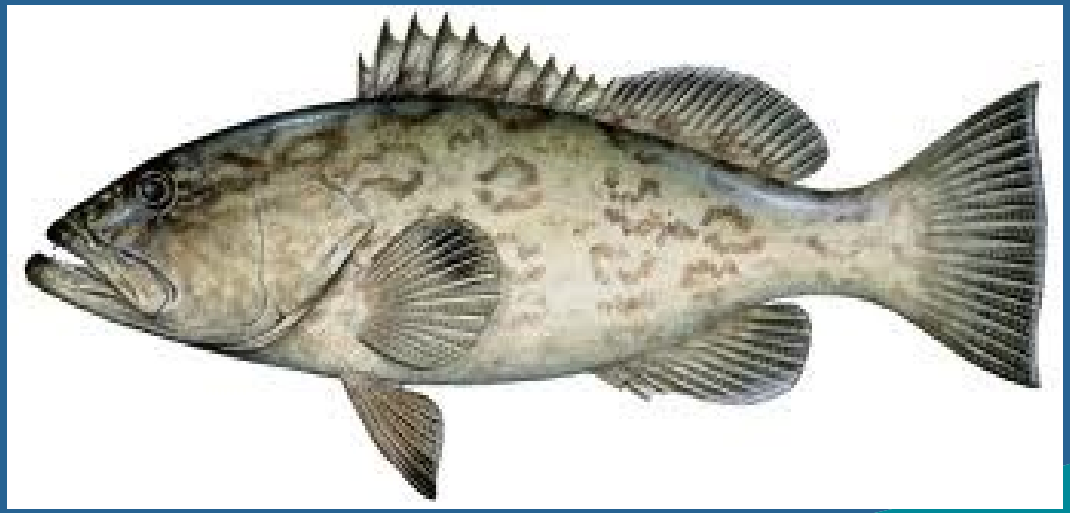
SEDAR 71
South Atlantic Gag Grouper

NOAA FISHERIES

Southeast Fisheries Science Center



SSC meeting

Oct 2021

Summary of Assessment Results

- Gag grouper are overfished and currently experiencing overfishing
- Overfishing has occurred since 1980s (consistent with prior assessments)
- Prior assessments indicate population was near the stock size threshold until early 2010s; current assessment indicates well below thresholds
- Fishery-dependent and fishery-independent indices indicate 2-3 fold declines in abundance in last 10 years
- Low estimated recruitment in last 10 years of the assessment
- Recent fishing mortality remains high and driven by commercial handline and general recreational fleets
- Assessment results are highly robust to the range of uncertainty considered

