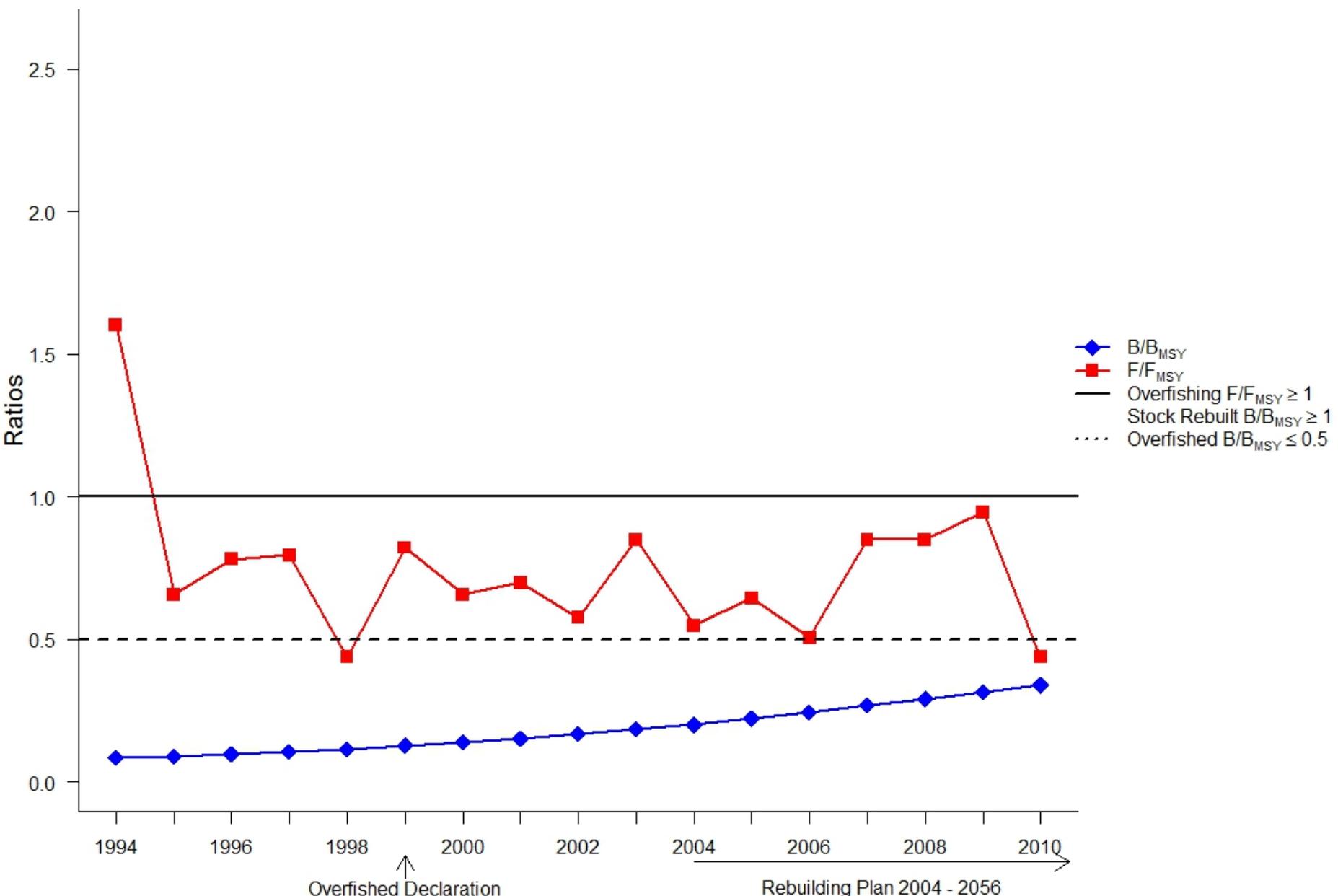


# Atlantic halibut - Northwestern Atlantic Coast

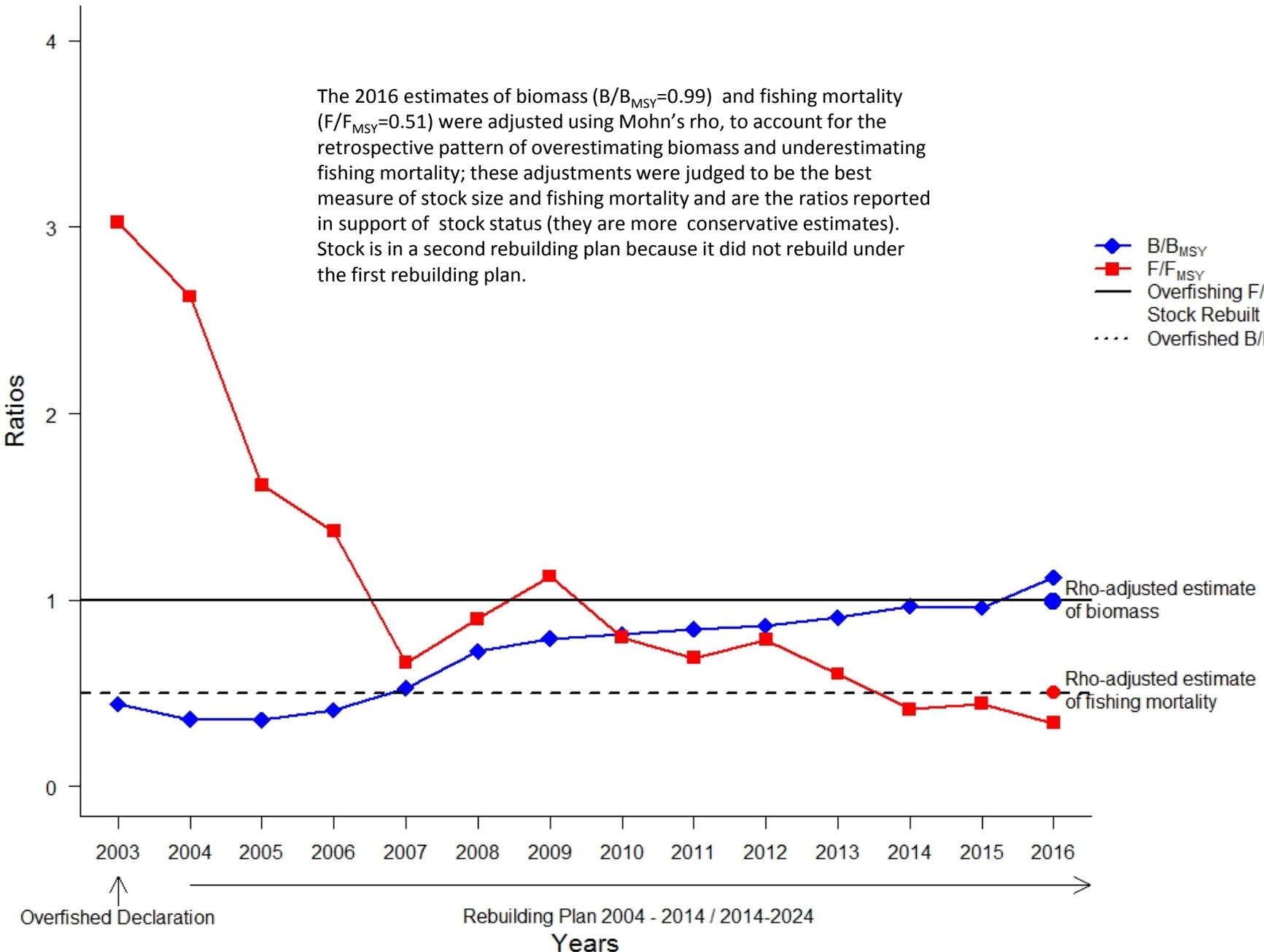


Years

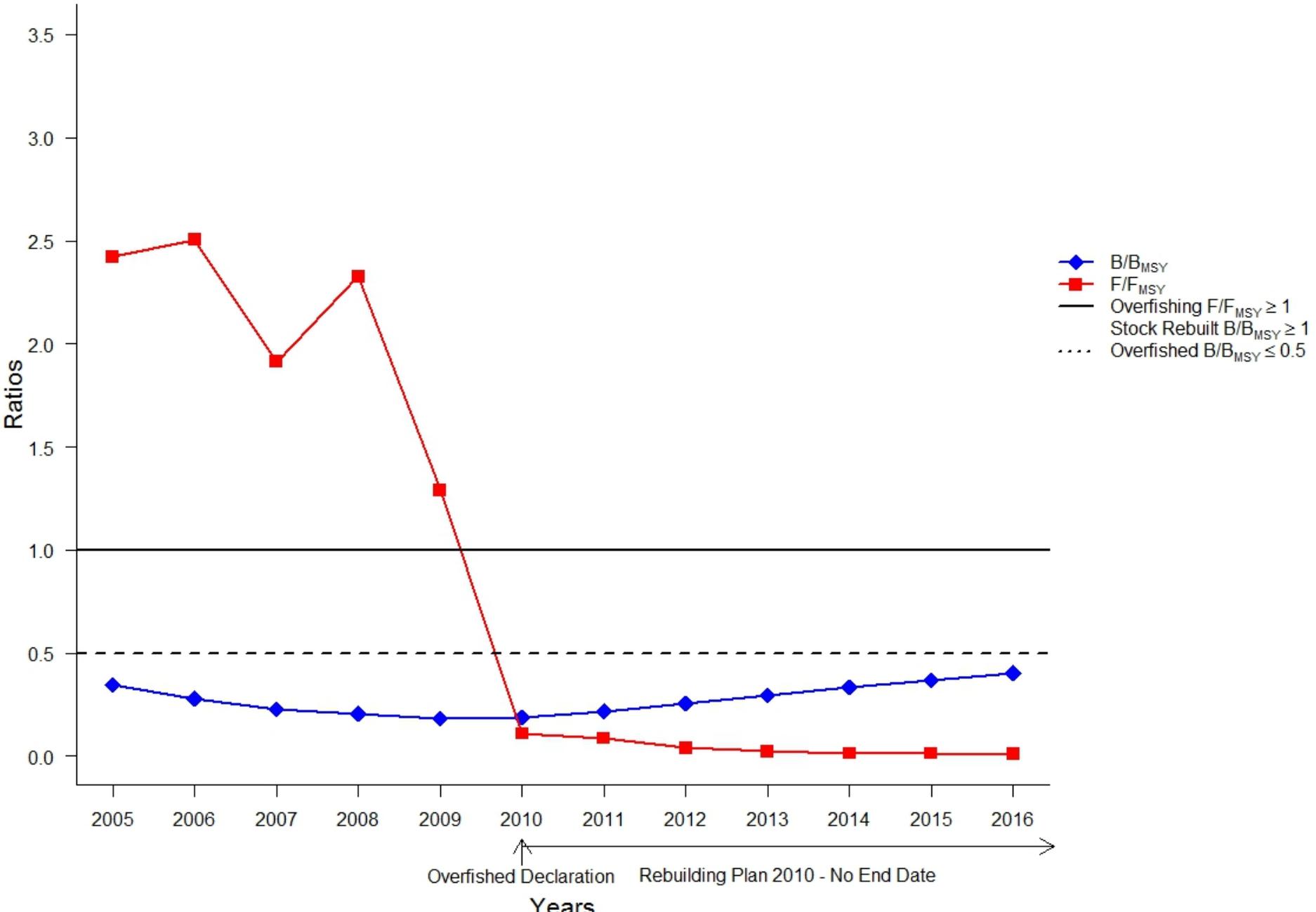
## American plaice - Gulf of Maine / Georges Bank

The 2016 estimates of biomass ( $B/B_{MSY}=0.99$ ) and fishing mortality ( $F/F_{MSY}=0.51$ ) were adjusted using Mohn's rho, to account for the retrospective pattern of overestimating biomass and underestimating fishing mortality; these adjustments were