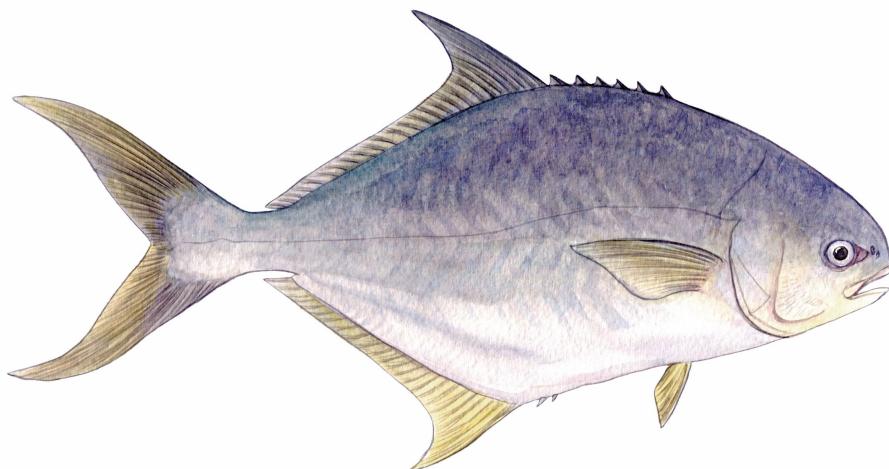




Monterey Bay Aquarium Seafood Watch

Environmental sustainability assessment of wild-caught Florida pompano (*Trachinotus carolinus*) from the United States caught using boat seines, cast nets, drift gillnets, handlines and hand-operated pole-and-lines.



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Species:	Florida pompano (<i>Trachinotus carolinus</i>)
Location:	United States: Western Central Atlantic
Gear:	Boat seines, Cast nets, Drift gillnets, Handlines and hand-operated pole-and-lines
Type:	Wild Caught
Author:	Seafood Watch
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Assessed using [Seafood Watch Fisheries Standard v4](#)

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About Seafood Watch

Monterey Bay Aquarium's Seafood Watch program evaluates the ecological sustainability of wild-caught and farmed seafood commonly found in the United States marketplace. Seafood Watch defines sustainable seafood as originating from sources, whether wild-caught or farmed, which can maintain or increase production in the long-term without jeopardizing the structure or function of affected ecosystems. Seafood Watch makes its science-based recommendations available to the public in the form of regional pocket guides that can be downloaded from www.seafoodwatch.org. The program's goals are to raise awareness of important ocean conservation issues and empower seafood consumers and businesses to make choices for healthy oceans.

Each sustainability recommendation on the regional pocket guides is supported by a Seafood Watch Assessment. Each assessment synthesizes and analyzes the most current ecological, fisheries and ecosystem science on a species, then evaluates this information against the program's conservation ethic to arrive at a recommendation of "Best Choices," "Good Alternatives" or "Avoid." This ethic is operationalized in the Seafood Watch standards, available on our website [here](#). In producing the assessments, Seafood Watch seeks out research published in academic, peer-reviewed journals whenever possible. Other sources of information include government technical publications, fishery management plans and supporting documents, and other scientific reviews of ecological sustainability. Seafood Watch Research Analysts also communicate regularly with ecologists, fisheries and aquaculture scientists, and members of industry and conservation organizations when evaluating fisheries and aquaculture practices. Capture fisheries and aquaculture practices are highly dynamic; as the scientific information on each species changes, Seafood Watch's sustainability recommendations and the underlying assessments will be updated to reflect these changes.

Parties interested in capture fisheries, aquaculture practices and the sustainability of ocean ecosystems are welcome to use Seafood Watch assessments in any way they find useful.

Guiding Principles

Seafood Watch defines sustainable seafood as originating from sources, whether fished¹ or farmed that can maintain or increase production in the long-term without jeopardizing the structure or function of affected ecosystems.

The following guiding principles illustrate the qualities that fisheries must possess to be considered sustainable by the Seafood Watch program (these are explained further in the Seafood Watch Standard for Fisheries):

- Follow the principles of ecosystem-based fisheries management.
- Ensure all affected stocks are healthy and abundant.
- Fish all affected stocks at sustainable levels.
- Minimize bycatch.
- Have no more than a negligible impact on any threatened, endangered or protected species.
- Managed to sustain the long-term productivity of all affected species.
- Avoid negative impacts on the structure, function or associated biota of aquatic habitats where fishing occurs.
- Maintain the trophic role of all aquatic life.
- Do not result in harmful ecological changes such as reduction of dependent predator populations, trophic cascades, or phase shifts.
- Ensure that any enhancement activities and fishing activities on enhanced stocks do not negatively affect the diversity, abundance, productivity, or genetic integrity of wild stocks.

These guiding principles are operationalized in the four criteria in this standard. Each criterion includes:

- Factors to evaluate and score
- Guidelines for integrating these factors to produce a numerical score and rating

Once a rating has been assigned to each criterion, we develop an overall recommendation. Criteria ratings and the overall recommendation are color coded to correspond to the categories on the Seafood Watch pocket guide and online guide:

Best Choice/Green: Buy first; they're well managed and caught or farmed responsibly.

Good Alternative/Yellow: Buy, but be aware there are concerns with how they're caught, farmed or managed.

Avoid/Red: Take a pass on these for now; they're overfished, lack strong management or are caught or farmed in ways that harm other marine life or the environment.

¹ "Fish" is used throughout this document to refer to finfish, shellfish and other invertebrates

Summary

The following Seafood Watch report provides recommendations for Florida pompano (*Trachinotus carolinus*) fisheries occurring on the Atlantic and Gulf coasts of Florida. Commercial fisheries target Florida pompano with hook and line, cast nets, and beach seines in Florida state waters and use gill nets in specified adjacent federal waters. Florida pompano is commercially fished in the United States from Virginia to Texas; landings of Florida pompano in Florida account for over the majority of the commercial harvest. In addition to the commercial fishery discussed in this report, there is an important recreational fishery for Florida pompano in Florida, the impact of which is not assessed in this report.

The most recent assessments of Florida pompano have indicated that their abundance along Florida's Gulf coast is stable and not threatened by fishing mortality, but those reports are now more than 10 years-old and no longer considered to represent the status of this species. The population status and sustainability of fishing levels for Florida pompano in the Atlantic and Gulf are currently unknown, but the IUCN has assessed the species as Least Concern.

The Florida pompano fishery uses highly targeted techniques for all gear types, which results in very low bycatch. Hook and line, cast nets, beach seines, haul seines, and gill nets are used in the pompano fishery. Gill nets in many fisheries have very high bycatch rates, but fishermen in the Florida pompano fishery use these nets in a fairly unique way that results in almost no bycatch. Because all of the allowable gears for fishing Florida pompano have negligible bycatch, and because there are no other retained species in the fishery, there are no other species included in this assessment. Seafood Watch deems bycatch in this fishery to be low concern.

The Florida pompano fishery is a fairly well-managed fishery. There are bag limits, size limits, and gear restrictions in place to regulate the catch of Florida pompano in Florida state waters and adjacent federal waters off the southwest Florida coast. There is limited detailed scientific information on the status of Florida pompano stocks, which creates uncertainty in the effectiveness of current management practices.

Overall, fishing for Florida pompano has low to moderate impact on the habitat and ecosystem. Allowable gears rarely touch the seafloor, and those that do are only fished over sandy habitat. The only gear mitigation in the fishery is for gillnets, the use of which is restricted to a limited amount of habitat in federal waters. Finally, there is no assessment of the fishery's impact on the ecosystem, but the fishery does not catch any species of exceptional ecological importance.

Florida pompano caught with all gears in Florida and adjacent federal waters is rated as Good Alternative.

Final Seafood Recommendations

SPECIES FISHERY	CRITERION 1 TARGET SPECIES	CRITERION 2 OTHER SPECIES	CRITERION 3 MANAGEMENT	CRITERION 4 HABITAT	OVERALL RECOMMENDATION
Florida pompano Gulf of Mexico Atlantic, Western Central Boat seines United States	2.644	5.000	3.000	3.000	Good Alternative (3.303)
Florida pompano Western Central Atlantic Boat seines United States	2.644	5.000	3.000	3.000	Good Alternative (3.303)
Florida pompano Gulf of Mexico Atlantic, Western Central Cast nets United States	2.644	5.000	3.000	3.000	Good Alternative (3.303)
Florida pompano Western Central Atlantic Cast nets United States	2.644	5.000	3.000	3.000	Good Alternative (3.303)
Florida pompano Gulf of Mexico Atlantic, Western Central Drift gillnets United States	2.644	5.000	3.000	3.464	Good Alternative (3.424)
Florida pompano Gulf of Mexico Atlantic, Western Central Handlines and hand-operated pole-and-lines United States	2.644	5.000	3.000	3.873	Good Alternative (3.520)
Florida pompano Western Central Atlantic Handlines and hand-operated pole-and-lines United States	2.644	5.000	3.000	3.873	Good Alternative (3.520)

Summary

Florida pompano stock status and the sustainability of current harvest levels are unknown, but the species is not of conservation concern. The fishery uses highly targeted gears that greatly limits the level of bycatch; additionally, these gears have minimal impact to bottom habitats. There are management measures in place, but management effectiveness is unknown because the stock has not been assessed in recent years. Therefore, Florida Pompano caught with all gears in Florida and adjacent federal waters is rated as Good Alternative.

