Beaver Street Fisheries, Inc.

Beaver Street Fisheries is a leading importer, manufacturer and distributor of quality frozen seafood products from the USA and around the world. With headquarters in Jacksonville, Florida, a vertically integrated supply chain, and the advantage of both on-site and off-shore processing capabilities, Beaver Street Fisheries offers a wide variety of products, competitive pricing, and can satisfy the diverse needs of wholesale, retail, institutional and foodservice operators.

The success and reputation that Beaver Street Fisheries enjoys is attributed to its dedication to undeniable quality, efficient, and attentive service and the disciplined exercise of a single principle, "Treat the customer as you would a friend and all else will follow."

<table>
<thead>
<tr>
<th>Number of Wild-Caught Species</th>
<th>Number of Certified Wild-Caught Species</th>
<th>Number of Wild-Caught Species in a FIP</th>
<th>Number of Farmed Species</th>
<th>Number of Certified Farmed Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>16</td>
<td>12</td>
<td>7</td>
<td>6</td>
</tr>
</tbody>
</table>

Production Methods Used

- Midwater trawl
- Bottom trawl
- Dredge
- Purse seine
- Seine nets
- Gillnets and entangling nets
- Hook and line
- Longlines
- Handlines and pole-lines
- Rake / hand gathered / hand netted
- Pots and traps
- Farmed

Summary

For over seventy year, Beaver Street Fisheries has always been a leader in the seafood industry, and we understand that we have a global responsibility to support and sustain the earth and its ecosystems. As part of our commitment to sustainability and responsible sourcing, we work closely with our supply chain partners to embrace strategies to support the ever-growing need for responsible seafood from around the world. We do this by working with standard-setting organizations for wild caught and aquaculture seafood. Additionally, we have partnered with Sustainable Fisheries Partnership (SFP) to help us develop and implement fishery improvement projects for both wild and farmed raised species. The improvement projects are designed to bring common stakeholders together to establish goals and collaboratively improve the environmental and social quality of the seafood production in a particular area using best practices.

This disclosure contains a list of fresh and frozen, wild-caught and aquaculture seafood sourced and sold in 2019.

To learn more about Beaver Street Fisheries, Inc., the responsible organizations we support, and our current initiatives, please refer to the web addresses below:

http://www.beaverstreetfisheries.com/partnerships.php
http://www.beaverstreetfisheries.com/current-initiatives.php
<table>
<thead>
<tr>
<th>Species and Location</th>
<th>Production Methods</th>
<th>Certification or Improvement Project</th>
<th>Sustainability Ratings</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska plaice Pleuronectes quadrituberculatus Bering Sea and Aleutian Islands Fishery countries: U.S.</td>
<td>Bottom trawl</td>
<td>Certified</td>
<td>FishSource Well Managed</td>
<td></td>
</tr>
</tbody>
</table>
### Environmental Notes
- Profile not yet complete.

### General Notes
- No additional notes.

---

#### Alaska pollock
*Theragra chalcogramma*

**Aleutian Islands**

Fishery countries:
- U.S.

- **Midwater trawl**
- **Certified**

---

#### Environmental Notes
- This fishery is unlikely to impact PET species.
- Bycatch for this fishery is considered low.
- This fishery is unlikely to have a significant impact on the sea bed, but occasional impacts may occur.

#### 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.

---

#### Alaska pollock
*Theragra chalcogramma*

**Gulf of Alaska**

Fishery countries:
- U.S.

- **Midwater trawl**
- **Certified**

---

#### Environmental Notes
- This fishery is unlikely to impact PET species.

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

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

<table>
<thead>
<tr>
<th>Alaska pollock</th>
<th>Theraea chalcogramma</th>
<th>Midwater trawl</th>
<th>Seine nets</th>
<th>Certified</th>
<th>FishSource</th>
<th>Well Managed</th>
<th>Seafood Watch</th>
<th>Eco-Certification</th>
<th>Recommended</th>
<th>Good Fish Guide</th>
<th>Best Choice 1</th>
<th>Ocean Wise</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea of Okhotsk</td>
<td>Fishery countries:</td>
<td>Russia</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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</tbody>
</table>