judged to be the best measure of stock size and fishing mortality and are the ratios reported in support of stock status (they are more conservative estimates). Stock is in a second rebuilding plan because it did not rebuild under the first rebuilding plan.

- ◆  $B/B_{MSY}$
- $F/F_{MSY}$
- Overfishing  $F/F_{MSY} \geq 1$
- Stock Rebuilt  $B/B_{MSY} \geq 1$
- ⋯ Overfished  $B/B_{MSY} \leq 0.5$



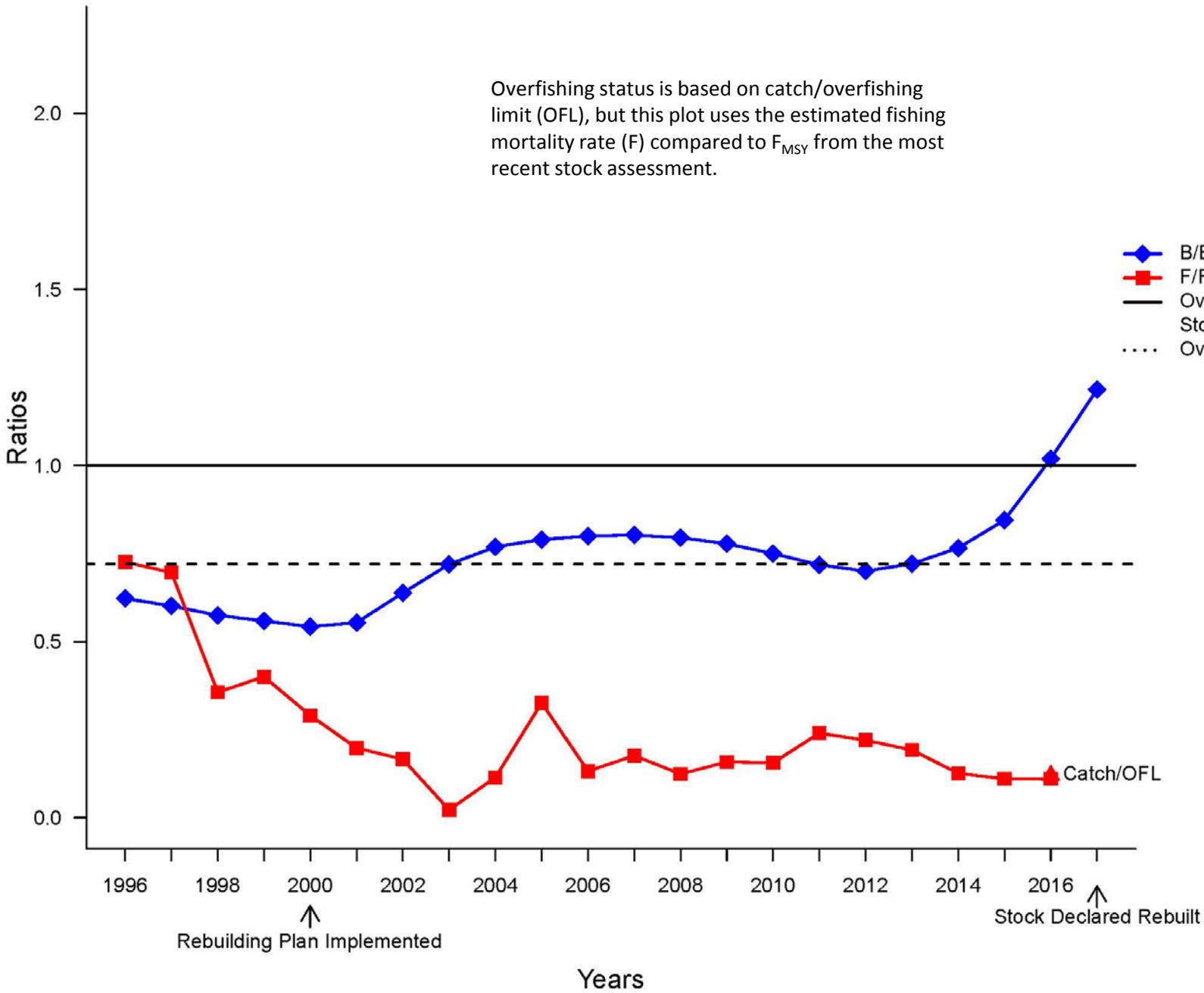
### Atlantic wolffish - Gulf of Maine / Georges Bank