Scoring Guide

Scores range from zero to five where zero indicates very poor performance and five indicates the fishing operations have no significant impact.

Final Score = geometric mean of the four Scores (Criterion 1, Criterion 2, Criterion 3, Criterion 4).

Best Choice/Green = Final Score >3.2, and no Red Criteria, and no Critical scores

Good Alternative/Yellow = Final score >2.2-3.2, and neither Harvest Strategy (Factor 3.1) nor Bycatch Management Strategy (Factor 3.2) are Very High Concern², and no more than one Red Criterion, and no Critical scores

Avoid/Red = Final Score ≤2.2, or either Harvest Strategy (Factor 3.1) or Bycatch Management Strategy (Factor 3.2) is Very High Concern or two or more Red Criteria, or one or more Critical scores.

² Because effective management is an essential component of sustainable fisheries, Seafood Watch issues an Avoid recommendation for any fishery scored as a Very High Concern for either factor under Management (Criterion 3).

Introduction

Scope of the analysis and ensuing recommendation

This report focuses on the Florida pompano (*Trachinotus carolinus*) commercial fishery using hook and line, cast nets, and beach seines in Florida state waters and using gill nets in specified adjacent federal waters off southwest Florida. Florida pompano is commercially fished in the United States from Virginia to Texas; landings of Florida pompano in Florida, Louisiana, and North Carolina account for 72%, 18%, and 7% of the commercial harvest, respectively {NMFS Fishery Statistics Division 2021}. However, only the Florida fisheries are considered in this report.

Species Overview

Florida pompano can occur from Cape Cod to northern Argentina, but are uncommon north of Chesapeake Bay (de Astarloa et al. 2000) (FFWCC 2018). They are benthic feeders, very fast swimmers, and form large schools in nearshore waters. Pompano are an opportunistic species, primarily feeding on molluscs, crustaceans and other invertebrates (Denadai et al. 2013). They are relatively fast growing and short lived, and approximately half of the population is mature by the age of one (FFWCC 2018). Spawning occurs in the spring and fall in offshore waters near the Gulf Stream (FFWCC 2018).

The Florida Fish and Wildlife Conservation Commission (FFWCC) manages Florida pompano in Florida state waters and in a portion of federal waters designated as a special Pompano Endorsement Zone (PEZ), which was established in 2001 (FFWCC 2012). Both recreational and commercial fishers target Florida pompano, which commands one of the highest prices for food fish in Florida (FWRI and FFWCC 2011).

Production Statistics

Roughly 72% of Florida pompano commercially harvested in the U.S. are landed in Florida (NMFS Fishery Statistics Division 2021). The Florida commercial harvest is divided relatively evenly between the Gulf and Atlantic coasts, with much of the Gulf coast harvest concentrated in Collier County, where most gillnetted Florida pompano are landed (FFWCC 2018). By far, the recreational fishery accounts for a larger portion of fishing mortality; from 2015 to 2019, recreational fishers landed an average of 2.65 million lbs per year, whereas commercial fishers landed 290,302 lbs per year {NMFS Fishery Statistics Division 2020}. In 2017 in Florida, 59% of total landings were from the Gulf and 41% from the Atlantic; recreational fishers accounted for 92.2% of the state's total landings in the same year (FFWCC 2018). In 2019, approximately 184 mt of Florida pompano were caught in U.S. waters (Weirich et al. 2021). Florida recirculating aquaculture systems are aiming for 60 mt per year, while Panama is producing 250-300 mt per year (ibid), but aquaculture production is not considered in this report.

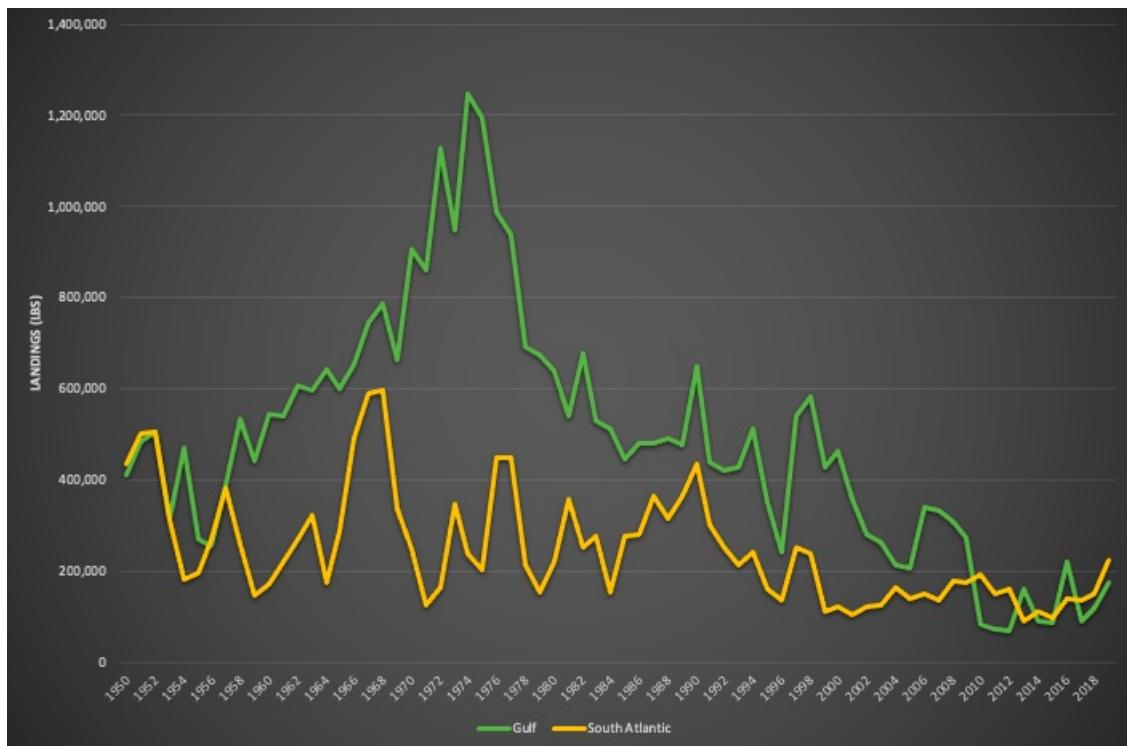
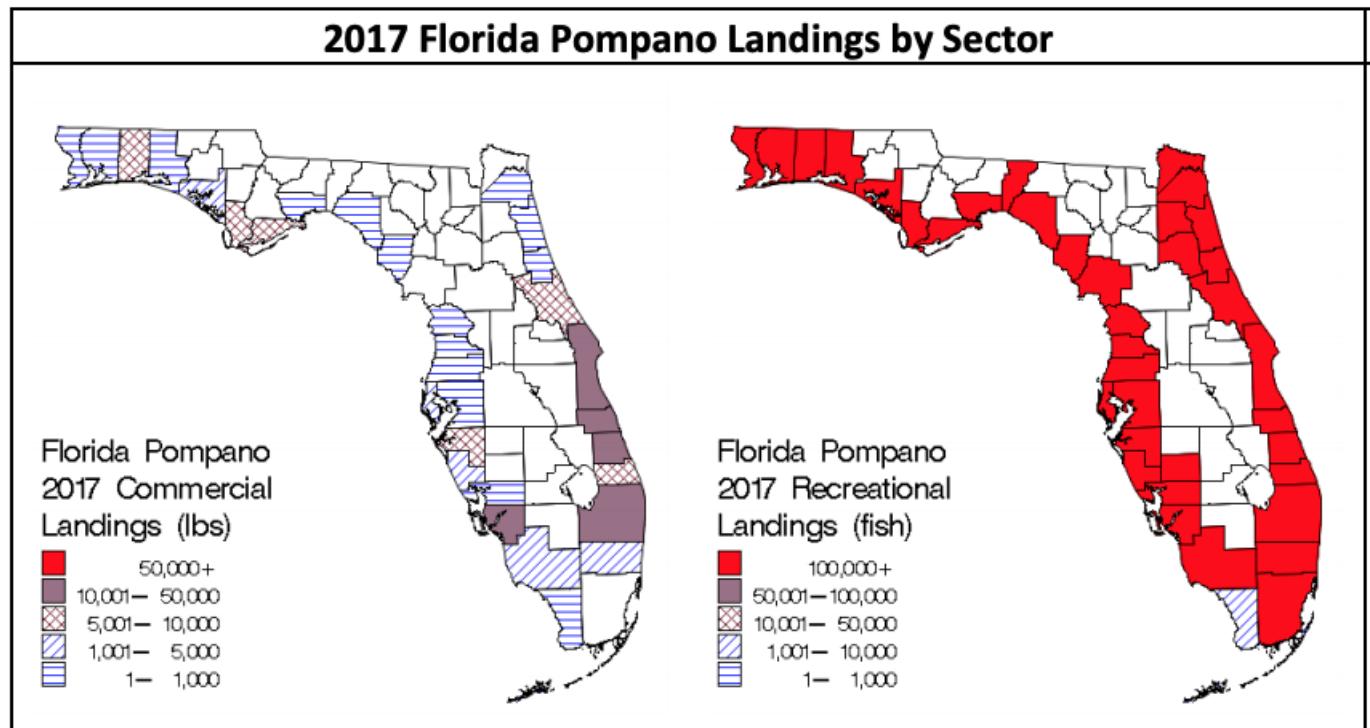


Figure 1: Annual commercial landings (lbs) of Florida pompano from the Gulf and Mid Atlantic fishing regions from 1950-2019. Though landings can vary from year to year, there has been an overall trend of declining landings. Data retrieved from (NMFS Fishery Statistics Division 2021).