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

### General Notes
- No additional notes.

<table>
<thead>
<tr>
<th>American cupped oyster</th>
<th>Crassostrea virginica</th>
<th>Dredge</th>
<th>Certified</th>
<th>FishSource</th>
<th>Well Managed</th>
<th>Seafood Watch</th>
<th>Eco-Certification</th>
<th>Recommended</th>
<th>Good Fish Guide</th>
<th>Best Choice 1</th>
<th>Ocean Wise</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>Fishery countries:</td>
<td>U.S.</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Environmental Notes
- Profile not yet complete.

### General Notes
- No additional notes.

<table>
<thead>
<tr>
<th>Pots and traps</th>
<th>Certified</th>
<th>FishSource</th>
<th>Well Managed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
American lobster
*Homarus americanus*
Georges Bank and Off-Shore Nova Scotia
Fishery countries: Canada

**Environmental Notes**
- Direct effects of the fishery on PET species are thought likely to be low. While entanglement in lobster gear presents a risk to marine mammals, especially North Atlantic right whales, no entanglements of right whales were reported in the MSC public certification report.
- 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**

**References**
[Intertek, 2015, MSC Public Certification Report for Eastern Canada Offshore Lobster Fishery](#)

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American sea scallop
*Placopecten magellanicus*
US Atlantic - Mid-Atlantic Bight
Fishery countries: U.S.

**Environmental Notes**
- There are risks to sea turtles with this fishery, but there are mitigation measures in place.
- Bycatch is a risk in this fishery.
- Dredges will directly impact on the sea bed.

**General Notes**
- No additional notes.

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Argentine red shrimp
*Pleoticus muelleri*
Patagonian: Argentina offshore industrial
Fishery countries: Argentina

**FishSource**
Managed

**Seafood Watch**
Avoid

**Ocean Wise**
Not recommended
Environmental Notes
- There are risks to sharks and rays with this fishery.
- Bycatch of hake is a risk with this fishery.
- Bottom trawls directly impact on the sea bed.

General Notes

References

Fishery Progress, Argentina offshore red shrimp - bottom trawl

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Environmental Notes
- Farmed scallops are not provided external feed.
- The risk of escape is considered to be low. Relatively few diseases have been reported in scallops. The majority of the source of stock for farmed scallops comes from natural or passive settlement. Due to the lack of data on source stocks, the percentage of production from hatchery-raised broodstock or natural (passive) settlement is difficult to quantify; however, the removal of wild scallops for broodstock is not expected to have any negative impacts on the wild stock.
- Little to no chemicals are used in the culture of scallops. Improved husbandry and cleaning methods rather than use of antibiotics are employed to prevent bacterial infections. No chemicals are used during the grow-out phase of scallop culture. Cleaning solutions (i.e., bleach) used during the hatchery phase are not discharged to the marine environment.

General Notes

References

Seafood Watch, Worldwide Farmed Scallops Report

---

Environmental Notes
- Farmed scallops are not provided external feed.
- The risk of escape is considered to be low. Relatively few diseases have been reported in scallops. The majority of the source of stock for farmed scallops comes from natural or passive settlement. Due to the lack of data on source stocks, the percentage of production from hatchery-raised broodstock or natural (passive) settlement is difficult to quantify; however, the removal of wild scallops for broodstock is not expected to have any negative impacts on the wild stock.
- Little to no chemicals are used in the culture of scallops. Improved husbandry and cleaning methods rather than use of antibiotics are employed to prevent bacterial infections. No chemicals are used during the grow-out phase of scallop culture. Cleaning solutions (i.e., bleach) used during the hatchery phase are not discharged to the marine environment.

