

Figure 1. Area map indicating herring stock complexes within the Newfoundland Region.

### East and Southeast Newfoundland Herring Landings

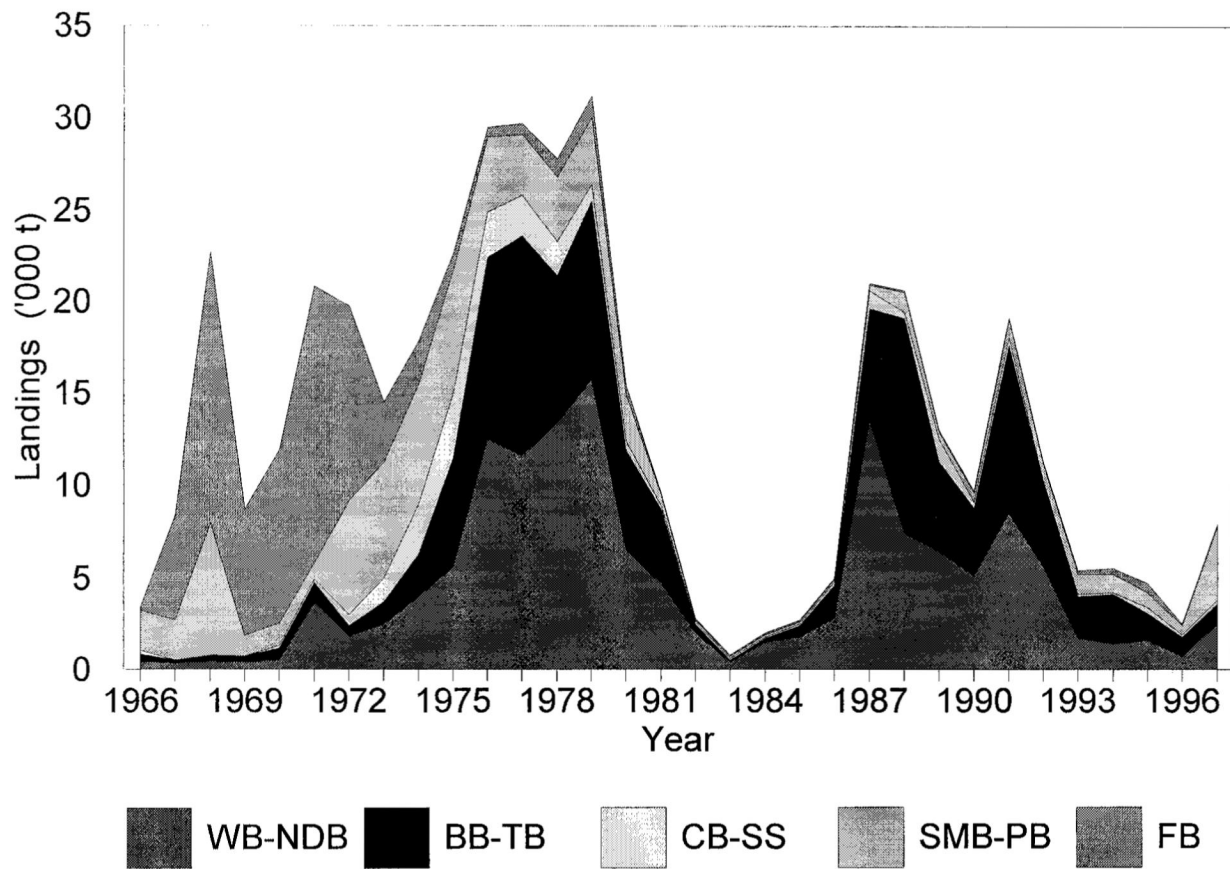


Figure 2. East and southeast Newfoundland herring landings, 1966-97, for White Bay - Notre Dame Bay (WB-NDB), Bonavista Bay - Trinity Bay (BB-TB), Conception Bay - Southern Shore (CB-SS), St. Mary's Bay - Placentia Bay (SMB-PB), and Fortune Bay (FB).

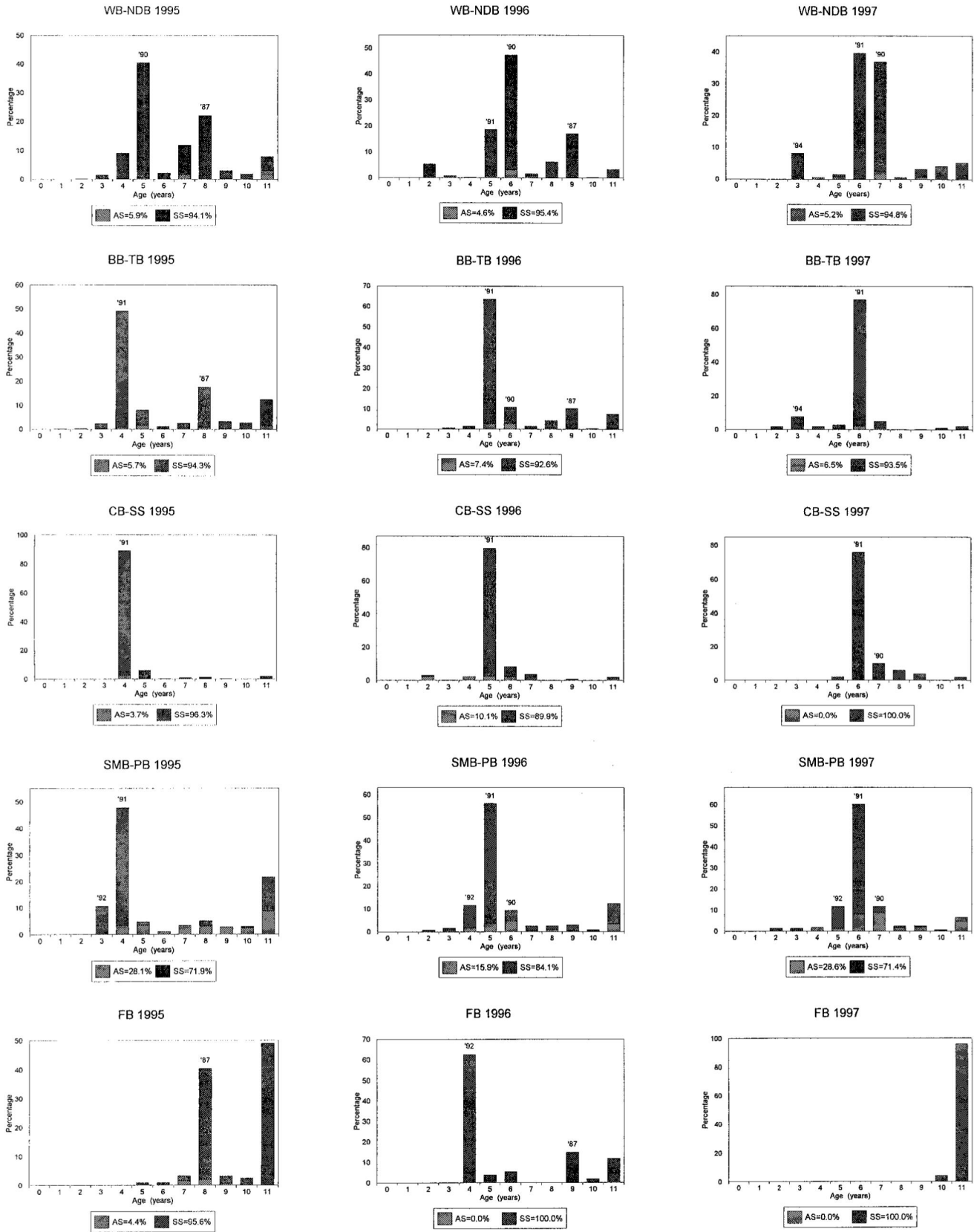


Figure 3. Age distribution of herring from the commercial fishery, White Bay - Notre Dame Bay, Bonavista Bay - Trinity Bay, Conception Bay - Southern Shore, St. Mary's Bay - Placentia Bay and Fortune Bay, 1995 - 1997.