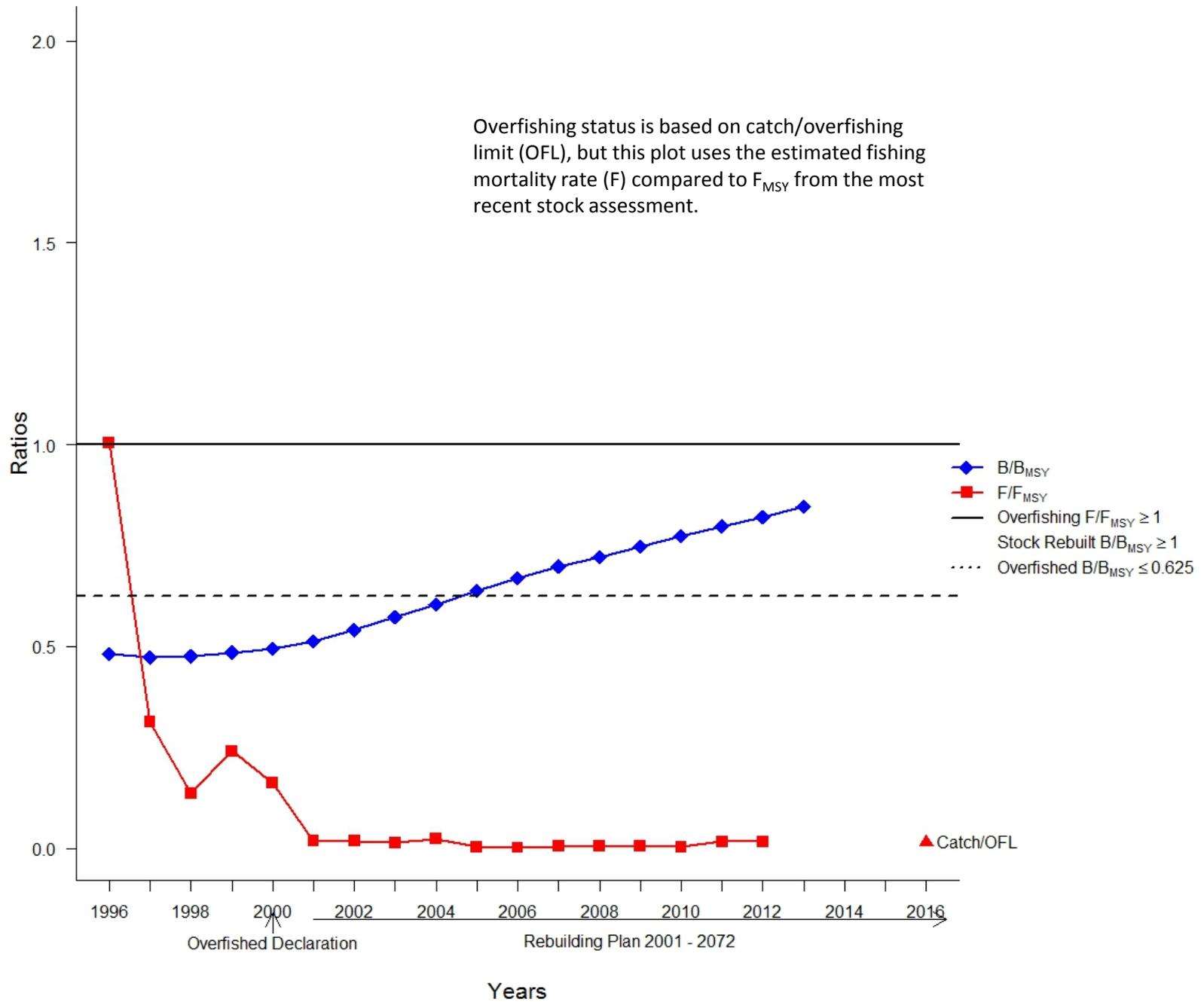
# Bocaccio – Southern Pacific Coast

Overfishing status is based on catch/overfishing limit (OFL), but this plot uses the estimated fishing mortality rate (F) compared to  $F_{MSY}$  from the most recent stock assessment.

- ◆  $B/B_{MSY}$
- $F/F_{MSY}$
- Overfishing  $F/F_{MSY} \geq 1$
- Stock Rebuilt  $B/B_{MSY} \geq 1$
- ⋯ Overfished  $B/B_{MSY} \leq 0.72$