Projections

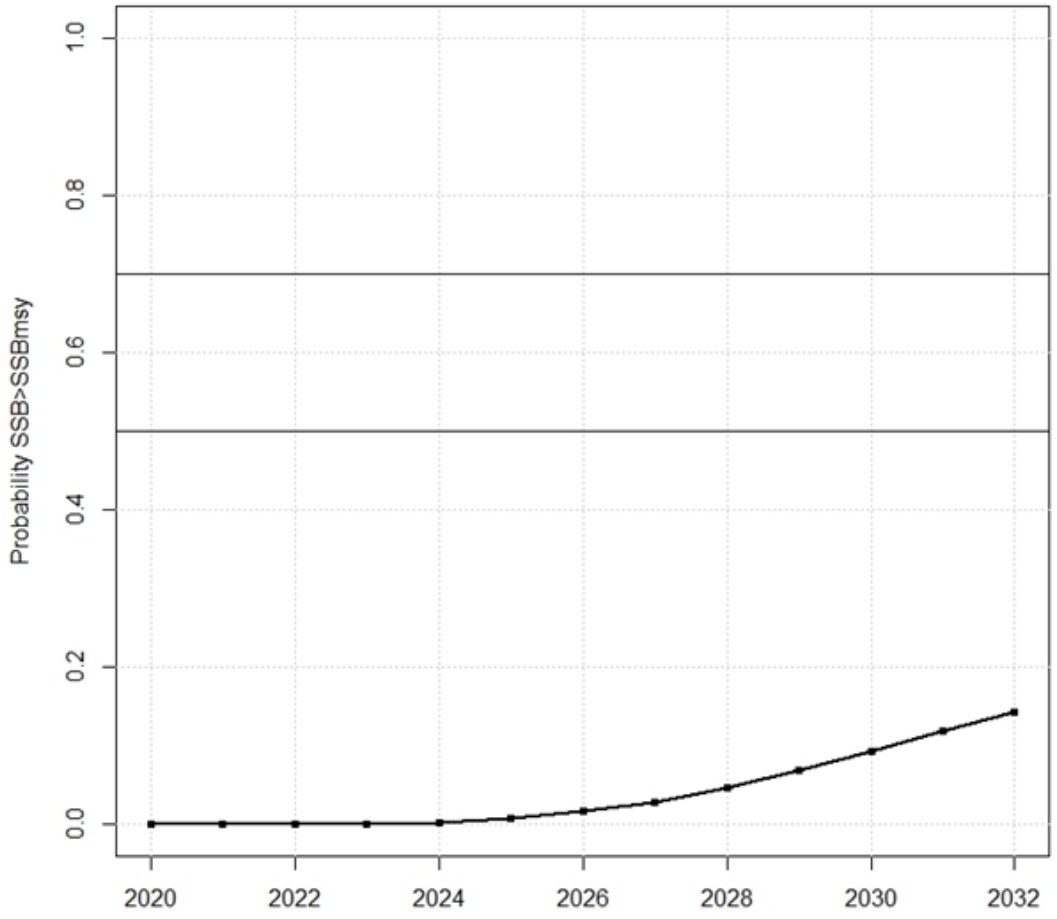
- Projection configuration:
  - Interim years: 2020 through 2022; first year of management 2023
  - $L_{current}$ (average landings from last 3 years of the assessment, 2017-2019)
  - 10 year projections once management implemented (through 2022)
  - Recruitment:
    - SR model—recruitment is conditioned on the estimated spawner-recruit relationship
    - Low recruitment—mean recruitment from the last 10 assessment years (2010-2019)

- 5 Projections:

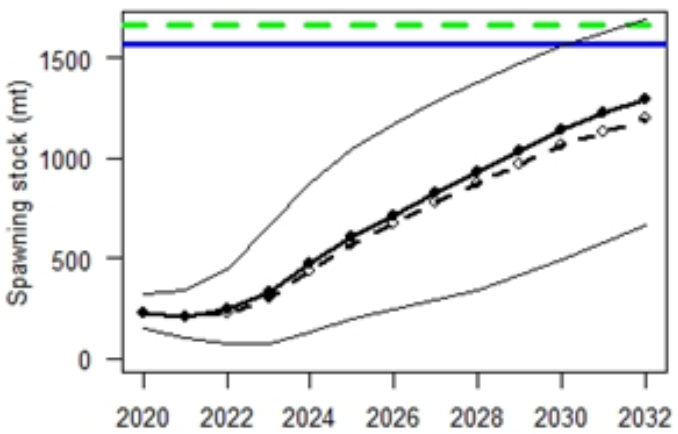
1. OFL with F = F_{msy}, SR model
2. Prebuild = 50%, low recruitment
3. Prebuild = 50%, SR model
4. Prebuild = 70%, SR model
5. Prebuild = 70%, low recruitment