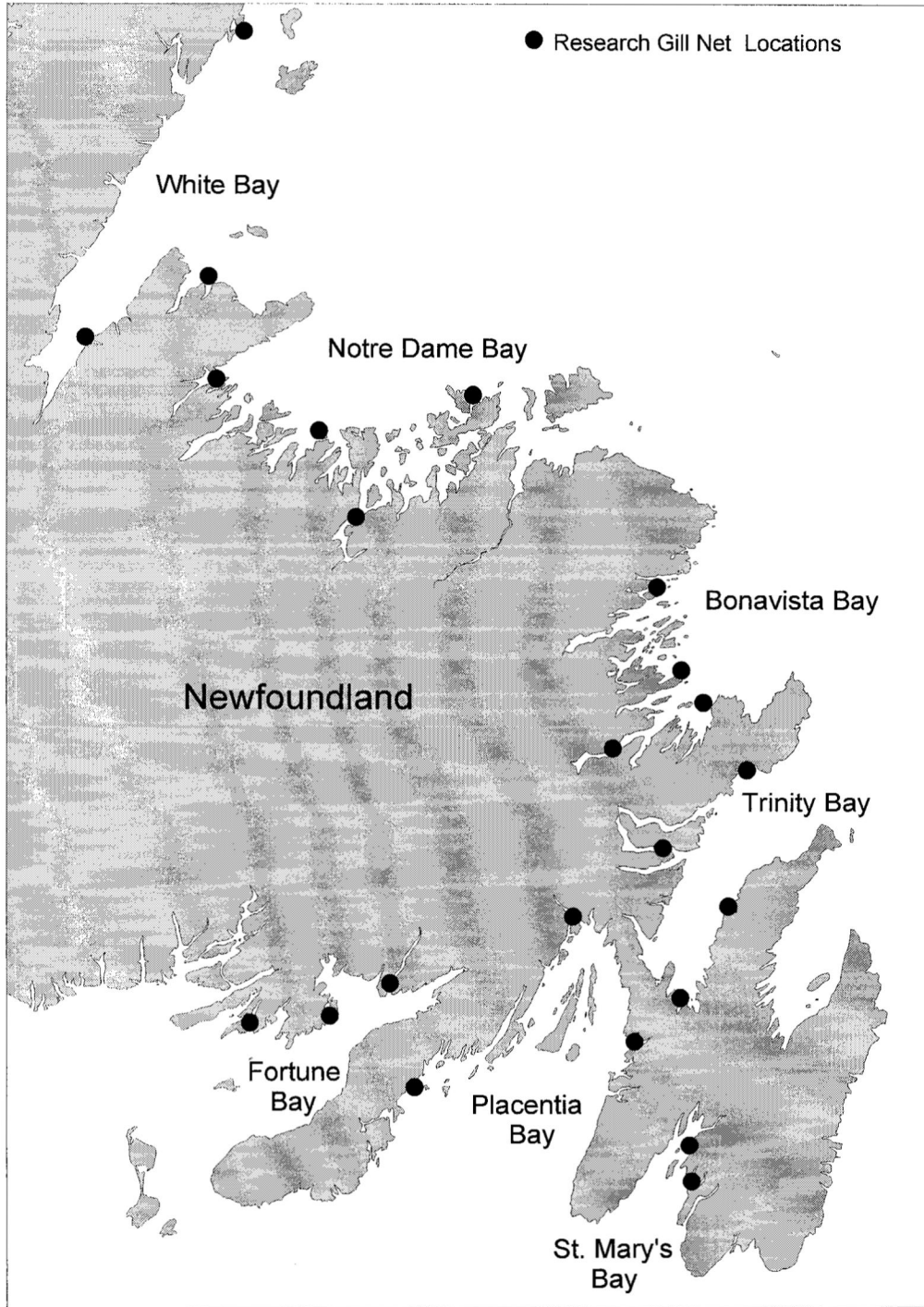


Figure 4. 1998 Newfoundland east and southeast coast herring research gill net set locations.

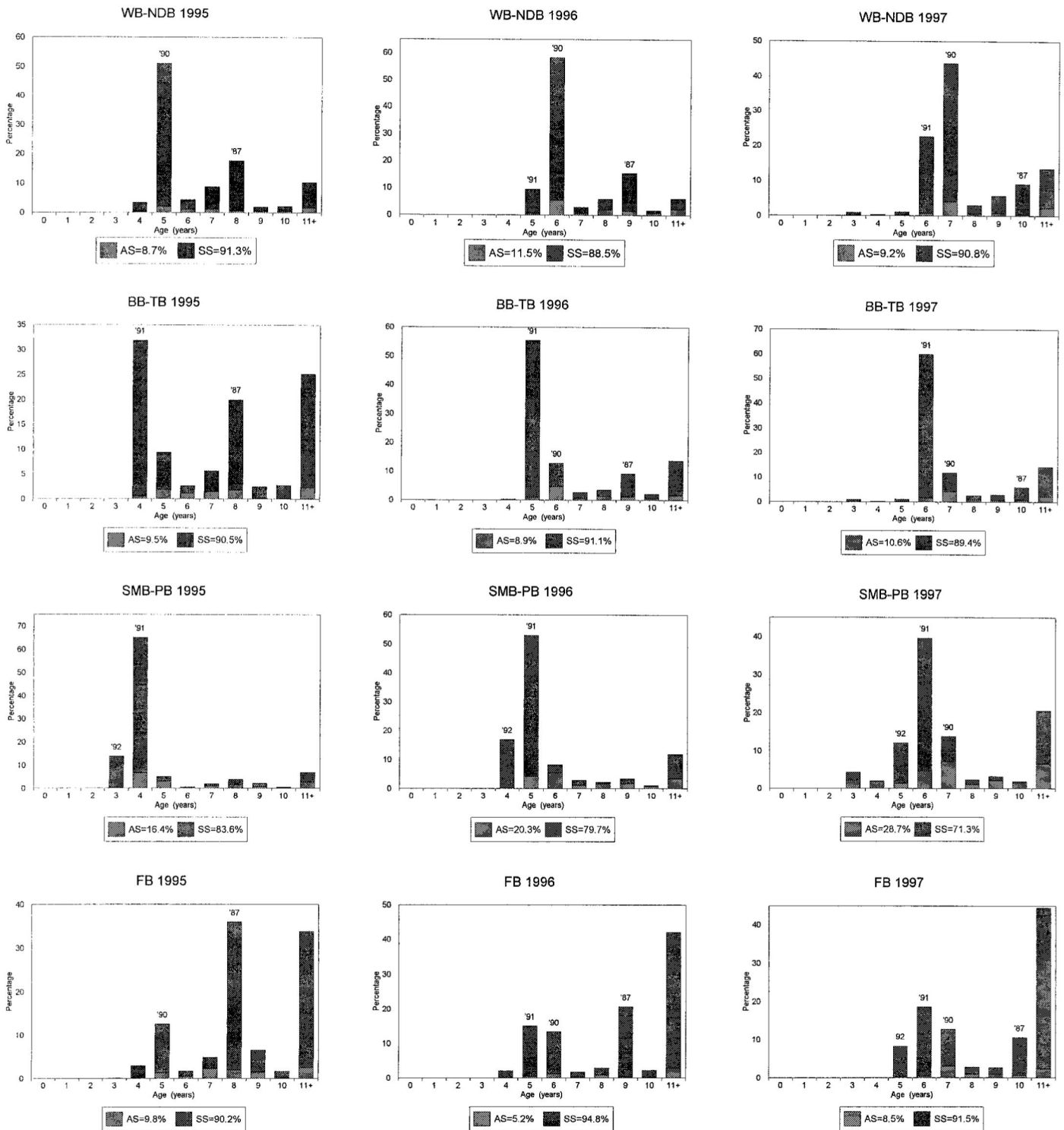


Figure 5. Age distribution (by number) of herring from the spring research gillnet program, White Bay - Notre Dame Bay, Bonavista Bay - Trinity Bay, St. Mary's Bay - Placentia Bay, and Fortune Bay, 1995 - 1997.

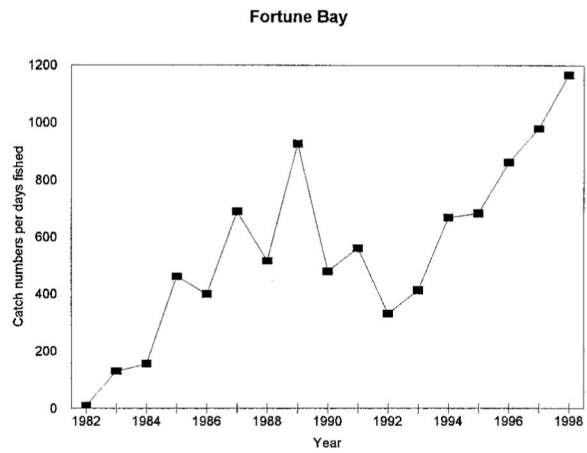
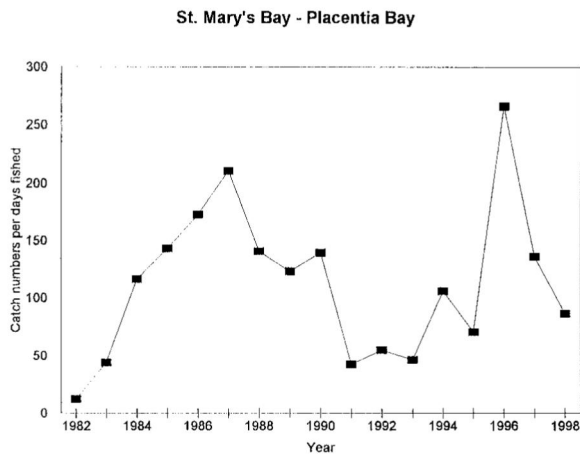
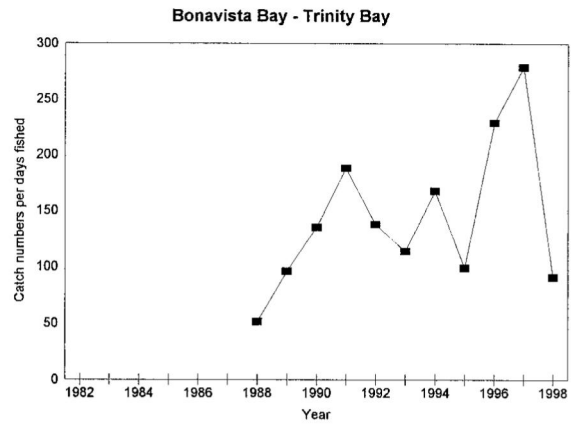
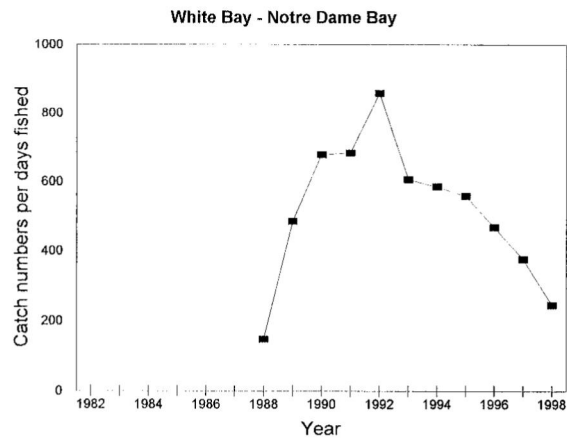


Figure 6. Spring research gillnet catch rates (numbers per days fished), spring spawners only, by stock area and year.

