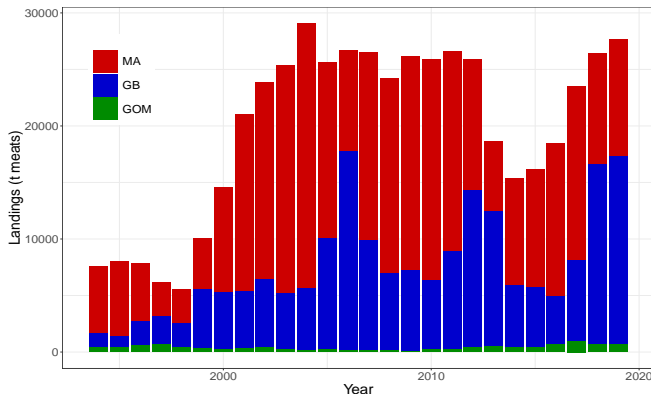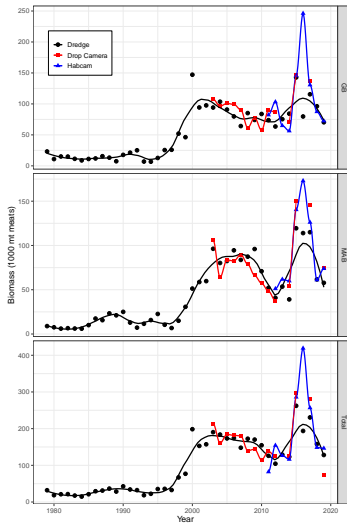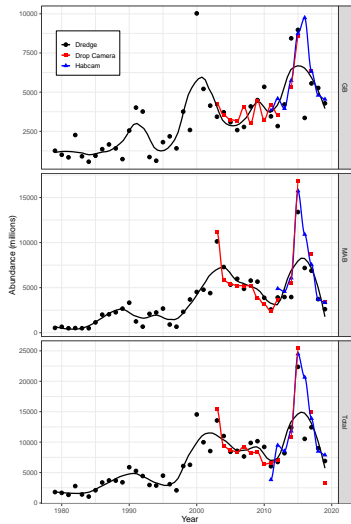# Sea Scallop Assessment Update, 2020

Dvora Hart and Jui-Han Chang
Northeast Fisheries Science Center
Woods Hole MA 02543

Landings

Landings increased in 2018-2019, in large part due to harvesting of the 2012 year class in the Nantucket Lightship area and the 2013 year class in the Elephant Trunk and Hudson Canyon South rotational areas. Landings in 2019 were the second highest on record.
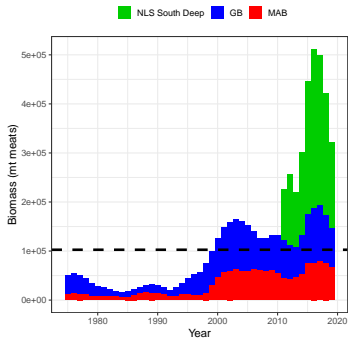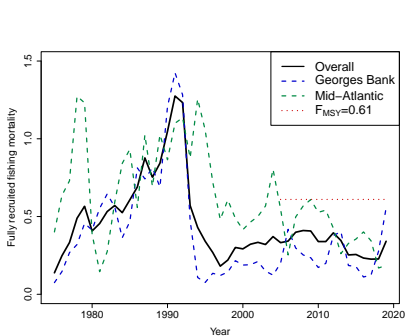
Sea Scallop Surveys - Plots

CASA model output

The CASA model estimates fishing mortality and biomass based on surveys, commercial data, and biological assumptions (e.g., growth and natural mortality).

All Three Regions Combined
2019 biomass and fishing mortality estimates

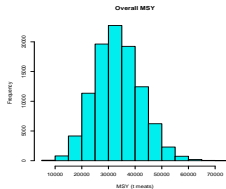| Stock	Biomass (mt meats)	CV	F	CV
Georges Bank Closed	60,587	0.09	0.53	0.35
Georges Bank Open	19,692	0.06	0.61	0.14
Mid-Atlantic	66,795	0.04	0.19	0.34
Total	147,073	0.04	0.34	0.06

Scallops located in the deep water southeast portion of Nantucket Lightship Area are excluded.
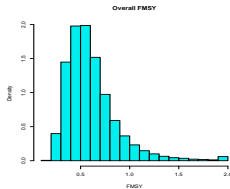
SYM Reference Point Model

The SYM model estimates fishery reference points taking uncertainty into account.

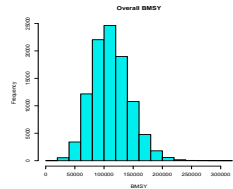Uncertainty in MSY, F_{MSY}, and B_{MSY} for Georges Bank and Mid-Atlantic combined

MSY F_{MSY} B_{MSY}

Median reference point curves

2020 $F_{\mathsf{MSY}} = 0.61$ $B_{\mathsf{MSY}} = 102,657$ t

2018 $F_{\mathsf{MSY}} = 0.64$ $B_{\mathsf{MSY}} = 116,766$ t