



Monterey Bay Aquarium Seafood Watch

New and Updated Ratings

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Finalization Session: December 7 and 14, 2022, Release Date: January 9, 2023

New Ratings

Species	Scientific Name	Location	Method	Rating	Justification
Anchovy, European	<i>Engraulis encrasicolus</i>	Morocco - Eastern Central Atlantic Ocean (Central Zone)	Purse seines	Good Alternative	European anchovy caught in Morocco (Central Zone) with purse seines is rated a Good Alternative due to red Habitat & Ecosystem , yellow Other Species and Management , and green Target Species ratings. The stock status is unknown, but overfishing isn't occurring. Bycatch information is limited, but there are no serious concerns. Management is rated moderately effective overall. Some appropriate conservation measures are in place, and enforcement is considered highly effective. However, stronger regional management and fishing limits for each species are needed. This fishery also targets European pilchard, and this sardine species is considered a key forage fish (prey for larger predators) in this ecosystem. Fishery managers have committed to ecosystem-based management, but policies to protect this species' important role in the food web have yet to be implemented. Purse seines don't typically contact the seafloor, so there are minimal to no habitat impacts.
Anchovy, European	<i>Engraulis encrasicolus</i>	Morocco - Eastern Central Atlantic Ocean (Zone North)	Purse seines	Good Alternative	European anchovy caught in Morocco (Zone North) with purse seines is rated a Good Alternative due to red Habitat & Ecosystem , yellow Other Species and Management , and green Target Species ratings. The stock status is unknown, but overfishing isn't occurring. Bycatch information is limited, but there are no serious concerns. Management is rated moderately effective overall. Some appropriate conservation measures are in place, and enforcement is considered highly effective. However, stronger regional management and fishing limits for each species are needed. This fishery also targets European pilchard, and this sardine species is considered a key forage fish (prey for larger predators) in this ecosystem. Fishery managers have committed to ecosystem-based management, but policies to protect this species' important role in the food web have yet to be implemented. Purse seines don't typically contact the seafloor, so there are minimal to no habitat impacts.

Species	Scientific Name	Location	Method	Rating	Justification
Mackerel, Atlantic Chub	<i>Scomber colias</i>	Morocco - Eastern Central Atlantic Ocean (Central Zone)	Purse seines	Good Alternative	Atlantic chub mackerel caught in Morocco (Central Zone) with purse seines is rated a Good Alternative due to yellow ratings for all criteria except a red Habitat & Ecosystem rating. The stock isn't depleted, but it's experiencing overfishing. Bycatch information is limited, but there are no serious concerns. Management is rated moderately effective overall. Some appropriate conservation measures are in place, and enforcement is considered highly effective. However, stronger regional management and fishing limits for each species are needed. This fishery also targets European pilchard, and this sardine species is considered a key forage fish (prey for larger predators) in this ecosystem. Fishery managers have committed to ecosystem-based management, but policies to protect this species' important role in the food web have yet to be implemented. Purse seines don't typically contact the seafloor, so there are minimal to no habitat impacts.
Mackerel, Atlantic Chub	<i>Scomber colias</i>	Morocco - Eastern Central Atlantic Ocean (Zone C)	Purse seines	Good Alternative	Atlantic chub mackerel caught in Morocco (Zone C) with purse seines is rated a Good Alternative due to yellow ratings for all criteria except a red Habitat & Ecosystem rating. The stock isn't depleted, but it's experiencing overfishing. Bycatch information is limited, but there are no serious concerns. Management is rated moderately effective overall. Some appropriate conservation measures are in place, and enforcement is considered highly effective. However, stronger regional management and fishing limits for each species are needed. This fishery also targets European pilchard, and this sardine species is considered a key forage fish (prey for larger predators) in this ecosystem. Fishery managers have committed to ecosystem-based management, but policies to protect this species' important role in the food web have yet to be implemented. Purse seines don't typically contact the seafloor, so there are minimal to no habitat impacts.
Mackerel, Atlantic Chub	<i>Scomber colias</i>	Morocco - Eastern Central Atlantic Ocean (Zone North)	Purse seines	Good Alternative	Atlantic chub mackerel caught in Morocco (Zone North) with purse seines is rated a Good Alternative due to yellow ratings for all criteria except a red Habitat & Ecosystem rating. The stock isn't depleted, but it's experiencing overfishing. Bycatch information is limited, but there are no serious concerns. Management is rated moderately effective overall. Some appropriate conservation measures are in place, and enforcement is considered highly effective. However, stronger regional management and fishing limits for each species are needed. This fishery also targets European pilchard, and this sardine species is considered a key forage fish (prey for larger predators) in this ecosystem. Fishery managers have committed to ecosystem-based management, but policies to protect this species' important role in the food web have yet to be implemented. Purse seines don't typically contact the seafloor, so there are minimal to no habitat impacts.