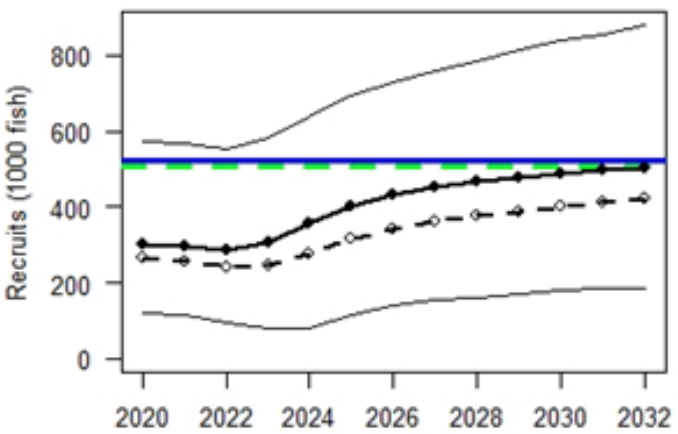
Time to Rebuild at F = Fmsy

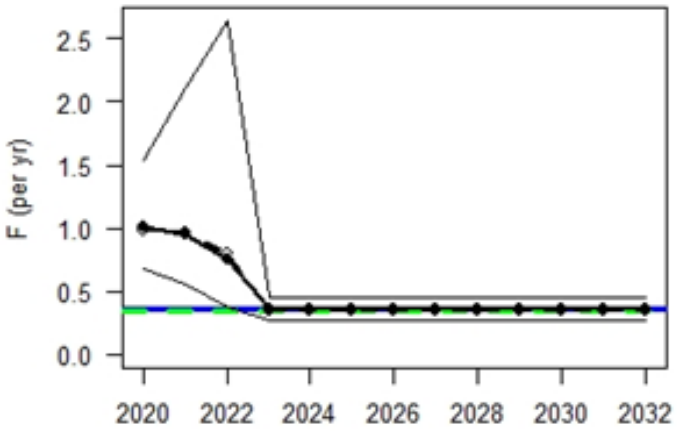
Stock at 14.2% SSB after 10 years with F = F_{msy} and assuming recruitment from the SR model