General Notes

References

Seafood Watch
Eco-Certification
Recommended

Ocean Wise
Recommended

Seafood Watch
Best Choice

Ocean Wise
Recommended
<table>
<thead>
<tr>
<th><strong>Blue mussel</strong>&lt;br&gt;Mytilus edulis</th>
<th>Farmed</th>
<th>Not certified or in an AIP</th>
<th><strong>Fishery countries:</strong>&lt;br&gt;Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ocean Wise</strong>&lt;br&gt;Recommended</td>
<td><strong>Seafood Watch</strong>&lt;br&gt;Best Choice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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**

Seafood Watch report for farmed mussels, worldwide

<table>
<thead>
<tr>
<th><strong>Blue mussel</strong>&lt;br&gt;Mytilus edulis</th>
<th>Farmed</th>
<th>Not certified or in an AIP</th>
<th><strong>Fishery countries:</strong>&lt;br&gt;Chile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Good Fish Guide</strong>&lt;br&gt;Best Choice 1</td>
<td><strong>Ocean Wise</strong>&lt;br&gt;Recommended</td>
<td><strong>Seafood Watch</strong>&lt;br&gt;Best Choice</td>
<td></td>
</tr>
</tbody>
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**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**

Seafood Watch report for farmed mussels, worldwide

<table>
<thead>
<tr>
<th><strong>Caribbean spiny lobster</strong>&lt;br&gt;Panulirus argus</th>
<th>Pots and traps</th>
<th><strong>FIP</strong></th>
<th><strong>FishSource</strong>&lt;br&gt;Needs Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seafood Watch</strong>&lt;br&gt;Avoid</td>
<td><strong>Ocean Wise</strong></td>
<td><strong>Seafood Watch</strong>&lt;br&gt;Best Choice</td>
<td></td>
</tr>
</tbody>
</table>

**Fishery countries:**

Northern SW Atlantic

**References**

Seafood Watch report for farmed mussels, worldwide
Brazil

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

General Notes

References
Fishery Progress, Brazil red and green lobster - trap

Caribbean spiny lobster
Panulirus argus
Western Central Atlantic
Fishery countries: Bahamas
Rake / hand gathered / hand netted
Certified
FishSource
Well Managed
Seafood Watch
Eco-Certification
Recommended
Ocean Wise
Recommended

Crimson snapper
Lutjanus erythropterus
Indonesia
Fishery countries: Indonesia
Gillnets and entangling nets
Hook and line
Longlines
Pots and traps
FIP
Sustainability not rated

Dusky rockfish
Sebastes ciliatus
Gulf of Alaska
Bottom trawl
Certified
FishSource
Well Managed
Seafood Watch
Not recommended
European seabass (Dicentrarchus labrax) - Turkey

Fishery countries: Turkey

- Farmed
- Certified

**Environmental Notes**
- Profile not yet complete.

**General Notes**
- No additional notes

**References**
- Good Fish Guide - Bass, seabass (Farmed), Europe, GAA BAP 3* & 4* certified
- Seafood Watch report for farmed European sea bass and Gilthead sea bream, Mediterranean Sea

Flathead sole (Hippoglossoides elassodon) - U.S.

Fishery countries: U.S.

- Bottom trawl
- Certified

**Environmental Notes**
- Profile not yet complete.

**General Notes**
- No additional notes

**References**
- FishSource - Well Managed
- Seafood Watch - Eco-Certification Recommended
- Ocean Wise - Recommended
<table>
<thead>
<tr>
<th><strong>Gold-spot octopus</strong></th>
<th><strong>Amphioctopus fangsiao</strong></th>
<th><strong>Fishery countries:</strong></th>
<th><strong>Hook and line</strong></th>
<th><strong>FIP</strong></th>
<th><strong>Sustainability not rated</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>China</strong></td>
<td></td>
<td><strong>Fishery countries:</strong></td>
<td><strong>China</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Environmental Notes**
- Profile not yet complete.

**General Notes**

**References**
Fishery Progress, Shantou-Taiwan shortarm octopus - jig

<table>
<thead>
<tr>
<th><strong>Gold-spot octopus</strong></th>
<th><strong>Amphioctopus fangsiao</strong></th>
<th><strong>Fishery countries:</strong></th>
<th><strong>Bottom trawl</strong></th>
<th><strong>Not certified or in a FIP</strong></th>
<th><strong>Sustainability not rated</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>East and South China Seas</strong></td>
<td></td>
<td><strong>Fishery countries:</strong></td>
<td><strong>China</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Environmental Notes**
- Profile not yet complete.

