp, Giant Tiger Prawn, Vietnam, Ponds

Seafood Watch Recommended Eco-Certifications for Whiteleg shrimp



Environmental Notes

- This fishery is unlikely to have a significant impact on ETP species.
- Bycatch is a risk in this fishery, but measures are in place to reduce bycatch.
- Bottom trawls will directly impact on the sea bed.

General Notes

References

SFSAG Northern Demersal Stocks

Yellowfin tuna *Thunnus albacares*

Indian Ocean

Fishery countries: Maldives

Handlines and

pole-lines

FIP

FishSource Needs Improvement

Seafood Watch Avoid

Good Fish Guide Think 4 \checkmark

Ocean Wise Not recommended

Environmental Notes

- Interactions with ETP species are generally low, although some bycatch of sharks can occur.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Fishery Progress - Maldives yellowfin tuna - handline

<u>Good Fish Guide - Yellowfin tuna, Indian Ocean: All areas, Hook & line (handline)</u>



Indian Ocean

Fishery countries:

Sri Lanka

Seafood Watch Avoid

Good Fish Guide Avoid 5

Ocean Wise Not recommended

Environmental Notes

- There are risks to seabirds, sea turtles and marine mammals 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

References

Fishery Progress - Sri Lanka tuna and swordfish - longline

Good Fish Guide - Yellowfin tuna, Indian Ocean: FIP participants only, Hook & line (longline)



Good Fish Guide Think 3

Ocean Wise Not recommended

Environmental Notes

- There is a risk to ETP species with this fishery.
- Bycatch for this fishery includes billfish and other tuna species, and sharks.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Good Fish Guide, Yellowfin tuna, Western and Central Pacific, Net (purse seine on aggregating devices or free-schooling fish)



Fishery countries:

