



EAFM Summer Flounder Recreational Discards MSE

Performance Metrics

February 2022

Management Objective 1: Improve the quality of the angler experience

Performance Metrics:

Priority metrics

- 1) Ability to retain a trophy fish
 - a. Proportion/number of fish caught greater than 28 inches
- 2) Ability to retain a fish
 - a. Percent of trips that harvest at least one fish
 - b. Change from baseline (ie., status quo) in harvest per trip
- 3) Angler welfare
 - a. Changes in consumer surplus/angler satisfaction at the trip/individual level

Lower priority/secondary metrics

- 4) Compliance rate (education and enforcement considerations)
 - a. Not estimated in model – could potentially do some sensitivity runs with a range
 - i. **Get feedback from core group on compliance under different management options**
 - b. Accounted for non-compliance in economic model (choice experiment and calibration model)

Management Objective 2: Maximize the equity of anglers' experience

Performance Metrics:

Priority metrics

- 1) Ability to retain a fish
 - a. Change in percent chance of retaining a fish, by state/region
 - b. Difference in percent chance of retaining a fish, by state/region
 - i. Interest in both metrics to evaluate by mode
 1. Concerns about data availability and reliability
 - a. **Get feedback from core group on interest and type of metric/info that could be useful given data concerns**
- 2) Retention rate
 - a. Change in ratio of landed : discarded fish, by state/region
 - b. Difference in ratio of landed : discarded fish, by state/region
 - i. Similar interest, data concerns regarding metric evaluation by mode

Lower priority/secondary metrics

- 3) Mode participation

- a. Percent participation/change in participation by mode
 - i. Model can produce as an output, but mechanism for change not appropriately modeled given data available
- 4) Number of unique regulations
 - a. Could evaluate as part of simulations – do “simpler” regulations scenarios (e.g., coastwide/1 set) perform better/worse compared to “complex” regulation scenarios (e.g., different measures by state and mode)
- 5) Average duration of regulations
 - a. Likely only making projections for 2-3 years and likely keeping same regulations in place to evaluate.
 - i. Get input from core group on interest and, if so, what metric would look like

Management Objective 3: Maximize stock sustainability

Performance Metrics:

Priority metrics

- 1) Stock status: Reference points
 - a. % chance of stock is overfished relative to spawning stock biomass (SSB) target (note: SSB reference point includes both male and female biomass)
 - b. % chance of overfishing relative to Fmsy threshold
- 2) Stock status: Overall population
 - a. SSB – same metric as that associated with 1a above
 - b. Fishing mortality rate – same metric as that associated with 1b above
 - c. Discard mortality
 - i. # of discards per trip, by state/region

Lower priority/secondary metrics

- 3) Stock status: Female spawning stock biomass
 - a. Mature female biomass – would require a sex-specific configuration of operating model and would need some sort of mature female biomass target
 - b. % of female catch – could potentially be done (some information available) but would require a sex-specific configuration of the operating model
 - i. Get feedback from core group on interest in these metrics and possibly identify which of these two metrics would be higher priority

Management Objective 4: Maximize the socio-economic sustainability of fishery

Performance Metrics:

Priority metrics

- 1) Fishing effort
 - # of trips relative to status quo (increase or decrease in trips), by state/region
- 2) Angler welfare
 - Changes in consumer surplus/angler satisfaction at the state/region level
- 3) Fishery investment
 - Changes in fishery investment measured by: sales, income, employment, and GDP produced by supporting businesses at the state-level or higher