Appendix I: Updates to Historical Monkfish Data

Fishery data were updated in this assessment to reflect changes to databases, finalization of standardized methods (SBRM discards), and correction of errors. The most significant changes occurred in data for the South and were primarily related to changes in the expansion factor for the discard estimates, particularly in the scallop dredge. The changes are discussed in detail below.

Changes to Commercial Catch Estimates

There were no significant changes to the kept component of the commercial catch, however discard estimates were revised in both areas, and changes were more pronounced in the South. The revisions were the result of two main factors: (1) using the finalized version of the SBRM software to retrieve observer data and develop the d/k ratios, and (2) using dealer landings as the expansion factor to estimate mt of discards (vs. VTR landings, as had been used in the past). The changes to the data used to estimate discards (mt) are shown in Figures 1 and 2, and reflect both changes in software and changes to the observer database (e.g. additional sampling programs included). In both areas, more observed trips were included, especially for trawls; however, this had little impact on d/k ratios aside from generally smoothing out some spikes. Using the dealer landings for expanding the d/k ratios had little effect in the trawl and gillnet sectors, but had a substantial effect on the dredge estimates, especially in the South. The revised raising factor (dealer landings of all kept species in scallop dredges) corresponded closely to scallop landings, as would be expected, whereas the VTR dredge landings from previous monkfish assessments were substantially lower. These changes resulted in an average increase of 53% in estimated discards (mt) and 10% in estimated catch (mt) in the South during 2000-2009 (Figure 4). In the north, the impact was much lower (-0.5% in discards mt, -0.6% in catch mt) (Figure 3).

Because of the changes to the discard estimates, the entire time series of catch estimates (1980-2009) was revised for both areas. The same methods were applied as in earlier assessments. The d/k ratios used to estimate discards prior to 1989 (when observer coverage began) changed slightly (Figure 5), but resulted in relatively little change to the early catch data (Figures 3 and 4).

Changes to Commercial Catch Length Composition

An error was discovered in assigning length composition to gillnet discards in previous assessments. Due to a programming error, discard lengths for gillnets were characterized using length samples from landings rather than from discards. Figures 6 and 7 show the length composition of kept and discarded monkfish from gillnets for 2000-2009. The impact of this error was minor because gillnet discards are very low relative to the total catch (<2% by weight in both areas).

The overall change in the catch length composition is shown in Figures 8 and 9. The differences are greater in the South primarily because of the increase in estimated discards in the dredge, which tends to discard relatively small individuals.
Figure 1. Changes to data used to estimate discards (mt) of monkfish in the North. Data is shown on a half-year basis.
Figure 2. Changes to data used to estimate discards (mt) of monkfish in the South. Data is shown on a half-year basis.
Figure 3. Comparison of revised and previous estimates of catch (mt, numbers) and mean length in the catch in the North.
**SOUTH**

<table>
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<tr>
<td>Mean length</td>
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Figure 4. Comparison of revised and previous estimates of catch (mt, numbers) and mean length in the catch in the South.
Figure 5. Change in d/k ratios used to estimate discards for 1980-1988.
Figure 6. Comparison of kept and discard length compositions for gillnets using 2013 assessment data, North.
Figure 7. Comparison of kept and discard length compositions for gillnets using 2013 assessment data, South.
Figure 8. Revisions to catch length composition, North.
South Catch Length Composition

Figure 9. Revisions to catch length composition, South.