South Korea

Good Fish Guide Think 3

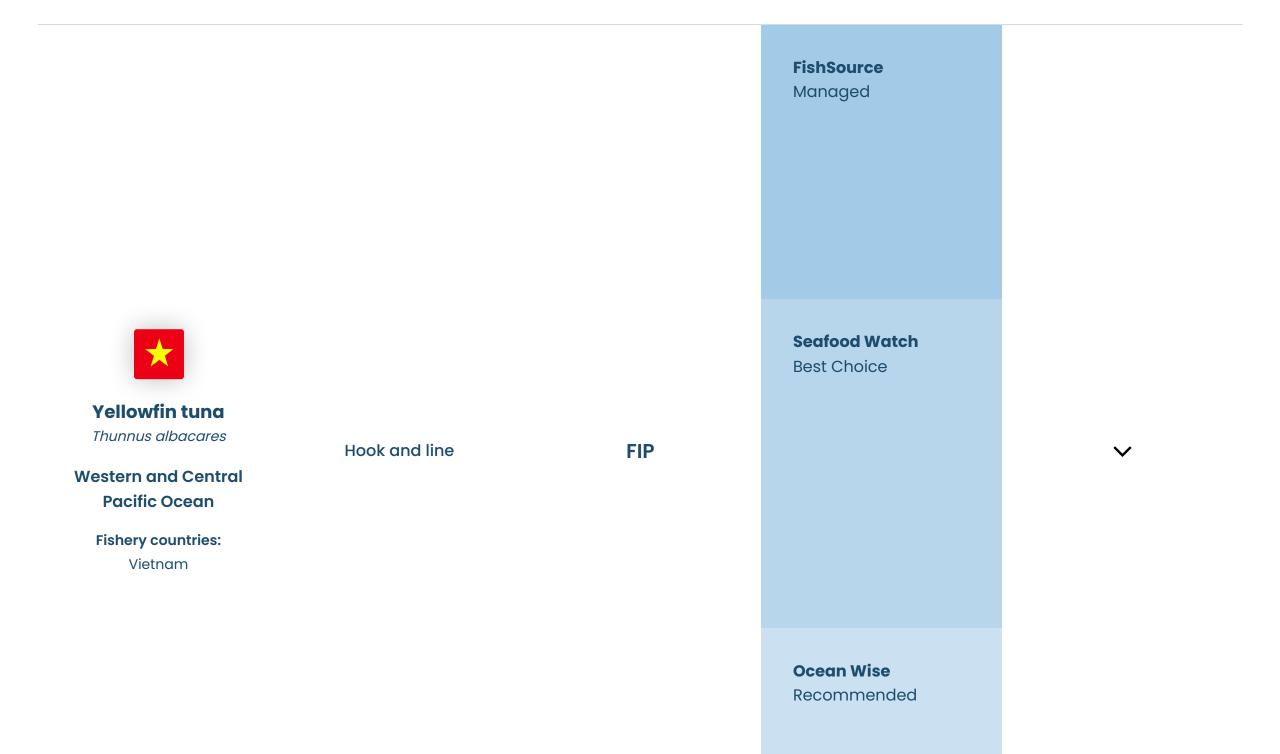
Ocean Wise Not recommended

- There is a risk to ETP species with this fishery.
- Bycatch for this fishery includes billfish and other tuna species, and sharks.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Good Fish Guide, Yellowfin tuna, Western and Central Pacific, Net (purse seine on aggregating devices or free-schooling fish)



Environmental Notes

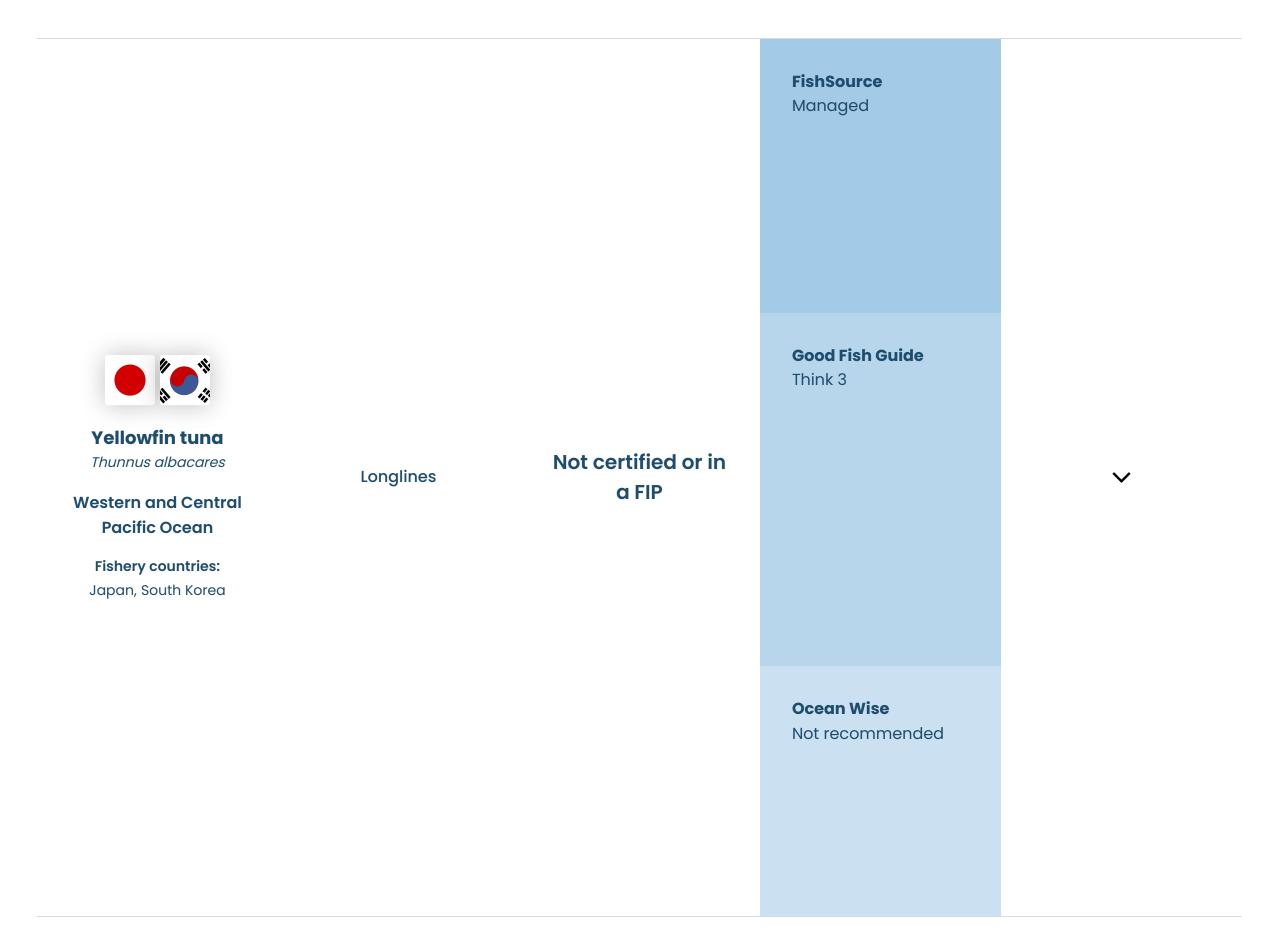
- This fishery is unlikely to have a significant impact on ETP species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

