

## **BLACK SEA BASS FIGURES**

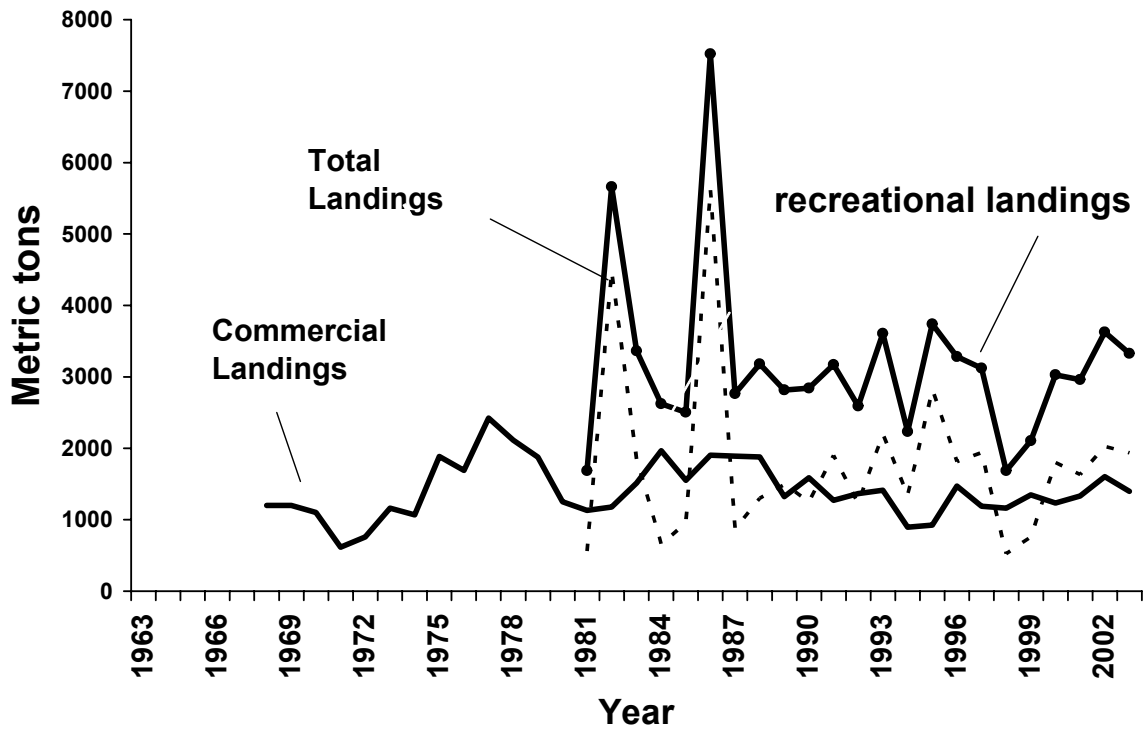


Figure 1. Landings of the northern stock of black sea bass in mt.

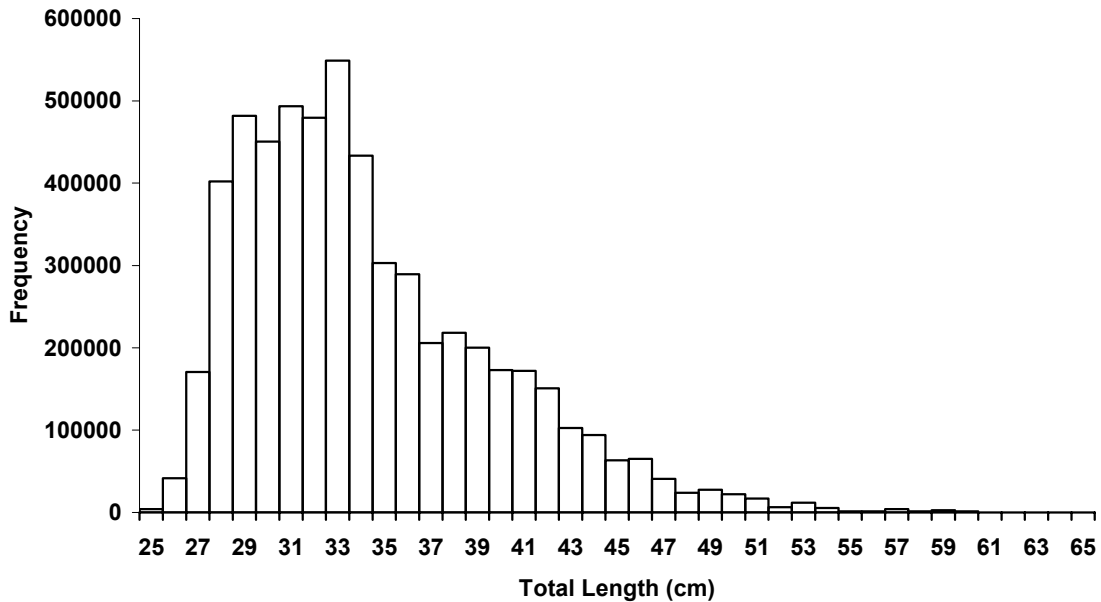


Figure 2 . 2002 commercial black sea bass landings length distribution.

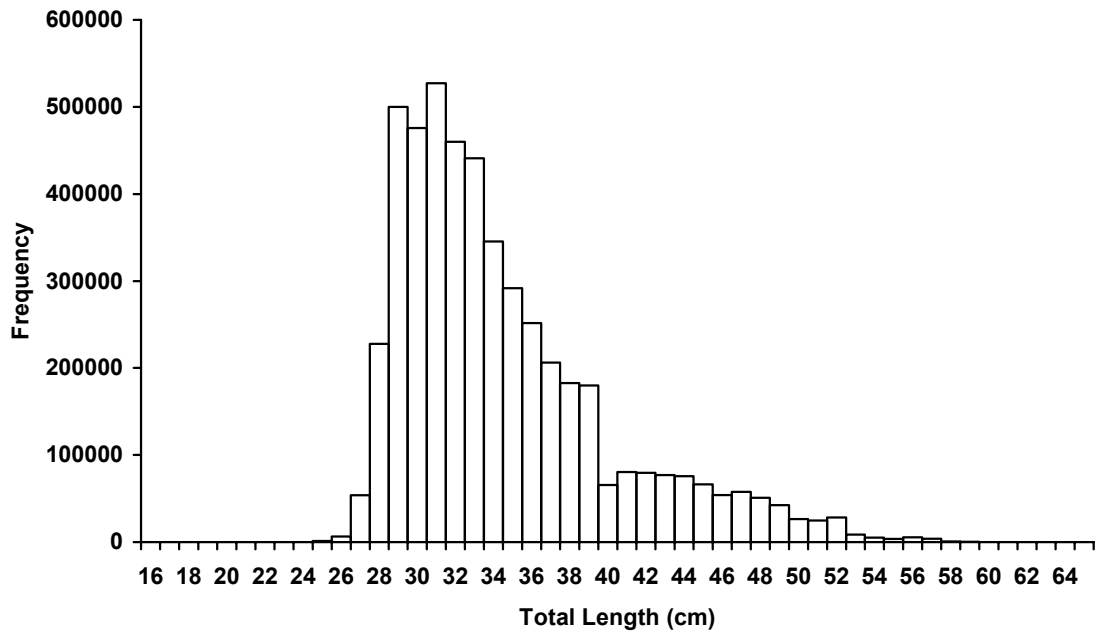


Figure 3. 2003 commercial black sea bass landings length distribution.

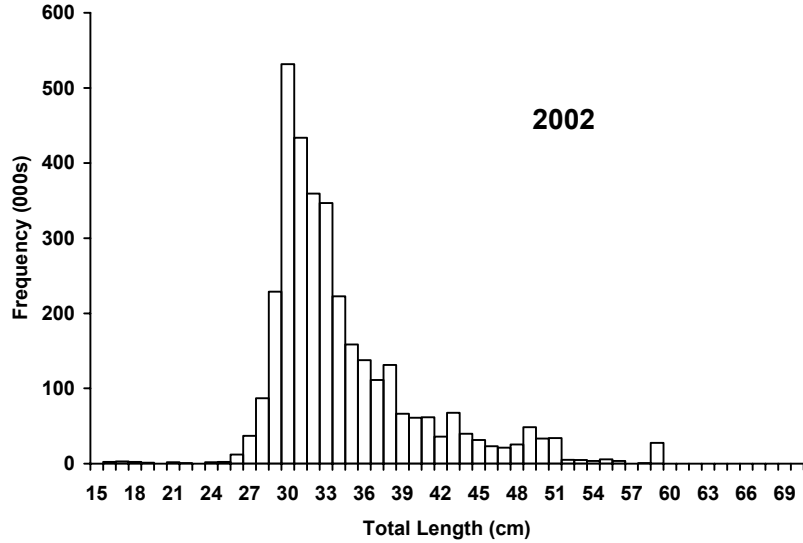


Figure 4. 2002 length frequency of black sea bass recreational landings.

