

The Fish Stock Sustainability Index (FSSI)

The FSSI is a performance measure for the sustainability of 230 fish stocks¹ selected for their importance to commercial and recreational fisheries. The FSSI will increase as overfishing is ended and stocks rebuild to the level that provides maximum sustainable yield. The FSSI is calculated by assigning a score for each fish stock based on the following rules:

<u>Rule</u>	<u>Score</u>
1. Stock has known status determinations:	
a) overfishing	0.5
b) overfished	0.5
2. Fishing mortality rate is below the "overfishing" level defined for the stock	1.0
3. Biomass is above the "overfished" level defined for the stock	1.0
4. Biomass is at or above 80% of maximum sustainable yield (MSY) ² (this point is in addition to the point awarded for being above the "overfished" level)	1.0

The maximum score for each stock is 4. The value of the FSSI is the sum of the individual stock scores. Since there are 230 stocks in the FSSI, an overall score of 920 would be achieved if every stock scored a 4.

The current value of the FSSI is 495.5, based on updates through December 31, 2005. The following table provides a summary of the current FSSI score and where additional points can be gained to raise the score:

<u>Category</u>	<u># Stocks</u>	<u>Action</u>	<u>Potential Points</u>
- Stocks subject to overfishing	40	- Overfishing ended	40
- Overfished stocks	41	- Biomass increases above threshold and rebuilt	82
- Stocks that are not overfished, but biomass is not yet at a sustainable level ²	33	- Stocks are managed at a sustainable level	33
- Stocks with one or more components ³ unknown status	85	- Status known, not subject to overfishing, biomass at sustainable level	269.5

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 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.

³ These are stocks for which either the overfishing determination or the overfished determination, or both the overfishing and overfished determinations, are unknown or undefined. Stocks where both components are unknown/undefined are counted only once.

NOTE: See additional changes at 2nd quarter 2006 update

Summary of Stock Status Determination Changes – Update through December 31, 2005

Overview of overfishing status of FSSI stocks through December 31, 2005

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

Changes in overfishing status and/or score of FSSI stocks

- In the Northwest Region -
 - *Lingcod* is no longer subject to overfishing – score increased from 2 to 4 (see overfished changes).
 - *Shortspine Thornyhead* is no longer subject to overfishing – score increased from 3 to 4.
 - *Black Rockfish - North* is no longer subject to overfishing – score increased from 3 to 4.
- There are no changes to any of the other regions.

Overview of overfished status of FSSI stocks through December 31, 2005

- 157 stocks or stock complexes are known with respect to their overfished status. Of these:
 - 116 stocks or stock complexes are not overfished.
 - 41 stocks or stock complexes are overfished.
- 73 stocks or stock complexes have overfished thresholds not defined or applicable, or are unknown with respect to their overfished status.

Changes in overfished status and/or score of FSSI stocks

- In the Northeast Region –
 - The biomass of *Witch Flounder* is now at or above 80% of maximum sustainable yield – score increased from 3 to 4.

- In the Southeast Region –
 - The biomass of *South Atlantic White Shrimp* is now at or above 80% of maximum sustainable yield – score increased from 3 to 4.
 - The biomass of *South Atlantic Brown Shrimp* is now at or above 80% of maximum sustainable yield – score increased from 3 to 4.

- In the Northwest Region –
 - *Lingcod* is rebuilt and the biomass is now at or above 100% of maximum sustainable yield – score increased from 2 to 4 (see overfishing changes).

- In the Alaska Region –
 - *Gulf of Alaska Rex Sole* is not overfished (was previously undefined) and the biomass is now at or above 80% of maximum sustainable yield – score increased from 1.5 to 4.
 - *Gulf of Alaska Rougheye Rockfish* is not overfished (was previously undefined) and the biomass is now at or above 80% of maximum sustainable yield – score increased from 1.5 to 4.
 - *Snow Crab – Bering Sea* is no longer overfished, but is still rebuilding (biomass is below 100% of maximum sustainable yield) – score increased from 2 to 3.
 - *Tanner Crab – Eastern Bering Sea* is no longer overfished, but is still rebuilding (biomass is below 100% of maximum sustainable yield) – score increased from 2 to 3.
 - The biomass of *Gulf of Alaska Walleye Pollock – Western/Central* is now at or above 80% of maximum sustainable yield – score increased from 3 to 4.

- There are no changes to the other regions.

Overview of overfishing status of non-FSSI stocks through December 31, 2005

- 67 stocks or stock complexes are known with respect to their overfishing status. Of these:
 - 66 stocks or stock complexes are not subject to overfishing.
 - 1 stock has a fishing mortality rate that exceeds the overfishing threshold (i.e., is subject to overfishing).
- 391 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 Alaska Region –
 - *Gulf of Alaska Shortraker Rockfish* is not subject to overfishing (was previously undefined).
 - *Gulf of Alaska Longnose Skate* is not subject to overfishing (was previously listed as part of the Other Skates Complex and is now listed as a single stock).
 - *Gulf of Alaska Big Skate* is not subject to overfishing (was previously listed as part of the Other Skates Complex and is now listed as a single stock).
- There are no changes to the other regions.

Overview of overfished status of non-FSSI stocks through December 31, 2005

- 22 stocks or stock complexes are known with respect to their overfished status. Of these:
 - 21 stocks or stock complexes are not overfished.
 - 1 stock is overfished.
- 436 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 Alaska Region –
 - *Gulf of Alaska Longnose Skate* is undefined (was previously listed as part of the Other Skates Complex and is now listed as a single stock).
 - *Gulf of Alaska Big Skate* is undefined (was previously listed as part of the Other Skates Complex and is now listed as a single stock).

- There are no changes to the other regions.