<u>FisheryProgress - Vietnam yellowfin tuna - handline</u>

Seafood Watch Recommendation for Yellowfin tuna, Western Central Pacific Ocean, Handlines and hand-operated pole-and-lines



- Longlines present a hazard to seabirds, sea turtles, marine mammals and sharks.
- Bycatch is a risk for this fishery.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Good Fish Guide - Yellowfin tuna, Western and Central Pacific, Hook & line (longline)

| | Longlines | Certified | FishSource Well Managed | \checkmark |
|--|-----------|-----------|---|--------------|
| Yellowfin tuna Thunnus albacares | | | | |
| Western and Central Pacific Ocean | | | | |
| Fishery countries: South Korea | | | | |
| | | | Good Fish Guide Best Choice 2 | |
| | | | | |

- There are risks to sea turtles, sharks, and sea birds with this fishery. Data on interactions is limited but there is increased monitoring underway in certified fleets.
- The main bycatch species in this fishery include billfish and other tuna species. Although the main bycatch stocks are not overfished they are in decline and at risk of overfishing.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Western

Control Union, June 2020, MSC Public Certification Report for Pan Pacific yellowfin, bigeye and albacore tuna longline fishery

Good Fish Guide - Yellowfin tuna, Western and Central Pacific, Hook & line (longline), Marine Stewardship Council

| | | | FishSource Well Managed | | |
|--|-----------|-----------|---|---|--|
| * * | | | Good Fish Guide Best Choice 2 | | |
| Yellowfin tuna Thunnus albacares | | | | | |
| estern and Central Pacific Ocean | Longlines | Certified | | ~ | |
| Fishery countries: Micronesia | | | | | |