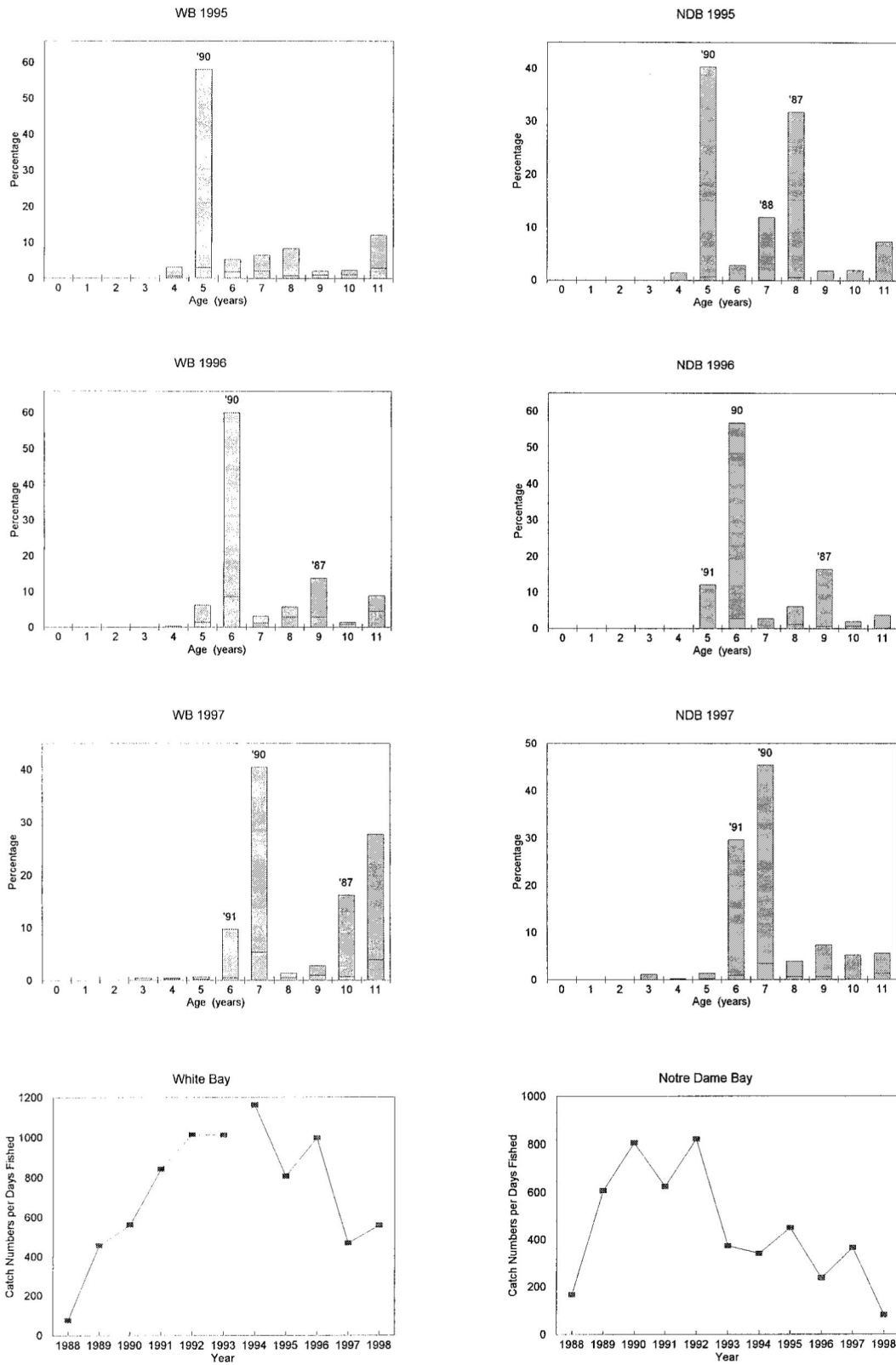


Figure 7. Herring age distributions (by number), 1995-1997, and catch rates (numbers per days fished), 1988-1998, from the spring research gillnet program for White Bay and Notre Dame Bay separately.

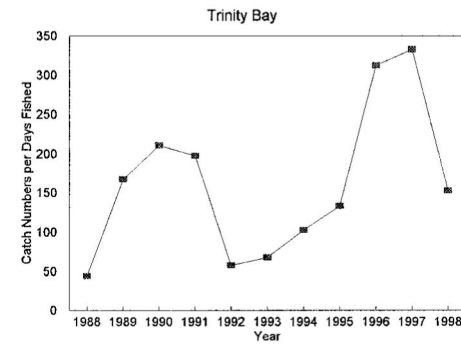
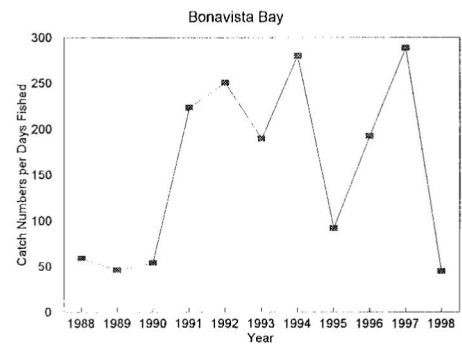
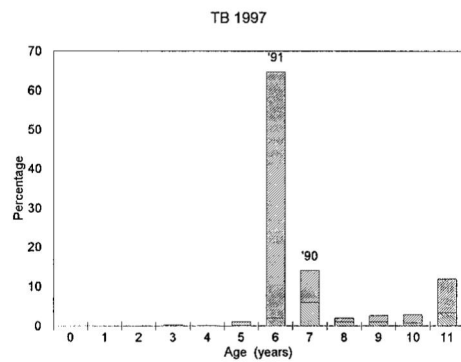
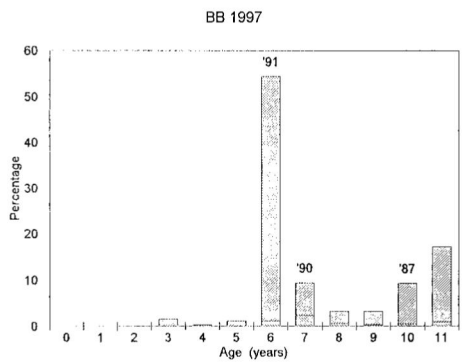
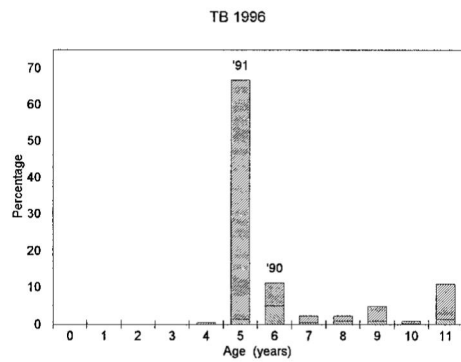
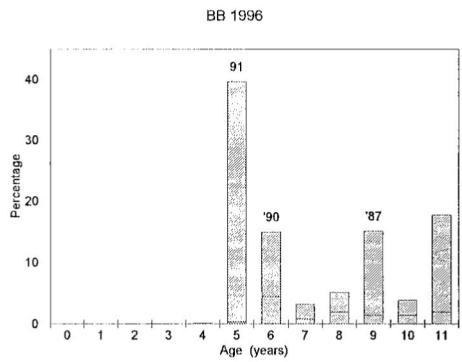
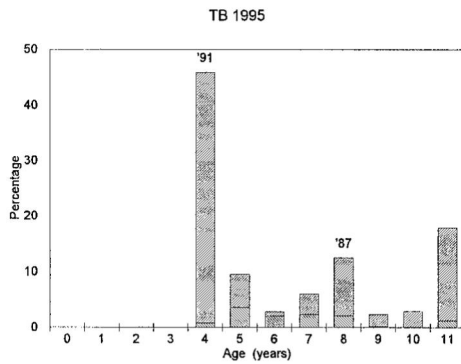
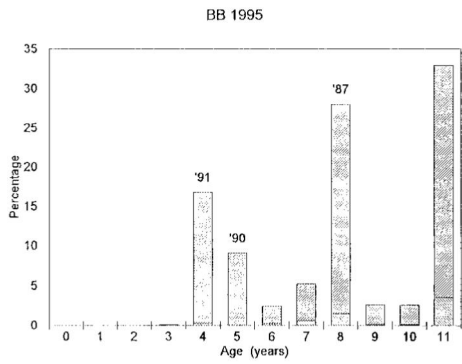


Figure 8. Herring age distributions (by number), 1995-1997, and catch rates (numbers per days fished), 1988-1998, from the spring research gillnet program for Bonavista Bay and Trinity Bay separately.