Species	Scientific Name	Location	Method	Rating	Justification
Sardine, European Pilchard	<i>Sardina pilchardus</i>	Morocco - Eastern Central Atlantic Ocean (Central Zone)	Purse seines	Good Alternative	European pilchard caught in Morocco (Central Zone) with purse seines is rated a Good Alternative due to yellow ratings for all criteria except a red Habitat & Ecosystem rating. The stock isn't depleted or experiencing overfishing. Bycatch information is limited, but there are no serious concerns. Management is rated moderately effective overall. Some appropriate conservation measures are in place, and enforcement is considered highly effective. However, stronger regional management and fishing limits for each species are needed. In addition, European pilchard is considered a key forage fish (prey for larger predators) in this ecosystem. Fishery managers have committed to ecosystem-based management, but policies to protect this species' important role in the food web have yet to be implemented. Purse seines don't typically contact the seafloor, so there are minimal to no habitat impacts.
Sardine, European Pilchard	<i>Sardina pilchardus</i>	Morocco - Eastern Central Atlantic Ocean (Zone C)	Purse seines	Good Alternative	European pilchard caught in Morocco (Zone C) with purse seines is rated a Good Alternative due to yellow ratings for all criteria except a red Habitat & Ecosystem rating. The stock isn't depleted or experiencing overfishing. Bycatch information is limited, but there are no serious concerns. Management is rated moderately effective overall. Some appropriate conservation measures are in place, and enforcement is considered highly effective. However, stronger regional management and fishing limits for each species are needed. In addition, European pilchard is considered a key forage fish (prey for larger predators) in this ecosystem. Fishery managers have committed to ecosystem-based management, but policies to protect this species' important role in the food web have yet to be implemented. Purse seines don't typically contact the seafloor, so there are minimal to no habitat impacts.
Sardine, European Pilchard	<i>Sardina pilchardus</i>	Morocco - Eastern Central Atlantic Ocean (Zone North)	Purse seines	Good Alternative	European pilchard caught in Morocco (Zone North) with purse seines is rated a Good Alternative due to yellow ratings for all criteria except a red Habitat & Ecosystem rating. The stock isn't depleted or experiencing overfishing. Bycatch information is limited, but there are no serious concerns. Management is rated moderately effective overall. Some appropriate conservation measures are in place, and enforcement is considered highly effective. However, stronger regional management and fishing limits for each species are needed. In addition, European pilchard is considered a key forage fish (prey for larger predators) in this ecosystem. Fishery managers have committed to ecosystem-based management, but policies to protect this species' important role in the food web have yet to be implemented. Purse seines don't typically contact the seafloor, so there are minimal to no habitat impacts.