Importance to the US/North American market.

Florida pompano is of minor importance to the overall U.S. market, as landings are comparatively small and fish are seldom shipped far beyond their port of landing (FWRI and FFWCC 2011). They can be locally important in Florida, however, as the fish command some of the highest per pound prices of any species in the country (FWRI and FFWCC 2011). The export market for Florida pompano is negligible.

Common and market names.

Florida pompano, pompano.

Primary product forms

Whole fish, sometimes with head and tail off.

Assessment

This section assesses the sustainability of the fishery(s) relative to the Seafood Watch Standard for Fisheries, available at www.seafoodwatch.org. The specific standard used is referenced on the title page of all Seafood Watch assessments.

Criterion 1: Impacts on the species under assessment

This criterion evaluates the impact of fishing mortality on the species, given its current abundance. When abundance is unknown, abundance is scored based on the species' inherent vulnerability, which is calculated using a Productivity-Susceptibility Analysis. The final Criterion 1 score is determined by taking the geometric mean of the abundance and fishing mortality scores. The Criterion 1 rating is determined as follows:

- **Score >3.2=Green or Low Concern**
- **Score >2.2 and ≤3.2=Yellow or Moderate Concern**
- **Score ≤2.2 = Red or High Concern**

Rating is Critical if Factor 1.3 (Fishing Mortality) is Critical.

Guiding principles

- *Ensure all affected stocks are healthy and abundant.*
- *Fish all affected stocks at sustainable level*

Criterion 1 Summary

FLORIDA POMPANO			
REGION / METHOD	ABUNDANCE	FISHING MORTALITY	SCORE
Gulf of Mexico Atlantic, Western Central Boat seines United States	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)
Western Central Atlantic Boat seines United States	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)
Gulf of Mexico Atlantic, Western Central Cast nets United States	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)
Western Central Atlantic Cast nets United States	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)
Gulf of Mexico Atlantic, Western Central Drift gillnets United States	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)
Gulf of Mexico Atlantic, Western Central Handlines and hand-operated pole-and-lines United States	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)
Western Central Atlantic Handlines and hand-operated pole-and-lines United States	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)

Criterion 1 Assessments

SCORING GUIDELINES

Factor 1.1 - Abundance

Goal: Stock abundance and size structure of native species is maintained at a level that does not impair recruitment or productivity.

- 5 (Very Low Concern) — *Strong evidence exists that the population is above an appropriate target abundance level (given the species' ecological role), or near virgin biomass.*
- 3.67 (Low Concern) — *Population may be below target abundance level, but is at least 75% of the target level, OR data-limited assessments suggest population is healthy and species is not highly vulnerable.*
- 2.33 (Moderate Concern) — *Population is not overfished but may be below 75% of the target abundance level, OR abundance is unknown and the species is not highly vulnerable.*
- 1 (High Concern) — *Population is considered overfished/depleted, a species of concern, threatened or endangered, OR abundance is unknown and species is highly vulnerable.*

Factor 1.2 - Fishing Mortality

Goal: Fishing mortality is appropriate for current state of the stock.

- 5 (Low Concern) — *Probable (>50%) that fishing mortality from all sources is at or below a sustainable level, given the species ecological role, OR fishery does not target species and fishing mortality is low enough to not adversely affect its population.*
- 3 (Moderate Concern) — *Fishing mortality is fluctuating around sustainable levels, OR fishing mortality relative to a sustainable level is uncertain.*
- 1 (High Concern) — *Probable that fishing mortality from all source is above a sustainable level.*

Florida pompano

Factor 1.1 - Abundance

Gulf of Mexico | Atlantic, Western Central | Boat seines | United States

Western Central Atlantic | Boat seines | United States

Gulf of Mexico | Atlantic, Western Central | Cast nets | United States

Western Central Atlantic | Cast nets | United States

Gulf of Mexico | Atlantic, Western Central | Drift gillnets | United States

Gulf of Mexico | Atlantic | Western Central | Handlines and hand-operated pole-and-lines | United States

Western Central Atlantic | Handlines and hand-operated pole-and-lines | United States

Moderate Concern

There are no recent stock assessments for Florida pompano in the Atlantic or in Gulf of Mexico. The last assessment was performed in 2010 (FFWCC 2018); Seafood Watch considers data that is greater than 10 years-old to be out of date and the resulting stock status unknown. Standardized catch rates and indices of abundance for young-of-the-year vary markedly for pompano in the Gulf and Atlantic. Commercial catch rates on the Atlantic coast have been generally increasing since 2013, while the Gulf coast has experienced a similar trend since 2012 (FWRI 2020). Recreational catch rates on the Atlantic have shown an overall increasing trend, while the Gulf coast catch rates have varied without a trend (ibid). FFWCC considers the current stock status to be unknown (FFWCC 2018)(FWRI 2020). Because Florida pompano is widely distributed and locally abundant, the IUCN assessed it as a species of Least Concern at both the global level and in the Gulf of Mexico (Smith-Vaniz et al. 2015).

Given the IUCN rating, the absence of recent stock assessments, and unknown stock statuses on both coasts, Florida pompano abundance is scored as "moderate" concern.

Justification:

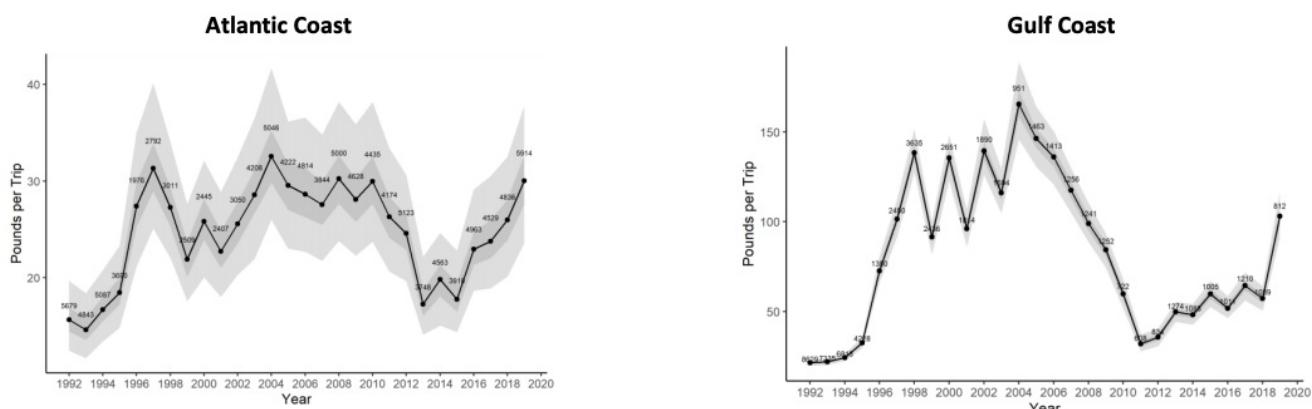


Figure 2: Standardized commercial catch rates for Florida pompano in the Atlantic and Gulf coast of Florida. Dark grey ribbons represent first and third quartiles while light grey ribbons represent the 2.5% - 97.5% quartiles (FWRI 2020).

