

species, and stocks within species, that are regulated under the Northeast Multispecies Fishery Management Plan (FMP) of the New England Fishery Management Council (New England Council). Data reported herein are based on the most current peer-reviewed stock assessments provided by the Northeast Stock Assessment Workshop (SAW , which is a consortium of bodies comprising Federal, state, and academic fishery assessment experts and Council staff, which are regularly convened to peer review stock assessments and provide management advice to regional fishery managers), the U.S.-Canada Transboundary Resources Assessment Committee (TRAC , set up by the federal governments of the United States and Canada to provide assessment status reports for resources shared by the two nations in the Northwest Atlantic), and the Multispecies Monitoring Committee (MSMC) of the New England Council (a body convened at least annually to evaluate and report on progress under the FMP and to provide advice to the Council for FMP adjustments). The data reported herein include abundance measures collected for the stocks through autumn 2000, and updated assessments for the major stocks conducted after February 2000.

3. Data available to assess the status of stocks are derived from two major sources. First, commercial and, in some cases, recreational catches are monitored to provide estimates of total removals from each species/stock every year. Commercial catches of New England groundfish have been measured since the late 1890s. These *fishery dependent* data are divided into age groups to assess the demographic changes associated with various year classes or fish having the same birth year (e.g., all fish born in the year 1951 are said to be from the 1951 year class). Higher levels of exploitation (measured as the proportion of the stock removed by harvest each year, e.g., 50%) result in losses of older age groups due to the cumulative catches of each age

group throughout its life.

The other major source of information on the status of New England groundfish are fishery independent scientific surveys conducted in New England waters, beginning in 1963. These *fishery independent* data provide a continuous, unbiased record of groundfish stock abundance, year-class strength, and age demography for the past 37 years. They are considered to be the world's premiere fishery-independent stock monitoring system.

3. Exhibit 1 shows the abundance index for 12 major species of groundfish and flounders caught in the autumn trawl survey between 1963 and 2000. The data are expressed as the average kilograms caught per half-hour tow with the NMFS standard trawl net for the following species: Cod, haddock, pollock, redfish, silver hake, red hake, yellowtail flounder, American plaice, witch flounder, winter flounder, summer flounder and windowpane. These data provide a picture of the responses of the resource complex to various overfishing and fishery management scenarios since the early 1960s.

Overall abundance of groundfish declined significantly and rapidly in the early to mid 1960s, improved in the mid 1970s and early 1980s, declined again in the late 1980s and early to mid 1990s, and has improved since then. The overall abundance index for the groundfish complex approximately doubled between 1994 and 2000, and has now reached the levels of the early 1980s. This rebound in the resource is primarily due to improved recruitment, combined with lower exploitation rates on a number of species/stocks, especially Georges Bank haddock, Georges Bank yellowtail flounder, redfish, silver hake in the Gulf of Maine, and witch flounder.

4. Framework 33 and Amendment 9 to the FMP focused on 19 species or stocks of

groundfishes that are generally caught with large-mesh fishing gear, including: Georges Bank and Gulf of Maine cod (two stocks); Georges Bank and Gulf of Maine haddock (two stocks); Cape Cod, Georges Bank, southern New England and Mid-Atlantic yellowtail flounder (four stocks); Georges Bank and southern New England-Mid-Atlantic winter flounder (two stocks); northern and southern windowpane flounder (two stocks); redfish; pollock; Atlantic halibut; ocean pout; white hake; American plaice; and witch flounder. Data on trends in biomass (weight of the individuals in the stock) are plotted for each stock in Exhibits 2 through 8. Data plotted are trends in absolute spawning biomass (weight of all spawners, determined from an analytical model of the population), trends in survey biomass indices, or trends in biomass relative to the biomass necessary to produce maximum sustainable yield (MSY), depending on the stock.

5. Biomass increased by an average factor of 2.5 (150%) for the 19 stocks when the most recent 5-year period (1996 to 2000) is compared to the previous 5-year period (1991 to 1995). For 13 of the 19 stocks, average biomass in 1996-2000 increased, compared to 1991-1995, while six stocks (Georges Bank cod, Gulf of Maine cod, white hake, southern windowpane, halibut and ocean pout declined) showed declines. Of the six stocks that declined in abundance since 1991-1995, four (Georges Bank cod, Gulf of Maine cod, southern windowpane, and ocean pout) have shown recent increasing trends, though they are not yet back to the biomass levels of the early 1990s.

6. Most of the major stocks in the groundfish complex of species have responded positively to lower exploitation rates as a result of management implemented under Amendment 7 to the FMP and later actions. For some stocks (especially Georges Bank haddock and

yellowtail flounder; see Exhibit 2) substantial progress has been made relative to long-term biomass rebuilding targets. For all of the five major groundfish stocks (i.e., Georges Bank and Gulf of Maine cod, Georges Bank and southern New England yellowtail flounder, and Georges Bank haddock; see Exhibits 2 and 3), biomass has been increasing.

7. Based on the most recent stock assessments and abundance data summarized above, likely projected biomass levels, and the expected progression of year classes for these species and stocks, rebuilding of the resource as a whole should continue for at least the next year under targets and measures established under Amendment 7 and subsequent framework actions, even if Amendment 9 overfishing definitions are exceeded. Based on the foregoing analyses and considerations, delaying the implementation of Amendment 13 to the summer of 2003 should not jeopardize the ability of multispecies stocks to achieve current rebuilding targets.

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Woods Hole, Massachusetts, on this 7th day of February, 2002.

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