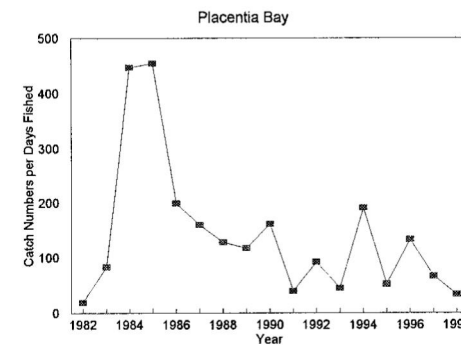
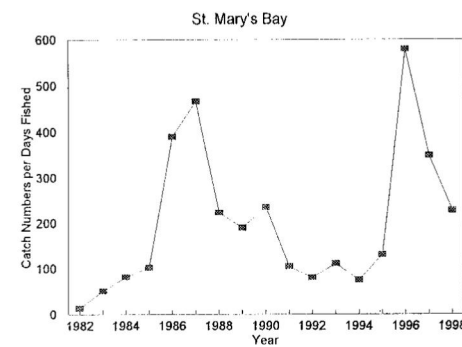
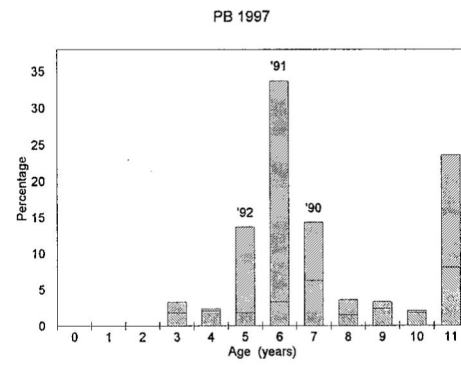
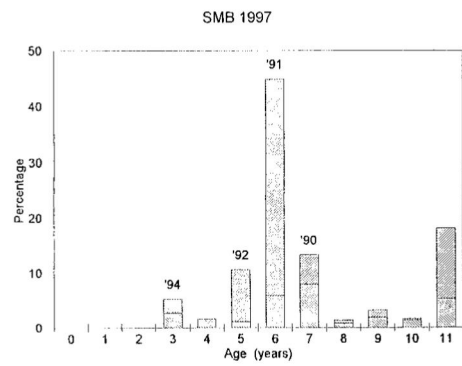
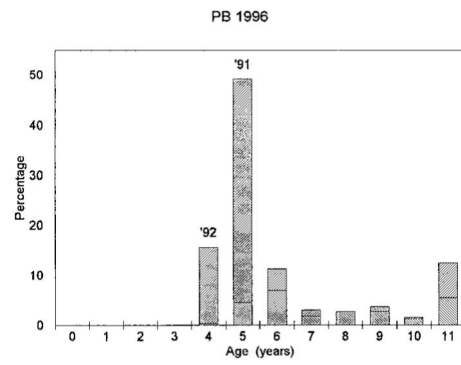
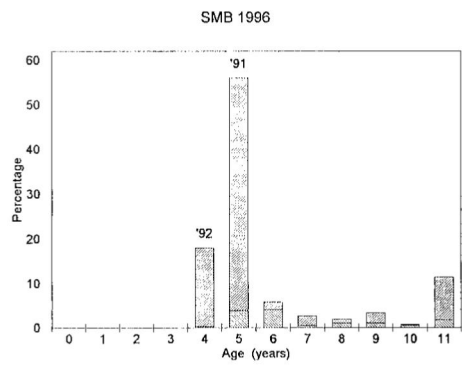
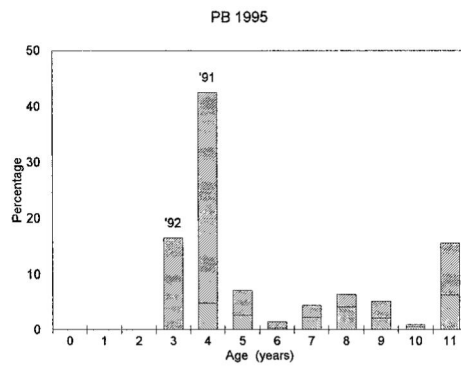
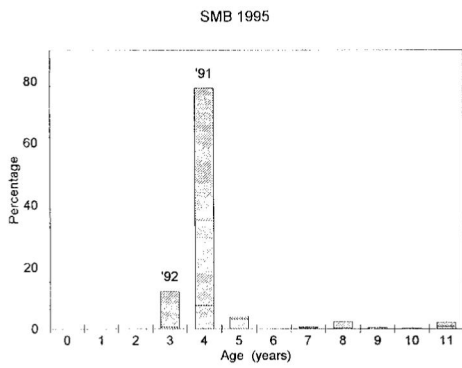


Figure 9. Herring age distributions (by number), 1995-1997, and catch rates (numbers per days fished), 1982-1998, from the spring research gillnet program for St. Mary's Bay and Placentia Bay separately.

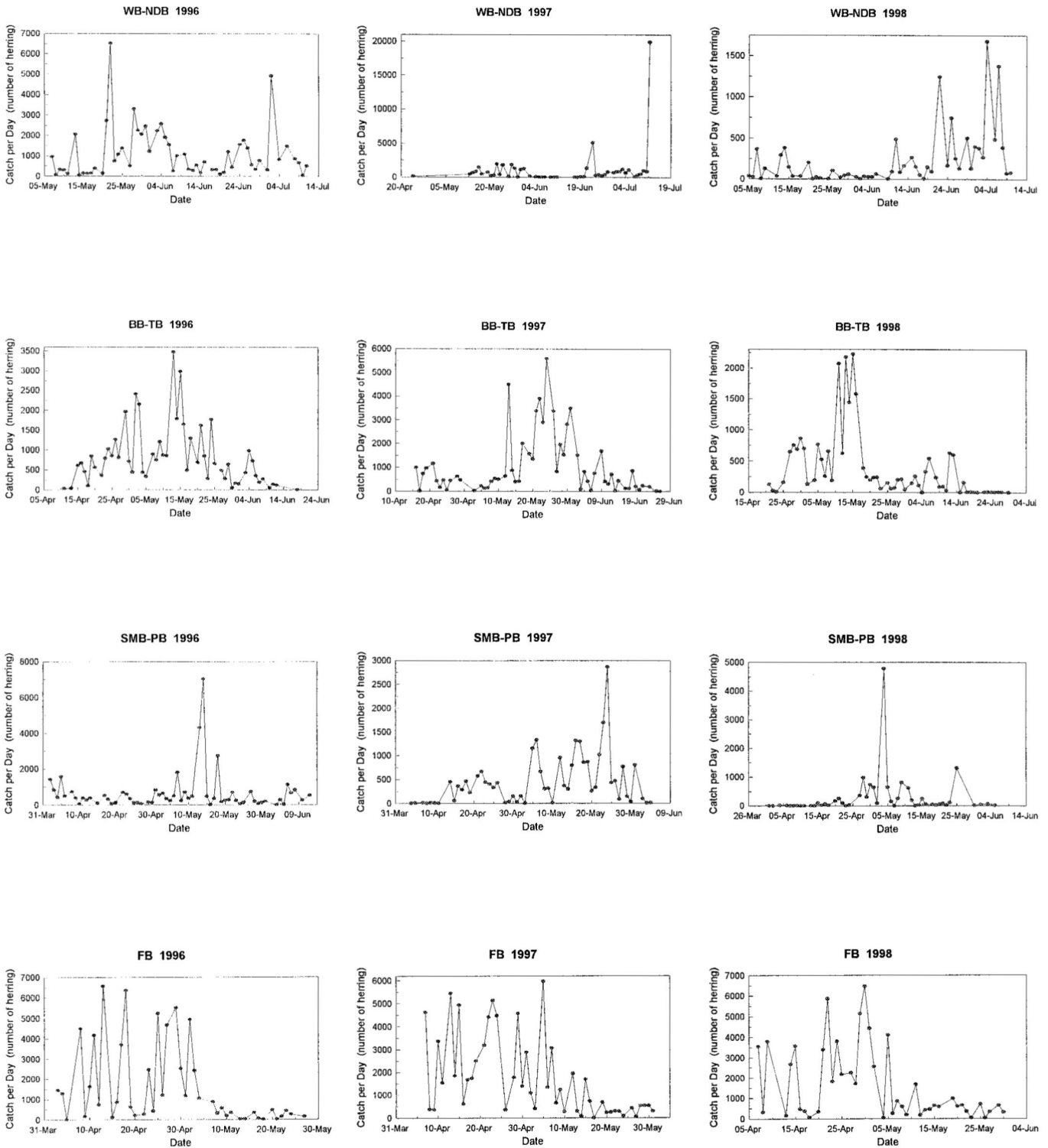


Figure 10. Cumulative daily catches of herring, by stock area and year (1996 - 1998), from the spring research gill net program.

