

Fish Stock Sustainability Index (FSSI)

2011 Quarter 3 Update through September 30, 2011

Overview

The FSSI is a performance measure for the sustainability of 230 U.S. fish stocks¹ selected for their importance to commercial and recreational fisheries. The FSSI will increase as stock status becomes known, overfishing is ended, and stocks increase to the level that provides maximum sustainable yield.

FSSI Scoring Method

The FSSI is calculated by assigning a score for each fish stock based on the five following criteria:

<u>Criteria</u>	<u>Points Awarded</u>
1. "Overfished" status is known	0.5
2. "Overfishing" status is known	0.5
3. Overfishing is not occurring (for stocks with known "overfishing" status)	1.0
4. Stock biomass is above the "overfished" level defined for the stock	1.0
5. Stock biomass is at or above 80% of the biomass that produces maximum sustainable yield (B_{MSY}) ² (this point is in addition to the point awarded for being above the "overfished" level)	1.0

The maximum score each stock may receive is 4. The value of the FSSI is the sum of all 230 individual stock scores. The maximum total FSSI score is 920, achieved if all 230 stocks were to each receive a score of 4.

Current FSSI Score

2011 Quarter 3 Score = 587 (July 1, 2011 to September 30, 2011)

The following table summarizes the current FSSI score and where additional points can be gained to raise the score in the future.

<u>Criteria</u>	<u># Stocks</u>	<u>Current Points</u>	<u>Total Points Possible</u>	<u>Actions that Can Increase the Score</u>	<u>Potential Points to Gain</u>
1. "Overfished" status is known Overfished: 43 Not Overfished: 135	178	89	115	Determine the "overfished" status for the remaining 52 stocks	26
2. "Overfishing" status is known Overfishing: 37 Not subject to overfishing: 155	192	96	115	Determine the "overfishing" status for the remaining 38 stocks	19
3. Overfishing is not occurring (for stocks with known "overfishing" status)	155	155	230	End overfishing on the 37 stocks subject to overfishing. Ensure the 38 stocks (see #2 above) are not subject to overfishing.	75
4. Stock biomass is above the "overfished" level defined for the stock (for stocks with a known "overfished" status and that are "not overfished")	135	135	230	Increase the biomass above the overfished level for the 43 overfished stocks. Ensure the biomass for the 52 stocks (see #1 above) is above the overfished level.	95
5. Stock biomass is at or above 80% of B_{MSY} (this point is in addition to the point awarded for being above the "overfished" level, criteria #4)	112	112	230	For the 43 overfished stocks and the 23 stocks that are not overfished (but biomass is not at or above 80% of B_{MSY}), increase biomass to at or above 80% of B_{MSY} . Ensure the biomass for the 52 stocks (see #1 above) is at or above 80% of B_{MSY} .	118
TOTAL		587	920		333

¹ The majority of species are assessed as a single stock; however, there are a few that are assessed as a stock complex, which contain a group of species with similar geographic distribution, co-occurrence in fisheries, and life history.

² Stocks rebuilding from a previously overfished condition are not awarded the fourth point until they reach B_{MSY} , as mandated by the Magnuson-Stevens Act. After they have been fully rebuilt, they may fluctuate within the 80% parameter and retain the score of 4 like the other non-rebuilding stocks.

Summary of Stock Status Determination Changes from July 1, 2011 through September 30, 2011

Overview of overfishing status of FSSI stocks through September 30, 2011

- 192 stocks or stock complexes are known with respect to their overfishing status. Of these:
 - 155 stocks or stock complexes are not subject to overfishing.
 - 37 stocks or stock complexes have a fishing mortality rate that exceeds the overfishing threshold (i.e., is subject to overfishing).
- 38 stocks or stock complexes have overfishing thresholds not defined or applicable, or are unknown with respect to their overfishing status.

Overview of overfished status of FSSI stocks through September 30, 2011

- 178 stocks or stock complexes are known with respect to their overfished status. Of these:
 - 135 stocks or stock complexes are not overfished (4 of these stocks are approaching an overfished condition).
 - 43 stocks or stock complexes are overfished.
- 52 stocks or stock complexes have overfished thresholds not defined or applicable, or are unknown with respect to their overfished status.