Species	Scientific Name	Location	Method	Rating	Justification
Shrimp, Giant Tiger Prawn	<i>Penaeus monodon</i>	Vietnam	Extensive ponds (rice-shrimp)	Good Alternative	Giant tiger prawn farmed in Vietnam in rice-shrimp ponds is rated a Good Alternative due to yellow or green ratings for all criteria. In Vietnam, shrimp are farmed in rice-shrimp, shrimp-mangrove, extensive, or intensive ponds. When giant tiger prawns are farmed in rice-shrimp ponds, environmental impacts (or the risk of impacts) are rated low to moderate concerns. Rice-shrimp ponds are primarily located in former agricultural lands, so habitat and ecosystem impacts are less of a concern. Official information on chemical use is unavailable, but substantial use is unlikely. In addition, there's typically minimal or no use of formulated feed.
Shrimp, Giant Tiger Prawn	<i>Penaeus monodon</i>	Vietnam	Intensive ponds	Good Alternative	Giant tiger prawn farmed in Vietnam in intensive ponds has been rated Avoid due to a critical Chemicals rating and red Habitat and Feed ratings. In Vietnam, shrimp are farmed in rice-shrimp, shrimp-mangrove, extensive, or intensive ponds. Intensive ponds range from semi-intensive to super-intensive systems. They rely entirely on added feed, and require increasingly complex management of water quality, wastes, and shrimp health. Official information on chemical use is unavailable. However, academic research shows antimicrobials that are banned or listed as critically or highly important to human medicine by the World Health Organization are used in significant amounts in intensive shrimp systems. Shrimp farming in Vietnam has historically contributed to large amounts of mangrove loss. Today, the Vietnamese Government is working to restore mangroves. However, recent evidence shows mangroves continue to be converted to shrimp ponds, and there's insufficient evidence to distinguish the types of shrimp ponds that have the greatest impact. In addition, intensive systems rely entirely on formulated feed, for which there is a very limited amount of data available. Also, the amount and sustainability of the marine-based ingredients are not publicly available, and there is a large overall net protein loss.
Shrimp, Whiteleg	<i>Litopenaeus vannamei</i>	Vietnam	Extensive ponds (rice-shrimp)	Good Alternative	Whiteleg shrimp farmed in Vietnam in rice-shrimp ponds is rated a Good Alternative due to yellow and green ratings for all criteria except a red Escapes rating. In Vietnam, shrimp are farmed in rice-shrimp, shrimp-mangrove, extensive, or intensive ponds. When whiteleg shrimp are farmed in rice-shrimp ponds, most environmental impacts (or the risk of impacts) are rated low to moderate concerns. Rice-shrimp ponds are primarily located in former agricultural lands, so habitat and ecosystem impacts are less of a concern. Official information on chemical use is unavailable, but substantial use is unlikely. In addition, there's typically minimal or no use of formulated feed. The single red rating concerns the risk of escapes. Shrimp ponds are in areas where flooding regularly occurs, and the escape risk is high. However, there's no indication that non-native whiteleg shrimp have established viable populations in Vietnam.

Updated Ratings

Species	Scientific Name	Location	Method	Previous Rating	Updated Rating	Justification
Crab, Blue Swimming	<i>Portunus pelagicus</i>	Sri Lanka - Gulf of Mannar	Gillnets and entangling nets	Good Alternative	Good Alternative	Blue swimming crab caught in Sri Lanka's Gulf of Mannar with crab nets remains a Good Alternative due to red Other Species , yellow Habitat & Ecosystem , and green Target Species and Management ratings. The blue swimming crab stock is healthy, but bycatch amounts are high and can include eels, rays, turtles, sharks, and other vulnerable species. However, management is rated highly effective overall. The measures to prevent overfishing of blue swimming crab are working well, and enforcement of these measures is effective. In addition, stakeholder involvement is robust and inclusive. Habitat impacts are a moderate concern because fishing occurs over sand and mud, but there are no mitigations in place. Policies to implement ecosystem-based management are being developed.
Crab, Blue Swimming	<i>Portunus pelagicus</i>	Sri Lanka - Palk Strait or Palk Bay	Gillnets and entangling nets	Good Alternative	Good Alternative	Blue swimming crab caught in Sri Lanka's Palk Strait and Palk Bay with crab nets remains a Good Alternative due to red Other Species , yellow Habitat & Ecosystem , and green Target Species and Management ratings. The blue swimming crab stock is healthy, but bycatch amounts are high and can include eels, rays, turtles, sharks, and other vulnerable species. However, management is rated highly effective overall. The measures to prevent overfishing of blue swimming crab are working well, and enforcement of these measures is effective. In addition, stakeholder involvement is robust and inclusive. Habitat impacts are a moderate concern because fishing occurs over sand and mud, but there are no mitigations in place. Policies to implement ecosystem-based management are being developed.
Drum, Black	<i>Pogonias cromis</i>	United States - Louisiana, Gulf of Mexico	Trotlines	Good Alternative	Good Alternative	Black drum caught in Louisiana with trotlines remains a Good Alternative due to red Other Species , yellow Management and Habitat & Ecosystem , and green Target Species ratings. Very little is known about bycatch in this fishery, and there's a risk of turtle entanglement in trotlines. Management is rated moderately effective overall because the stock is healthy even though Louisiana has few controls in place to prevent overfishing. However, more bycatch data are needed. Trotlines have some impact on the seafloor, and there are some ecosystem-based management measures for this fishery.

