

Assessment Model, Terminal Year	Description of Assessment Model	Overfishing?/ Overfished?	In Rebuilding Program?	OFL	ABC/ABC CR	ACL	ACT
Empirical, 2017	Averages estimates of biomass from the bottom trawl surveys and applies exploitation rate	Unknown* / Unknown* (*But note that status based on NMFS determination remains overfished with overfishing occurring - see 2017 operational assessments, Table 57)	Yes 2006-2032	unknown	300 mt in 2018	213 mt (US) in FY 2018 and 87 mt (Canada) in CY 2018	N/A for groundfish
Low productivity, historic low catches, and fishery bycatch interactions.				MSY/OY	AMs	Discards	State Waters
				Unknown	In-season closures and pound for pound payback for commercial groundfish vessels; gear requirements for scallop fishery; gear requirements for small-mesh fisheries	57 mt (US) in CY 2017 and 2 mt (Canada) in CY 2017	0 mt
Availability of Biological and Assessment Data		Used in Assessment : survey (2017 NEFSC fall survey, 2018 Canada DFO winter survey, and 2018 NEFSC spring survey) and fisheries (U.S. and Canadian commercial catches) data, survey catchability value (0.31) based on recent field studies; Other Data : U.S. and Canadian commercial catches; bycatch avoidance program; RAMP studies; Industry Based Survey; video survey of Georges Bank; seasonal bycatch study; net efficiency studies; VIMS dredge survey					
Recent Performance Against Harvest Control Rule		11.8% of the US ACL was harvested in FY 2016.					
Current Management Program		With respect to GB yellowtail flounder after accounting for Canadian quota, the total ACL is divided between several sub-ACLs and sub-components. The commercial sub-ACL is further divided between the sector sub-ACL and the common pool sub-ACL. The majority of commercial permits participate in 1 of 17 sectors, fishing under quotas. The common pool operates under days-at-sea, with trip limits and trimester TACs controlling catch. The scallop fleet receives sub-ACLs for SNE/MA and GB yellowtail flounder stocks. The small-mesh fisheries receive a sub-ACL for GB yellowtail flounder. The other sub-component round out the final components of the total ACL. Landings and discards from all fisheries count against the applicable sub-ACL or sub-component, which are monitored throughout the year. If an overage occurs, an accountability measure is triggered in-season or for a subsequent fishing year, depending on the timing of the overage and the fishery component causing the overage.					
Variability in Catch/Revenues?		<p>Gross US Commercial Groundfish Revenue (in 2010 dollars) : \$67.7 in FY2012, \$55.1 in FY2013, \$55.4 mil in FY2014, \$51.2 mil in FY2015.</p> <p>US Groundfish ave price/lb (in 2010 dollars) : \$1.43/lb in FY2012, \$1.30/lb in FY2013, \$1.28/lb in FY2014, \$1.23/lb in FY2015.</p> <p>Total US groundfish landings (all trips) : 47.4 mil lbs in FY2012, 42.3 mil lbs in FY2013, 43.4 mil lbs in FY2014, 47.6 mil pounds in FY2015.</p> <p>US GB yellowtail flounder Catch (landings + discards) : 384.9 mt in FY2012, 93.3 mt in FY2013, 122.8 mt in FY2014, 68.2 mt in FY2015</p>					

Data - Vessels, Permits, Dealers, Processors, Employment	FY 2015: 990 vessels with a limited access groundfish permits. 678 limited access groundfish permits with revenue from any species of those - 269 with allocated groundfish landings from at least one groundfish trip and 312 with no landings (inactive). Employment in the groundfish fishery: 1,930 total crew positions; 100,438 total crew-trips and 153,551 total crew-days. FY2017: 807 vessels had a category K permit at any time during FY2017. 58 vessels reported landing small mesh multispecies on a commercial trip during FY2017. 346 limited access scallop-permitted vessels reported landing scallops during scallop FY2017.
% Food, % Recreational	82% of the US ABC is allocated to the commercial groundfish fishery. There is no recreational sub-ACL.
Fishing Communities	In FY2017 , there were 33 ports with landings of yellowtail flounder. Among these, New Bedford, MA, had the highest engagement with this species, with more than four times the next highest port (Gloucester, MA) in pounds landed and more than three times the total landed value in dollars. Relative to other ports highly engaged with yellowtail flounder in FY2017, New Bedford has the highest overall level of social vulnerability according to the Social Indicators of Fishing Community Well-Being and Resilience (Jepson and Colburn 2013). It scores highest among these communities on the indices of vulnerability measuring poverty, personal disruption, and housing characteristics. It is also highly engaged in commercial fishing and moderately reliant, but not an outlier relative to the other communities where yellowtail flounder is most often landed and sold. Cited: Jepson, M., & Colburn, L. L. (2013). Development of social indicators of fishing community vulnerability and resilience in the US southeast and northeast regions. US Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service.
Other Economic/Social Factors	Food consumption; market demand; ex-vessel price; sector ACE lease value (influenced by suite of ACLs for all groundfish stocks, market liquidity, transaction costs, operating rules)
Major Sources of Scientific Uncertainty	Inconsistencies between relative fishing mortality trends and trends in total mortality from the surveys; some biomass estimates of the entire Georges Bank are lower than independent biomass estimates for only a portion of the Bank; declining trend in survey biomass despite reductions in catch; lack of assessment model; variability and uncertainty in survey estimates
Major Sources of Management Uncertainty	Management uncertainty is set at 3%, instead of the typical 5% for most other groundfish stocks, due regulatory flexibility to adjust management measures in-season to prevent an overage, based on increased monitoring with Amendment 16, and no state waters catch. The incorporation of an in-season adjustment capability in the FMP is essentially an in-season accountability measure. Further work is needed on the amount of management uncertainty to assign to the yellowtail flounder sub-component for the scallop fishery, including whether the adjustment should be determined by the scallop or groundfish FMPs.
How is the probability of overfishing addressed?	Overfishing status is unknown given the lack of reference points for the empirical approach.
What is the consequence of overfishing?	Reduction in biomass, yield, and net economic benefits over long-term; low GB yellowtail flounder catch limits reduce scallop yield and harvest of other groundfish stocks on Georges Bank
How are expected net benefits to the Nation currently measured/evaluated?	
Interactions with Other Fisheries/Stocks, Bycatch Issues	The scallop fishery and small-mesh fisheries each receive a sub-ACL of GB yellowtail flounder (16% and 2% of the total ABC, respectively).
Ecosystem Considerations: Trophic Interactions	See other important considerations.
Ecosystem Considerations: Habitat	See other important considerations.
Ecosystem Considerations: Climate	See other important considerations.
Other Important Considerations/Notes	Analysis of catch curves from the three trawl surveys indicate that total mortality (Sinclair Z) on GB yellowtail flounder declined in recent years but remains high (Z above 1 for most years). Total mortality may still be high, but it has recently declined in two of the three surveys (NMFS fall and spring). Given the low relative exploitation rates observed on this stock in recent years, it appears that natural mortality has increased to high levels. However, the driver(s) of natural mortality are uncertain. High natural mortality could be due to some combination of resource and environmental/ecosystem issues such as predator and prey dynamics, climate change leading to changes in thermal conditions, or loss of suitable habitat and its availability.