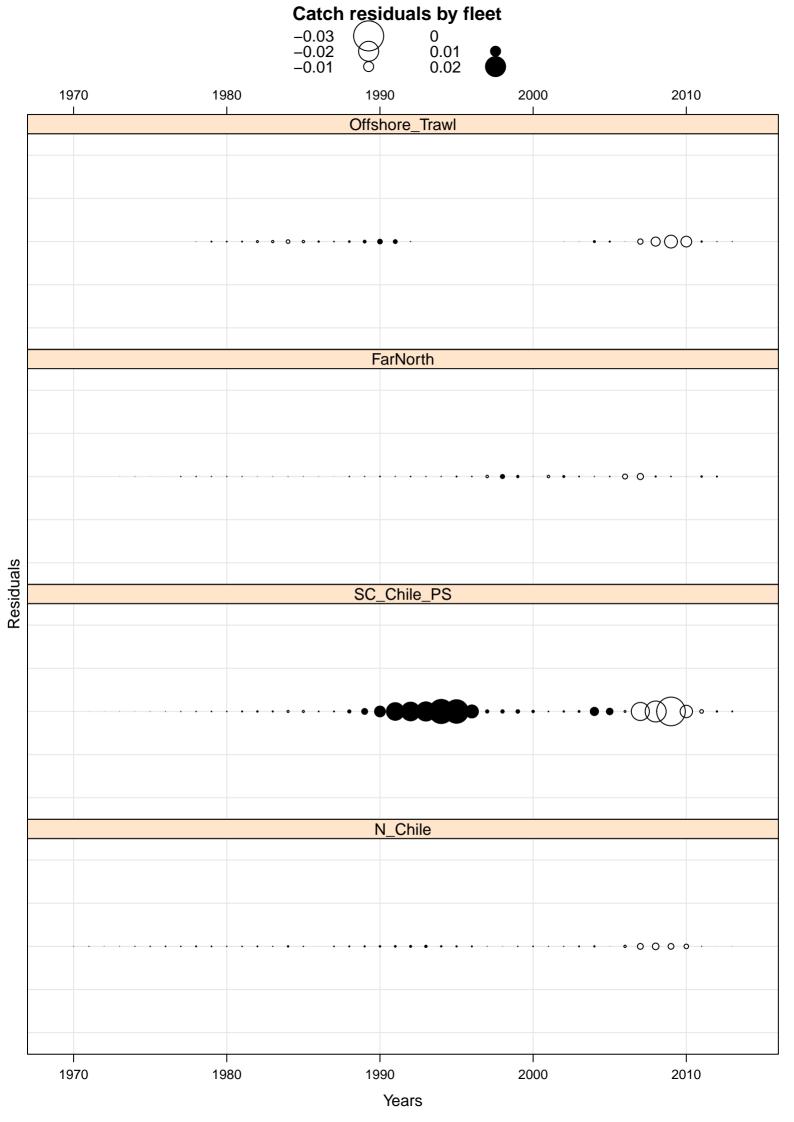
Fit of catch data

Total catch