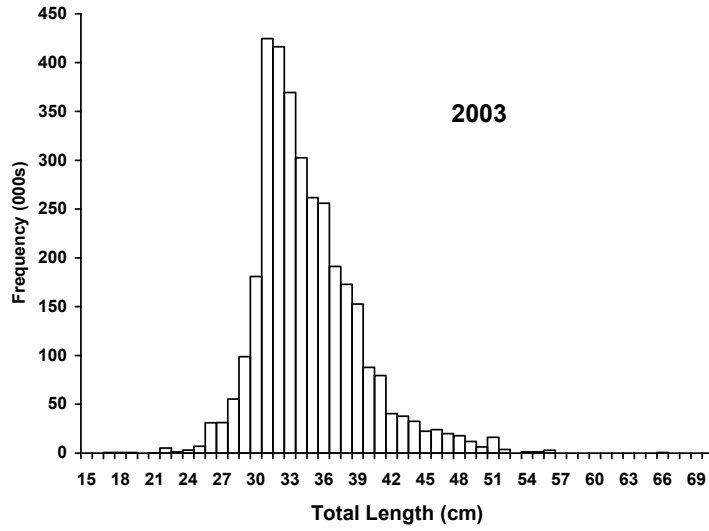


Figure 5. 2003 length frequency of black sea bass recreational landings.

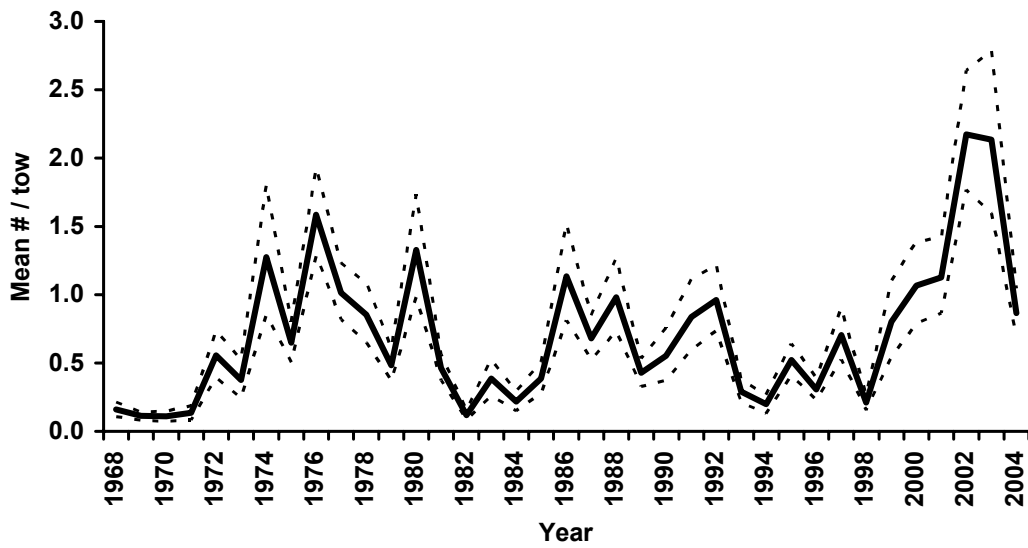


Figure 6. NEFSC spring offshore ln re-transformed mean number per tow of black sea bass,  $\pm$  95% confidence intervals.

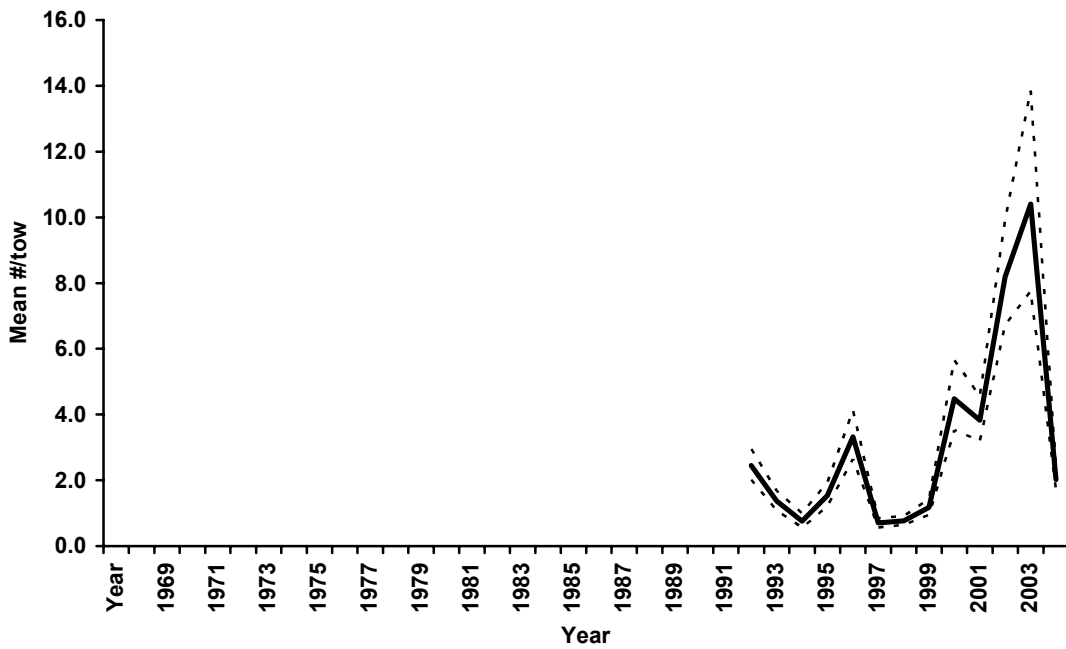


Figure 7. NEFSC winter survey ln re-transformed mean number per tow of black sea bass,  $\pm$  95% confidence intervals.

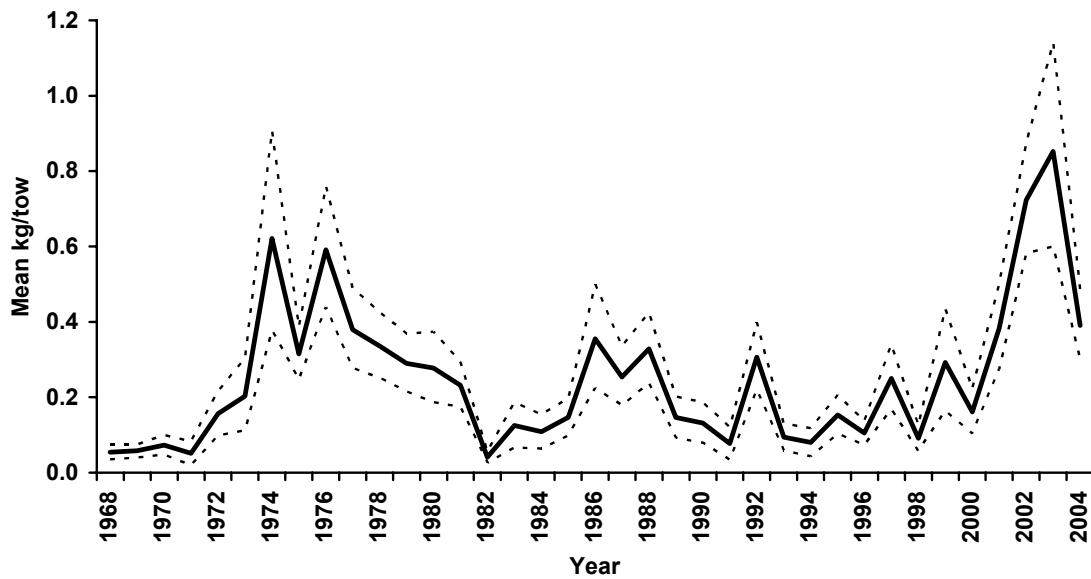


Figure 8. NEFSC spring offshore ln re-transformed mean weight (kg) per tow of black sea bass,  $\pm$  95% confidence intervals.