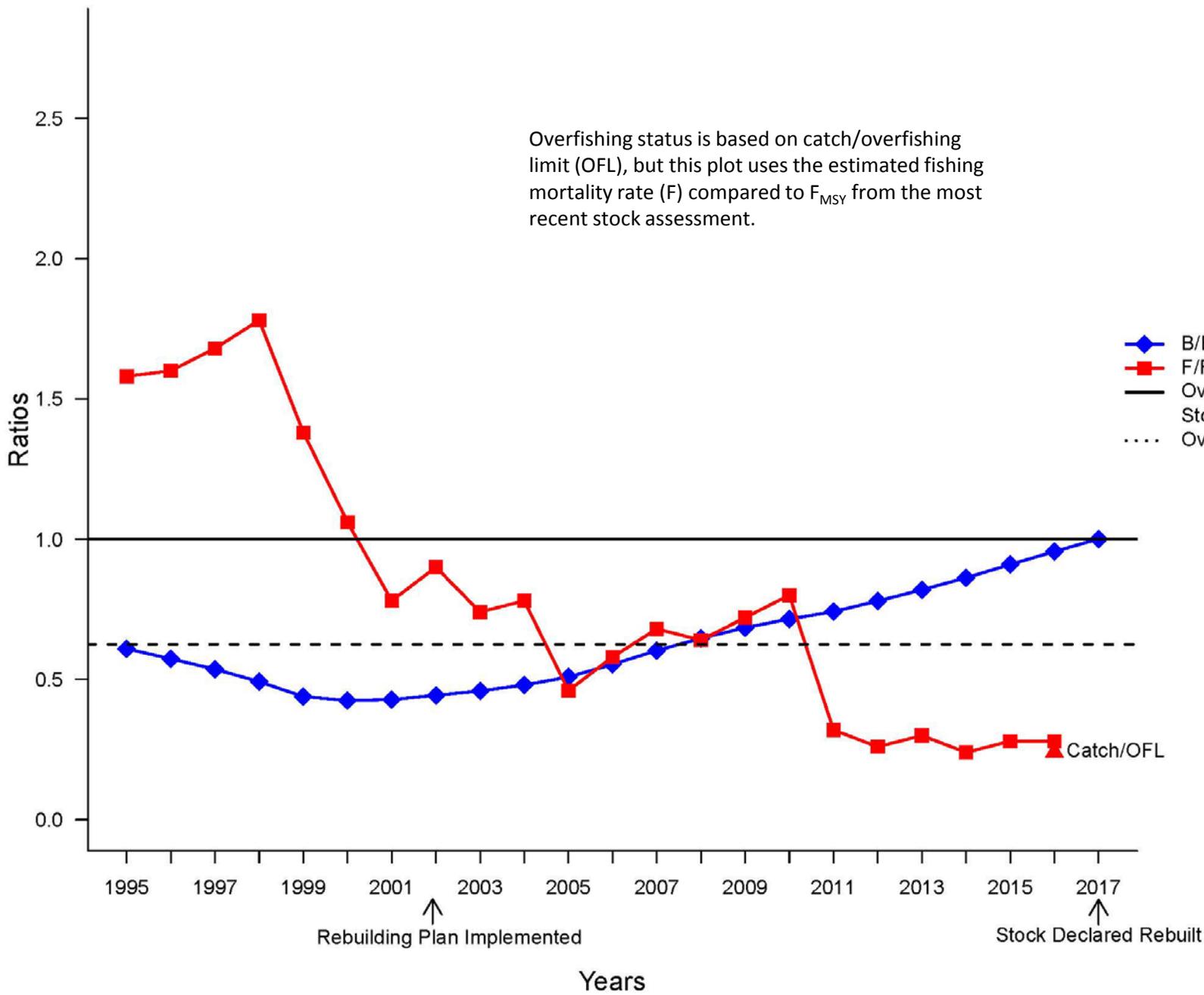
# Cowcod - Southern California



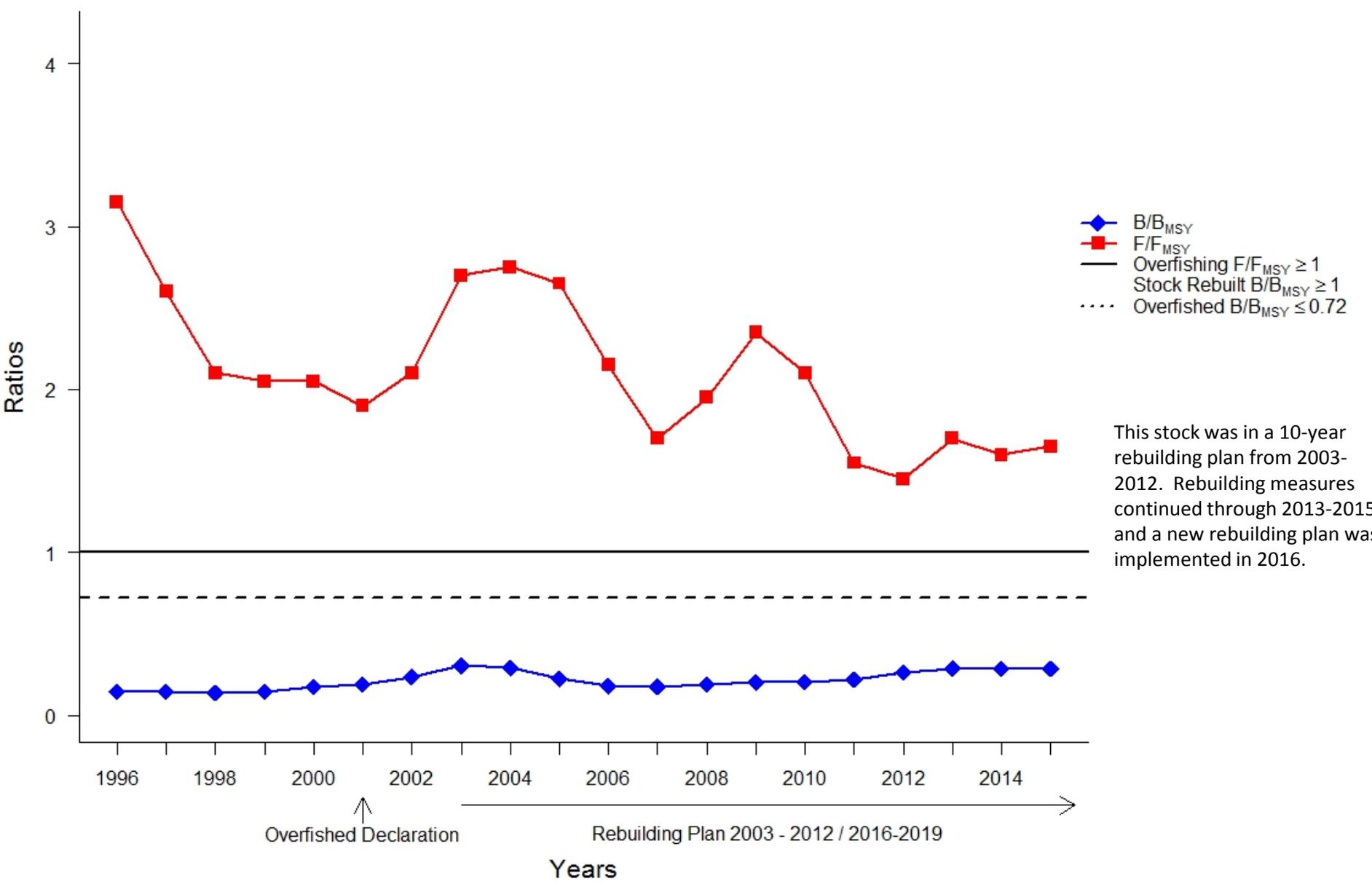
## Darkblotched rockfish – Pacific Coast

Overfishing status is based on catch/overfishing limit (OFL), but this plot uses the estimated fishing mortality rate (F) compared to  $F_{MSY}$  from the most recent stock assessment.