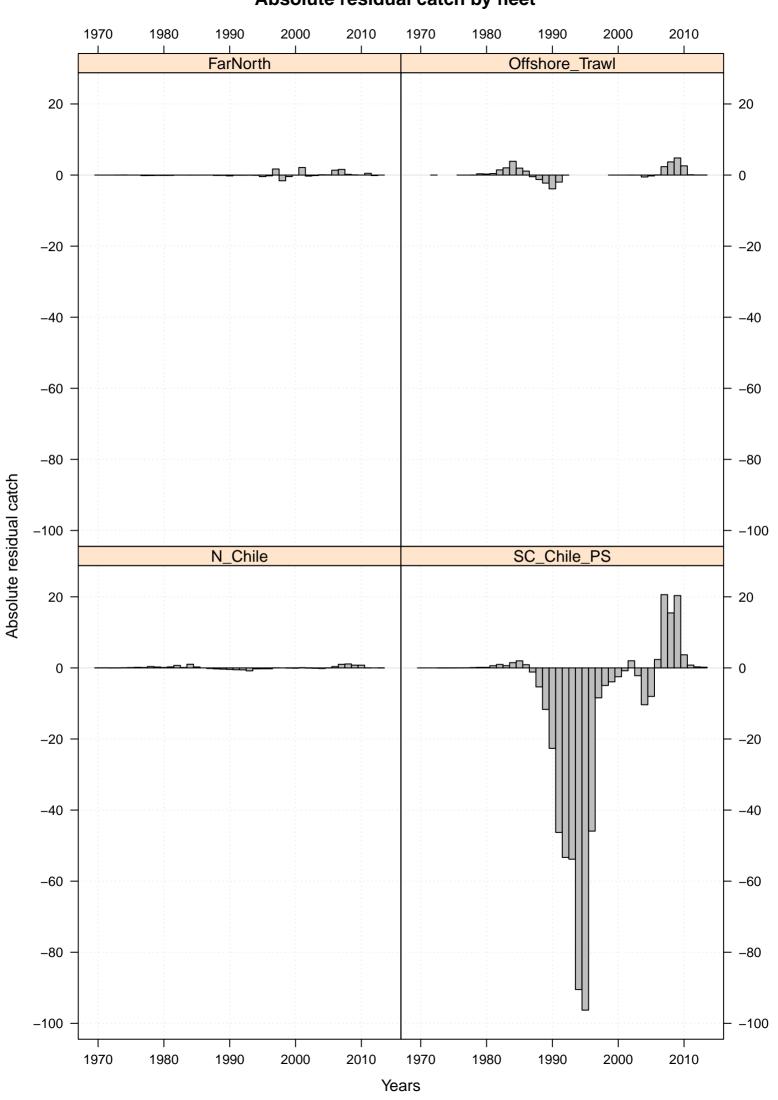


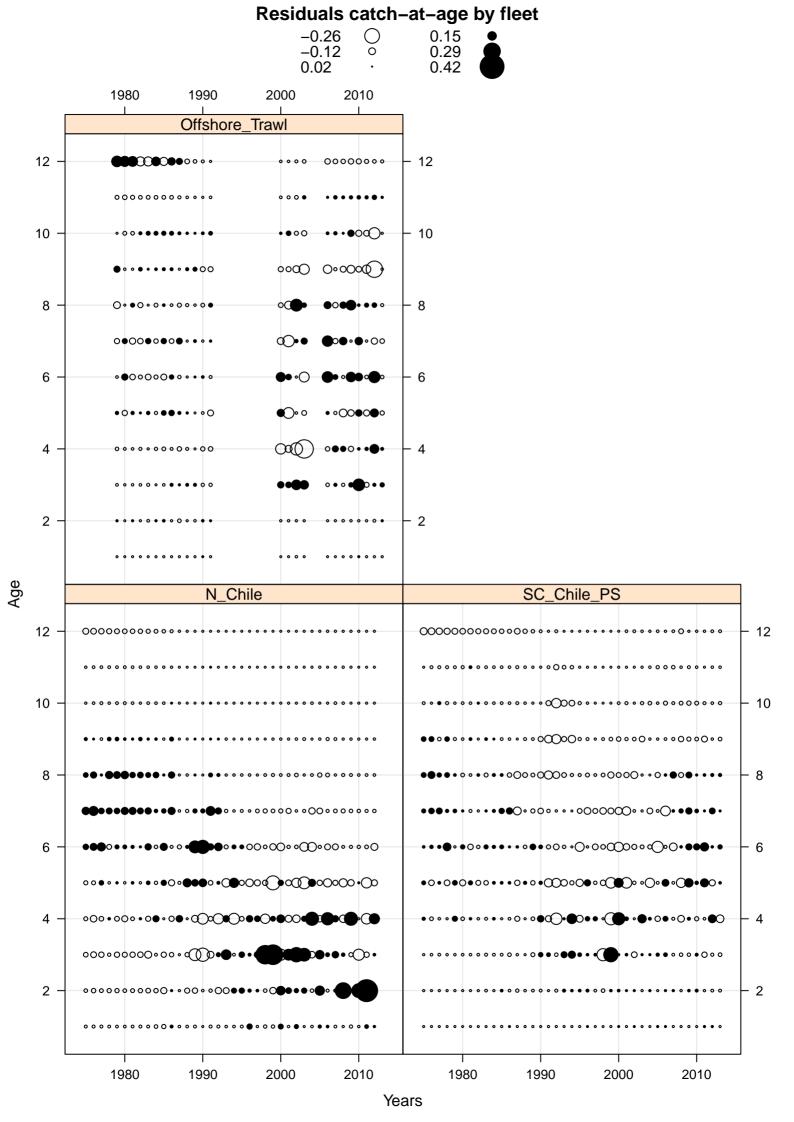
Total catch by fleet