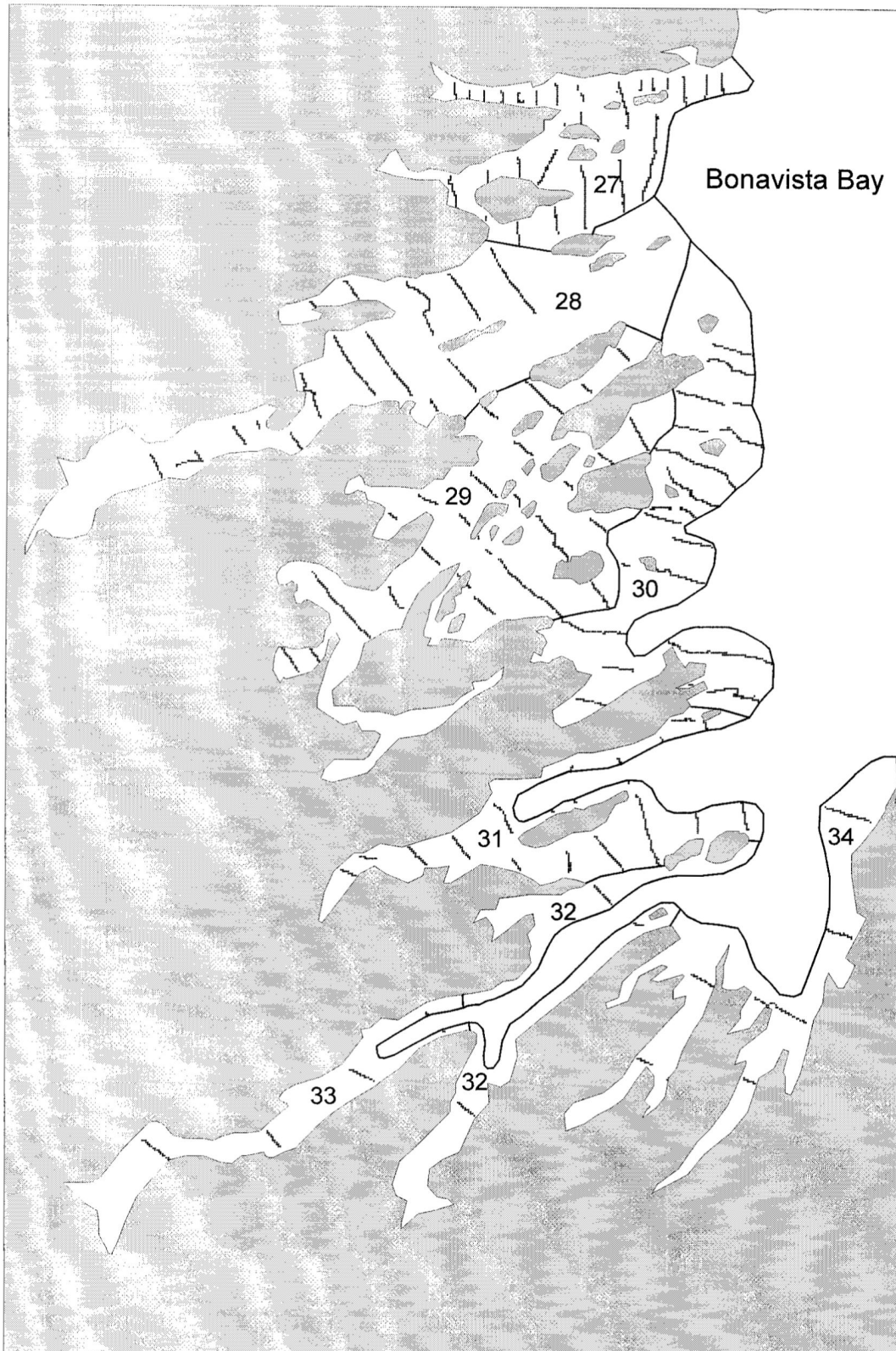


Figure 11. Area map of Bonavista Bay indicating survey strata and transects for the 1996 fall acoustic survey. Strata boundaries include water depths  $\leq 120$  m.

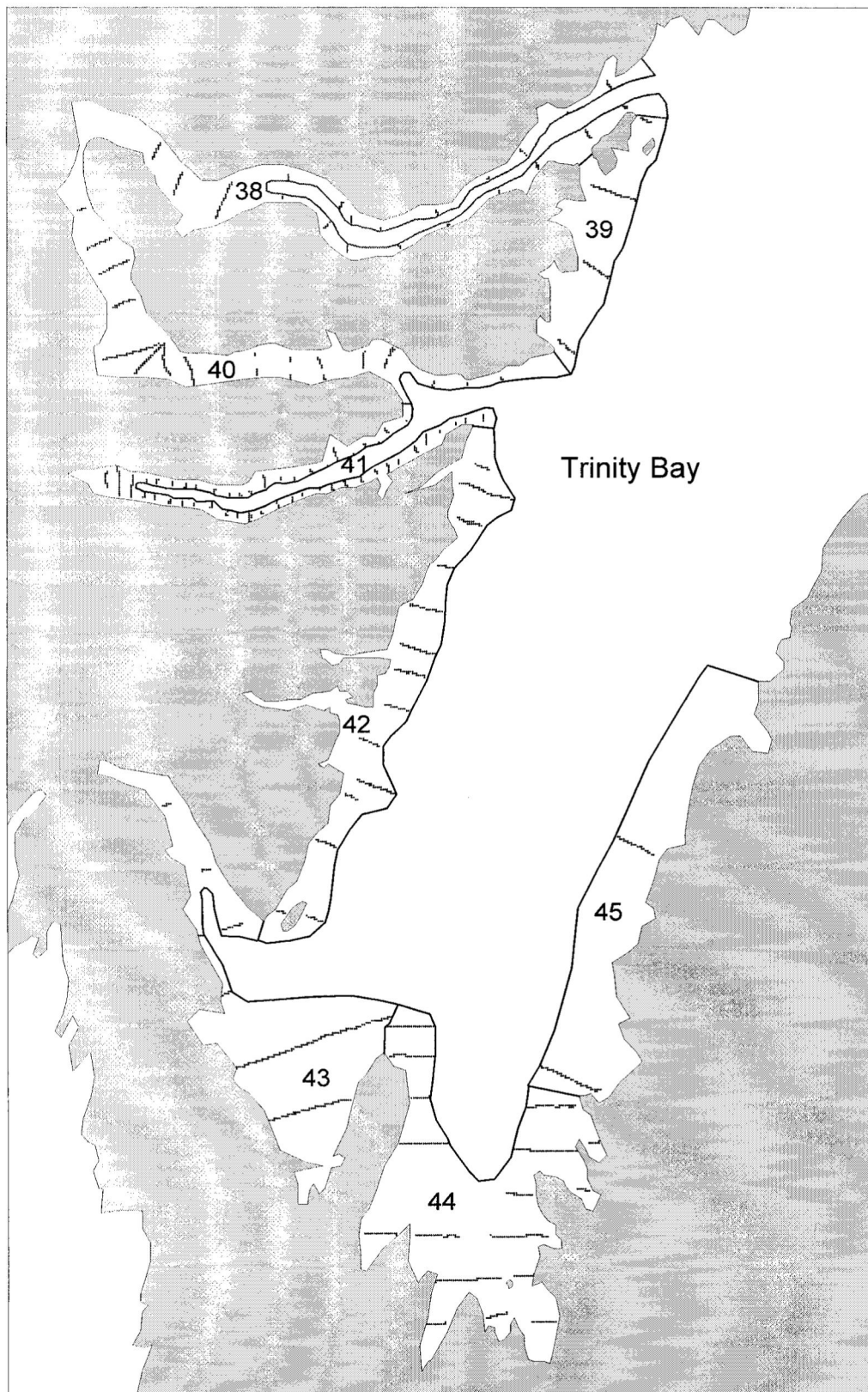


Figure 12. Area map of Trinity Bay indicating survey strata and transects for the 1996 fall acoustic survey. Strata boundaries include water depths  $\leq 120$  m.



Figure 13. Distribution and density of herring on Bonavista Bay transects during the 1996 acoustic survey. Relative densities of herring are represented by expanding black circles.

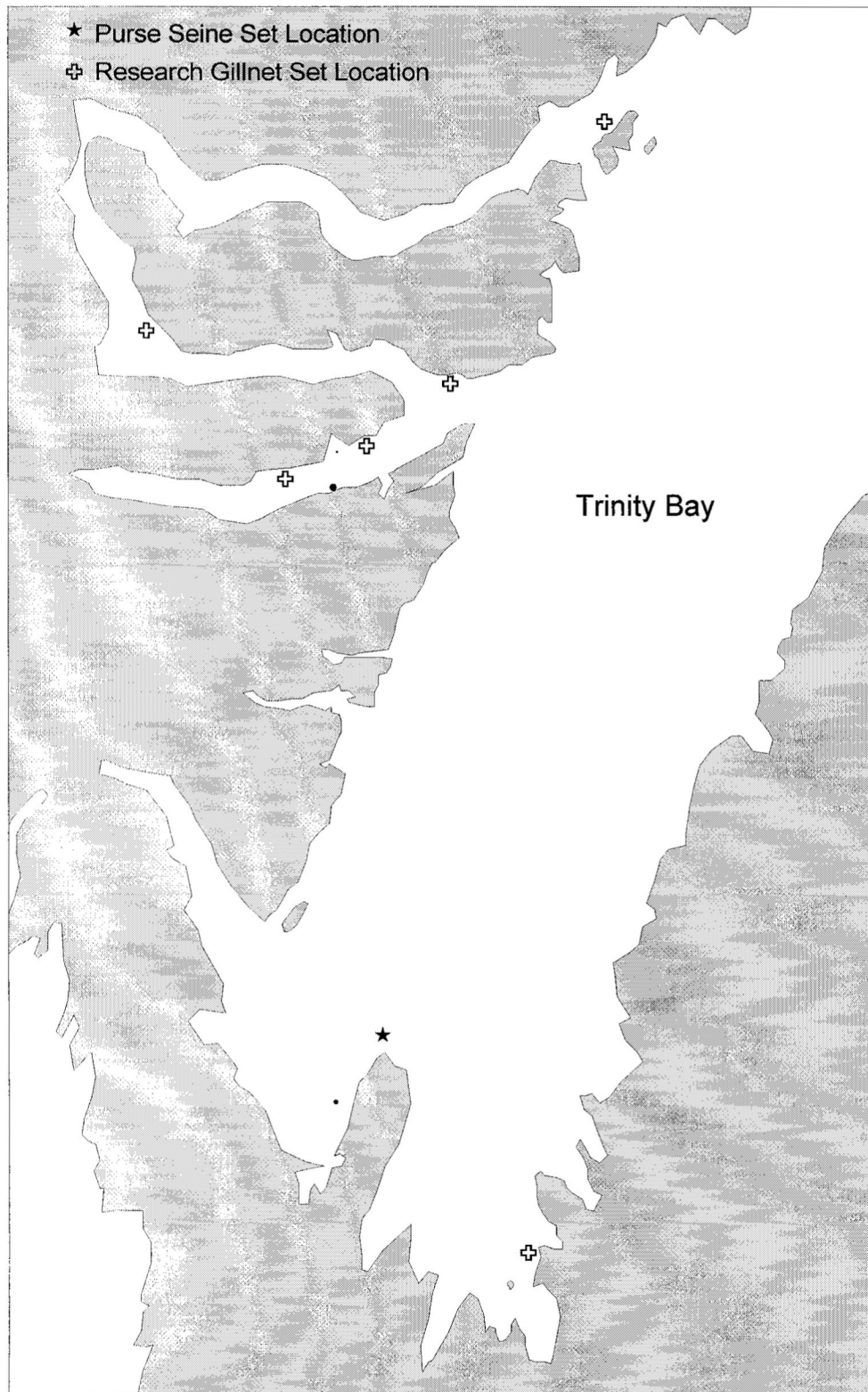


Figure 14. Distribution and density of herring on Trinity Bay transects during the 1996 acoustic survey. Relative densities of herring are represented by expanding black circles.