- ◆  $B/B_{MSY}$
- $F/F_{MSY}$
- Overfishing  $F/F_{MSY} \geq 1$
- Stock Rebuilt  $B/B_{MSY} \geq 1$
- ⋯ Overfished  $B/B_{MSY} \leq 0.625$

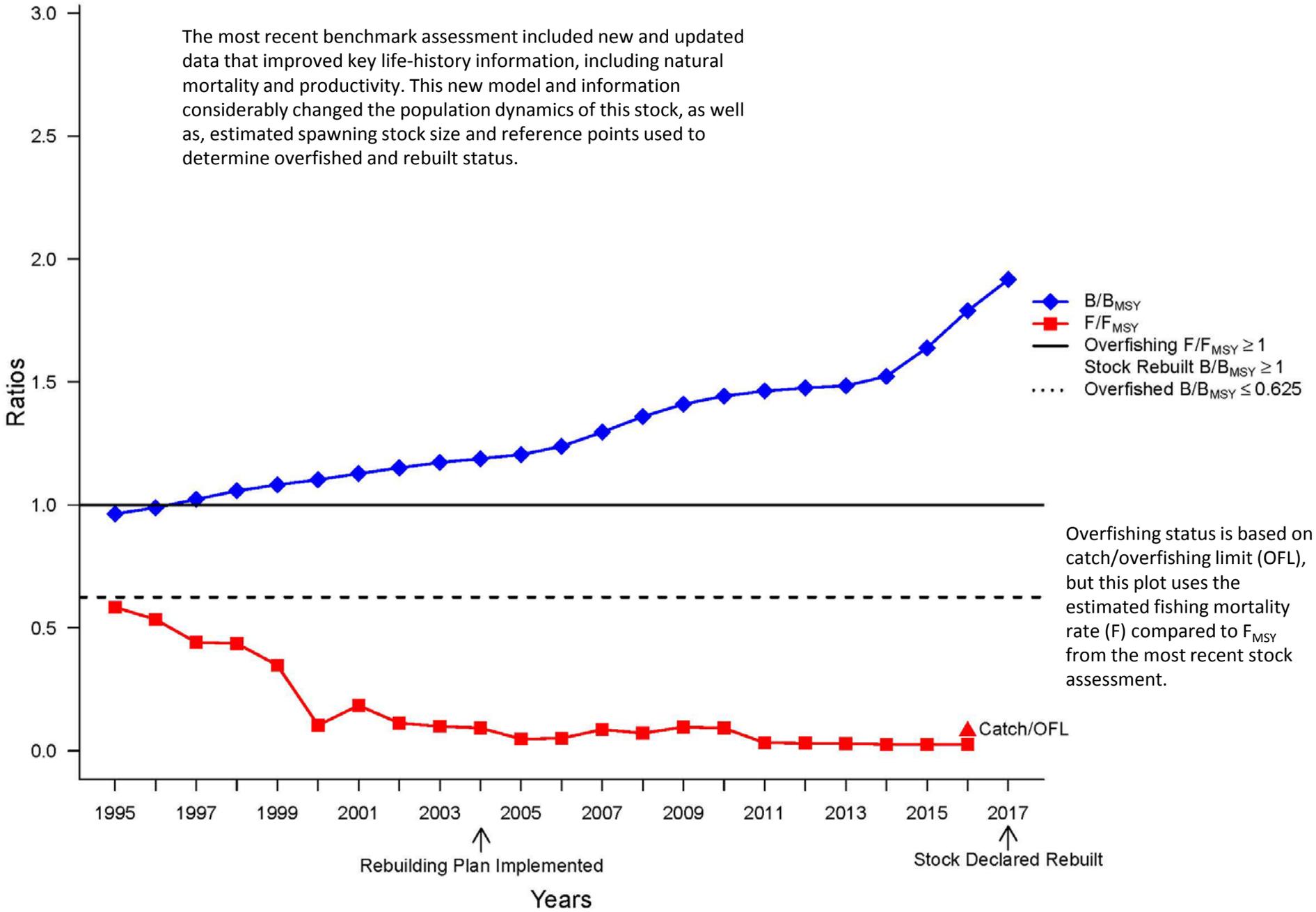


### Greater amberjack - Gulf of Mexico

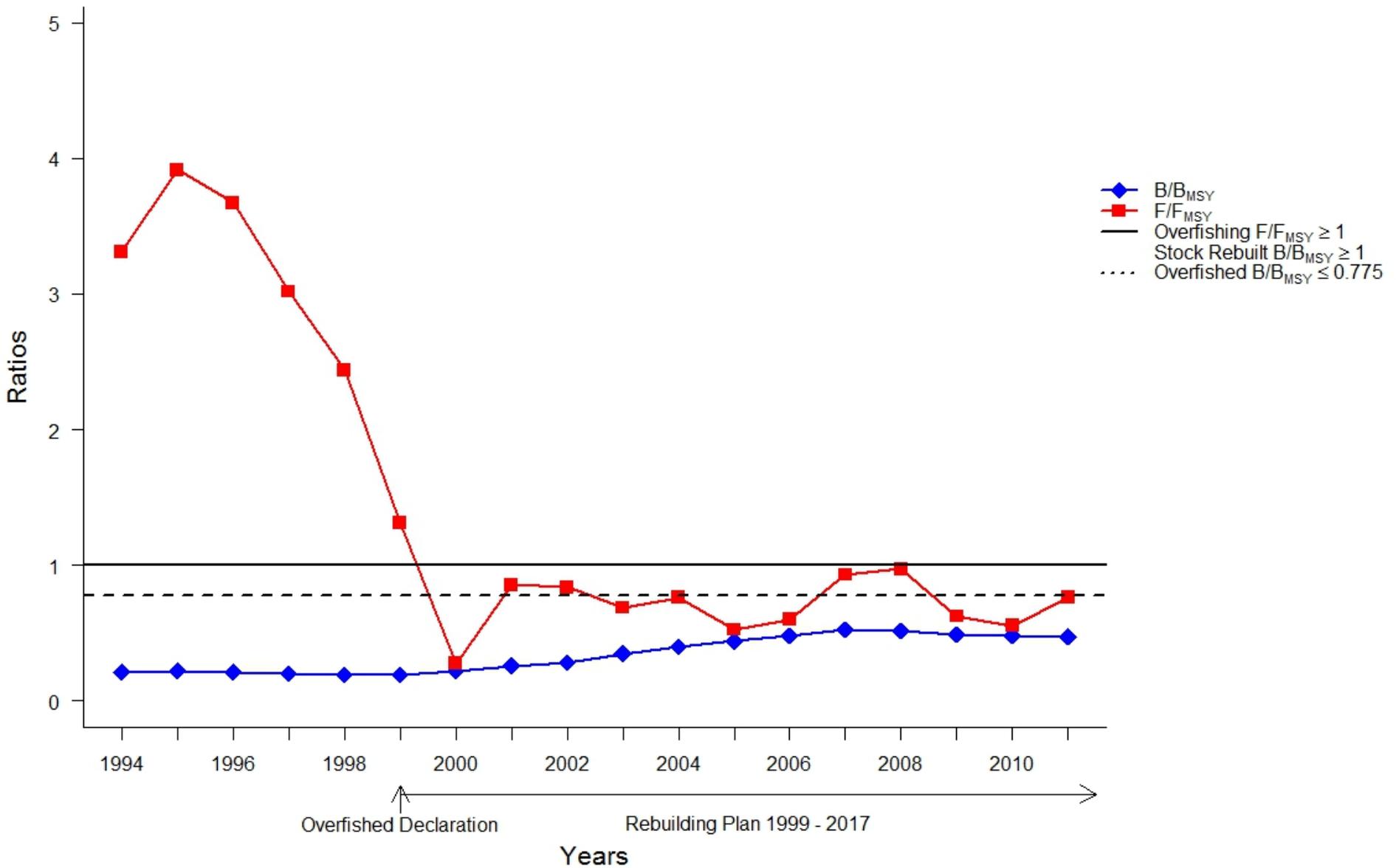


## Pacific ocean perch – Pacific Coast

The most recent benchmark assessment included new and updated data that improved key life-history information, including natural mortality and productivity. This new model and information considerably changed the population dynamics of this stock, as well as, estimated spawning stock size and reference points used to determine overfished and rebuilt status.