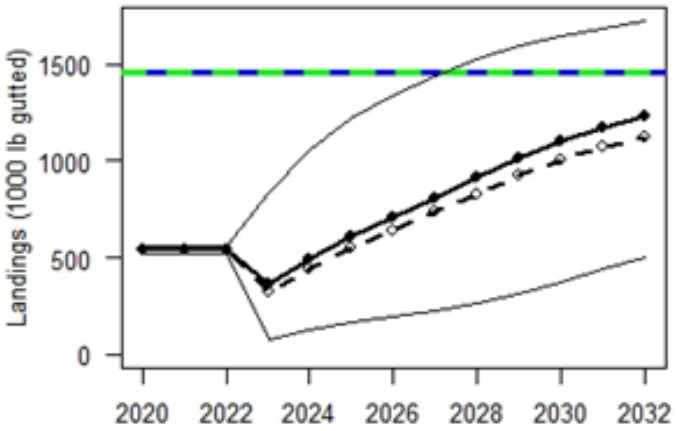


Projection 1: OFL Projection with F = Fmsy



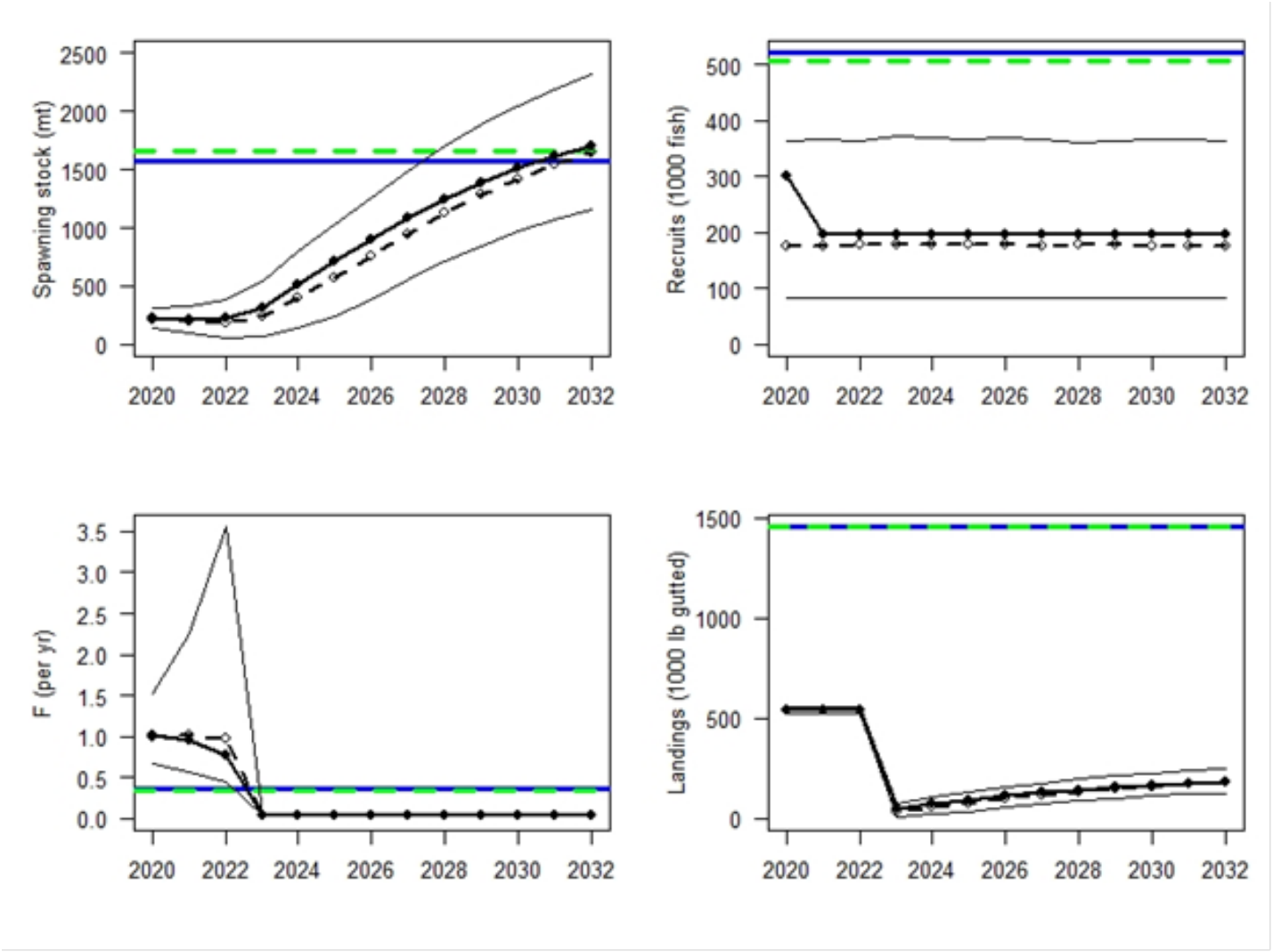






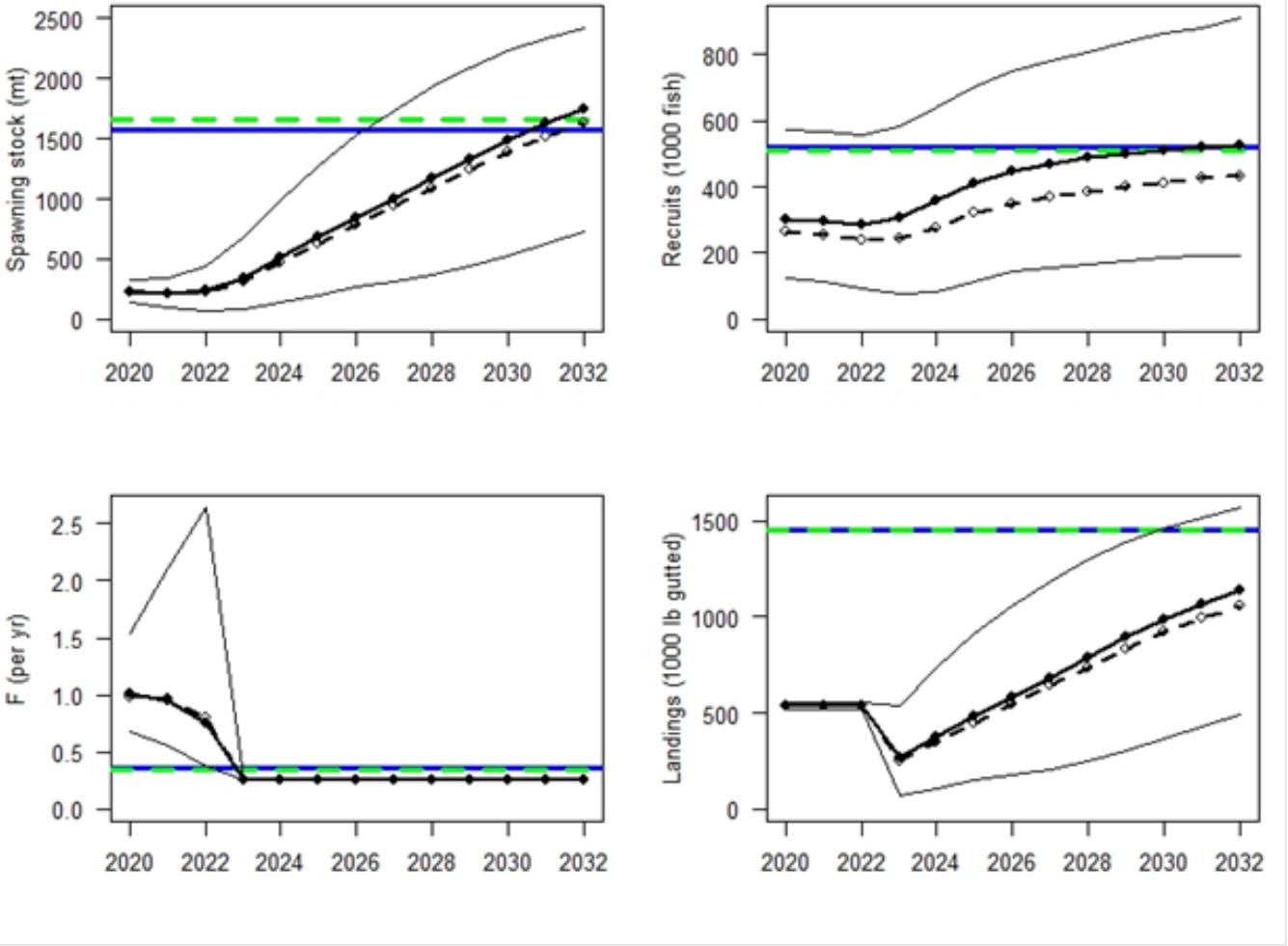
See Table 1 in document

Projection 2: 50% Prebuild, Low Recruitment