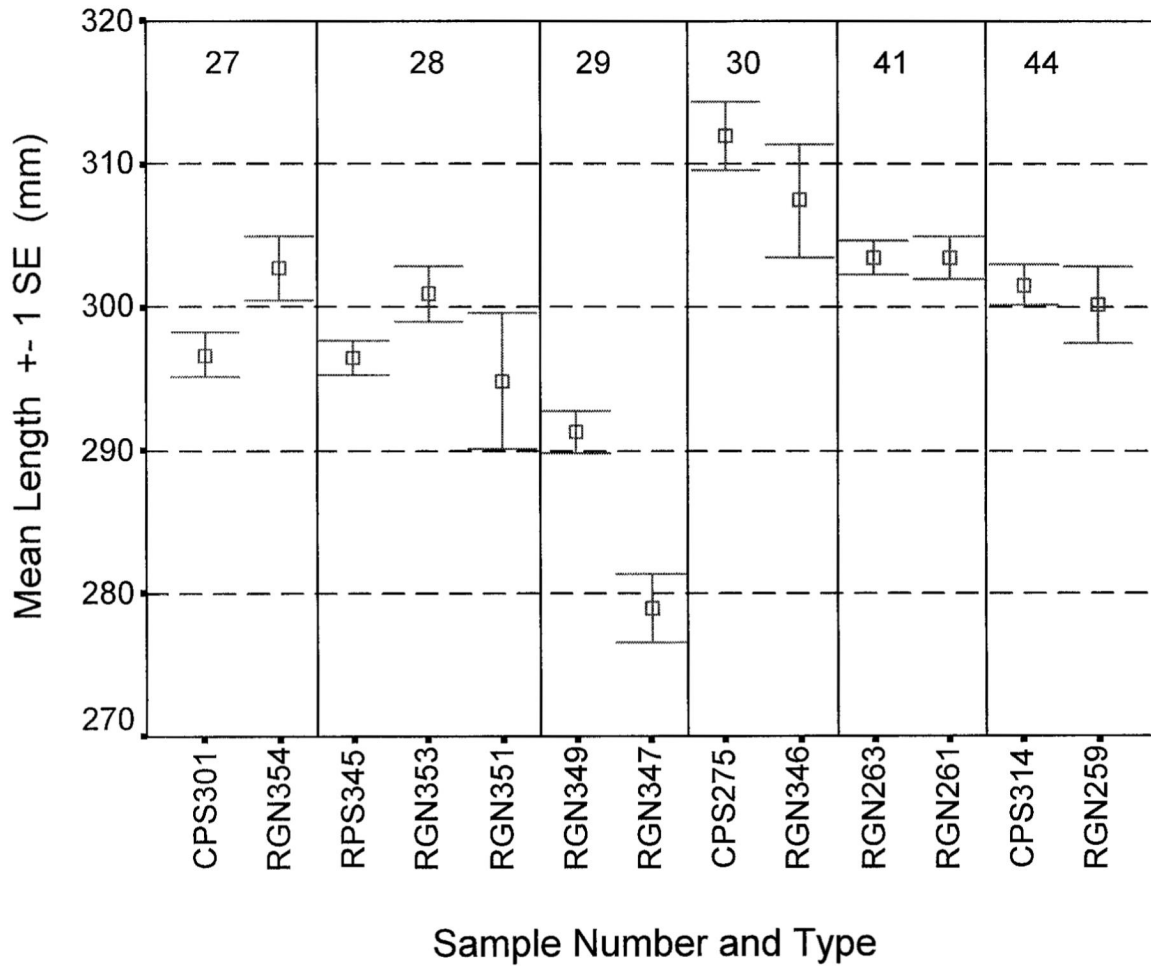


Figure 15. Mean fish lengths (mm) by sample number, sample type, and stratum, from the 1996 Bonavista Bay - Trinity Bay acoustic survey.

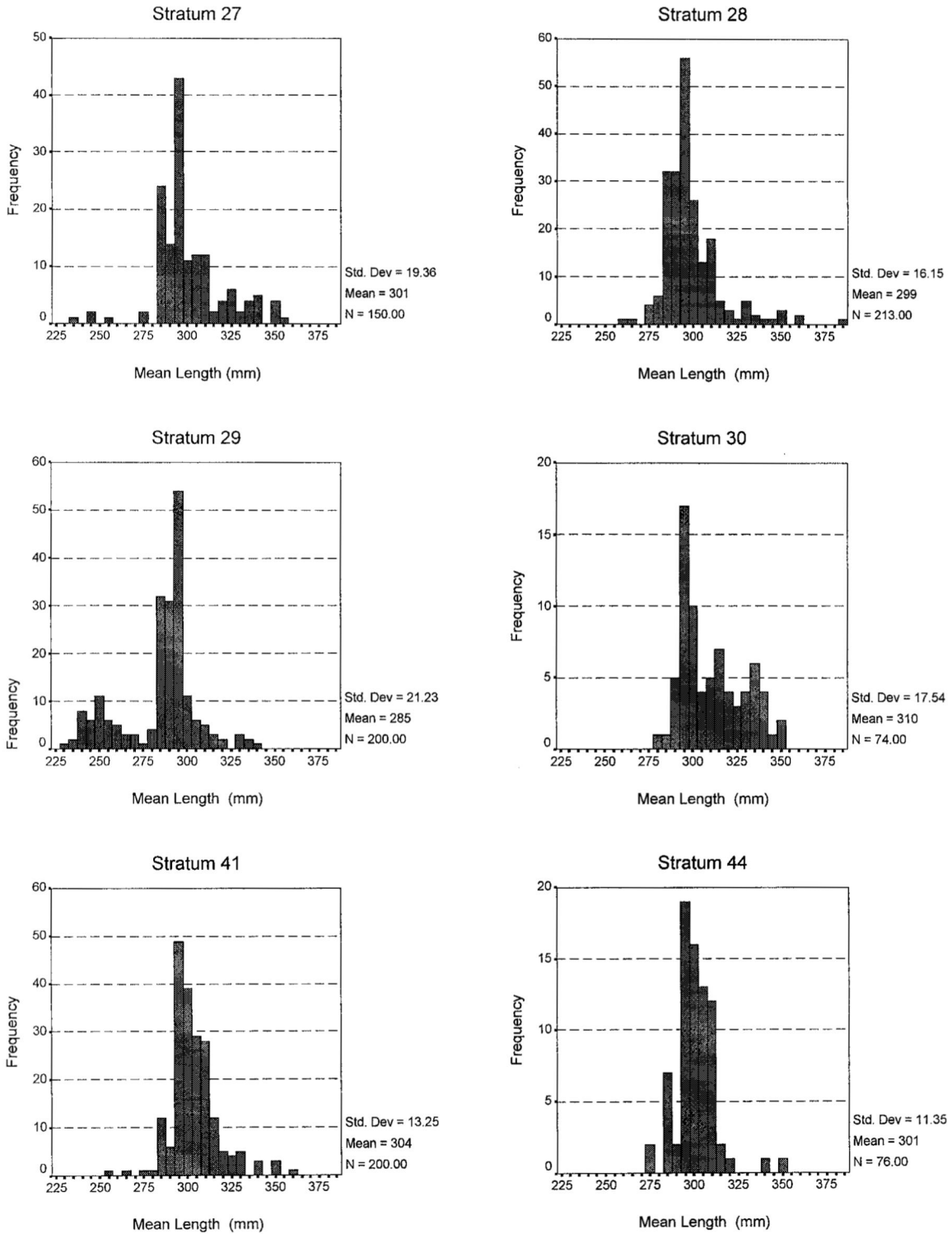
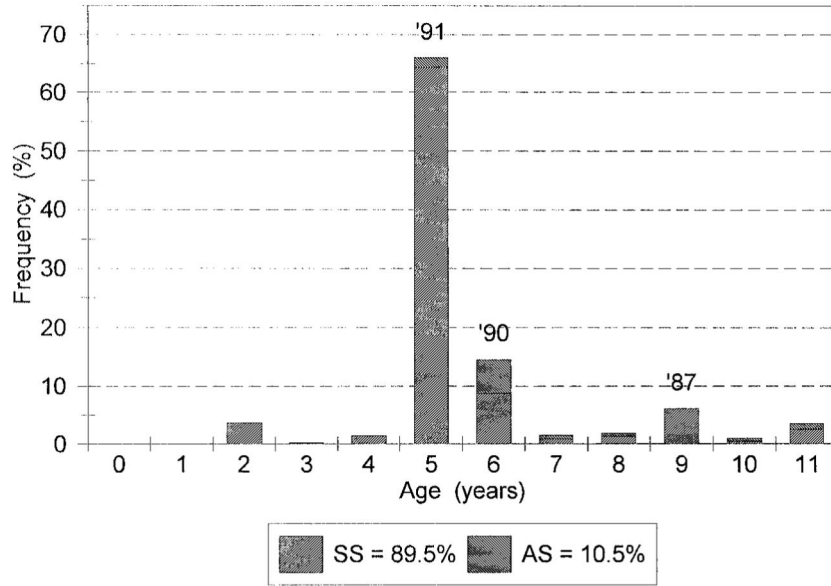


Figure 16. Length distributions of biological samples, by stratum, from the 1996 Bonavista Bay - Trinity Bay acoustic survey.