Summary of Overfishing and Overfished Changes of FSSI Stocks

Stock	Region	Previous Status	Current Status	Previous Total FSSI Score	Current Total FSSI Score
Sandbar shark – Atlantic	HMS	Subject to Overfishing	Not Subject to Overfishing	1	2
Yellowfin tuna – Eastern Tropical Pacific	PFMC	Subject to Overfishing	Not Subject to Overfishing	3	4
Walleye pollock - Eastern Bering Sea	NPFM	B/Bmsy < 80%	B/Bmsy > 80%	3	4
Pacific ocean perch - Pacific Coast	PFMC	Not Overfished – Rebuilding	Overfished	3	2
Petrale sole - Pacific Coast	PFMC	Overfished	Not Overfished – Rebuilding	2	3
Spiny dogfish - Pacific Coast	PFMC	Overfished – Unknown	Not Overfished B/Bmsy > 80%	0	2.5
Gopher rockfish - Northern California	PFMC	Not Subject to Overfishing	Overfishing – Unknown*	4	2.5
Bank rockfish - California	PFMC	Not Subject to Overfishing	Overfishing – Unknown**	3	1.5
Blackgill rockfish - Southern California	PFMC	Not Subject to Overfishing B/Bmsy > 80%	Overfishing – Unknown** B/Bmsy < 80%	4	1.5
Yellowedge grouper – Gulf of Mexico	GMFMC	Overfishing – Unknown	Not Subject to Overfishing	0	1.5
TOTAL FSSI SCORE				585.5	587

*There is no overfishing level specified for this stock; an Optimum Yield is specified for the nearshore rockfish complex. Thus, while the nearshore complex (which contains several rockfish species) may not be subject to overfishing, no determination of overfishing can be made at the stock level.

**There is no overfishing level specified for this stock; an Optimum Yield is specified for the slope rockfish complex. Thus, while the slope complex (which contains several rockfish species) is not subject to overfishing, no determination of overfishing can be made at the stock level.

Overview of overfishing status of non-FSSI stocks through September 30, 2011

- 62³ stocks or stock complexes are known with respect to their overfishing status. Of these:
 - 60 stocks or stock complexes are not subject to overfishing.
 - 2 stocks have a fishing mortality rate that exceeds the overfishing threshold (i.e., is subject to overfishing).
- 244 stocks or stock complexes have overfishing thresholds not defined or applicable, or are unknown with respect to their overfishing status.

Changes in overfishing status of non-FSSI stocks

- In the Highly Migratory Species Division –
 - Roundscale spearfish – North Atlantic is unknown with respect to overfishing. This is a newly recognized species, previously thought to be the same as white marlin.
 - Blacknose shark – Gulf of Mexico is unknown with respect to overfishing. Previously, this species was assessed as a single Atlantic stock, but is now assessed as 2 stocks.

There are no changes to any of the other Regions.

Overview of overfished status of non-FSSI stocks through September 30, 2011

- 31³ stocks or stock complexes are known with respect to their overfished status. Of these:
 - 25 stocks or stock complexes are not overfished (1 of these stocks is approaching an overfished condition).
 - 6 stocks are overfished.
- 275 stocks or stock complexes have overfished thresholds not defined or applicable, or are unknown with respect to their overfished status.

Changes in overfished status of non-FSSI stocks

- In the Northwest Region –
 - Greenspotted rockfish - Pacific Coast – is not overfished (was previously unknown).

³ This number includes Pacific halibut, which is managed by the International Pacific Halibut Commission.

- In the Highly Migratory Species Division –
 - Roundscale spearfish – North Atlantic is unknown with respect to overfished. This is a newly recognized species, previously thought to be the same as white marlin.
 - Blacknose shark – Gulf of Mexico is unknown with respect to overfishing. Previously, this species was assessed as a single Atlantic stock, but is now assessed as 2 stocks.

There are no changes to any of the other Regions.

FSSI stock status updates are posted quarterly at:

<http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm#07>