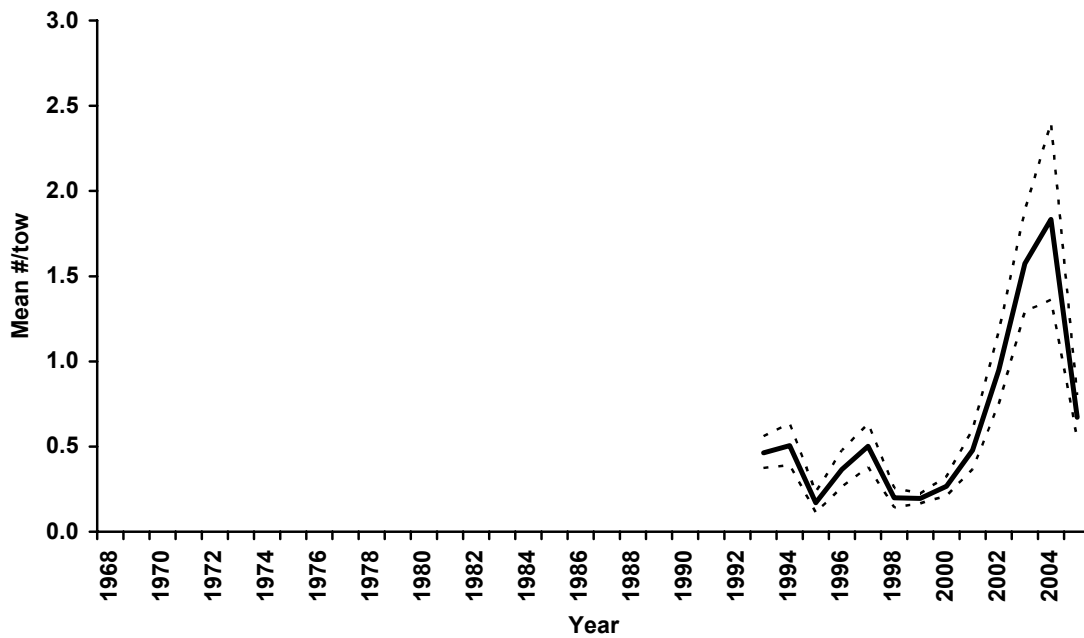


Figure 9. NEFSC winter survey ln re-transformed mean weight (kg) per tow of black sea bass,  $\pm$  95% confidence intervals.

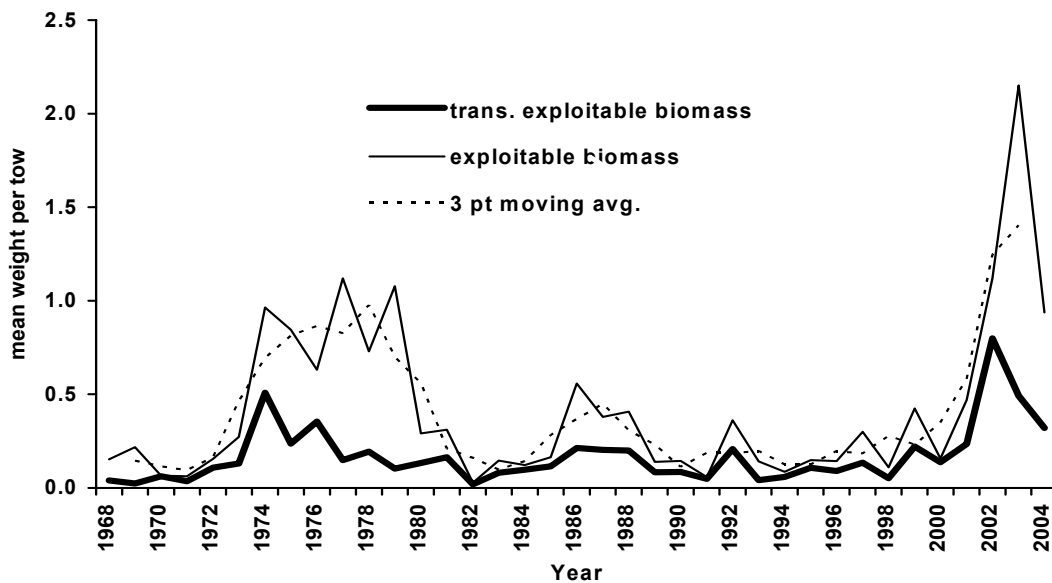
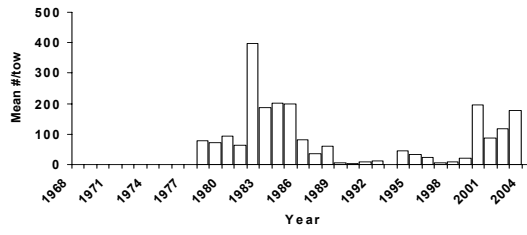
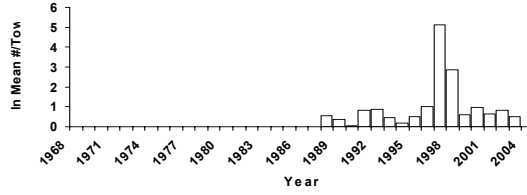


Figure 10. NEFSC spring offshore survey black sea bass index of exploitable biomass, ( $\geq 22$  cm), 3 point moving average and ln re-transformed exploitable biomass.

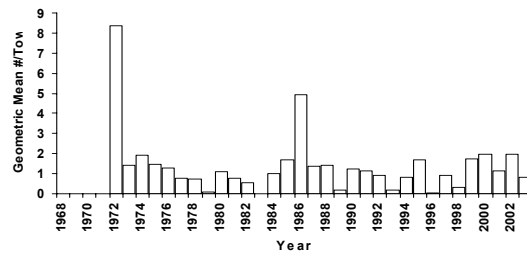
MA DMF - Fall Juvenile Indices



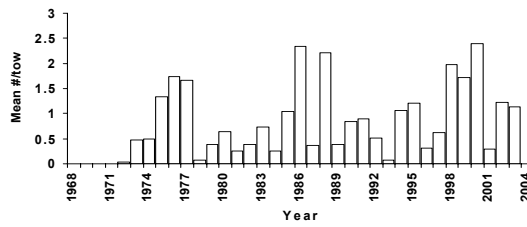
NJ DEP October juvenile index



MD DNR coastal juvenile index



NMFS Fall survey juvenile indices



NMFS Spring Juvenile Index

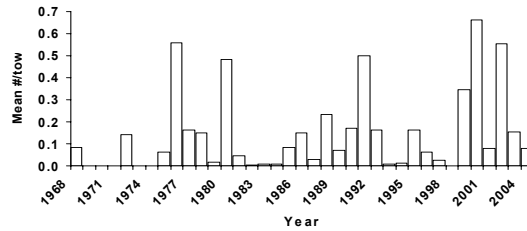


Figure 11. Juvenile abundance indices from state and federal surveys.