Species	Scientific Name	Location	Method	Previous Rating	Updated Rating	Justification
Drum, Black	<i>Pogonias cromis</i>	United States - Texas, Gulf of Mexico	Trotlines	Good Alternative	Good Alternative	Black drum caught in Texas with trotlines remains a Good Alternative due to red Other Species , yellow Management and Habitat & Ecosystem , and green Target Species ratings. Very little is known about bycatch in this fishery, and there's a risk of turtle entanglement in trotlines. Management is rated moderately effective overall because the stock is healthy even though Texas has few controls in place to prevent overfishing. However, more bycatch data are needed. Trotlines have some impact on the seafloor, and there are some ecosystem-based management measures for this fishery.
Lobster, Caribbean Spiny	<i>Panulirus argus</i>	Belize - Caribbean Sea	Diving	Avoid	Avoid	Caribbean spiny lobster caught in Belize by divers continues to be rated Avoid due to red Target Species and Other Species ratings. The available information indicates that the population abundance has declined, and overfishing is likely occurring. In addition, this fishery catches snapper and grouper species that are depleted and experiencing overfishing. Divers also harvest queen conch, and indicators suggest that stock is still recovering. Management is rated moderately effective overall because stronger conservation measures have been implemented, but their effectiveness is unknown. Divers have minimal contact with the seafloor, and policies to protect the ecosystem are in place, though their effectiveness is unknown too.
Lobster, Caribbean Spiny	<i>Panulirus argus</i>	Belize - Caribbean Sea	Pots	Avoid	Avoid	Caribbean spiny lobster caught in Belize with pots continues to be rated Avoid due to red Target Species and Other Species ratings. The available information indicates that the population abundance has declined, and overfishing is likely occurring. In addition, this fishery catches snappers and groupers that are depleted and experiencing overfishing. Management is rated moderately effective overall because stronger conservation measures have been implemented, but their effectiveness is unknown. Pots are sometimes set on coral reefs, so there are likely some habitat impacts, and policies to protect the ecosystem are in place, though their effectiveness is unknown too.

Species	Scientific Name	Location	Method	Previous Rating	Updated Rating	Justification
Lobster, Caribbean Spiny	<i>Panulirus argus</i>	Brazil - Southwest Atlantic Ocean	Pots	Avoid	Avoid	Caribbean spiny lobster caught in Brazil with pots continues to be rated Avoid due to a critical Management rating and red Target Species and Other Species ratings. Management is a critical concern because it hasn't maintained a healthy stock, and most spiny lobsters are caught with gillnets or by divers, which are illegal fishing methods. Caribbean spiny lobster is also heavily overfished in Brazil. Official bycatch information is limited, and there's evidence this fishery catches critically endangered Brazilian guitarfish and overexploited grouper and snapper species. Pot fishing gear can impact the rocky and reef habitats where spiny lobsters are found, and these impacts have not been evaluated. Few policies are in place to protect the ecosystem, but this fishery is unlikely to have serious impacts on the food web.
Lobster, Caribbean Spiny	<i>Panulirus argus</i>	United States - Florida, Gulf of Mexico	Pots	Good Alternative	Good Alternative	Caribbean spiny lobster caught in Florida with pots remains a Good Alternative due to yellow ratings for all criteria . The stock hasn't been assessed recently, but overfishing is unlikely. In addition, there are no serious bycatch concerns. However, interactions with bottlenose dolphins have occurred, though this fishery's impact on their populations is a low concern. Management is rated moderately effective overall, mainly because of the lack of a recent stock assessment. There are likely some impacts when pots are set close to coral reefs, but Florida has implemented closed areas help to mitigate habitat impacts. Few policies are in place to protect the ecosystem, but this fishery is unlikely to have serious impacts on the food web.
Sardine, Brazilian Sardinella	<i>Sardinella brasiliensis</i>	Brazil - Southwest Atlantic Ocean	Purse seines	Avoid	Avoid	Brazilian sardinella caught in Brazil with purse seines continues to be rated Avoid due to red Other Species, Management, and Habitat & Ecosystem ratings. The stock hasn't been assessed in over a decade, and fishery managers are no longer collecting bycatch data. In addition, based on past bycatch data, the catch of highly vulnerable or overfished species occurs, including Guiana dolphins, turtles, and elasmobranch species (sharks, rays, and skates). Even though management of sardinella has greatly improved in recent years, it's rated ineffective overall because the measures are based on outdated or incomplete data. In addition, this fishery targets other vulnerable species that have no conservation measures. Brazilian sardinella is a forage fish (prey for larger predators), and there are no policies to protect this species' important role in the ecosystem.