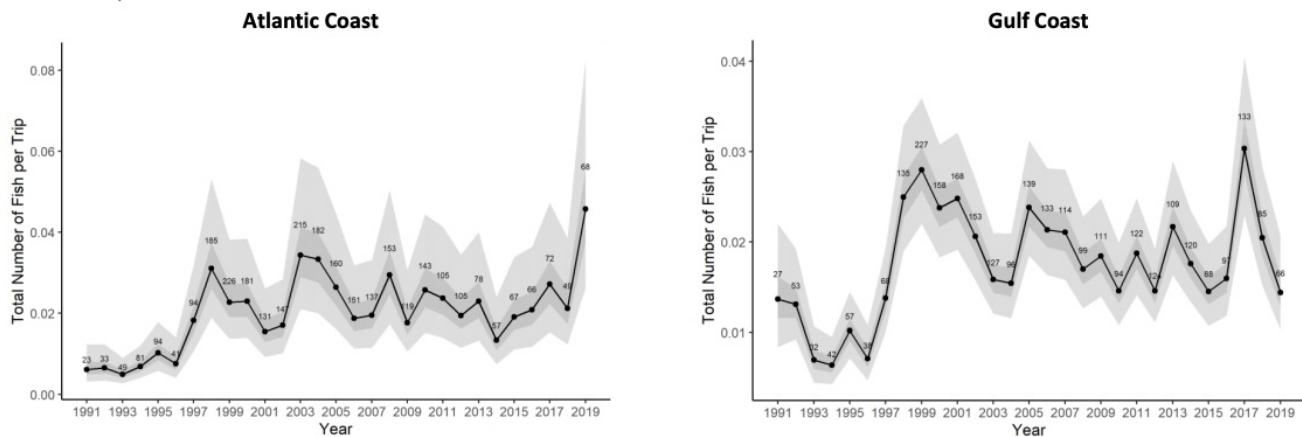


Figure 3: Standardized recreational catch rates for Florida pompano in the Atlantic and Gulf coast of Florida. Dark grey ribbons represent first and third quartiles while light grey ribbons represent the 2.5% - 97.5% quartiles (FWRI 2020).

Factor 1.2 - Fishing Mortality

Gulf of Mexico | Atlantic, Western Central | Boat seines | United States

Western Central Atlantic | Boat seines | United States

Gulf of Mexico | Atlantic, Western Central | Cast nets | United States

Western Central Atlantic | Cast nets | United States

Gulf of Mexico | Atlantic, Western Central | Drift gillnets | United States

Gulf of Mexico | Atlantic, Western Central | Handlines and hand-operated pole-and-lines | United States

Western Central Atlantic | Handlines and hand-operated pole-and-lines | United States

Moderate Concern

Without a recent stock assessment, current levels of fishing mortality are unknown. Recreational fisheries account for 90% of Florida pompano landings; total landings from both sectors in 2019 were 112% higher the previous 5-year average (FWRI 2020), which was due to unusually high landings in the Atlantic recreational fisheries (NMFS Fishery Statistics Division 2021). The sustainability of current fishing levels is unknown and a moderate concern score is awarded.

Justification:

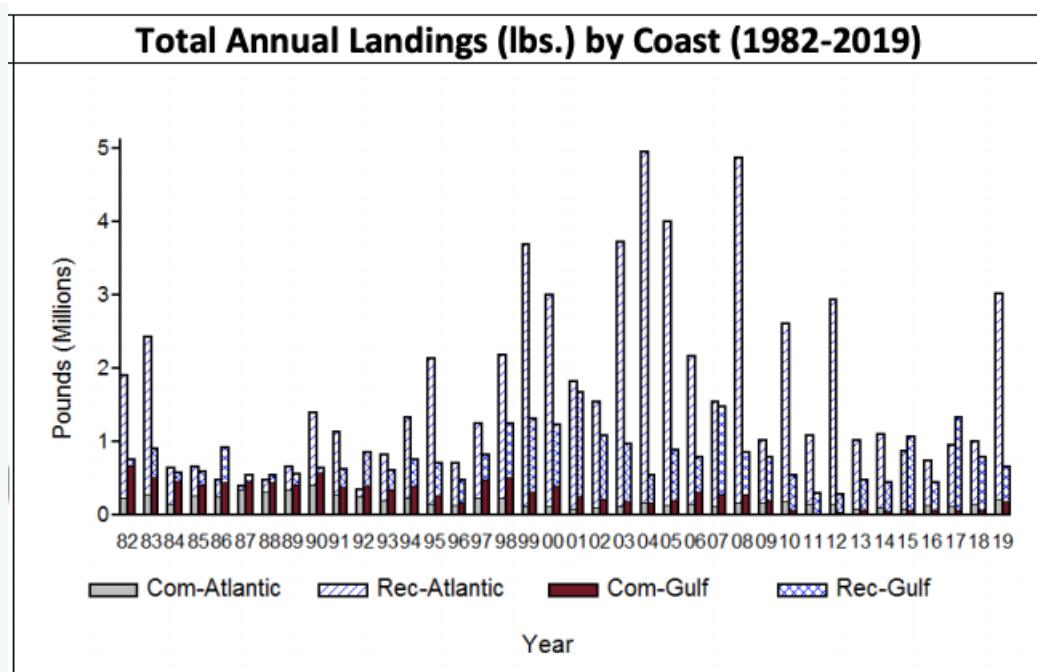


Figure 4: Total annual landings (pounds) of Florida pompano in Florida by Coast from 1982-2019 (FWRI 2020).

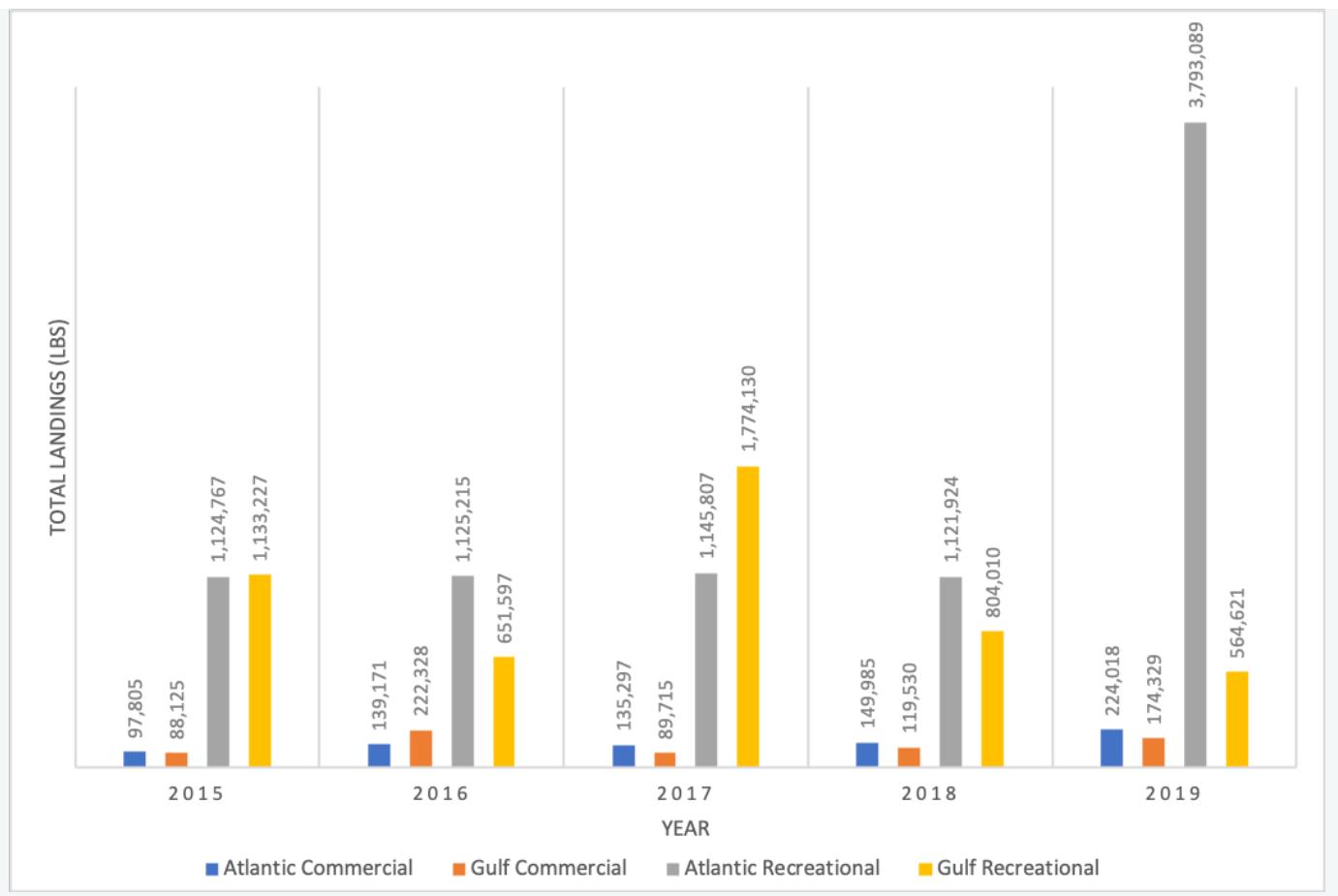


Figure 5: Total landings of Florida pompano by sector for the Atlantic and Gulf of Mexico from 2015 to 2019. Data retrieved from NMFS Fishery Statistics Division 2021.