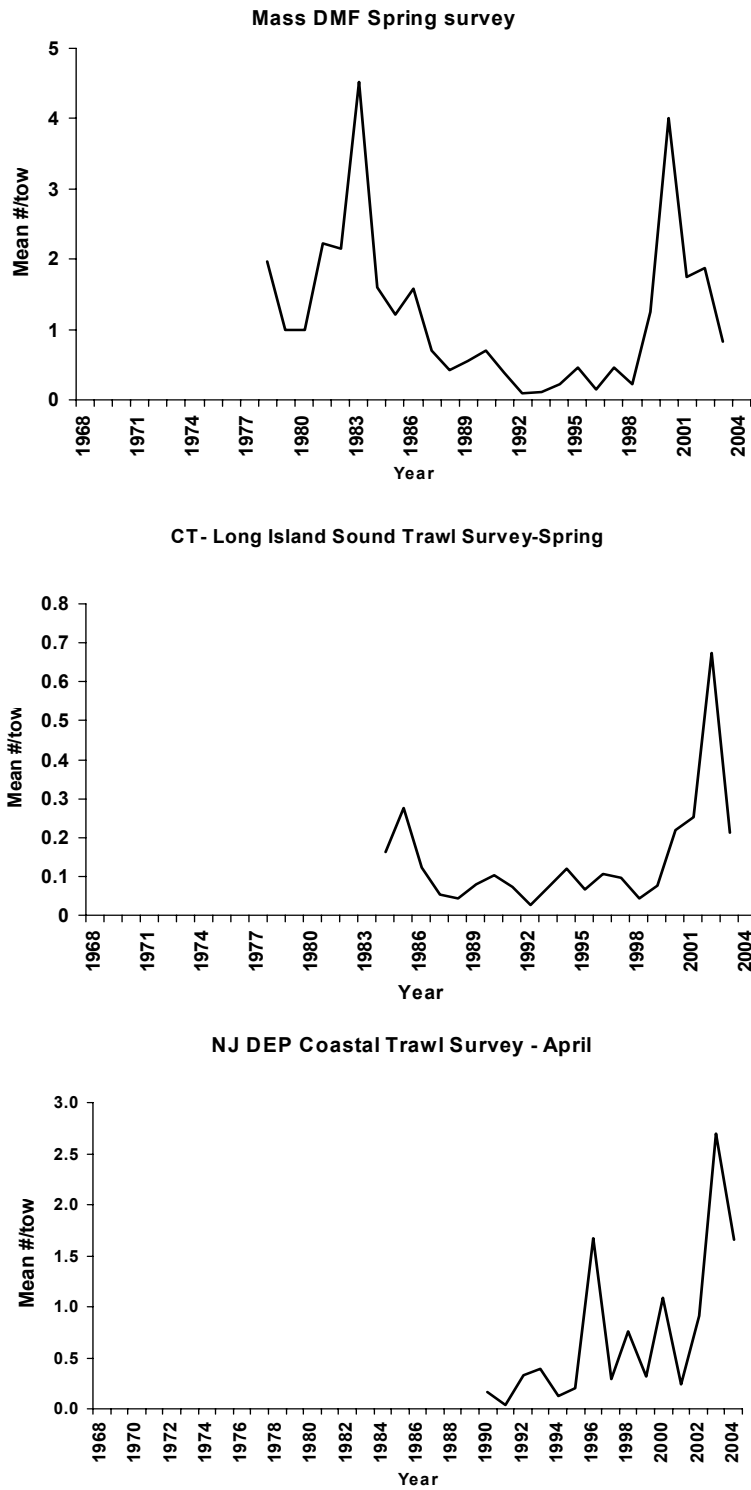


Figure 12. Abundance indices (mean #/tow) from state spring surveys.



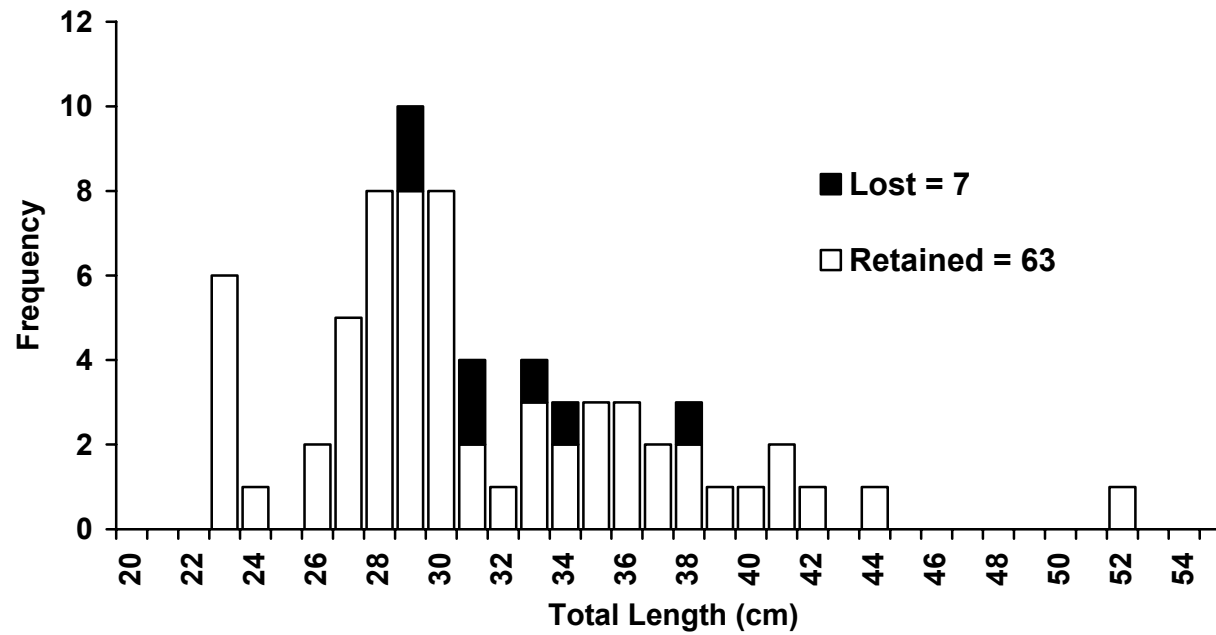


Figure 13. Sum of length distribution of black sea bass used in tag retention experiments. Fate of tags as indicated.

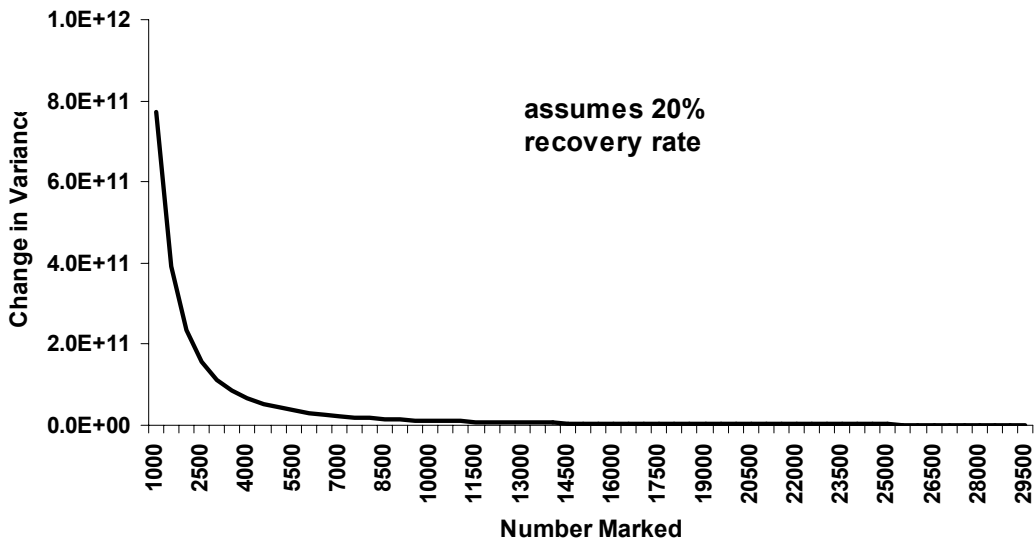
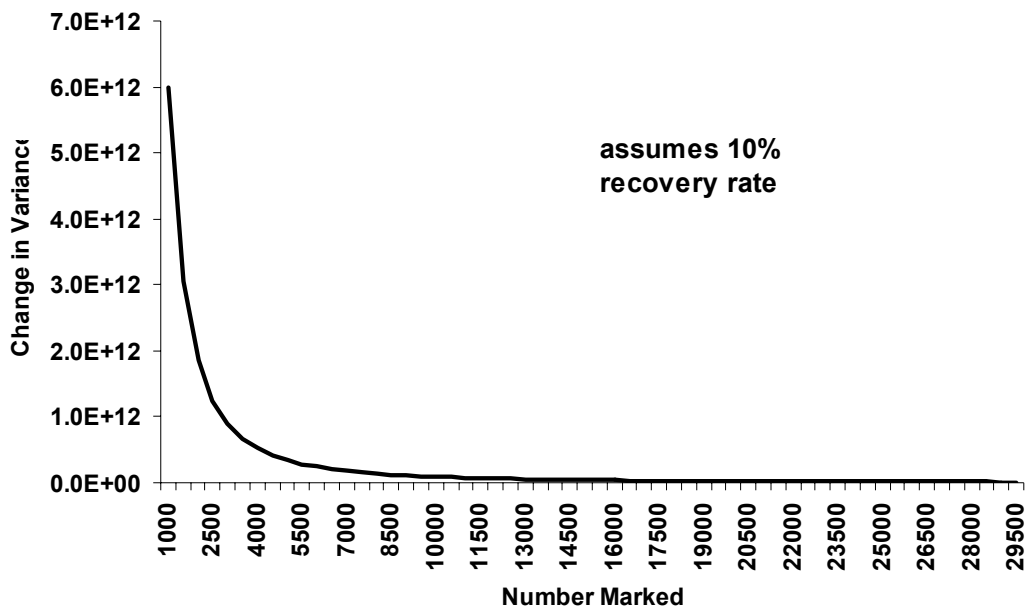


Figure 14. Effect on variance of N with changes in sample size under 2 recovery rate assumptions.

