

1.6 General trends in the Northeast Atlantic

As an indication to the general trends of fish stocks in the Northeast Atlantic the overall trend in the 33 of fish stocks assessed by ICES were considered (Figure 1.6.1). These stocks are data rich and F_{msy} values have been defined for them. The landings in 2009 from them was 4.6 million t compared to a total catch of fish in the Northeast Atlantic of 8.1 million t. The stocks were grouped in categories: benthic (plaice and sole), demersal (cod, haddock, whiting, saithe, and Norway pout) and pelagic (herring, anchovy, mackerel, and blue whiting). Figure 1.6.2 shows the number of stocks within each category by year.

For each category of stocks the fraction of stocks having F below F_{msy} was then plotted against year (Figure 1.6.3). Ideally about 50% of the stocks should have F below F_{msy} and 50% F above F_{msy} in a given year if the stocks are managed at a target fishing mortality of F_{msy} . This is seen to be the case only for pelagic stocks and only if the period 1995-2004 is disregarded. The benthic and demersal stocks have been overexploited in the entire time period. However, some improvements are apparent in recent years.

The trend in fishing mortality over time is illustrated in Figure 1.6.4. It can be seen that F for benthic stocks gradually increased over time until about year 2000 and have since reduced substantially. For demersal stocks the increase was steeper in the beginning of the time period, peaked around year 2000 and has reduced since. The pelagic stocks have had a very different development over time. F increased significantly in the late 1960s and early 1970s. This resulted in the well known collapse of several herring stocks. Since then F has been quite low and stable and as the other two types of stocks has decreased since year 2000.