Criterion 2: Impacts on Other Species

All main retained and bycatch species in the fishery are evaluated under Criterion 2. Seafood Watch defines bycatch as all fisheries-related mortality or injury to species other than the retained catch. Examples include discards, endangered or threatened species catch, and ghost fishing. Species are evaluated using the same guidelines as in Criterion 1. When information on other species caught in the fishery is unavailable, the fishery's potential impacts on other species is scored according to the Unknown Bycatch Matrices, which are based on a synthesis of peer-reviewed literature and expert opinion on the bycatch impacts of each gear type. The fishery is also scored for the amount of non-retained catch (discards) and bait use relative to the retained catch. To determine the final Criterion 2 score, the score for the lowest scoring retained/bycatch species is multiplied by the discard/bait score. The Criterion 2 rating is determined as follows:

- **Score >3.2=Green or Low Concern**
- **Score >2.2 and ≤3.2=Yellow or Moderate Concern**
- **Score ≤2.2 = Red or High Concern**

Rating is Critical if Factor 2.3 (Fishing Mortality) is Critical

Guiding principles

- *Ensure all affected stocks are healthy and abundant.*
- *Fish all affected stocks at sustainable level.*
- *Minimize bycatch.*

Criterion 2 Summary

Criterion 2 score(s) overview

This table(s) provides an overview of the Criterion 2 subscore, discards+bait modifier, and final Criterion 2 score for each fishery. A separate table is provided for each species/stock that we want an overall rating for.

FLORIDA POMPANO			
REGION / METHOD	SUB SCORE	DISCARD RATE/LANDINGS	SCORE
Gulf of Mexico Atlantic, Western Central Boat seines United States	5.000	1.000: < 100%	Green (5.000)
Western Central Atlantic Boat seines United States	5.000	1.000: < 100%	Green (5.000)
Gulf of Mexico Atlantic, Western Central Cast nets United States	5.000	1.000: < 100%	Green (5.000)
Western Central Atlantic Cast nets United States	5.000	1.000: < 100%	Green (5.000)
Gulf of Mexico Atlantic, Western Central Drift gillnets United States	5.000	1.000: < 100%	Green (5.000)
Gulf of Mexico Atlantic, Western Central Handlines and hand-operated pole-and-lines United States	5.000	1.000: < 100%	Green (5.000)
Western Central Atlantic Handlines and hand-operated pole-and-lines United States	5.000	1.000: < 100%	Green (5.000)

Criterion 2 main assessed species/stocks table(s)

This table(s) provides a list of all species/stocks included in this assessment for each 'fishery' (as defined by a region/method combination). The text following this table(s) provides an explanation of the reasons the listed species were selected for inclusion in the assessment.

GULF OF MEXICO ATLANTIC, WESTERN CENTRAL BOAT SEINES UNITED STATES			
SUB SCORE: 5.000		DISCARD RATE: 1.000	SCORE: 5.000
SPECIES	ABUNDANCE	FISHING MORTALITY	SCORE
Florida pompano	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)

GULF OF MEXICO ATLANTIC, WESTERN CENTRAL CAST NETS UNITED STATES			
SUB SCORE: 5.000		DISCARD RATE: 1.000	SCORE: 5.000
SPECIES	ABUNDANCE	FISHING MORTALITY	SCORE
Florida pompano	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)

GULF OF MEXICO ATLANTIC, WESTERN CENTRAL DRIFT GILLNETS UNITED STATES			
SUB SCORE: 5.000		DISCARD RATE: 1.000	SCORE: 5.000
SPECIES	ABUNDANCE	FISHING MORTALITY	SCORE
Florida pompano	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)

GULF OF MEXICO | ATLANTIC, WESTERN CENTRAL | HANDLINES AND HAND-OPERATED POLE-AND-LINES | UNITED STATES

SUB SCORE: 5.000		DISCARD RATE: 1.000	SCORE: 5.000
SPECIES	ABUNDANCE	FISHING MORTALITY	SCORE
Florida pompano	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)

WESTERN CENTRAL ATLANTIC | BOAT SEINES | UNITED STATES

SUB SCORE: 5.000		DISCARD RATE: 1.000	SCORE: 5.000
SPECIES	ABUNDANCE	FISHING MORTALITY	SCORE
Florida pompano	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)

WESTERN CENTRAL ATLANTIC | CAST NETS | UNITED STATES

SUB SCORE: 5.000		DISCARD RATE: 1.000	SCORE: 5.000
SPECIES	ABUNDANCE	FISHING MORTALITY	SCORE
Florida pompano	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)

WESTERN CENTRAL ATLANTIC | HANDLINES AND HAND-OPERATED POLE-AND-LINES | UNITED STATES

SUB SCORE: 5.000		DISCARD RATE: 1.000	SCORE: 5.000
SPECIES	ABUNDANCE	FISHING MORTALITY	SCORE
Florida pompano	2.330: Moderate Concern	3.000: Moderate Concern	Yellow (2.644)

Bycatch in the Florida pompano fishery is negligible for all allowable gears, and there are no other retained species besides pompano, thus no species are assessed in Criterion 2. Hook and line and cast nets are fishing gears that usually have very low bycatch, and the pompano fishery is no exception. Beach seines and haul seines also have very low bycatch in the pompano fishery. Gill nets in many fisheries have very high bycatch rates, but fishermen in the Florida pompano fishery use these gill and entangling nets in a fairly unique way that results in almost no bycatch. Fishermen use the nets in a manner similar to a purse seine, where they find a school of pompano, set the gill net on one side of it, then move the boat to the other side of the school and make noise to scare the fish into the net, or they encircle the school (R. Muller, pers. comm.). They then immediately haul the net, resulting in a very short and targeted soak time, and thus almost no bycatch. Because all of the allowable gears for fishing Florida pompano have negligible bycatch, Seafood Watch deems this fishery to have insignificant bycatch.

Criterion 2 Assessment

SCORING GUIDELINES

Factor 2.1 - Abundance

(same as Factor 1.1 above)

Factor 2.2 - Fishing Mortality

(same as Factor 1.2 above)

Factor 2.3 - Modifying Factor: Discards and Bait Use

Goal: Fishery optimizes the utilization of marine and freshwater resources by minimizing post-harvest loss. For fisheries that use bait, bait is used efficiently.

Scoring Guidelines: The discard rate is the sum of all dead discards (i.e. non-retained catch) plus bait use divided by the total retained catch.

Ratio of bait + discards/landings	Factor 2.3 score
<100%	1
>=100	0.75

Factor 2.3 - Discard Rate/Landings

Gulf of Mexico | Atlantic, Western Central | Boat seines | United States

Western Central Atlantic | Boat seines | United States

Gulf of Mexico | Atlantic, Western Central | Cast nets | United States

Western Central Atlantic | Cast nets | United States

Gulf of Mexico | Atlantic, Western Central | Drift gillnets | United States

Gulf of Mexico | Atlantic, Western Central | Handlines and hand-operated pole-and-lines | United States

Western Central Atlantic | Handlines and hand-operated pole-and-lines | United States

< 100%

The Florida pompano fishery uses highly targeted techniques for all gear types, which results in very low bycatch (R. Muller, pers. comm.). The majority of bycatch consists of undersized Florida pompano, which are returned to the water alive and are expected to survive (R. Muller, pers. comm.). Therefore, the fishery has a discards/landings ratio of less than 100%.

Criterion 3: Management Effectiveness

Five factors are evaluated in Criterion 3: Management Strategy and Implementation, Bycatch Strategy, Scientific Research/Monitoring, Enforcement of Regulations, and Inclusion of Stakeholders. Each is scored as either 'highly effective', 'moderately effective', 'ineffective', or 'critical'. The final Criterion 3 score is determined as follows:

- 5 (Very Low Concern) — Meets the standards of 'highly effective' for all five factors considered.
- 4 (Low Concern) — Meets the standards of 'highly effective' for 'management strategy and implementation' and at least 'moderately effective' for all other factors.
- 3 (Moderate Concern) — Meets the standards for at least 'moderately effective' for all five factors.
- 2 (High Concern) — At a minimum, meets standards for 'moderately effective' for Management Strategy and Implementation and Bycatch Strategy, but at least one other factor is rated 'ineffective.'
- 1 (Very High Concern) — Management Strategy and Implementation and/or Bycatch Management are 'ineffective.'
- 0 (Critical) — Management Strategy and Implementation is 'critical'.

The Criterion 3 rating is determined as follows:

- **Score >3.2=Green or Low Concern**
- **Score >2.2 and ≤3.2=Yellow or Moderate Concern**
- **Score ≤2.2 = Red or High Concern**

Rating is Critical if Management Strategy and Implementation is Critical.

Guiding principle

- The fishery is managed to sustain the long-term productivity of all impacted species.