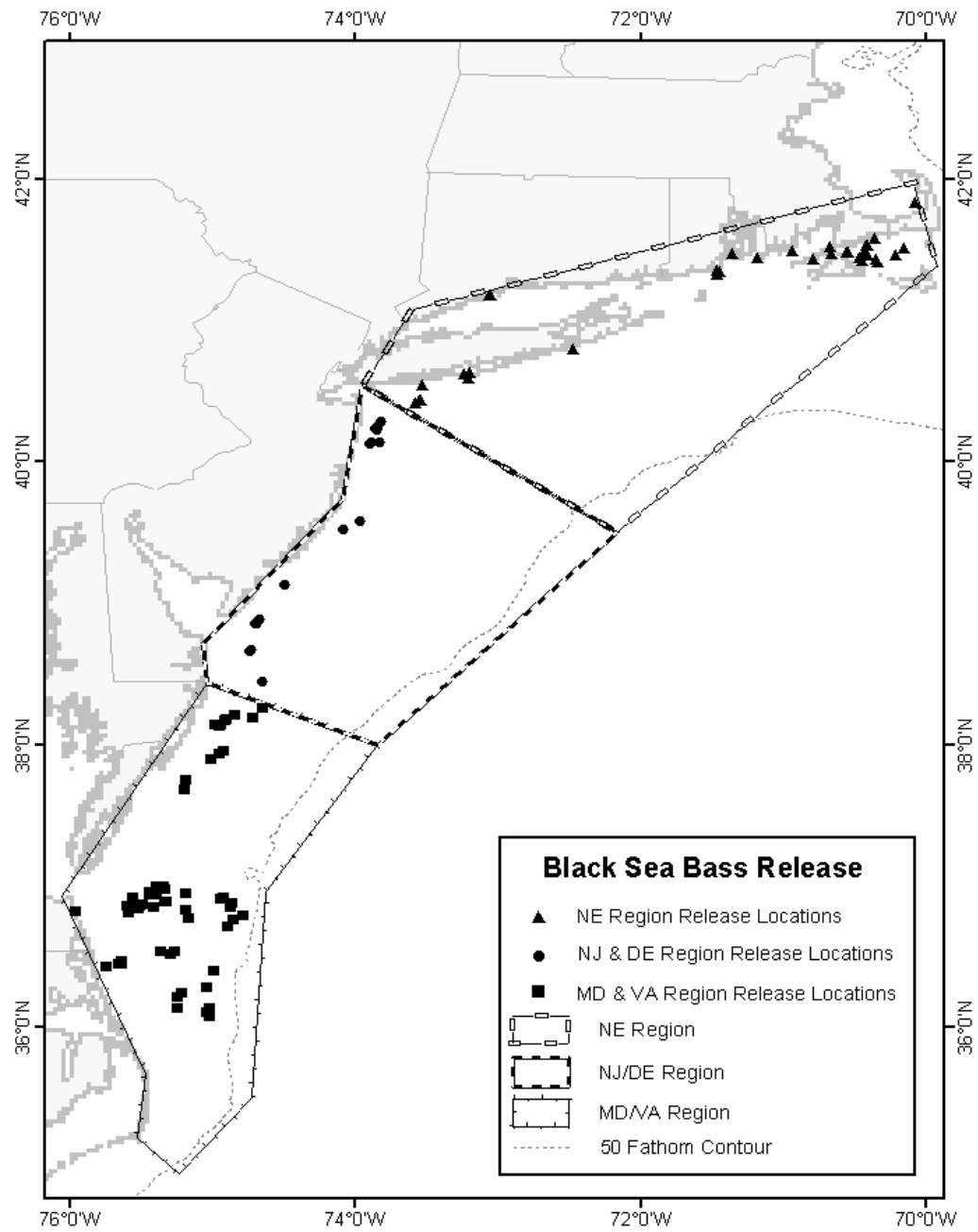


Figure 15. Geographic distribution of black sea bass tag releases. Three regions indicated.

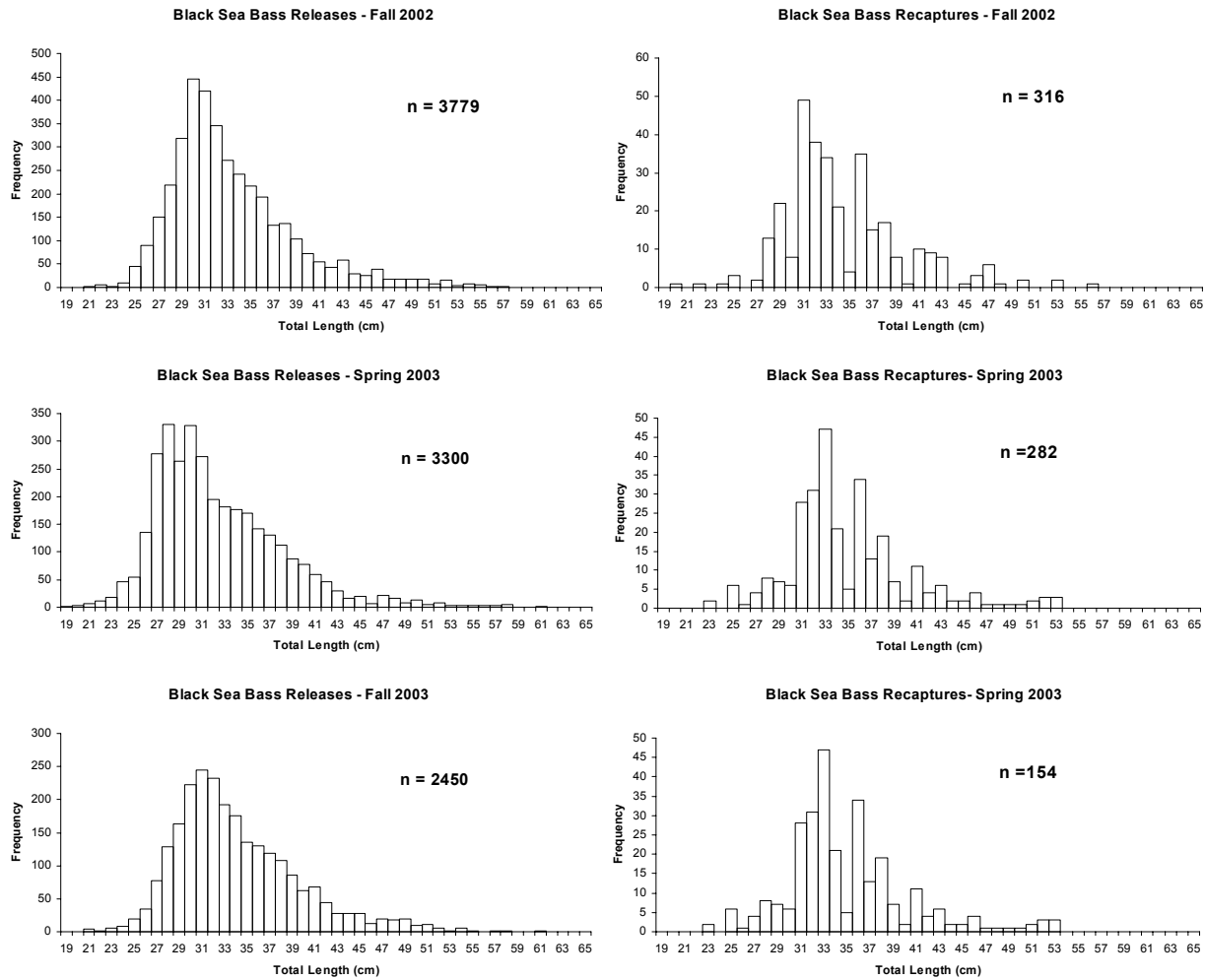


Figure 16. Length distributions of tagged and released black sea bass and subsequent recapture sizes.

