

SEDAR 51 Assessment Workshop Webinar IV
October 30, 2017 from 1:00 PM to 2:00 PM
Summary Report

The model start date was set at 1963, largely since the historical commercial data were uncertain. Historical recreational data prior to the mid-1908s had the same issue. Initial estimated of fishing mortality will be applied. Some fishing fleets have very large, old fish on record; as such, the plus group for ages has been modified to 25 years and 80cm for lengths, with 2 cm length bins. One issue with the reported sizes is that there are a disproportionate number of almost meter-long fish, which are not immediately preceded by larger numbers of smaller fish.

The model will be structured as length-based catch at age, with >30,000 ages used. Time blocks will be set pre- and post-1990 for retention and selectivity, which are knife-edged at the size limit post-1990. The commercial longline fleet shows logistic selectivity, since it presumably selects larger fish more effectively than smaller fish due to gear placement and hook sizes. Fixed parameters include ΣR , retention, discard mortality, growth parameters, natural mortality, and fecundity. Estimated parameters include R_0 , slope, and selectivity.

Preliminary model outputs were reviewed. The recreational shore and commercial longline fleets are assumed to have no discards. The growth curve shows rapid growth between age-0 and age-1, after which the growth curve is informed external to the model. Spawning output increases exponentially with size. Commercial discards are fit well by the model except for those in Monroe County, as are recreational discard estimates; however, the coefficients of variance around the discards estimates are quite large. Effort indices are not generally fit well by the model; large coefficients of variance decrease with time, and some trends in changes in effort are captured in more recent years. Further adjustments to weighting of length composition data may resolve some issues with index fit. Recruitment pulses are not yet picked up well in length composition data by the model, but fits are improved in more recent years. Model fits to retained catch are good for the commercial data, with deviations in the residuals largely under 10 fish. Model fits to retained recreational catch are missing peaks in more frequently caught smaller sizes. Recreational landings account for more than 80% of total landings, especially in recent years.

To-Do List:

- Fit the model to indices and size composition data
- Fit the model to length at age frequency data
- Jitter starting parameter values to test model rugosity
- Run sensitivity analyses on discard mortality and Lorenzen natural mortality

The next Assessment Webinar will be the week of November 15, 2017 from 1:00 – 3:00 PM

Participants:

Julie Neer	Jeff Isely	Shannon Calay	Dave Chagaris
Ryan Rindone	Michael Drexler	Beth Wrege	Jim Tolan
Joe West	Joe Powers	Mike Larkin	Adyan Rios
Skyler Sagarese			