**General Notes**
- Sam's Club discontinued this item after Q1 2019.

<table>
<thead>
<tr>
<th><strong>Japanese threadfin bream</strong></th>
<th><strong>Nemipterus japonicus</strong></th>
<th><strong>Fishery countries:</strong></th>
<th><strong>Bottom trawl</strong></th>
<th><strong>FIP</strong></th>
<th><strong>Sustainability not rated</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Western Indian Ocean</strong></td>
<td></td>
<td><strong>Fishery countries:</strong></td>
<td><strong>India</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Environmental Notes**
- There are risks to marine mammals with this fishery.
- Bycatch is a risk for this fishery.
- 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**
## Jonah Crab

*Cancer borealis*

**US Atlantic**

**Fishery countries:**
- U.S.

**Pots and traps**

Not certified or in a FIP

**Fishery Progress, India threadfin bream - trawl**

**FishSource**
- Managed

**Seafood Watch**
- Good Alternative

**Ocean Wise**
- Not recommended

### Environmental Notes

- Profile not yet complete.

### General Notes

- This fishery was in the [Jonah Crab FIP](#) from 2014–2017.

### References

- [Gulf of Maine Research Institute, Jonah Crab Fishery Improvement Project](#)

## Mahi-mahi

*Coryphaena hippurus*

**Eastern Pacific Ocean**

**Fishery countries:**
- Peru

**Longlines**

FIP

**Seafood Watch**
- Avoid

**Ocean Wise**
- Not recommended

### Environmental Notes

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

### General Notes

### References

- [Fishery Progress, Peru mahi-mahi - longline (WWF)](#)

## Mahi-mahi

*Coryphaena hippurus*

**Western and Central Pacific**

**Fishery countries:**
- Taiwan

**Longlines**

FIP

**Seafood Watch**
- Avoid

**Ocean Wise**
- Not recommended
Environmental Notes

- There are risks to turtles and seabirds with this fishery.
- Bycatch is a risk for this fishery but there is insufficient data available to assess significance.
- This fishery is unlikely to have a significant impact on the sea bed.

General Notes

References

Fishery Progress, Taiwan Hsin-Kang mahi-mahi - longline

Malabar snapper

*Lutjanus malabaricus*

*Indonesia*

Fishery countries:
*Indonesia*

- Gillnets and entangling nets
- Hook and line
- Longlines
- Pots and traps

FIP

Sustainability not rated

Environmental Notes

- Profile not yet complete.

General Notes

References

Fishery Progress, Indonesia deepwater groundfish - dropline, longline, trap and gillnet

Mitre squid

*Loligo chinensis*

*China*

Fishery countries:
*China*

- Purse seine

FIP

Environmental Notes

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

General Notes

References

Fishery Progress, Shantou-Taiwan Chinese common squid - jigging/single trawl

Mytilus mussels* nei*

*Mytilus spp.*

*Chinese waters*

- Rake / hand gathered / hand netted

Not certified or in a FIP

Sustainability not rated

FishSource

Needs Improvement
**Fishery countries:**
- China

**Environmental Notes**
- Profile not yet complete.

**General Notes**
- No additional notes.

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**New Zealand mussel**  
*Perna canaliculus*

**Northern, Southern**

**Fishery countries:**  
- New Zealand

**Environmental Notes**
- Profile not yet complete.

**General Notes**
- No additional notes.

---

**Northern rockfish**  
*Sebastes polyspinis*

**Bering Sea and Aleutian Islands**

**Fishery countries:**  
- U.S.

**Environmental Notes**
- Profile not yet complete.

**General Notes**
- No additional notes.

**Certified**

**FishSource**  
Well Managed

**Seafood Watch**  
Eco-Certification Recommended

**Ocean Wise**  
Recommended

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**Northern rockfish**  
*Sebastes polyspinis*

**Gulf of Alaska**

**Fishery countries:**  
- U.S.

**Environmental Notes**
- Profile not yet complete.

**General Notes**
- No additional notes.

**Certified**

**FishSource**  
Well Managed

**Seafood Watch**  
Eco-Certification Recommended
Environmental Notes

- Profile not yet complete.