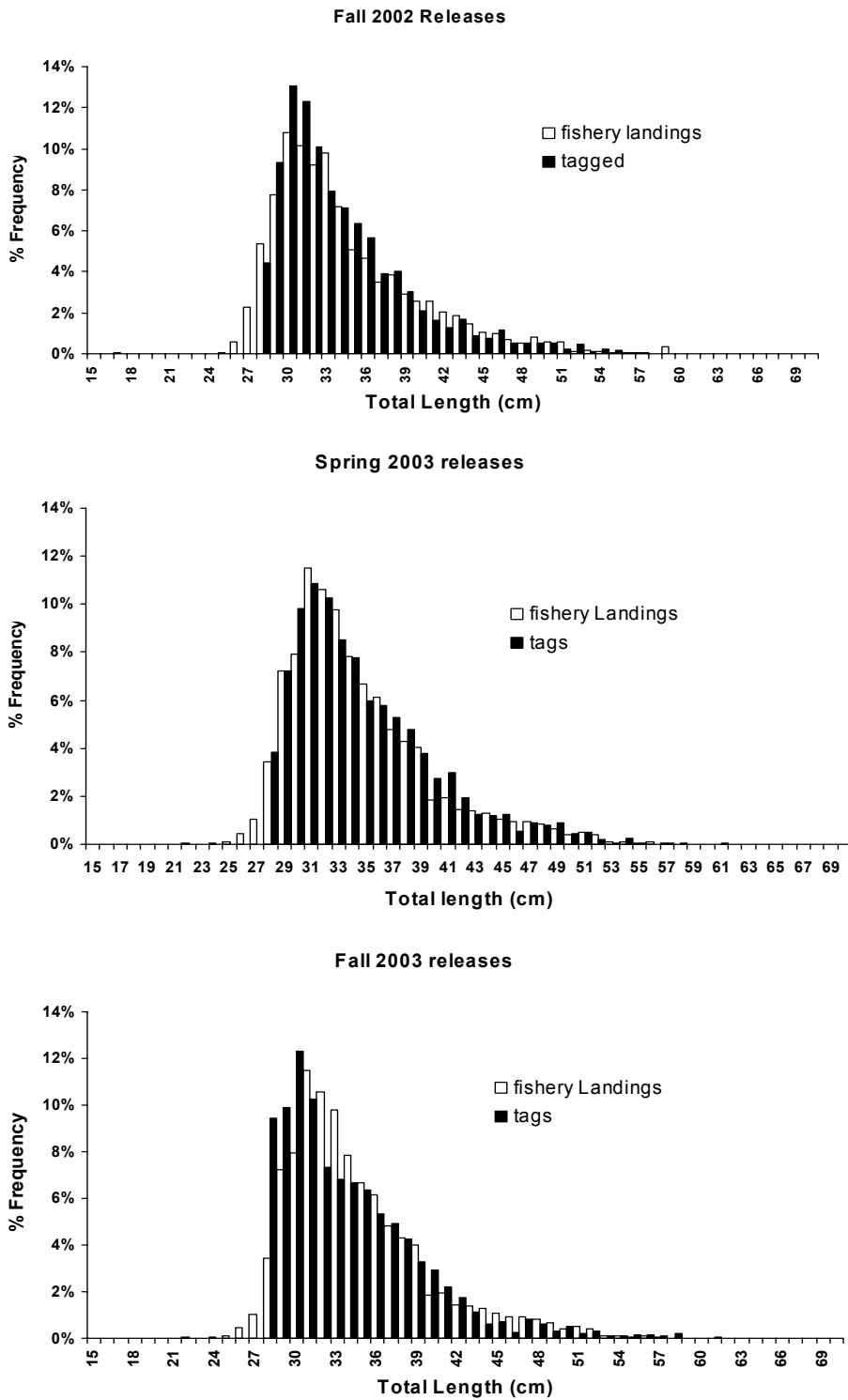


Figure17. Comparison between length distributions of tagged black sea bass and fishery landings.

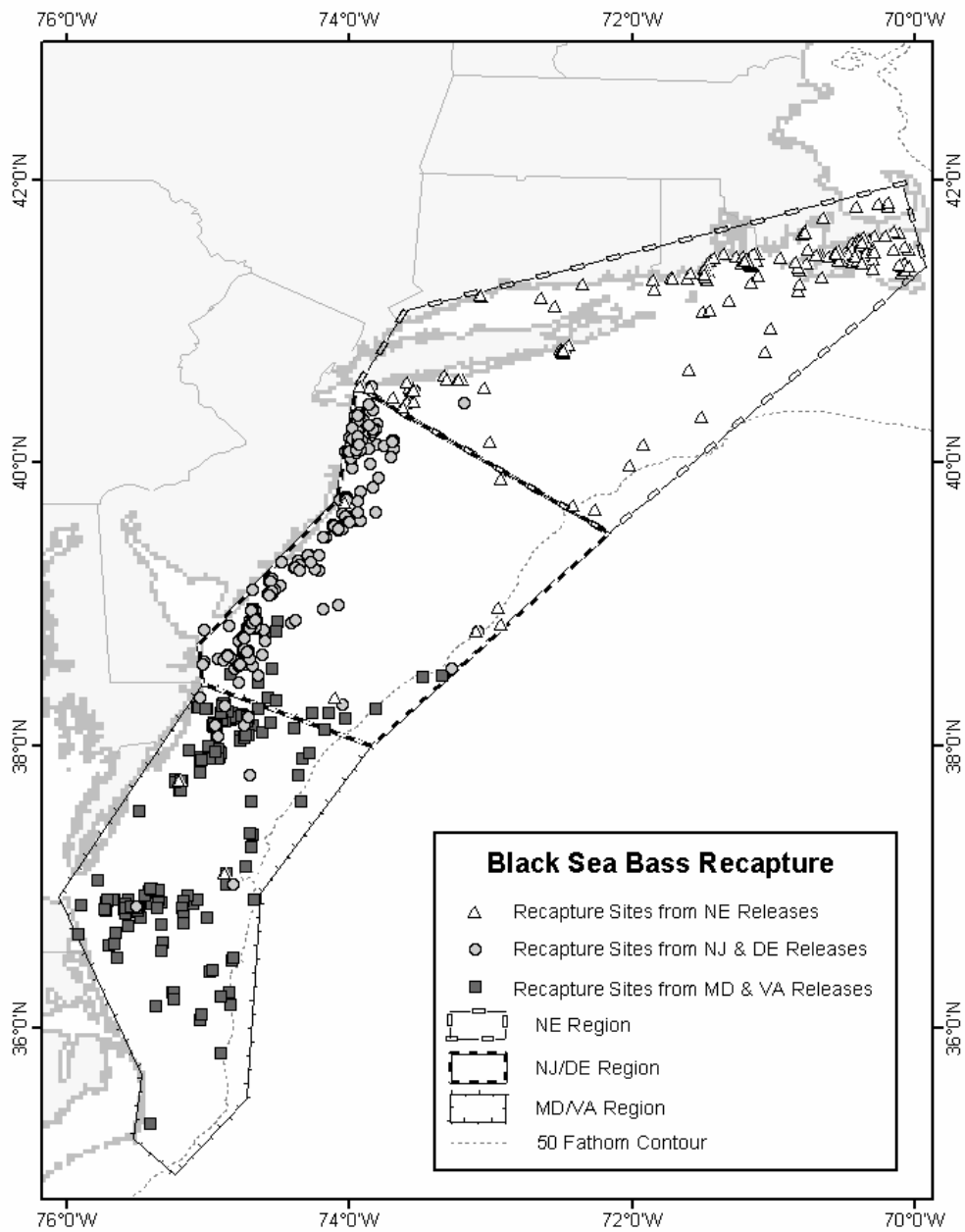


Figure18. Geographic distributions of recaptured black sea bass for all releases combined.