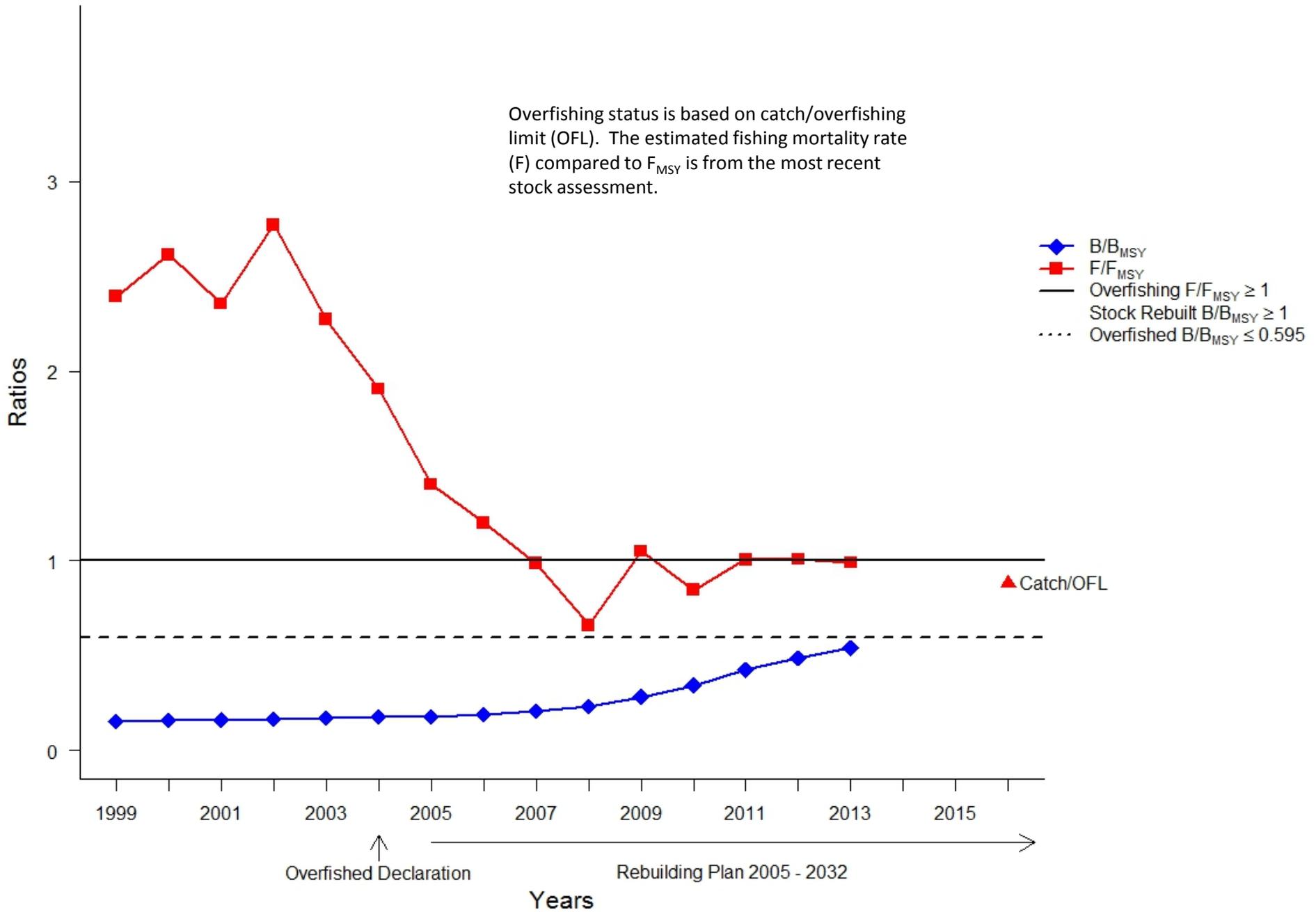


### Red porgy - Southern Atlantic Coast

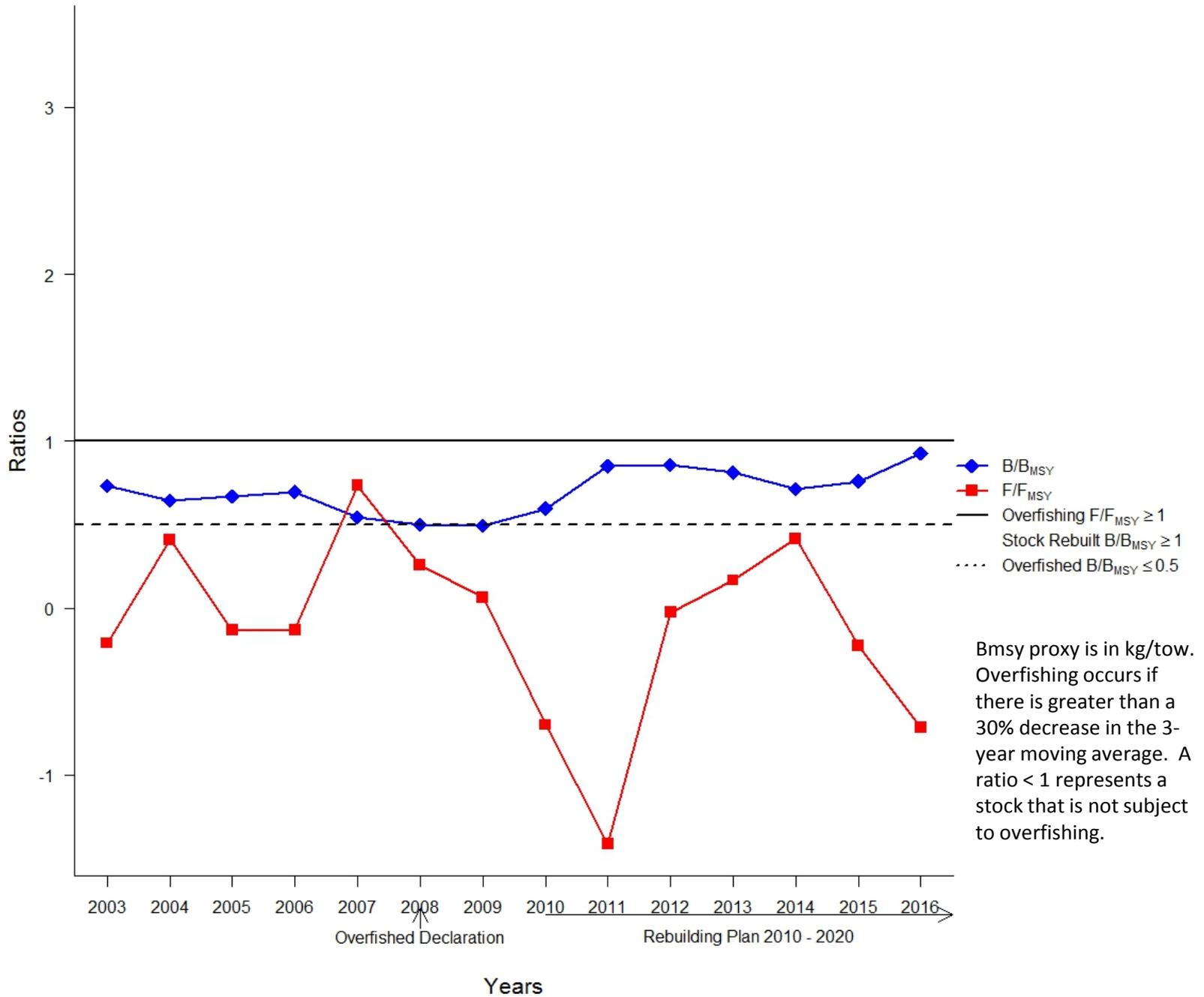


## Red snapper - Gulf of Mexico

Overfishing status is based on catch/overfishing limit (OFL). The estimated fishing mortality rate (F) compared to  $F_{MSY}$  is from the most recent stock assessment.