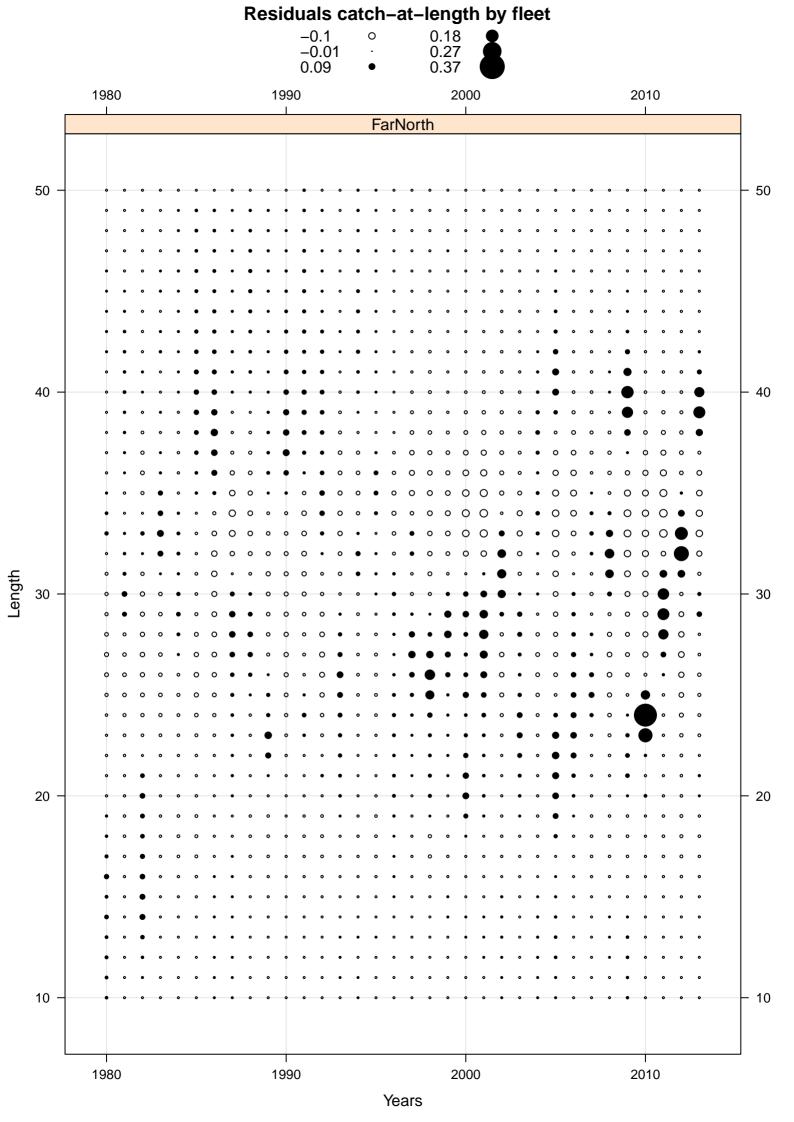


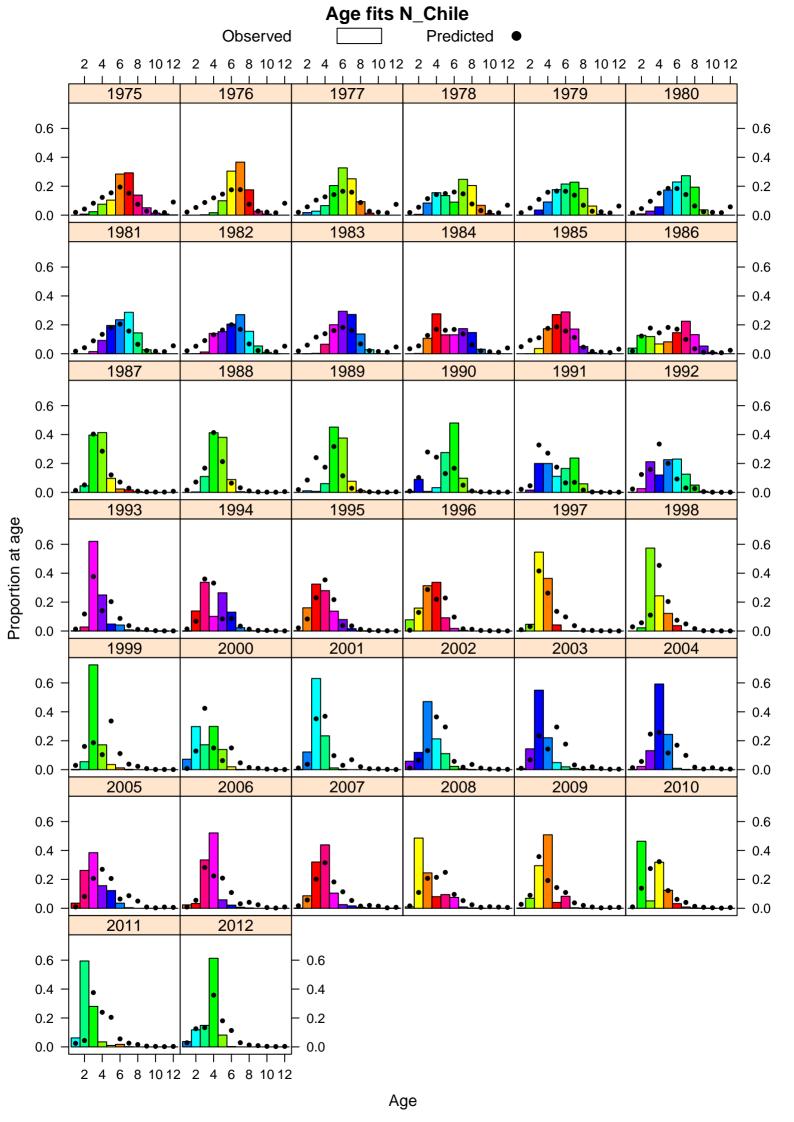