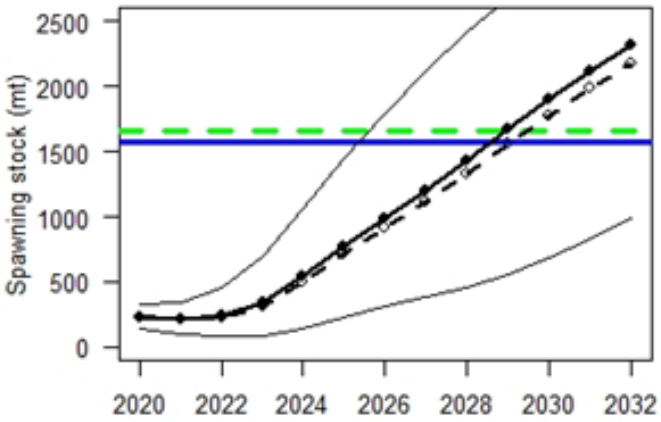
See Table 2 in document

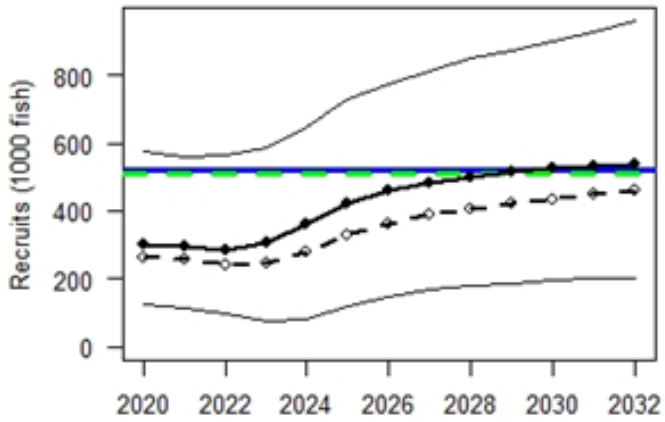
Projection 3: 50% Prebuild, SR model

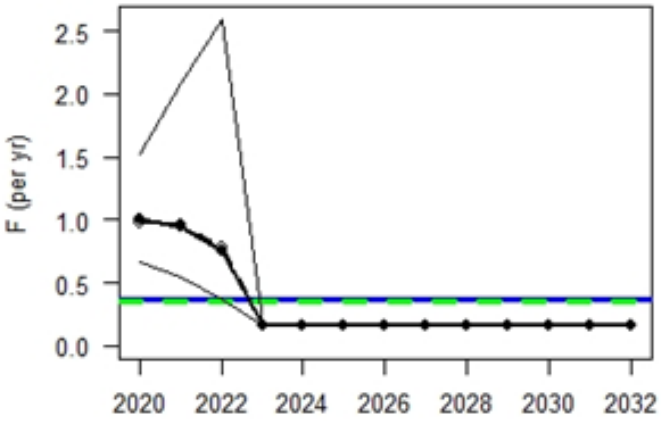


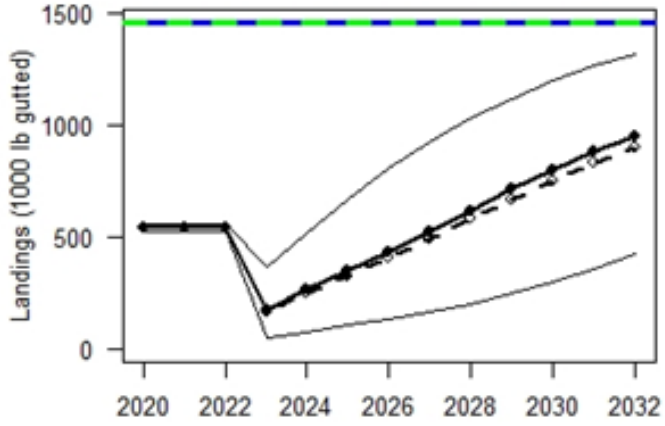
See Table 3 in document

Projection 4: 70% Prebuild, SR Model