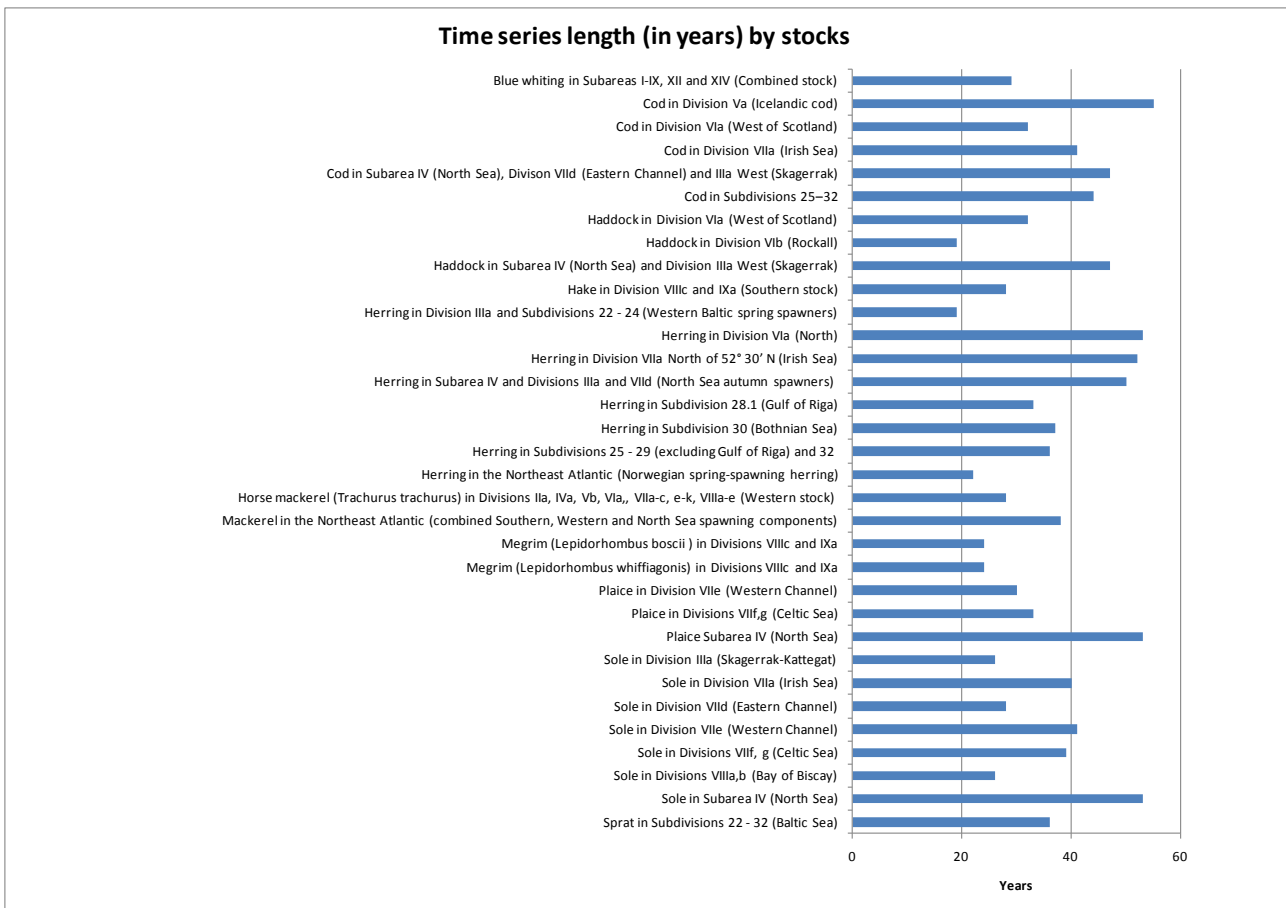


Figure 1.6.1 The length of the time series of the various stocks used in the present analysis. All series ends in 2009. However, only data from 1975-2009, i.e. 35 years, have been used.

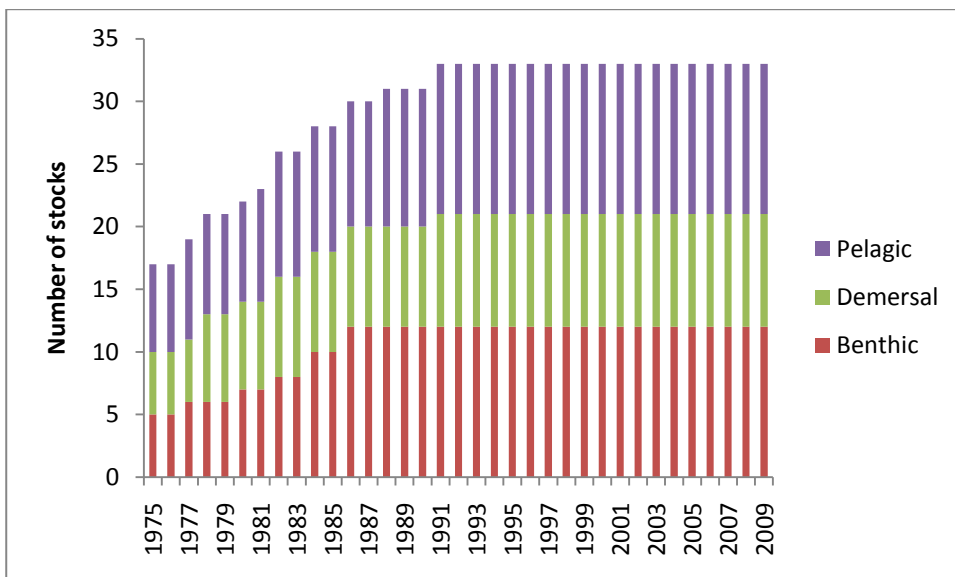


Figure 1.6.2 Number of stocks within each of the categories: benthic, demersal and pelagic stocks. Accumulative plot.