**1996 BB-TB Acoustic Survey**  
Population Numbers at Age



**1995 BB-TB Acoustic Survey**  
Population Numbers at Age

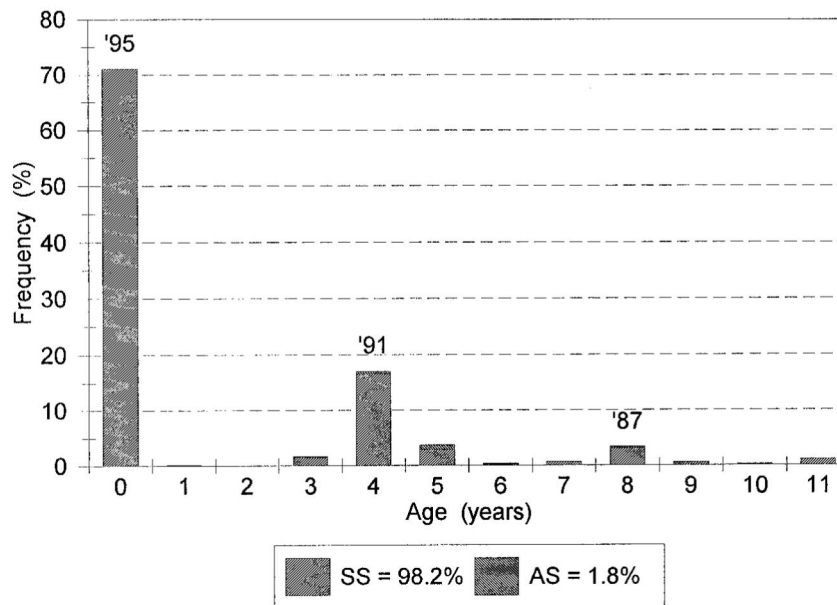


Figure 17. Age distributions from the 1996 and 1995 Bonavista Bay -Trinity Bay acoustic surveys.

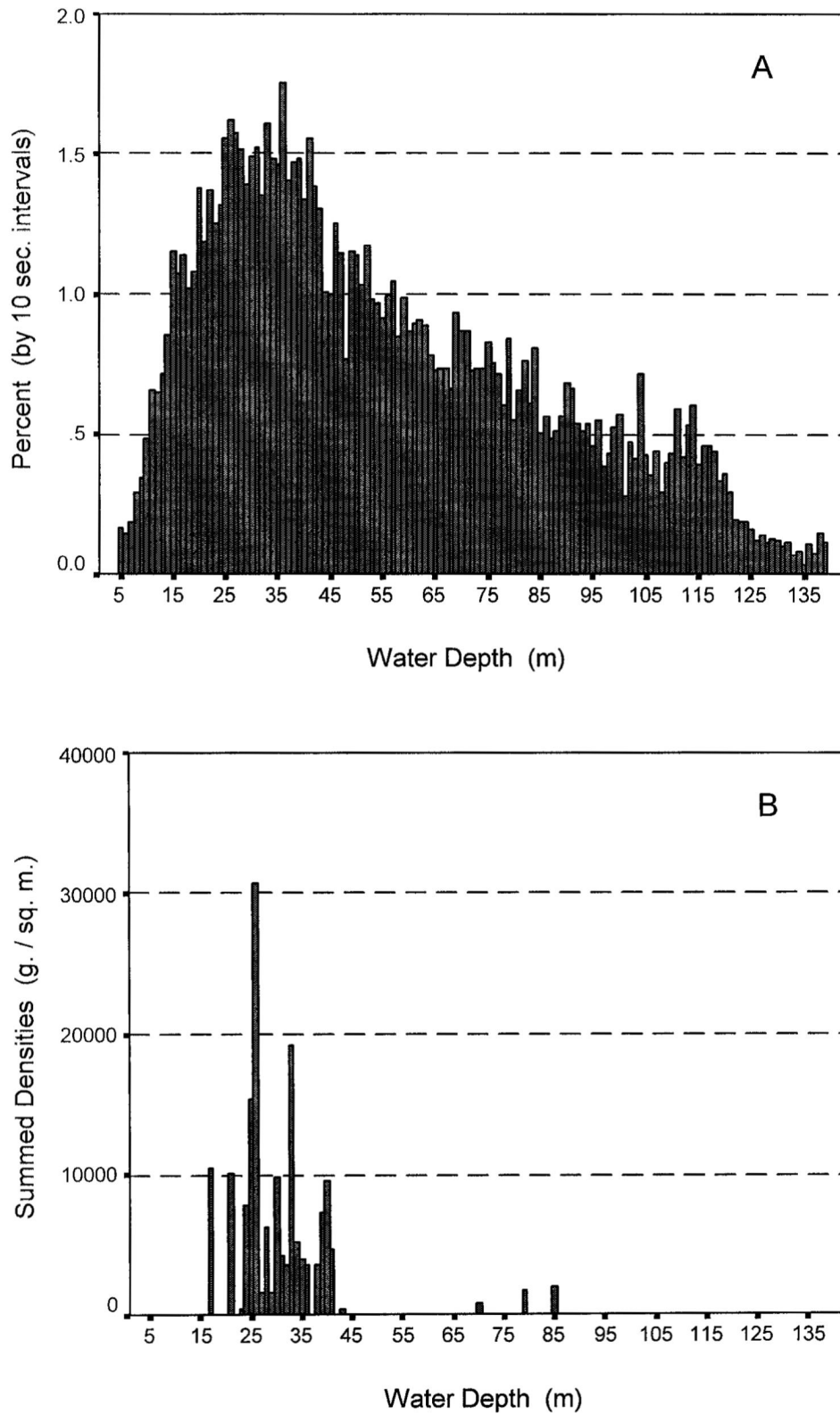


Figure 18. Distribution of acoustic sampling by water depth (Panel A) and summed densities of herring by water depth (Panel B) from the 1996 Bonavista Bay - Trinity Bay acoustic survey.

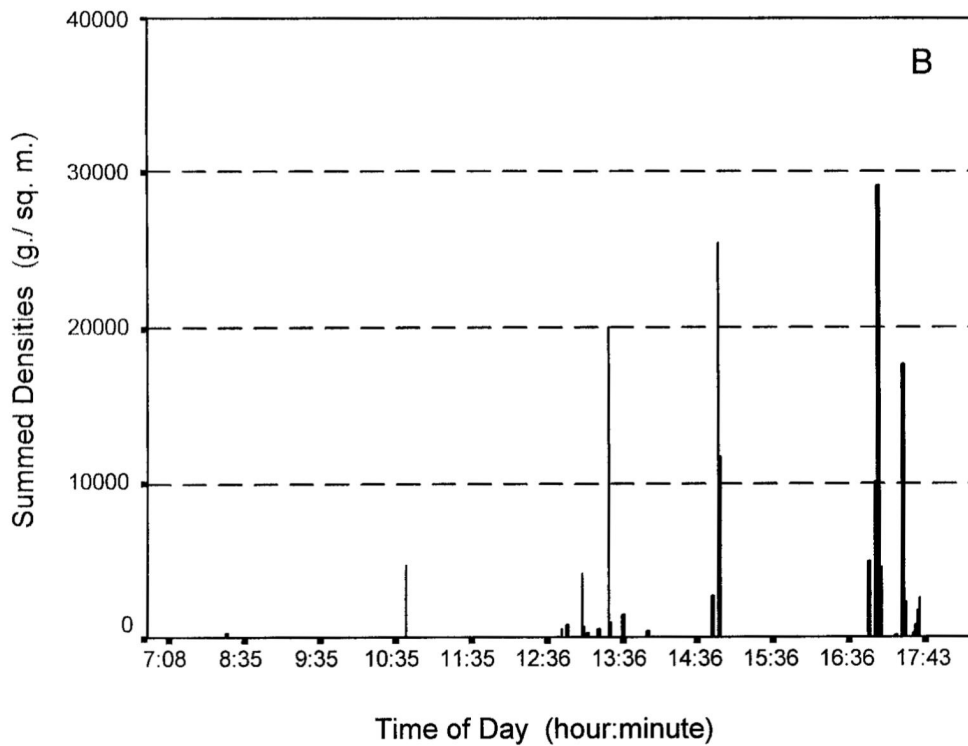
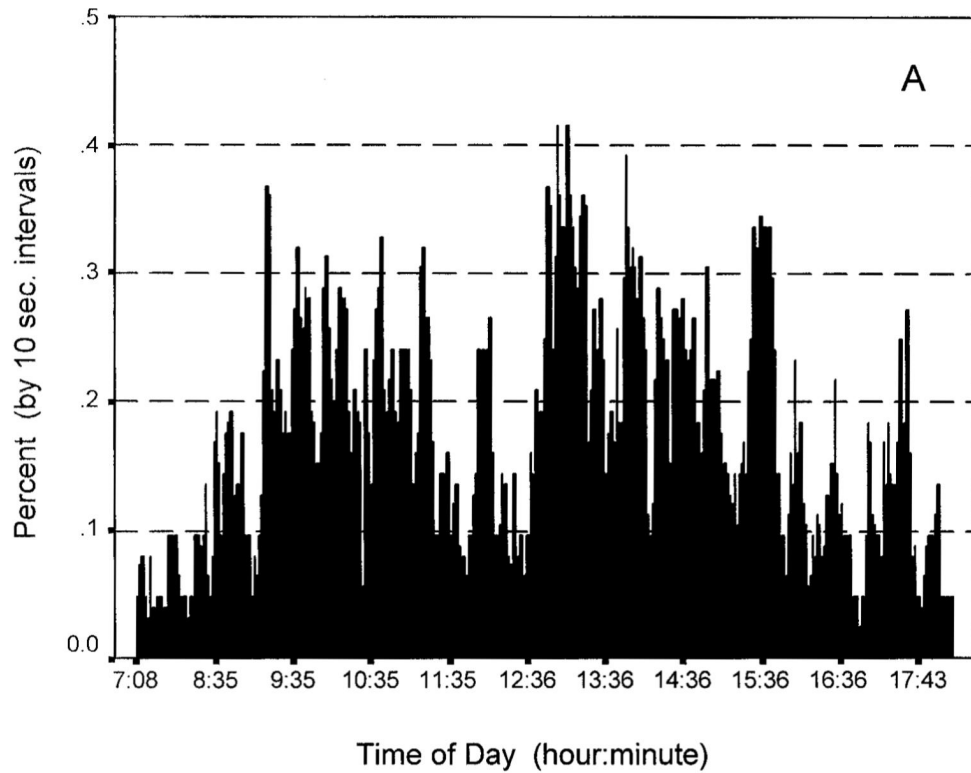