Ocean Wise Not recommended

Environmental Notes

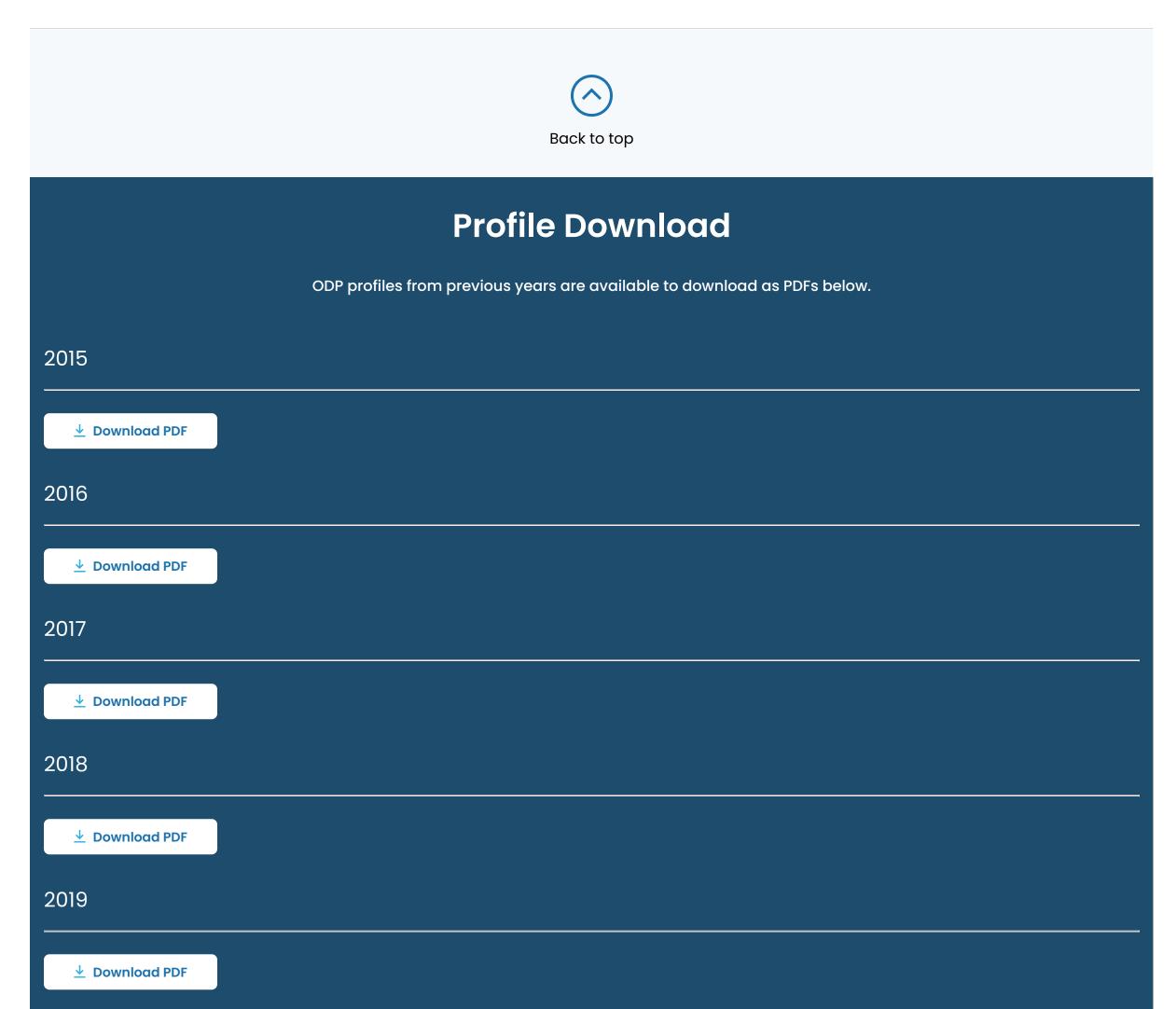
- There are risks to sea turtles, sharks, and sea birds with this fishery. Data on interactions is limited but there is increased monitoring underway in certified fleets.
- The main bycatch species in this fishery include other tuna species. The source fishery for Indian oil sardine used as baitfish in this fishery is not known, but the relatively low quantities used suggest that the fishery is unlikely to impact on the fish stock.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Control Union Pesca Ltd, March 2019, Public Certification Report, SZLC CSFC & FZLC FSM EEZ Longline Yellowfin and Bigeye Tuna Fishery (Bigeye UoA)

<u>Good Fish Guide - Yellowfin tuna, Western and Central Pacific, Hook & line (longline), Marine Stewardship Council</u>



| 2020 | | |
|------|--|--|
| | | |
| 2021 | | |
| | | |
| 2022 | | |
| | | |

Contact Us LinkedIn Twitter Privacy policy Terms of use





© Sustainable Fisheries Partnership www.sustainablefish.org