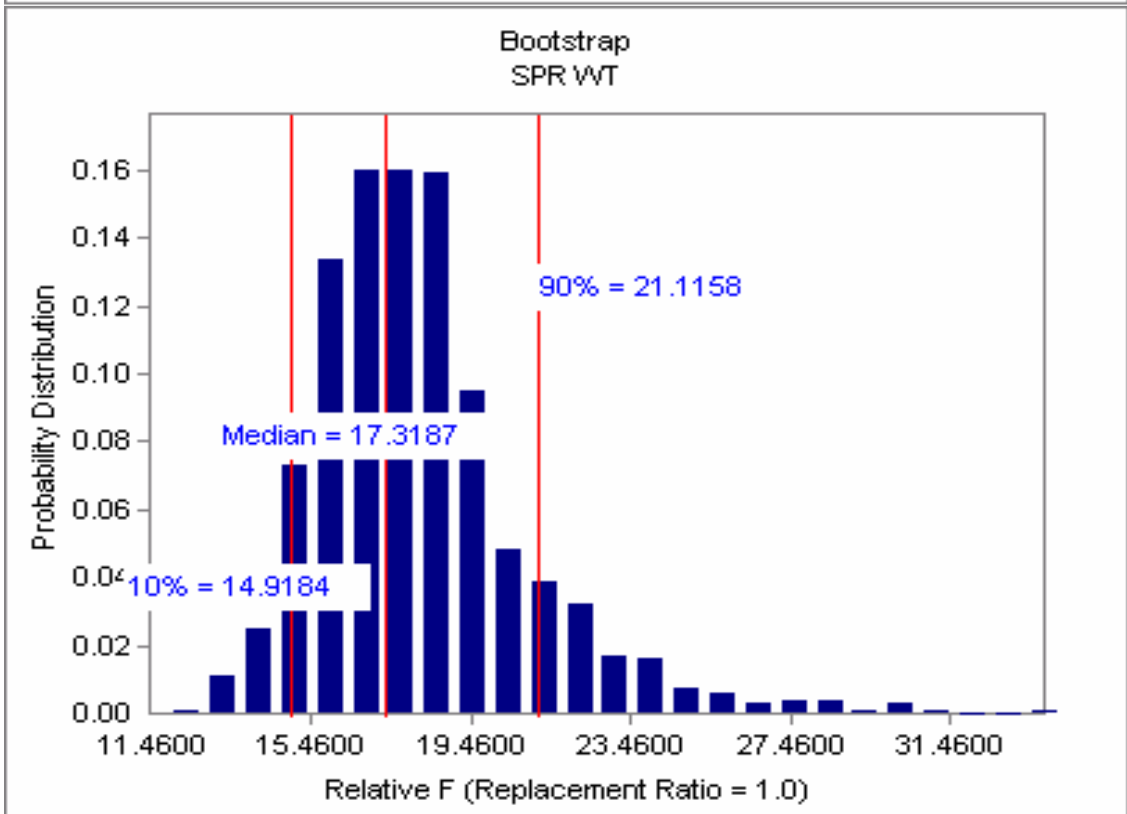
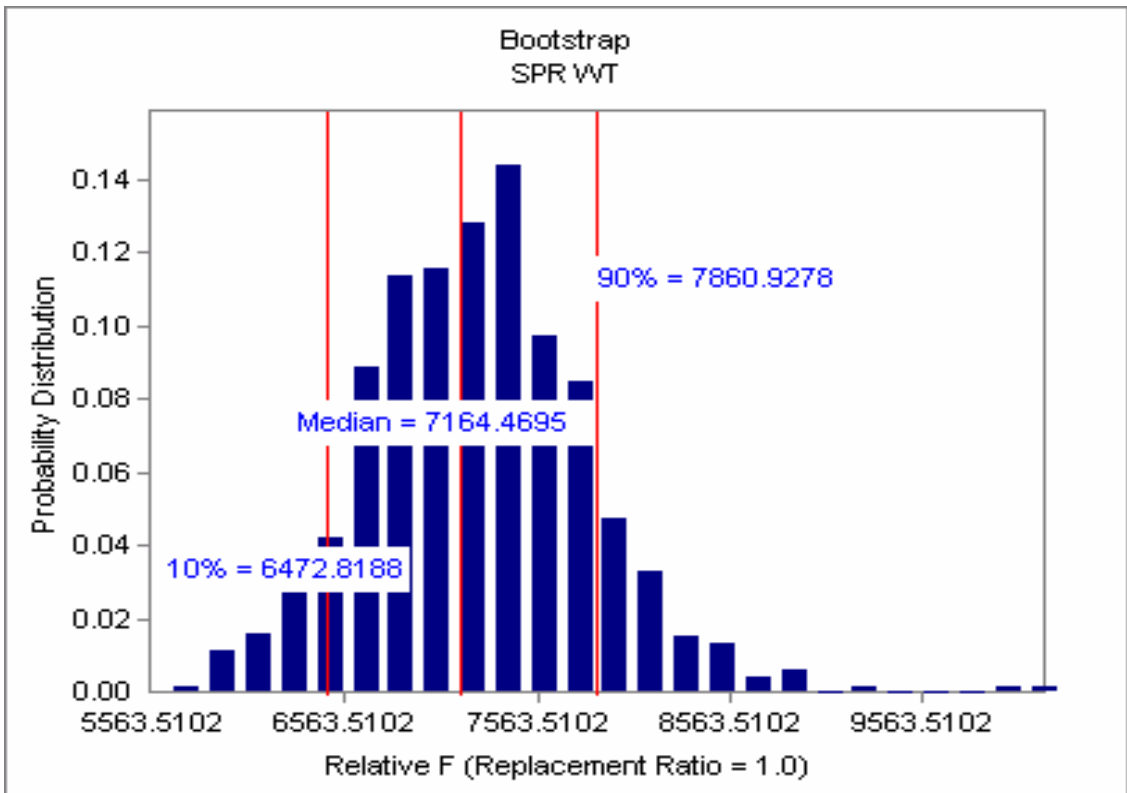


Figure19. Bootstrap distributions of relative Fs using AIM model. Top graph for commercial landings series, bottom for shorter total landings.