### Smooth skate - Gulf of Maine

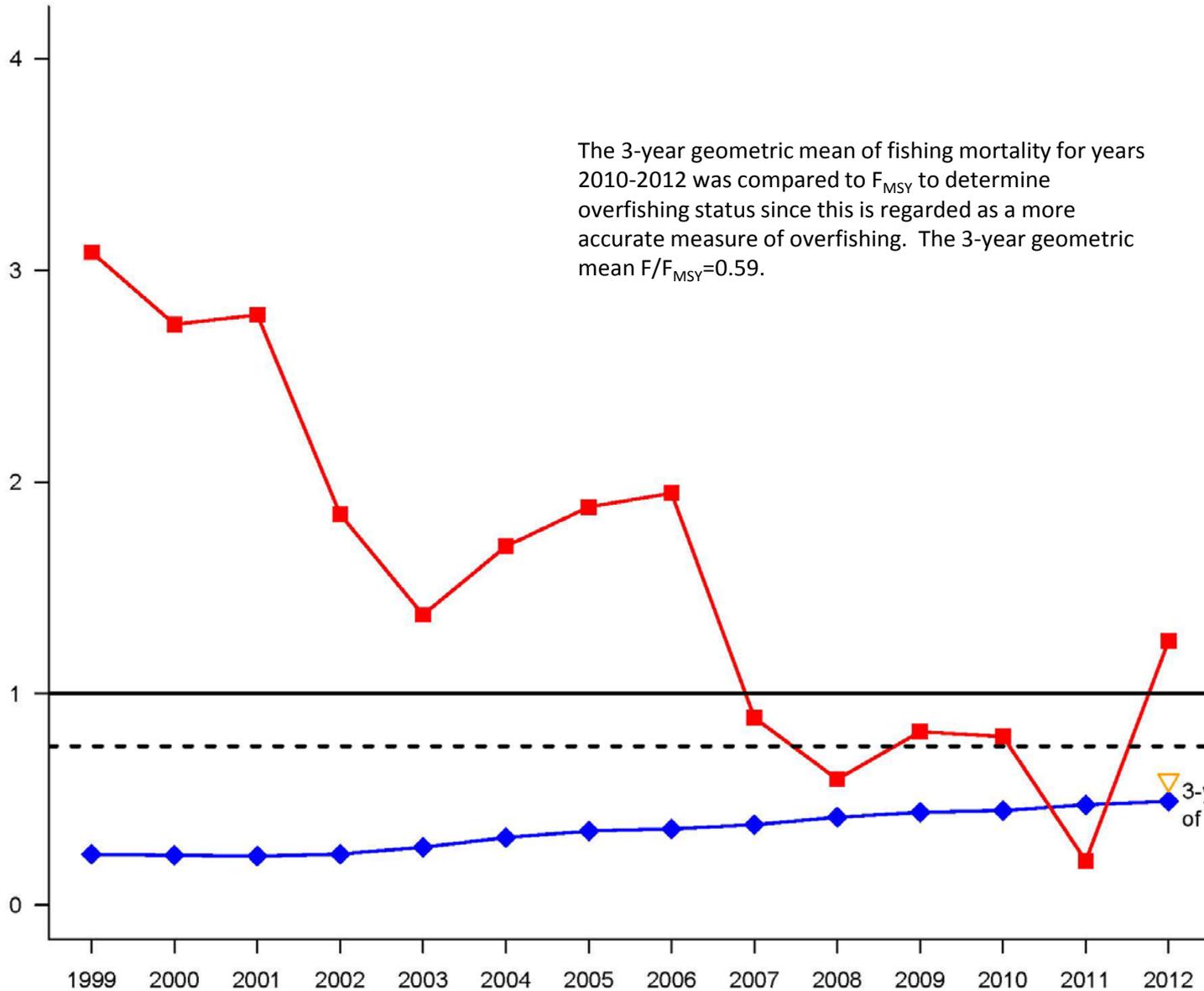


## Snowy grouper – Southern Atlantic Coast

The 3-year geometric mean of fishing mortality for years 2010-2012 was compared to  $F_{MSY}$  to determine overfishing status since this is regarded as a more accurate measure of overfishing. The 3-year geometric mean  $F/F_{MSY}=0.59$ .

- ◆  $B/B_{MSY}$
- $F/F_{MSY}$
- Overfishing  $F/F_{MSY} \geq 1$
- Stock Rebuilt  $B/B_{MSY} \geq 1$
- ⋯ Overfished  $B/B_{MSY} \leq 0.75$