Five factors are evaluated in Criterion 3: Management Strategy and Implementation, Bycatch Strategy, Scientific Research/Monitoring, Enforcement of Regulations, and Inclusion of Stakeholders. Each is scored as either 'highly effective', 'moderately effective', 'ineffective', or 'critical'. The final Criterion 3 score is determined as follows:

Criterion 3 Summary

FISHERY	MANAGEMENT STRATEGY	BYCATCH STRATEGY	DATA COLLECTION AND ANALYSIS	ENFORCEMENT	INCLUSION	SCORE
Gulf of Mexico Atlantic, Western Central Boat seines United States	Moderately Effective	Highly effective	Moderately Effective	Moderately Effective	Highly effective	Yellow (3.000)
Gulf of Mexico Atlantic, Western Central Cast nets United States	Moderately Effective	Highly effective	Moderately Effective	Moderately Effective	Highly effective	Yellow (3.000)
Gulf of Mexico Atlantic, Western Central Drift gillnets United States	Moderately Effective	Highly effective	Moderately Effective	Moderately Effective	Highly effective	Yellow (3.000)
Gulf of Mexico Atlantic, Western Central Handlines and hand-operated pole-and-lines United States	Moderately Effective	Highly effective	Moderately Effective	Moderately Effective	Highly effective	Yellow (3.000)
Western Central Atlantic Boat seines United States	Moderately Effective	Highly effective	Moderately Effective	Moderately Effective	Highly effective	Yellow (3.000)
Western Central Atlantic Cast nets United States	Moderately Effective	Highly effective	Moderately Effective	Moderately Effective	Highly effective	Yellow (3.000)
Western Central Atlantic Handlines and hand-operated pole-and-lines United States	Moderately Effective	Highly effective	Moderately Effective	Moderately Effective	Highly effective	Yellow (3.000)

Florida pompano fisheries are managed at the state level. There are bag limits, size limits, and gear restrictions in place to regulate the catch of Florida pompano in state waters and adjacent federal waters. There is limited detailed scientific information on the status of Florida pompano stocks, which creates uncertainty in the effectiveness of current fishery regulations. This level of uncertainty results in an overall ranking of 'Moderately Effective' for the fishery management. Because all of the allowable gears for fishing Florida pompano have negligible bycatch, Seafood watch deems this fishery to have insignificant bycatch, and thus does not score the fishery for effectiveness of bycatch management.

Criterion 3 Assessment

SCORING GUIDELINES

Factor 3.1 - Management Strategy and Implementation

Considerations: What type of management measures are in place? Are there appropriate management goals, and is there evidence that management goals are being met? Do managers follow scientific advice? To achieve a highly effective rating, there must be appropriately defined management goals, precautionary policies that are based on scientific advice, and evidence that the measures in place have been successful at maintaining/rebuilding species.

Factor 3.2 - Bycatch Strategy

Considerations: What type of management strategy/measures are in place to reduce the impacts of the fishery on bycatch species and when applicable, to minimize ghost fishing? How successful are these management measures? To achieve a Highly Effective rating, the fishery must have no or low bycatch, or if there are bycatch or ghost fishing concerns, there must be effective measures in place to minimize impacts.

Factor 3.3 - Scientific Research and Monitoring

Considerations: How much and what types of data are collected to evaluate the fishery's impact on the species? Is there adequate monitoring of bycatch? To achieve a Highly Effective rating, regular, robust population assessments must be conducted for target or retained species, and an adequate bycatch data collection program must be in place to ensure bycatch management goals are met.

Factor 3.4 - Enforcement of Management Regulations

Considerations: Do fishermen comply with regulations, and how is this monitored? To achieve a Highly Effective rating, there must be regular enforcement of regulations and verification of compliance.

Factor 3.5 - Stakeholder Inclusion

Considerations: Are stakeholders involved/included in the decision-making process? Stakeholders are individuals/groups/organizations that have an interest in the fishery or that may be affected by the management of the fishery (e.g., fishermen, conservation groups, etc.). A Highly Effective rating is given if the management process is transparent, if high participation by all stakeholders is encouraged, and if there is a mechanism to effectively address user conflicts.

Factor 3.1 - Management Strategy And Implementation

Gulf of Mexico | Atlantic, Western Central | Boat seines | United States

Western Central Atlantic | Boat seines | United States

Gulf of Mexico | Atlantic, Western Central | Cast nets | United States

Western Central Atlantic | Cast nets | United States

Gulf of Mexico | Atlantic, Western Central | Drift gillnets | United States

Gulf of Mexico | Atlantic, Western Central | Handlines and hand-operated pole-and-lines | United States

Western Central Atlantic | Handlines and hand-operated pole-and-lines | United States

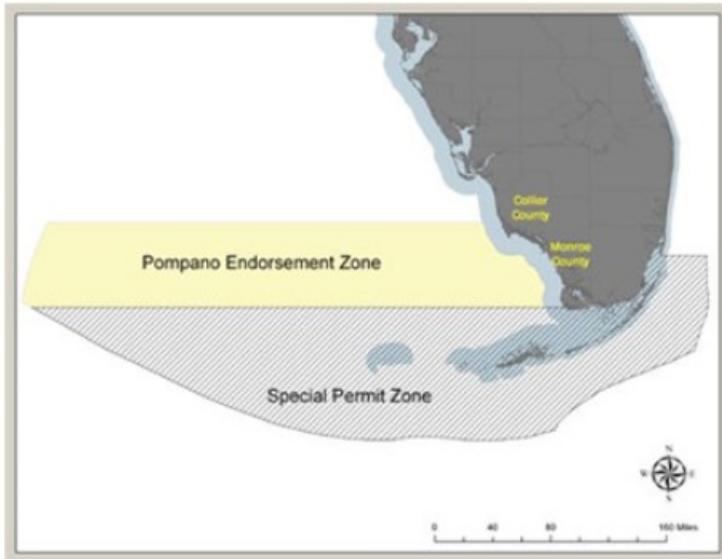
Moderately Effective

The Florida Fish and Wildlife Conservation Commission (FFWCC) is the managing body for Florida pompano, and their take has been regulated by the state since 1989 (FWRI and FFWCC 2011). The FFWCC manages Florida pompano both in state waters and in adjacent federal waters where take of the species is allowed. Legal gears for Florida pompano include hook and line, cast net, beach or haul seine in state and federal waters, and gill or entangling nets in federal waters off southwest Florida (FFWCC 2012). Only pompano between 11" and 20" fork length (length from nose to where the tail forks) may be harvested (FFWCC 2012). Commercial fishermen with a saltwater products license and a restricted species endorsement may take up to 250 pompano per trip. They may take an unlimited amount if they have a pompano endorsement and are targeting pompano using gill nets (FFWCC 2012). Fishermen are only allowed to target pompano with gill nets in a special pompano endorsement zone (PEZ in figure below) in federal waters.

Fishermen targeting other species with gillnets in federal waters outside of the PEZ may land 100 Florida pompano as incidental bycatch. Additionally, vessels using gill nets in federal waters must transit state waters without stopping, and there are restrictions on the mesh size and overall size of allowable gill nets (FFWCC 2012). Without a current stock assessment (the latest assessment was completed in 2008), it is difficult to determine how successful the current Florida pompano management strategy is at achieving its goals. In 2011, the FFWCC commissioned a report investigating the potential effect of increasing the minimum allowable size for Florida pompano (FWRI and FFWCC 2011). The report shows that increasing the minimum size would likely increase Florida pompano biomass and help buffer against unforeseen changes in stock status (FWRI and FFWCC 2011). The FFWCC has proposed changing the size limit, but the change has not been implemented to date.

Because the effectiveness of current management strategies are unknown and it is unlikely that commercial fisheries for pompano are having serious negative impacts to pompano populations, we award a "moderately" effective score.

Justification:



The pompano endorsement zone on the west coast of Florida is open to fishers with pompano endorsements to unlimited number of pompano with gill and entangling nets. Figure from FFWCC 2012.

Factor 3.2 - Bycatch Strategy

Gulf of Mexico | Atlantic, Western Central | Boat seines | United States

Western Central Atlantic | Boat seines | United States

Gulf of Mexico | Atlantic, Western Central | Cast nets | United States

Western Central Atlantic | Cast nets | United States

Gulf of Mexico | Atlantic, Western Central | Drift gillnets | United States

Gulf of Mexico | Atlantic, Western Central | Handlines and hand-operated pole-and-lines | United States

Western Central Atlantic | Handlines and hand-operated pole-and-lines | United States

Highly effective

The pompano fishery does not negatively impact any species or stocks of concern. Though gill nets can have negative impacts on species of concern in some other fisheries, pompano fishermen use gill nets differently, using them to directly target pompano schools and quickly hauling them in (R. Muller, pers. comm.). Therefore, they do not result in the high bycatch that gill nets can accumulate in other fisheries during long soak times or indiscriminate setting.