General Notes

- No additional notes

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Northern white shrimp

*Penaeus setiferus*

**Northern Gulf of Mexico - Louisiana**

Fishery countries:

- U.S.

Rake / hand gathered / hand netted

**FIP**

**Environmental Notes**

- There is potential for turtle interactions with this fishery, but excluder devices are fitted to nets for protection.
- Bycatch is a significant risk for this fishery.
- This fishery is unlikely to have a significant impact on the sea bed.

**General Notes**

**References**

*Fishery Progress* | *Louisiana shrimp - otter/skimmer trawl FIP*

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**Orange roughy**

*Hoplostethus atlanticus*

**East and South Chatham Rise**

Fishery countries:

- New Zealand

**Bottom trawl**

**Certified**

**FishSource**

- Managed
- Needs Improvement

**Seafood Watch**

- Avoid

**Ocean Wise**

- Not recommended

**Environmental Notes**

- This fishery is believed to have minimal impacts on PET species.
- Bycatch for this fishery is considered low.
- Bottom trawls will directly impact on the sea bed. Potential impacts on coral habitats are a concern.

**General Notes**

- No additional notes.
**Pacific cod**
*Gadus macrocephalus*

**E Bering Sea**

Fishery countries:
- U.S.

**Environmental Notes**
- There are risks to seabirds and marine mammals with this fishery, but there are mitigation measures in place.
- Bycatch is a risk for this fishery, but there is insufficient data available to assess significance.
- Bottom trawls will directly impact on the sea bed. However, management measures are in place.

**General Notes**
- No additional notes.

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**Penaeus shrimps nei**
*Penaeus spp.*

**South China Sea, East China Sea**

Fishery countries:
- China

**Environmental Notes**
- Profile not yet complete.
- Bycatch is a risk for this fishery.
- Bottom trawls will directly impact on the sea bed.

**General Notes**
- Sam's Club discontinued this item after Q1 2019.

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**Pinjalo**
*Pinjalo pinjalo*

**Indonesia**

Fishery countries:
- Indonesia

**Environmental Notes**

**General Notes**

**Sustainability**
- Not certified or in a FIP
- Sustainability not rated
Environmental Notes

- Profile not yet complete.

General Notes

References

Fishery Progress, Indonesia deepwater groundfish – dropline, longline, trap and gillnet

Fishery Progress, Southeast Alaska pink salmon

Fishery countries:
- Russia
- U.S.

Environmental Notes

- This fishery is unlikely to impact protected, endangered and threatened (PET) species.
- Bycatch for this fishery is considered low and non-target species are released alive.
- This fishery is unlikely to have a significant impact on the benthic habitat.

General Notes

References

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

Environmental Notes

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

**Northern Sea of Okhotsk**

**Fishery countries:**
- Russia

**Pots and traps**

**Not certified or in a FIP**

**Seafood Watch**
- Avoid

**Ocean Wise**
- Not recommended

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**Environment Notes**

- Profile not yet complete

**General Notes**

- No additional notes

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**Queen crab**  
*Chionoecetes opilio*

**NW Atlantic - Newfoundland and Labrador**

**Fishery countries:**
- Canada

**Pots and traps**

**Certified**

**FishSource**
- Well Managed

**Seafood Watch**
- Eco-Certification Recommended

**Ocean Wise**
- Recommended

---

**Environment Notes**

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

**General Notes**

- No additional notes

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**Queen crab**  
*Chionoecetes opilio*

**W Bering Sea**

**Fishery countries:**
- Russia

**Pots and traps**

**Not certified or in a FIP**

**Seafood Watch**
- Avoid

**Ocean Wise**
- Not recommended

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**Environment Notes**

- Profile not yet complete
### Rainbow trout

**Onchorynchus mykiss**

**Farmed**  
**Certified**  
**Sustainability not rated**

**Fishery countries:**  
Peru

### Environmental Notes

- Profile not yet complete.