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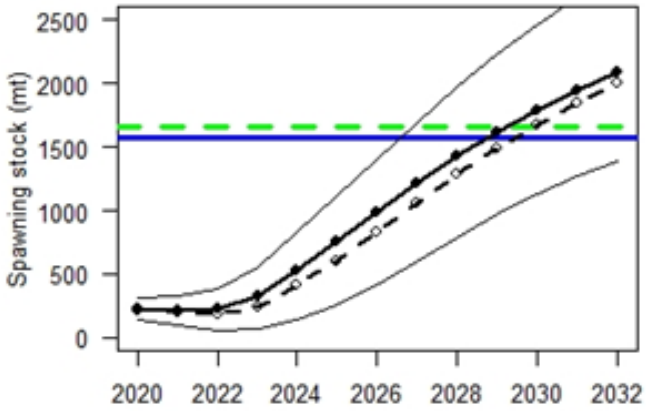
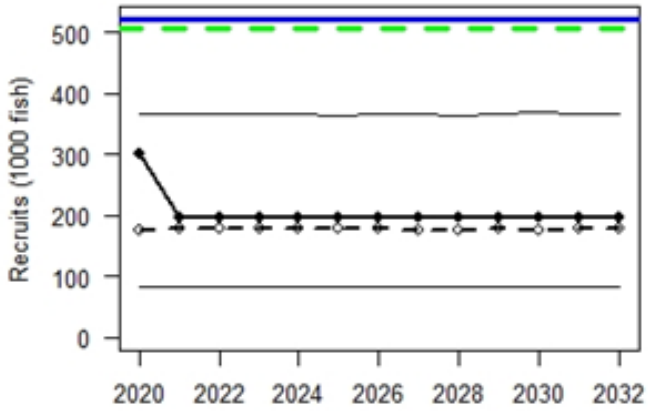
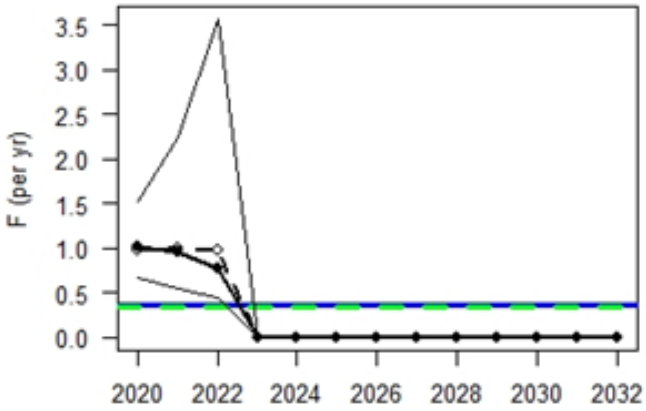
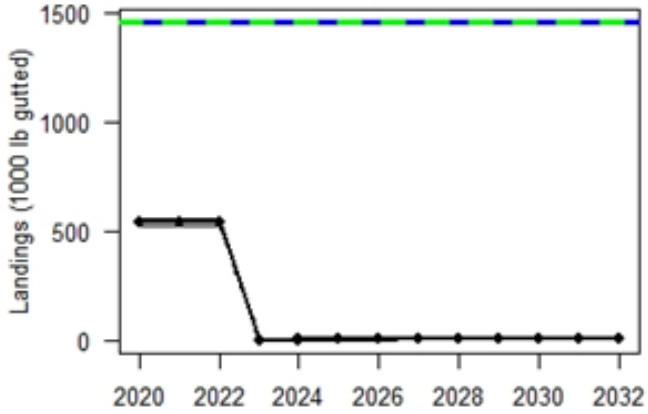
See Table 4 in document

