SOUTH ATLANTIC RED SNAPPER RESEARCH PROJECT (SARSRP) REVIEW

THE SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

Scientific and Statistical Committee

April 2026 Meeting

SARSRP REVIEW

Charleston – January 13-15, 2026

Review Panel:

Marcel Reichert (SA SSC - Chair)
Luiz Barbieri (SA SSC)
Noel Cadigan (CIE)
Daniel Ruzzante (CIE)
Joe Powers (CEI)

Research Team Leads:

Will Patterson
Nathan Hostetter (BHIM)
David Portnoy (CKMR)

Four presentations covering two main project components:

Close Kin Mark Recapture Method (CKMR)
Bayesian Hierarchical Integrated Model (BHIM)

Each resulting in a Red Snapper population estimate for the SA region.

Consensus Summary Report and 3 individual CIE reports.

Close Kin Mark Recapture method (CKMR)

- Methodology and study design robust.
- Sampling effort sufficient for an initial estimate of population abundance.
- Analyses developed consistent with theory and modeling experience and applied appropriately.

- Uncertainty likely to have been underestimated.
- Abundance estimate based on CKMR not independent from stock assessment information.
- Unknown number of fish < 2-year-old in analyses.
- Panel recommended additional sensitivity analyses to fully assess potential model misspecification.

RP accepted the CKMR based population estimate given the RP's identified uncertainties and recommendations

Bayesian Hierarchical Integrated Model (BHIM)

- Sampling design and sampled locations sufficient to estimate average camera counts for the SERFS sampling frame.
- Abundance over unconsolidated bottom was very low.

- Effective sample area (ESA) of video trap gear was critical for estimating total red snapper abundance.
  - RP accepted Chicken Rock study results, only one area over a limited time =>
  - little confidence that resulting ESA represents the overall ESA for the entire stock area.
- SERFS video data and ROV density estimates were expanded to the entire study area, but considerable uncertainty in information of hard bottom habitat.
- Population estimate was sensitive to how bottom type was identified and classified, and this habitat uncertainty was not included in the overall CV of the BHIM population estimate.
- Population estimate not independent from stock assessment data (Video trap data)
- Unknown number of < 2-year-olds included.

Review Panel had little confidence in BHIM population estimate.