### General Notes

- No additional notes

### References

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### Red drum

**Sciaenops ocellatus**

**Farmed**  
**Not certified or in an AIP**  
**Sustainability not rated**

**Fishery countries:**  
China, Vietnam

### Environmental Notes

- Profile not yet complete

### General Notes

- No additional notes

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### Red swamp crawfish

**Procambarus clarkii**

**Pots and traps**  
**Not certified or in a FIP**  
**Sustainability not rated**

**Fishery countries:**  
Spain

### Environmental Notes

- There is a lack of information on interactions with PET species in this fishery. The only known significant impact with this fishery is the effect of the introduced crawfish species on the indigenous crawfish species.
- Bycatch for this fishery is considered low.
- This is a freshwater fishery close to rice fields, so the habitat impact is very limited.

### General Notes

- No additional notes
**Rock sole**
*Lepidopsetta bilineata*

Gulf of Alaska

**Fishery countries:**
U.S.

- **Certified**
- **Bottom trawl**

**Environmental Notes**
- This fishery is unlikely to impact PET species.
- Bycatch is a risk for this fishery, but there are mitigation measures in place.
- Bottom trawls will directly impact on the sea bed.

**General Notes**
- No additional notes.

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**Tilapia**
*Oreochromis niloticus, Oreochromis spp*

China

**Fishery countries:**
China

- **Farmed**
- **Certified**

**Environmental Notes**
- Tilapia require relatively low inputs of fishmeal and fishoil from marine feed sources in their diet. However, there are significant concerns about the sustainability of feed inputs from domestic sources, which are produced from fisheries that are fully exploited, overexploited, or depleted.
- There is little information available regarding impacts of Chinese tilapia production on wild species, including impacts from escapes, disease outbreaks, and interactions with predators and other wildlife. Nile tilapia are considered highly invasive and there are documented examples of tilapia populations outcompeting local fish species for resources in Chinese waterways. Despite this, there is no information on tilapia escapes at a farm level. In addition, there is little information about on-farm diseases in Chinese tilapia production and disease outbreaks pose a risk to wild fish populations. There is no information regarding interactions with wildlife which may include migrating birds.
- Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality. There is limited information regarding on-farm chemical use and the impact of effluent released by tilapia pond-based farms in China. But there is evidence of the use of illegal chemicals and of antibiotics important to human health in Chinese tilapia production.

**General Notes**
- Area-based approaches to aquaculture are included in the national and provincial legislation, but it is unclear whether zonal approaches to siting and production are used.
- The environmental impacts described are addressed to some degree by certification.

**References:**
- [FishSource - Tilapia, China](#)
- [Seafood Watch, Farmed Tilapia, BAP Standard: Tilapia Farms (2, 3, 4-star)](#)
South Pacific hake

*Merluccius gayi peruanus*

Peruvian

Fishery countries:
Peru

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

**General Notes**

**References**
Fishery Progress, Peruvian hake - bottom trawl

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**Southern king crab**

*Lithodes santolla*

Gulf of St. Jorge and SW Atlantic - Argentina federal

Fishery countries:
Argentina

**Fishery**
Pots and traps

**Not certified or in a FIP**

**Environmental Notes**
- This fishery is unlikely to impact PET species, but available data is still limited.
- 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.

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**Whiteleg shrimp**

*Penaeus vannamei*

India

Fishery countries:
India

**Fishery**
Farmed

**Certified**

**FishSource**
Needs Improvement

**Seafood Watch**
Avoid

**Ocean Wise**
Not recommended

**Eco-Certification**
Recommended

**Good Fish Guide**
Think 3

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

**General Notes**

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

The aquaculture industry is currently managed under a farm-based approach.