Factor 3.3 - Scientific Data Collection and Analysis

Gulf of Mexico | Atlantic, Western Central | Boat seines | United States

Western Central Atlantic | Boat seines | United States

Gulf of Mexico | Atlantic, Western Central | Cast nets | United States

Western Central Atlantic | Cast nets | United States

Gulf of Mexico | Atlantic, Western Central | Drift gillnets | United States

Gulf of Mexico | Atlantic, Western Central | Handlines and hand-operated pole-and-lines | United States

Western Central Atlantic | Handlines and hand-operated pole-and-lines | United States

Moderately Effective

Florida's Fish and Wildlife Research Institute (FWRI) conducts scientific monitoring of Florida's fish populations for the FFWCC, including fisheries-dependent data (e.g. commercial and recreational landings and catch rates) and fishery-independent data (index of abundance for young-of-the-year) (FWRI 2020). The latest full stock assessment for Florida pompano stocks was completed with data through 2005 (Murphy et al. 2008), though an updated assessment was done in 2011 to investigate whether a change in management regulations was needed. This assessment included data from 2006-2009 (FWRI and FFWCC 2011) and provided some information on stock status.

Management has a fairly good history of following scientific advice and implementing recommended changes to fishery regulations, such as ending gillnetting in state waters and increasing the minimum allowable size from ten inches to eleven inches (Muller et al. 2008; FWRI and FFWCC 2011). However, a recently commissioned report found that raising the minimum allowable size limit to twelve inches would increase biomass/abundance of both the Gulf and Atlantic coast Florida pompano populations, yet managers have not increased the size limit (FWRI and FFWCC 2011). While some data is collected related to stock health, it is not sufficient to meet "highly effective" category. Therefore, Seafood Watch deems scientific advice for the Florida pompano fishery to be "moderately effective."

Factor 3.4 - Enforcement of and Compliance with Management Regulations

Gulf of Mexico | Atlantic, Western Central | Boat seines | United States

Western Central Atlantic | Boat seines | United States

Gulf of Mexico | Atlantic, Western Central | Cast nets | United States

Western Central Atlantic | Cast nets | United States

Gulf of Mexico | Atlantic, Western Central | Drift gillnets | United States

Gulf of Mexico | Atlantic, Western Central | Handlines and hand-operated pole-and-lines | United States

Western Central Atlantic | Handlines and hand-operated pole-and-lines | United States

Moderately Effective

The FFWCC operates a division of law enforcement that enforces regulations and includes both uniformed and plainclothes investigators (FFWCC 2013b). There is no onboard observer system for the Florida pompano commercial fishery, and most enforcement of regulations occurs at the dock (R. Muller, pers. comm.). Because enforcement and monitoring are in place but their effectiveness is uncertain, Seafood Watch deems the enforcement to be 'Moderately Effective.

Factor 3.5 - Stakeholder Inclusion

Gulf of Mexico | Atlantic, Western Central | Boat seines | United States

Western Central Atlantic | Boat seines | United States

Gulf of Mexico | Atlantic, Western Central | Cast nets | United States

Western Central Atlantic | Cast nets | United States

Gulf of Mexico | Atlantic, Western Central | Drift gillnets | United States

Gulf of Mexico | Atlantic, Western Central | Handlines and hand-operated pole-and-lines | United States

Western Central Atlantic | Handlines and hand-operated pole-and-lines | United States

Highly effective

The FFWCC has an excellent record of stakeholder inclusion, with public meetings held throughout the state and posted to their website (FFWCC 2012). FFWCC provides opportunities for in-person participation during public workshops, as well as forms online for stakeholders to submit comments related to fisheries management (FFWCC 2013).

Criterion 4: Impacts on the Habitat and Ecosystem

This Criterion assesses the impact of the fishery on seafloor habitats, and increases that base score if there are measures in place to mitigate any impacts. The fishery's overall impact on the ecosystem and food web and the use of ecosystem-based fisheries management (EBFM) principles is also evaluated. Ecosystem Based Fisheries Management aims to consider the interconnections among species and all natural and human stressors on the environment. The final score is the geometric mean of the impact of fishing gear on habitat score (factor 4.1 + factor 4.2) and the Ecosystem Based Fishery Management score. The Criterion 4 rating is determined as follows:

- **Score >3.2=Green or Low Concern**
- **Score >2.2 and ≤3.2=Yellow or Moderate Concern**
- **Score ≤2.2 = Red or High Concern**

Guiding principles

- Avoid negative impacts on the structure, function or associated biota of marine habitats where fishing occurs.
- Maintain the trophic role of all aquatic life.
- Do not result in harmful ecological changes such as reduction of dependent predator populations, trophic cascades, or phase shifts.
- Ensure that any enhancement activities and fishing activities on enhanced stocks do not negatively affect the diversity, abundance, productivity, or genetic integrity of wild stocks.
- Follow the principles of ecosystem-based fisheries management.

Rating cannot be Critical for Criterion 4.

Criterion 4 Summary

FISHERY	FISHING GEAR ON THE SUBSTRATE	MITIGATION OF GEAR IMPACTS	ECOSYSTEM-BASED FISHERIES MGMT	FORAGE SPECIES?	SCORE
Gulf of Mexico Atlantic, Western Central Boat seines United States	3	0	Moderate Concern		Yellow (3.000)
Gulf of Mexico Atlantic, Western Central Cast nets United States	3	0	Moderate Concern		Yellow (3.000)
Gulf of Mexico Atlantic, Western Central Drift gillnets United States	3	+1	Moderate Concern		Green (3.464)
Gulf of Mexico Atlantic, Western Central Handlines and hand-operated pole-and-lines United States	5	0	Moderate Concern		Green (3.873)
Western Central Atlantic Boat seines United States	3	0	Moderate Concern		Yellow (3.000)
Western Central Atlantic Cast nets United States	3	0	Moderate Concern		Yellow (3.000)
Western Central Atlantic Handlines and hand-operated pole-and-lines United States	5	0	Moderate Concern		Green (3.873)

Criterion 4 Assessment

SCORING GUIDELINES

Factor 4.1 - Physical Impact of Fishing Gear on the Habitat/Substrate

Goal: The fishery does not adversely impact the physical structure of the ocean habitat, seafloor or associated biological communities.

- 5 - *Fishing gear does not contact the bottom*
- 4 - *Vertical line gear*
- 3 - *Gears that contacts the bottom, but is not dragged along the bottom (e.g. gillnet, bottom longline, trap) and is not fished on sensitive habitats. Or bottom seine on resilient mud/sand habitats. Or midwater trawl that is known to contact bottom occasionally. Or purse seine known to commonly contact the bottom.*
- 2 - *Bottom dragging gears (dredge, trawl) fished on resilient mud/sand habitats. Or gillnet, trap, or bottom longline fished on sensitive boulder or coral reef habitat. Or bottom seine except on mud/sand. Or there is known trampling of coral reef habitat.*
- 1 - *Hydraulic clam dredge. Or dredge or trawl gear fished on moderately sensitive habitats (e.g., cobble or boulder)*
- 0 - *Dredge or trawl fished on biogenic habitat, (e.g., deep-sea corals, eelgrass and maerl)*

Note: When multiple habitat types are commonly encountered, and/or the habitat classification is uncertain, the score will be based on the most sensitive, plausible habitat type.

Factor 4.2 - Modifying Factor: Mitigation of Gear Impacts

Goal: Damage to the seafloor is mitigated through protection of sensitive or vulnerable seafloor habitats, and limits on the spatial footprint of fishing on fishing effort.

- +1 —>50% of the habitat is protected from fishing with the gear type. Or fishing intensity is very low/limited and for trawled fisheries, expansion of fishery's footprint is prohibited. Or gear is specifically modified to reduce damage to seafloor and modifications have been shown to be effective at reducing damage. Or there is an effective combination of 'moderate' mitigation measures.
- +0.5 —At least 20% of all representative habitats are protected from fishing with the gear type and for trawl fisheries, expansion of the fishery's footprint is prohibited. Or gear modification measures or other measures are in place to limit fishing effort, fishing intensity, and spatial footprint of damage caused from fishing that are expected to be effective.
- 0 —No effective measures are in place to limit gear impacts on habitats or not applicable because gear used is benign and received a score of 5 in factor 4.1

Factor 4.3 - Ecosystem-Based Fisheries Management

Goal: All stocks are maintained at levels that allow them to fulfill their ecological role and to maintain a functioning ecosystem and food web. Fishing activities should not seriously reduce ecosystem services provided by any retained species or result in harmful changes such as trophic cascades, phase shifts or reduction of genetic diversity. Even non-native species should be considered with respect to ecosystem impacts. If a fishery is managed in order to eradicate a non-native, the potential impacts of that strategy on native species in the ecosystem should be considered and rated below.