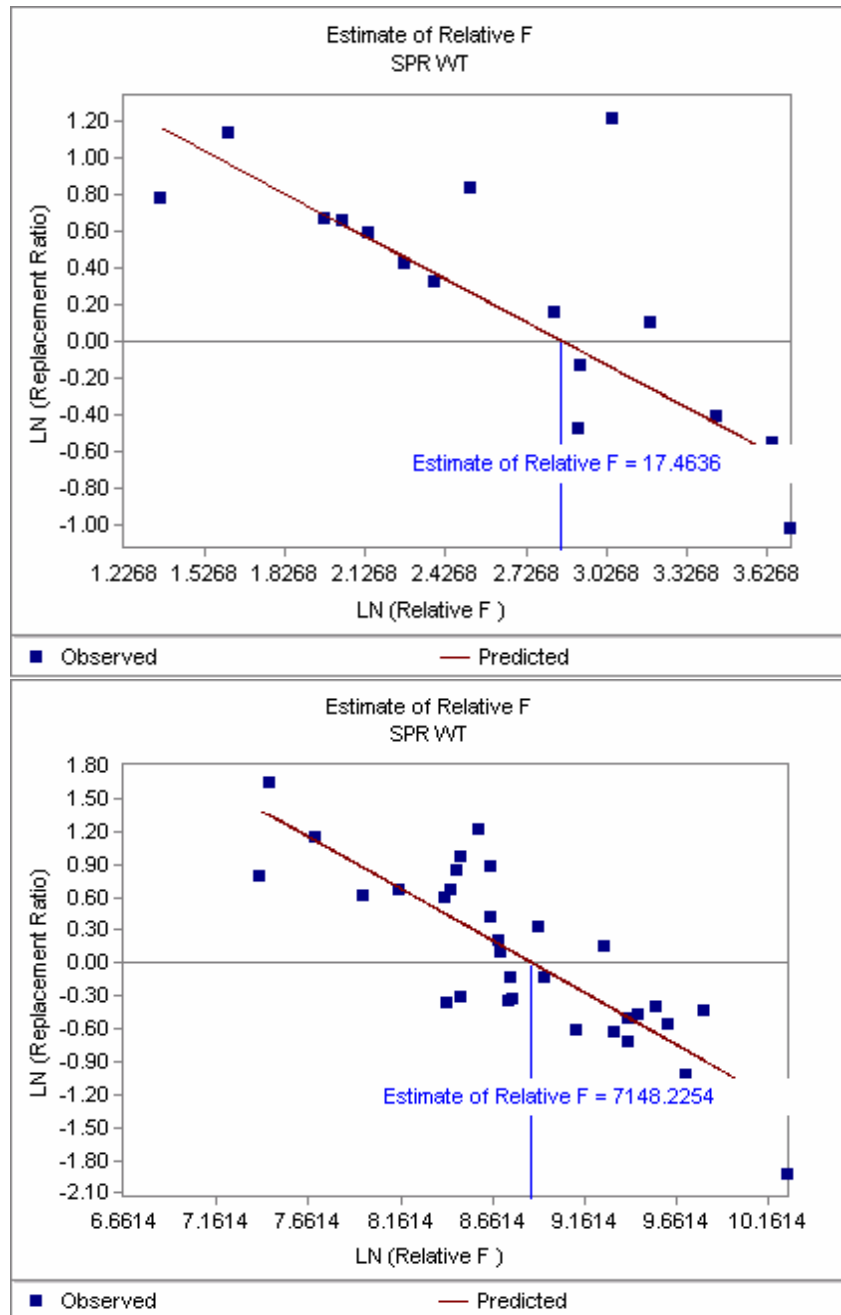


Figure 20. Relationship between relative F and associated replacement ratio. Top graph uses total landings series and bottom commercial landings only.



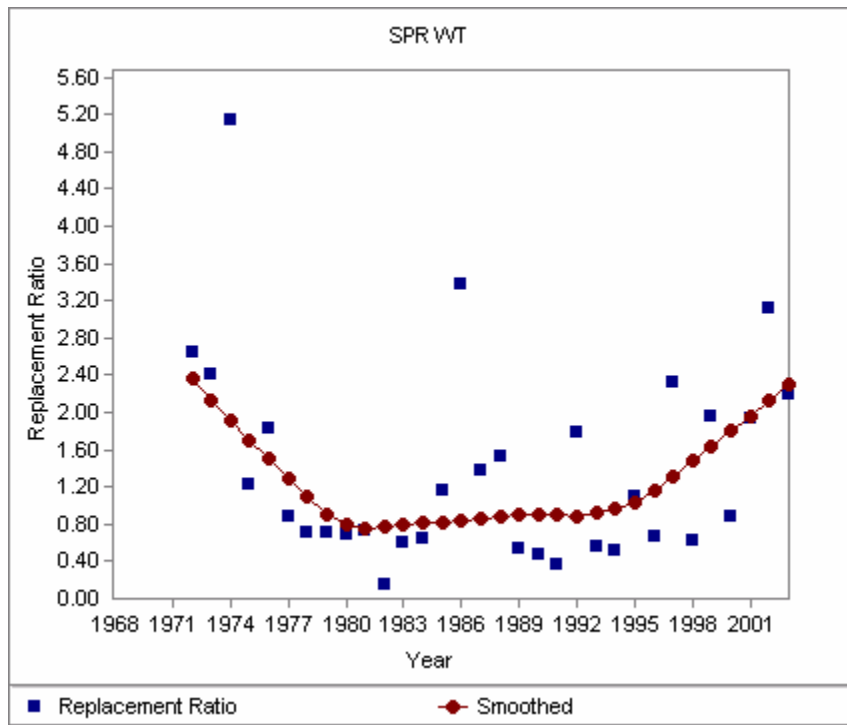
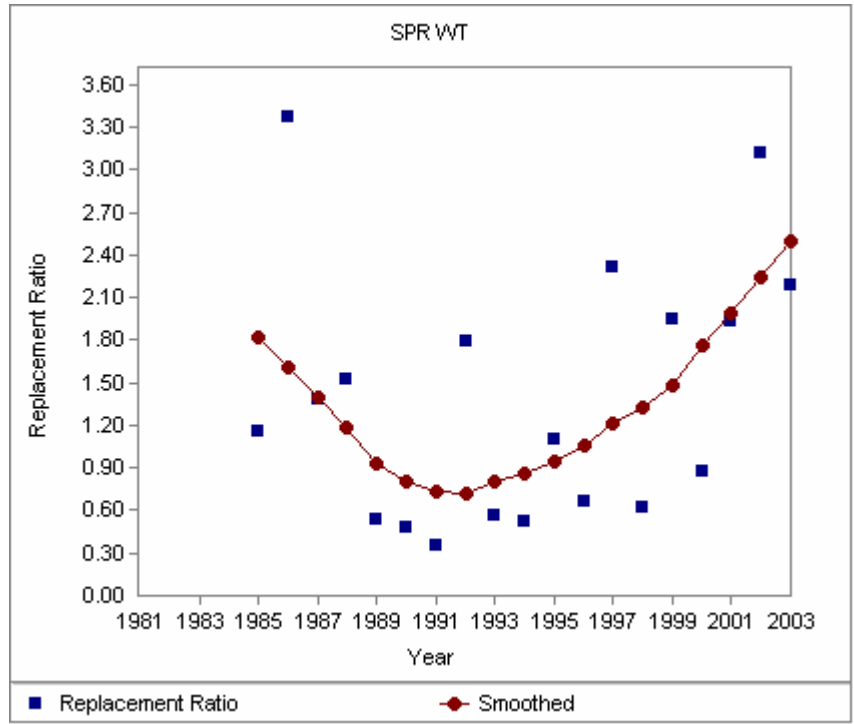


Figure 21. Time series of replacement ratios from AIM model and Lowess smoothed average. Top figure for total landings and bottom for commercial landings series.

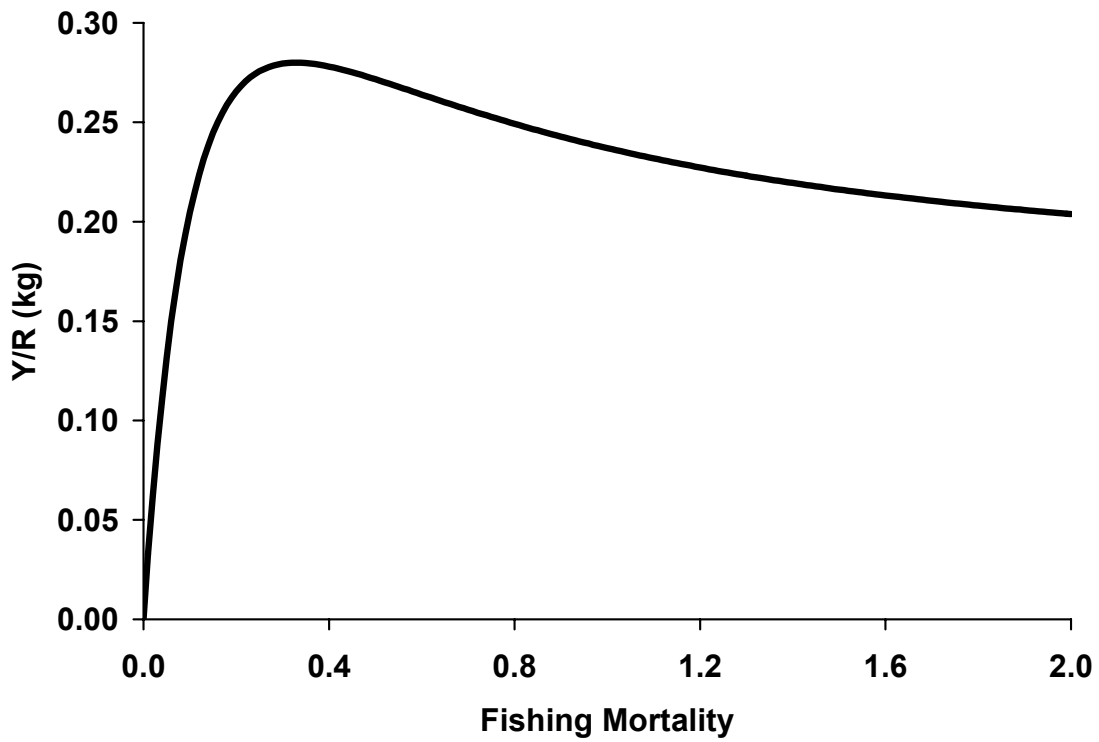


Figure 22. Yield per recruit (kg) for black sea bass. Age at full recruitment equals 5 (96% at age 4).  $F_{max} = 0.33$ .