**References:**

Seafood Watch report for farmed shrimp, India
FishSource – Shrimp, India
Good Fish Guide – Prawn, King (whiteleg), prawns, Global, GAA BAP certification (4*)

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### 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 – Prawn, King (whiteleg), prawns, Global, ASC
Good Fish Guide – Prawn, King (whiteleg), prawns, Global, GAA BAP certification (4*)
Seafood Watch Recommended Eco-Certifications for Whiteleg shrimp, Farmed

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### Environmental Notes

- Fishmeal and fish oil from marine feed sources are used. Certification criteria encourage the use of responsibly sourced marine products in feed.
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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 – Prawn, King (whiteleg), prawns, Global, ASC
Good Fish Guide – Prawn, King (whiteleg), prawns, Global, GAA BAP certification (4*)
Seafood Watch Recommended Eco-Certifications for Whiteleg shrimp, Farmed
Fishmeal and fish oil from marine feed sources are used. At least 50% of the feed used in certified production is required to be responsibly or sustainably sourced.

Disease transfer between farmed and wild prawns is a concern but infrequent water exchange on whiteleg shrimp farms moderates the risk. Whiteleg shrimp are not native to Vietnam and there is potential for ecological impacts from escapes.

Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality. Waste discharge from whiteleg shrimp ponds is typically limited to once per production cycle, moderating the impact of effluents on water quality. There is a lack of data on the quantity of chemical inputs, but evidence suggests that illegal antibiotics are sometimes used on Vietnamese shrimp farms. Environmental issues are mitigated by the certification standards.

General Notes

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

Public information on zonal approaches to planning and production of shrimp farming in Thailand is limited.

References:

FishSource - Shrimp, Thailand

Good Fish Guide - Prawn, King (whiteleg), prawns, Global, GAA BAP 4*

Seafood Watch Recommended Eco-Certifications for Whiteleg shrimp

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Environmental Notes

Fishmeal and fish oil from marine feed sources are used. At least 50% of the feed used in certified production is required to be responsibly or sustainably sourced.

Disease transfer between farmed and wild prawns is a concern but infrequent water exchange on whiteleg shrimp farms moderates the risk. Whiteleg shrimp are not native to Vietnam and there is potential for ecological impacts from escapes.

Pollution from nutrients and organic matter, as well as chemical inputs, may affect local water quality. Waste discharge from whiteleg shrimp ponds is typically limited to once per production cycle, moderating the impact of effluents on water quality. There is a lack of data on the quantity of chemical inputs, but evidence suggests that illegal antibiotics are sometimes used on Vietnamese shrimp farms. Environmental issues are mitigated by the certification standards.

General Notes

Certification addresses most areas of environmental concern.

The aquaculture industry is currently managed under a farm-based approach.

References:

Good Fish Guide - Prawn, King (whiteleg), prawns

Seafood Watch Recommended Eco-Certifications for Whiteleg shrimp, Farmed

FishSource - Shrimp, Vietnam

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Yellowfin sole

Limanda aspera

Bering Sea and Aleutian Islands

Fishery countries: U.S.

Bottom trawl

Certified

FishSource

Well Managed

Seafood Watch

Best Choice

Ocean Wise

Recommended
Environmental Notes

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

General Notes

References

MRAG Americas, 2015, MSC Public Certification Report for Bering Sea–Aleutian Islands Alaska Flatfish Fishery

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Environmental Notes

- There are risks to seabirds, sea turtles and marine mammals with this fishery, but there are mitigation measures in place.
- 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, Indonesia/Indian Ocean tuna and large pelagics - longline

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Environmental Notes

- There are risks to seabirds, sea turtles and marine mammals with this fishery, but there are mitigation measures in place.
- 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, Indonesia/Indian Ocean tuna and large pelagics - longline

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Environmental Notes

- There are risks to seabirds, sea turtles and marine mammals with this fishery, but there are mitigation measures in place.
- 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, Indonesia/Indian Ocean tuna and large pelagics - longline
- This fishery is unlikely to impact protected, endangered and threatened (PET) species.
- Bycatch is considered low for this fishery.
- This fishery is unlikely to have a significant impact on the sea bed.

**General Notes**

This fishery entered MSC Full Assessment in November 2019.

**References**

Fishery Progress, Indonesia Western and Central Pacific Ocean yellowfin tuna – pole & line

Marine Stewardship Council, Indonesia pole-and-line and handline, skipjack and yellowfin tuna of Western and Central Pacific archipelagic waters

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**Environmental Notes**

- Profile not yet complete.

**General Notes**

- No additional notes

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2019

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