Ratios



3-year geometric mean of  $F/F_{MSY}$

↑  
Overfished Declaration

—————>  
Rebuilding Plan 2006 – 2039

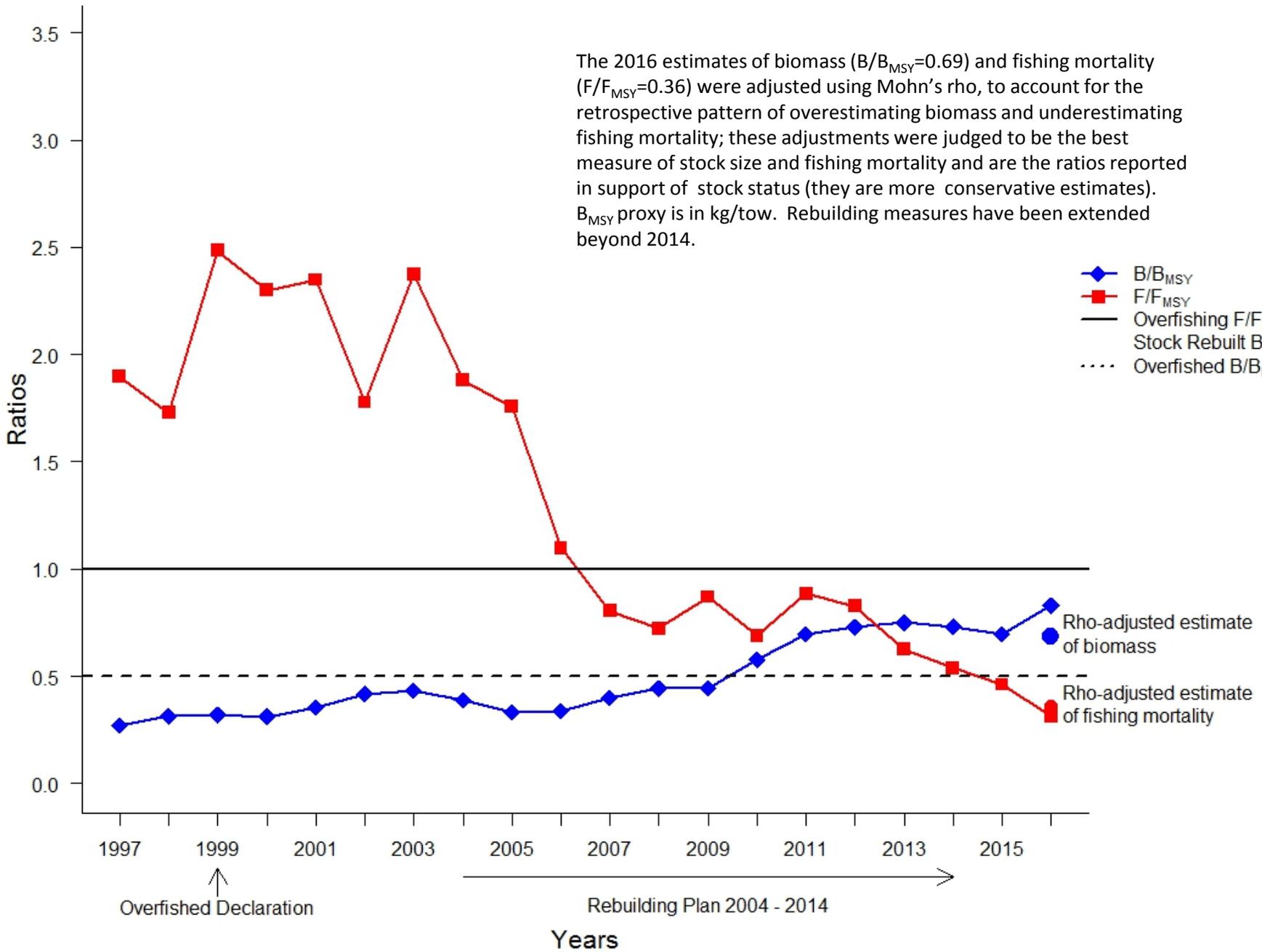
Years

## White hake - Gulf of Maine / Georges Bank

The 2016 estimates of biomass ( $B/B_{MSY}=0.69$ ) and fishing mortality ( $F/F_{MSY}=0.36$ ) were adjusted using Mohn's rho, to account for the retrospective pattern of overestimating biomass and underestimating fishing mortality; these adjustments were judged to be the best measure of stock size and fishing mortality and are the ratios reported in support of stock status (they are more conservative estimates).  $B_{MSY}$  proxy is in kg/tow. Rebuilding measures have been extended beyond 2014.

- ◆  $B/B_{MSY}$
- $F/F_{MSY}$
- Overfishing  $F/F_{MSY} \geq 1$
- Stock Rebuilt  $B/B_{MSY} \geq 1$
- ⋯ Overfished  $B/B_{MSY} \leq 0.5$

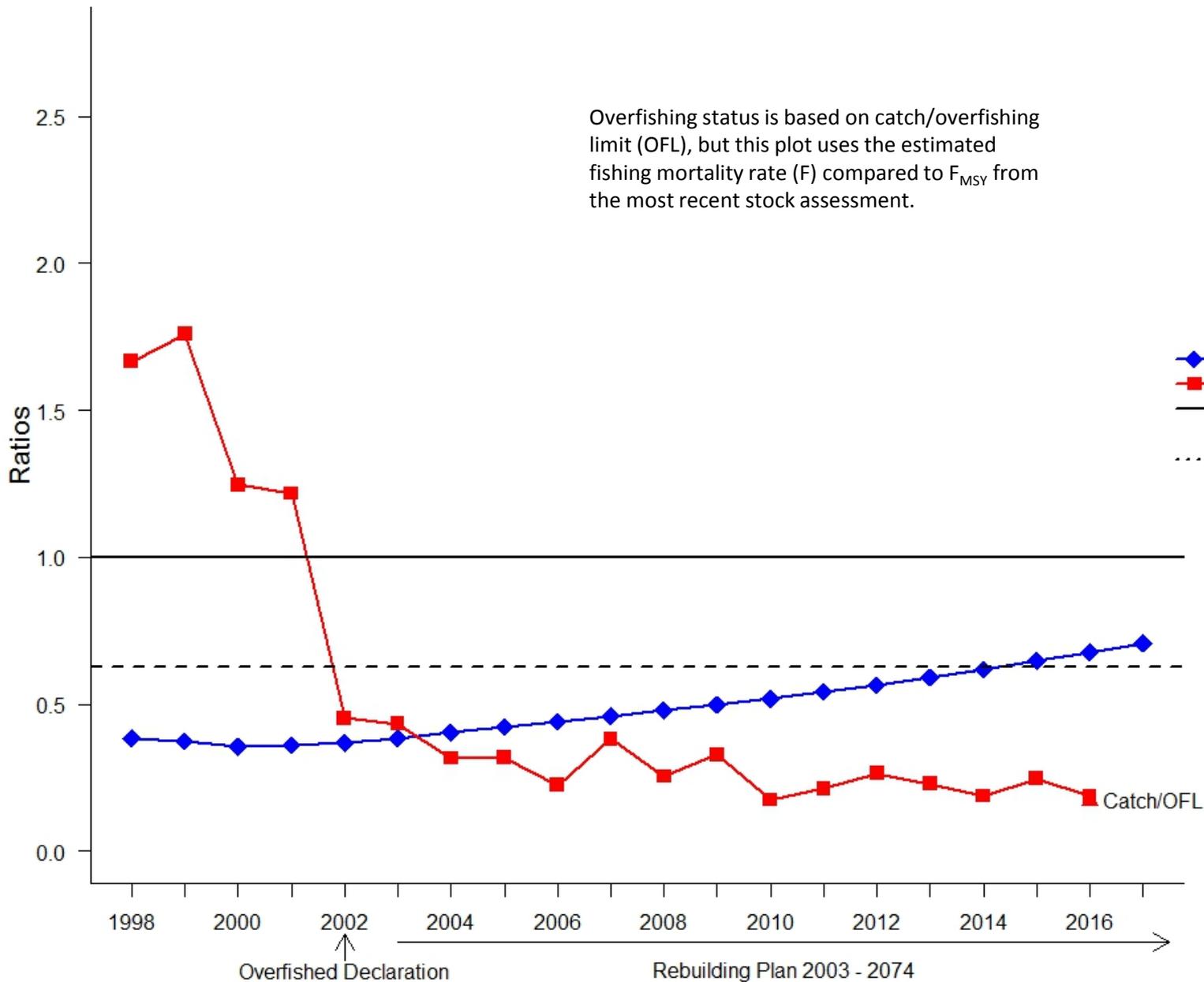
- Rho-adjusted estimate of biomass
- Rho-adjusted estimate of fishing mortality



## Yelloweye rockfish - Pacific Coast

Overfishing status is based on catch/overfishing limit (OFL), but this plot uses the estimated fishing mortality rate ( $F$ ) compared to  $F_{MSY}$  from the most recent stock assessment.

- $\blacklozenge$   $B/B_{MSY}$
- $\blacksquare$   $F/F_{MSY}$
- Overfishing  $F/F_{MSY} \geq 1$
- Stock Rebuilt  $B/B_{MSY} \geq 1$
- Overfished  $B/B_{MSY} \leq 0.625$



Years