Species	Scientific Name	Location	Method	Previous Rating	Updated Rating	Justification
Shrimp, Giant Tiger Prawn	<i>Penaeus monodon</i>	Vietnam	Extensive ponds	Avoid	Good Alternative	Giant tiger prawn farmed in Vietnam in extensive ponds has been upgraded to a Good Alternative due to yellow and green ratings for all criteria except a red Habitat rating. In Vietnam, shrimp are farmed in rice-shrimp, shrimp-mangrove, extensive, or intensive ponds. When giant tiger prawns are farmed in extensive ponds, most environmental impacts (or the risk of impacts) are rated low to moderate concerns. Official information on chemical use is unavailable, but substantial use is unlikely. In addition, there's typically minimal or no use of formulated feed. The single red rating concerns habitat impacts. Shrimp farming in Vietnam has historically contributed to large amounts of mangrove loss. Today, the Vietnamese Government is working to restore mangroves. However, recent evidence shows mangroves continue to be converted to shrimp ponds, and there's insufficient evidence to distinguish the types of shrimp ponds that have the greatest impact.
Shrimp, Giant Tiger Prawn	<i>Penaeus monodon</i>	Vietnam	Extensive ponds (shrimp-mangrove)	Avoid	Good Alternative	Giant tiger prawn farmed in Vietnam in shrimp-mangrove ponds has been upgraded to a Good Alternative due to yellow and green ratings for all criteria except a red Habitat rating. In Vietnam, shrimp are farmed in rice-shrimp, shrimp-mangrove, extensive, or intensive ponds. When giant tiger prawns are farmed in shrimp-mangrove ponds, most environmental impacts (or the risk of impacts) are rated low to moderate concerns. Official information on chemical use is unavailable, but substantial use is unlikely. In addition, there's typically minimal or no use of formulated feed. The single red rating concerns habitat impacts. Shrimp farming in Vietnam has historically contributed to large amounts of mangrove loss. Today, the Vietnamese Government is working to restore mangrove habitats by developing more shrimp-mangrove systems. However, this approach still results in a loss of the critical ecosystem services that mangroves provide.

Species	Scientific Name	Location	Method	Previous Rating	Updated Rating	Justification
Shrimp, Whiteleg	<i>Litopenaeus vannamei</i>	Vietnam	Intensive ponds	Avoid	Avoid	Whiteleg shrimp farmed in Vietnam in intensive ponds continues to be rated Avoid due to a critical Chemicals rating and red Habitat and Escapes ratings. In Vietnam, shrimp are farmed in rice-shrimp, shrimp-mangrove, extensive, or intensive ponds. Intensive ponds range from semi-intensive to super-intensive systems. They rely entirely on added feed, and require increasingly complex management of water quality, wastes, and shrimp health. Official information on chemical use is unavailable. However, academic research shows antimicrobials that are banned or listed as critically or highly important to human medicine by the World Health Organization are used in significant amounts in intensive shrimp systems. Shrimp farming in Vietnam has historically contributed to large amounts of mangrove loss. Today, the Vietnamese Government is working to restore mangroves. However, recent evidence shows mangroves continue to be converted to shrimp ponds, and there's insufficient evidence to distinguish the types of shrimp ponds that have the greatest impact. In addition, shrimp ponds are in areas where flooding regularly occurs, and the escape risk is high. However, there's no indication that non-native whiteleg shrimp have established viable populations in Vietnam.