Figure 19. Distribution of acoustic sampling by time of day (Panel A) and summed densities of herring by time of day (Panel B) from the 1996 Bonavista Bay - Trinity Bay acoustic survey.

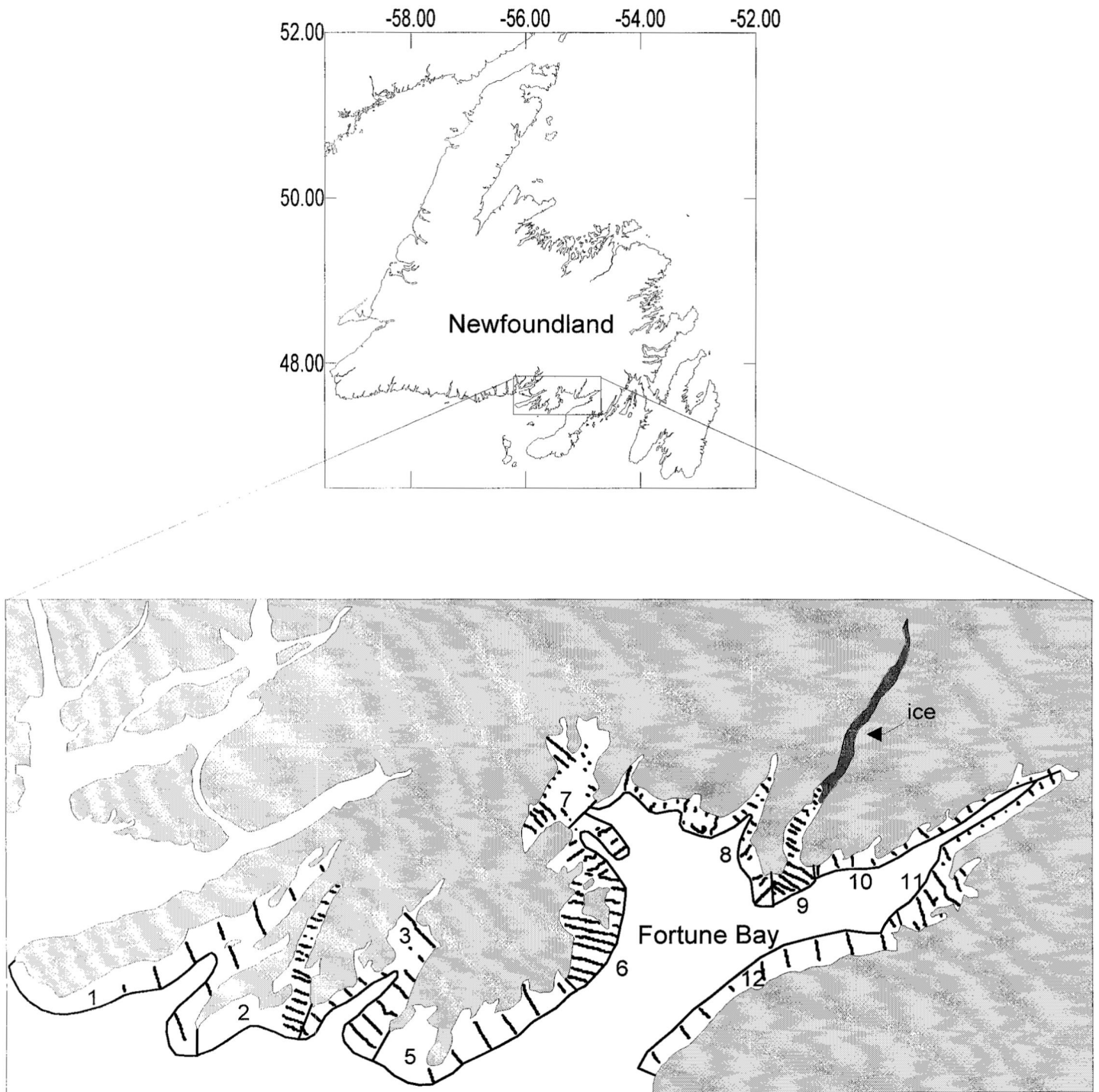


Figure 20. Area map of Fortune Bay indicating survey strata and transects for the 1997 winter acoustic survey. Strata boundaries include water depths  $\leq 120$  m.



Figure 21. Distribution and density of herring on transects in western Fortune Bay during the 1997 acoustic survey. Relative densities of herring are represented by expanding black circles.

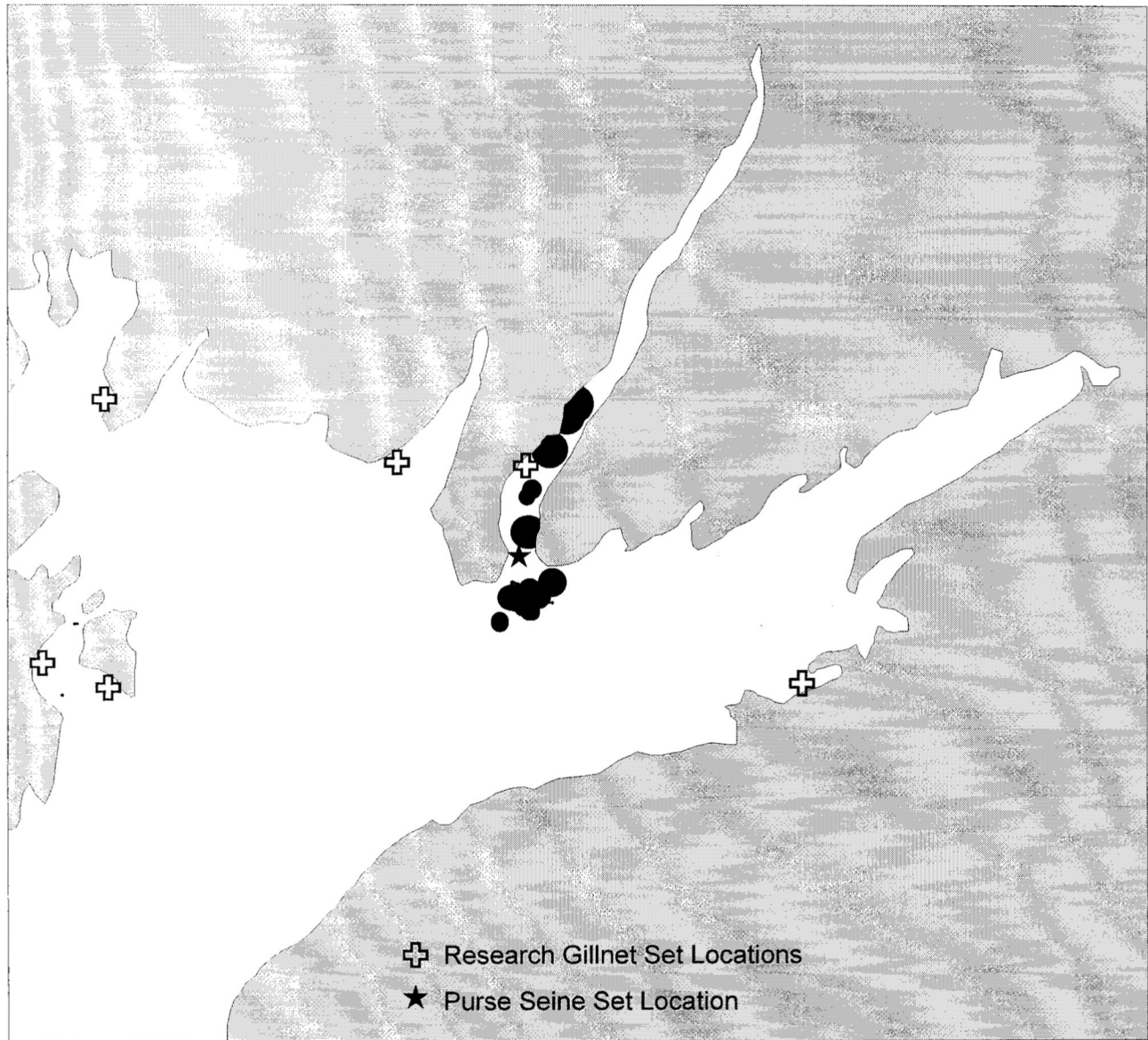


Figure 22. Distribution and density of herring on transects in eastern Fortune Bay during the 1997 acoustic survey. Relative densities of herring are represented by expanding black circles.