- 5 — *Policies that have been shown to be effective are in place to protect species' ecological roles and ecosystem functioning (e.g. catch limits that ensure species' abundance is maintained at sufficient levels to provide food to predators) and effective spatial management is used to protect spawning and foraging areas, and prevent localized depletion. Or it has been scientifically demonstrated that fishing practices do not have negative ecological effects.*
- 4 — *Policies are in place to protect species' ecological roles and ecosystem functioning but have not proven to be effective and at least some spatial management is used.*
- 3 — *Policies are not in place to protect species' ecological roles and ecosystem functioning but detrimental food web impacts are not likely or policies in place may not be sufficient to protect species' ecological roles and ecosystem functioning.*
- 2 — *Policies are not in place to protect species' ecological roles and ecosystem functioning and the likelihood of detrimental food impacts are likely (e.g. trophic cascades, alternate stable states, etc.), but conclusive scientific evidence is not available for this fishery.*
- 1 — *Scientifically demonstrated trophic cascades, alternate stable states or other detrimental food web impact are resulting from this fishery.*

Factor 4.1 - Physical Impact of Fishing Gear on the Habitat/Substrate

Gulf of Mexico | Atlantic, Western Central | Boat seines | United States

Western Central Atlantic | Boat seines | United States

Gulf of Mexico | Atlantic, Western Central | Cast nets | United States

Western Central Atlantic | Cast nets | United States

Gulf of Mexico | Atlantic, Western Central | Drift gillnets | United States

3

Fishing for pompano takes place over sandy substrates and only rarely touches the bottom. Cast nets used in the Florida pompano fishery use heavy weights to cause the net to sink quickly to trap the fish, so they contact the substrate. Gillnets and seines contact the substrate, but their impact is limited due to the sandy, dynamic habitat in which they are used. Therefore, each of these gears score "3".

Gulf of Mexico | Atlantic, Western Central | Handlines and hand-operated pole-and-lines | United States

Western Central Atlantic | Handlines and hand-operated pole-and-lines | United States

5

Handlines in the pompano fishery do not generally contact the bottom, so they are ranked as "5".

Factor 4.2 - Modifying Factor: Mitigation of Gear Impacts

Gulf of Mexico | Atlantic, Western Central | Boat seines | United States

Western Central Atlantic | Boat seines | United States

Gulf of Mexico | Atlantic, Western Central | Cast nets | United States

Western Central Atlantic | Cast nets | United States

Gulf of Mexico | Atlantic, Western Central | Handlines and hand-operated pole-and-lines | United States

Western Central Atlantic | Handlines and hand-operated pole-and-lines | United States

0

There are no temporal closures in the Florida pompano fishery, and there are no spatial closures for gears other than gill nets (FFWCC 2012). Commercial fishermen with the proper license and endorsements can take an unlimited number of Florida pompano (FFWCC 2012). Therefore, Seafood Watch deems the Florida pompano fishery to have no effective mitigation of gear impacts for this gear, though it should be mentioned this gear has limited impacts on the substrate.

Gulf of Mexico | Atlantic, Western Central | Drift gillnets | United States

+1

Gill netting can only take place in a limited pompano endorsement zone, which is less than 50% of the representative habitat (FFWCC 2012). Therefore, Seafood Watch deems the Florida pompano gillnet fishery to have effective mitigation of gear impacts for this gear (since at least 50% of the representative habitat is protected from this gear type) and +1.0 mitigation credit is given.

Factor 4.3 - Ecosystem-based Fisheries Management

Gulf of Mexico | Atlantic, Western Central | Boat seines | United States

Western Central Atlantic | Boat seines | United States

Gulf of Mexico | Atlantic, Western Central | Cast nets | United States

Western Central Atlantic | Cast nets | United States

Gulf of Mexico | Atlantic, Western Central | Drift gillnets | United States

Gulf of Mexico | Atlantic, Western Central | Handlines and hand-operated pole-and-lines | United States

Western Central Atlantic | Handlines and hand-operated pole-and-lines | United States

Moderate Concern

Florida pompano primarily feed on small invertebrates, including crustaceans and mollusks (Weirich et al. 2021). There is little information to suggest that pompano species are regular and important food items for other species (Gilbert 1986). The fishery does not catch any species of exceptional ecological importance. However, scientific assessment and management of the fishery's impact on the ecosystem is not yet underway. The fishery lacks management measures and policies to protect ecosystem functioning and account for Florida pompano's ecological role, but detrimental food web impacts are not likely. Therefore, this factor is rated a moderate concern.

Acknowledgements

Scientific review does not constitute an endorsement of the Seafood Watch® program, or its seafood recommendations, on the part of the reviewing scientists. Seafood Watch® is solely responsible for the conclusions reached in this report.

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References

Denadai, M.R., Santos, F.B., Bessa, E., Fernandez, W.S., Scaloppe, F., and Turra, A. 2013. Population biology and diet of the Pompano *Trachinotus carolinus* (Perciformes: Carangidae) in Caraguatatuba Bay, Southeastern Brazil. *Journal of Marine Biology & Oceanography* 2013, 2:2.

FFWCC. 2012. Florida Fish and Wildlife Conservation Commission. 2012. Pompano endorsement regulations. Rule 68B-35.005. Available at: <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=68B-35>

FFWCC. 2013. Florida Fish and Wildlife Conservation Commission. 2013. Rulemaking. Available at: <http://myfwc.com/fishing/saltwater/rulemaking/>.

FFWCC. 2013b. Florida Fish and Wildlife Conservation Commission. 2013b. Law Enforcement. Available at: <http://myfwc.com/about/inside-fwc/le/>

FFWCC. 2018. Florida Fish and Wildlife Conservation Commission. 2018. Florida pompano, *Trachinotus carolinus* (Linnaeus, 1766)

Fish and Wildlife Research Institute (FWRI) and Florida Fish and Wildlife Conservation Commission (FFWCC). 2013. Evaluation of a 12-inch minimum size limit on Florida pompano populations and fisheries in Florida. Available at: https://myfwc.com/media/14420/florida-pompano_12-inch_minsize.pdf

FWRI. 2020. Florida's Inshore and Nearshore Species: 2020 Status and Trends Report for Florida Pompano, *Trachinotus carolinus* (Linnaeus, 1766).

Gilbert, C. 1986. Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (South Florida)--Florida pompano. U.S. Fish Wildl. Serv. Biol. Rep. 82 (11.42). U.S. Army Corps of Engineers, TR EL-82-4. 14 pp.

J. M. D. de Astarloa, D. E. Figueroa, M. B. Cousseau, and M. Barragan. 2000. de Astarloa, J. M. D., D. E. Figueroa, M. B. Cousseau, and M. Barragan. 2000. Occurrence of *Trachinotus carolinus* (Carangidae) in Laguna Costera Mar Chiquita, with comments on other occasionally recorded fishes in Argentinean waters. *Bulletin of Marine Science* 66 (2): 399-403.

LDWF. 2020. Louisiana Department of Wildlife and Fisheries Commercial and For-Hire Fisheries Rules and Regulations. Louisiana Department of Wildlife and Fisheries . Available at: https://www.wlf.louisiana.gov/assets/Resources/Publications/Regulations/2020_Commercial_Fishing_Regs.pdf

Murphy et al.. 2008. Murphy, M. D., R. G. Muller, and K. Guindon. 2008. A stock assessment for pompano, *Trachinotus carolinus*, in Florida waters through 2005. FWRI In House Report 2008-004. 118 pp.

NMFS Fishery Statistics Division. 20210. NMFS commercial statistics query page. available at: <https://foss.nmfs.noaa.gov/apexfoss/f?p=215:200::::::>

Smith-Vaniz, W.F., Robins, R.H., Fraser, T., Chiappa Carrara, X. & Abad-Uribarren, A. 2015. *Trachinotus carolinus*. The IUCN Red List of Threatened Species 2015: e.T16507646A78687189. Downloaded on 29 January 2021.

Weirich, C.R., Riley, K.L., Riche, M., Main, K.L., Wills, P.S., Illan, G., Cerino, D.S., and Pfeiffer, T.J. 2021. The status of Florida pompano, *Trachinotus carolinus*, as a commercially ready species for U.S. marine aquaculture. *J World Aquac Soc*. 52: 731-763.

Appendix

Appendix A

Updates to the Florida Pompano Report :

Updates to the April 17, 2014 Florida pompano report were made on October 6, 2021. This updated report is scored against the Seafood Watch Standard for Fisheries Version F4 (April 2020-Present).

Overall Recommendations for Florida pompano caught with all gears on both Atlantic and Gulf coasts downgraded from Best Choice to Good Alternative. Changes are due to unknown stock status for this species throughout its range.

Updates included:

C1.1 Florida pompano (Gulf of Mexico): Abundance downgraded from "Low Concern" to "Moderate Concern" because there is no recent stock assessment, the managing body considers stock status as unknown, and the species is listed as Least Concern by the IUCN.

C1.2 Florida pompano (Gulf of Mexico): Fishing mortality downgraded from "Low Concern" to "Moderate Concern" because the sustainability of fishing levels is unknown.

Florida pompano (Atlantic): There were no stock status or management changes that affected the numerical score for Florida pompano on the Atlantic coast of Florida. However, this updated recommendation is scored against the Seafood Watch Standard for Fisheries Version F4, which requires Criterion 1 or Criterion 3 (or both) to score "Green" in order for a fishery to be rated Best Choice. Atlantic Florida pompano fisheries do not meet this requirement.