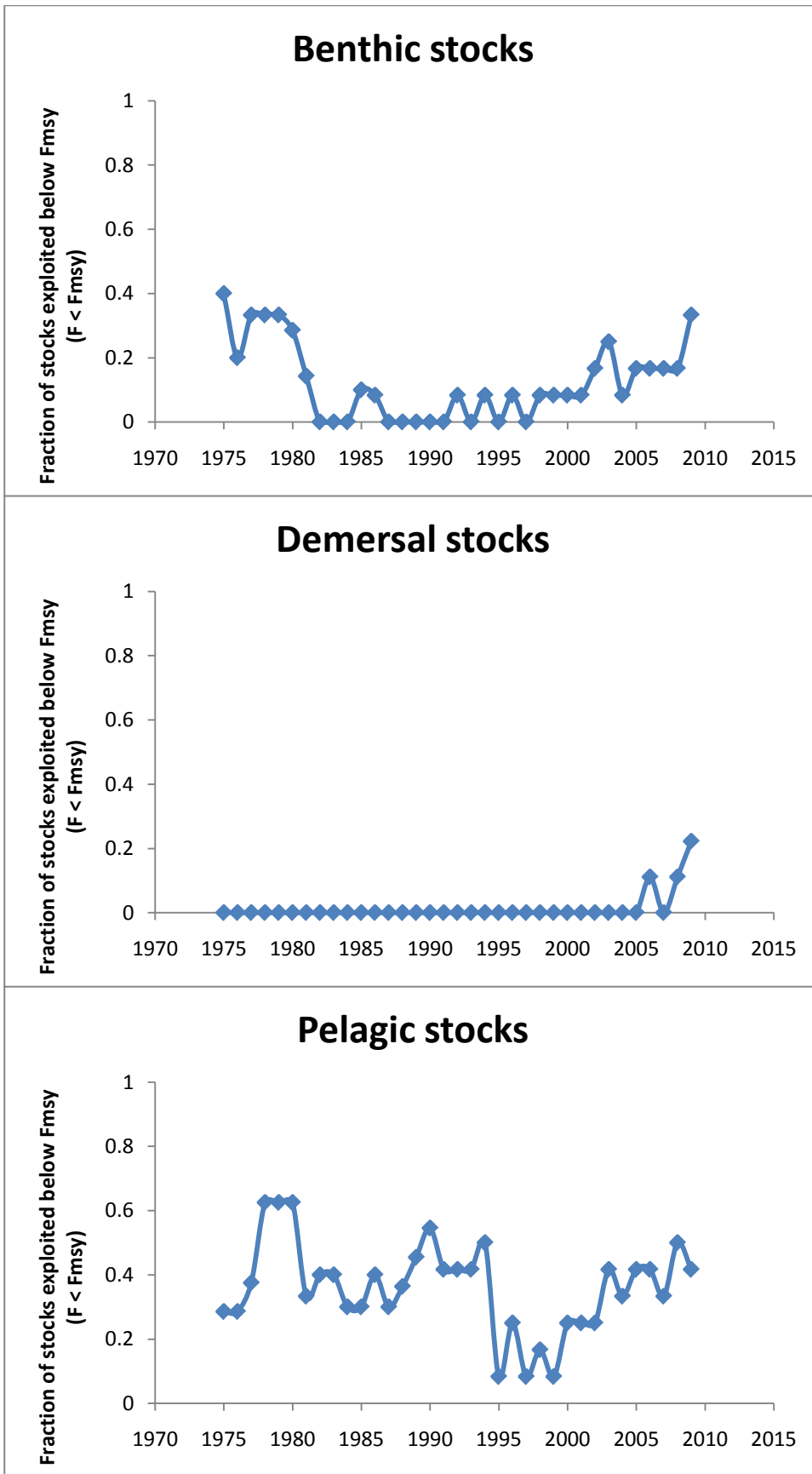


Figure 1.6.3 Fraction of stocks with F below F_{msy} by category of stocks.

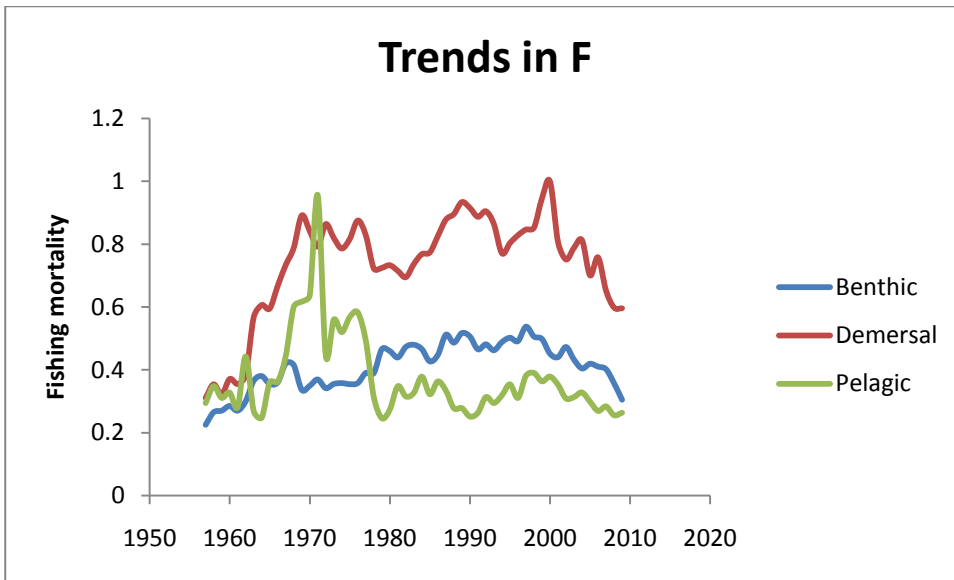


Figure 1.6.4 Trends in fishing mortality by type of stock. Calculated as mean value of F by year and type of stock.