Projection 4: 70% Prebuild, Low Recruitment









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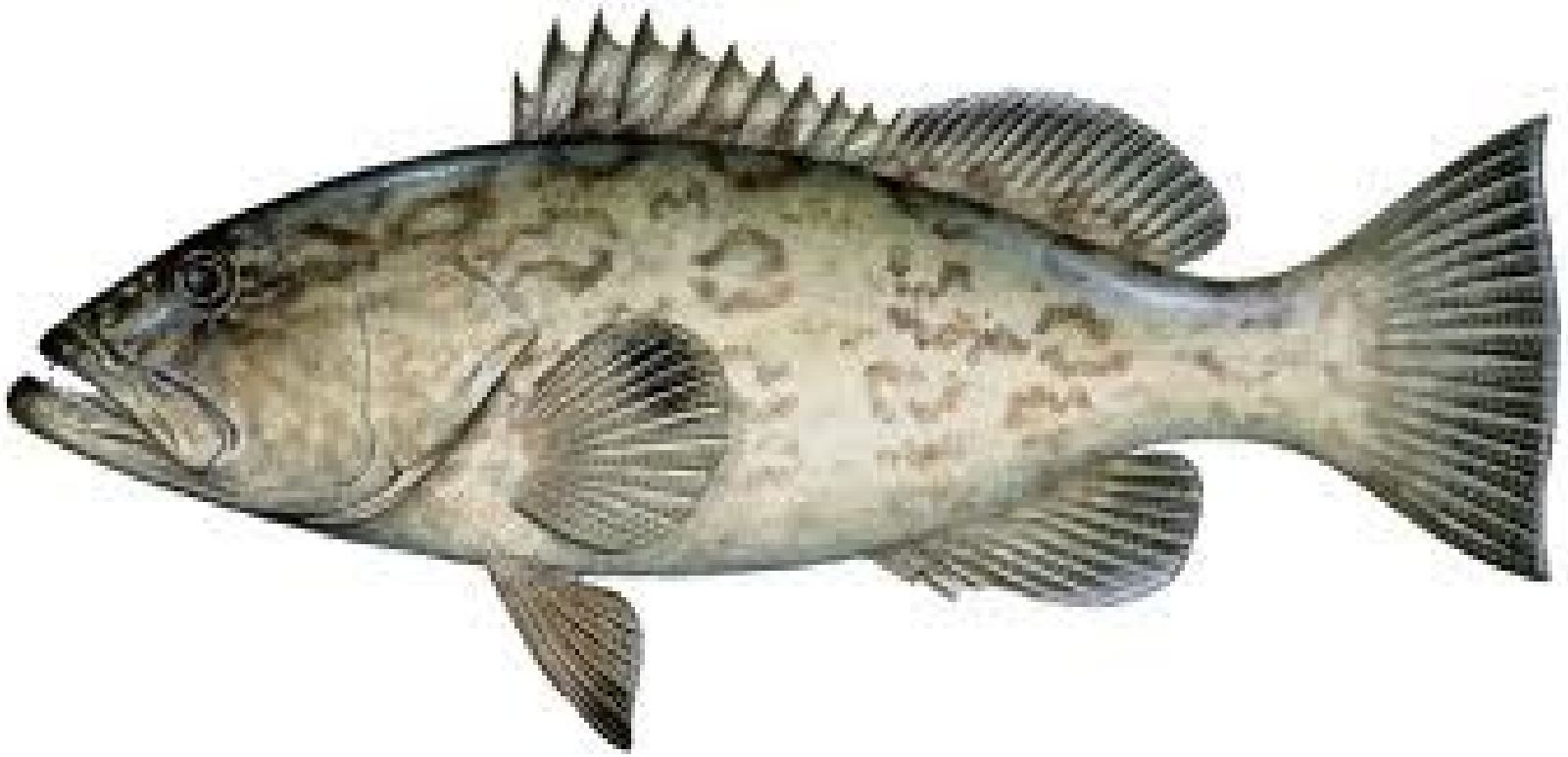
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