Absolute residual catch by fleet





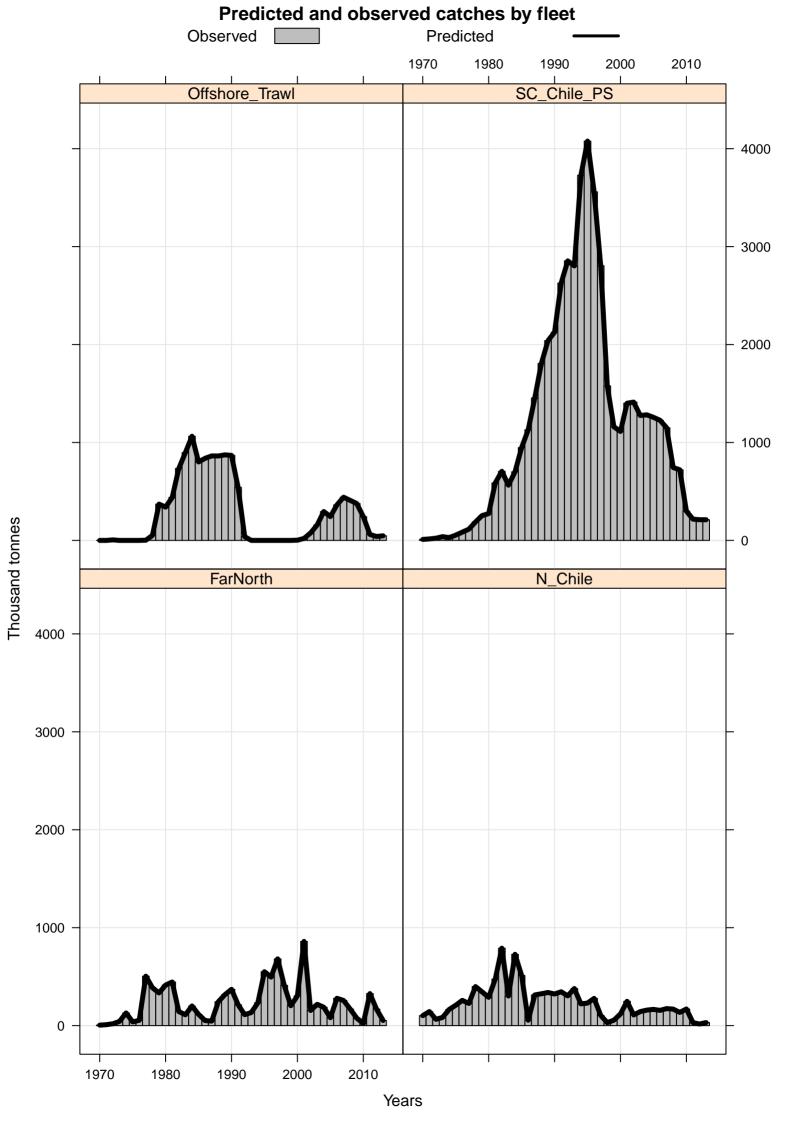




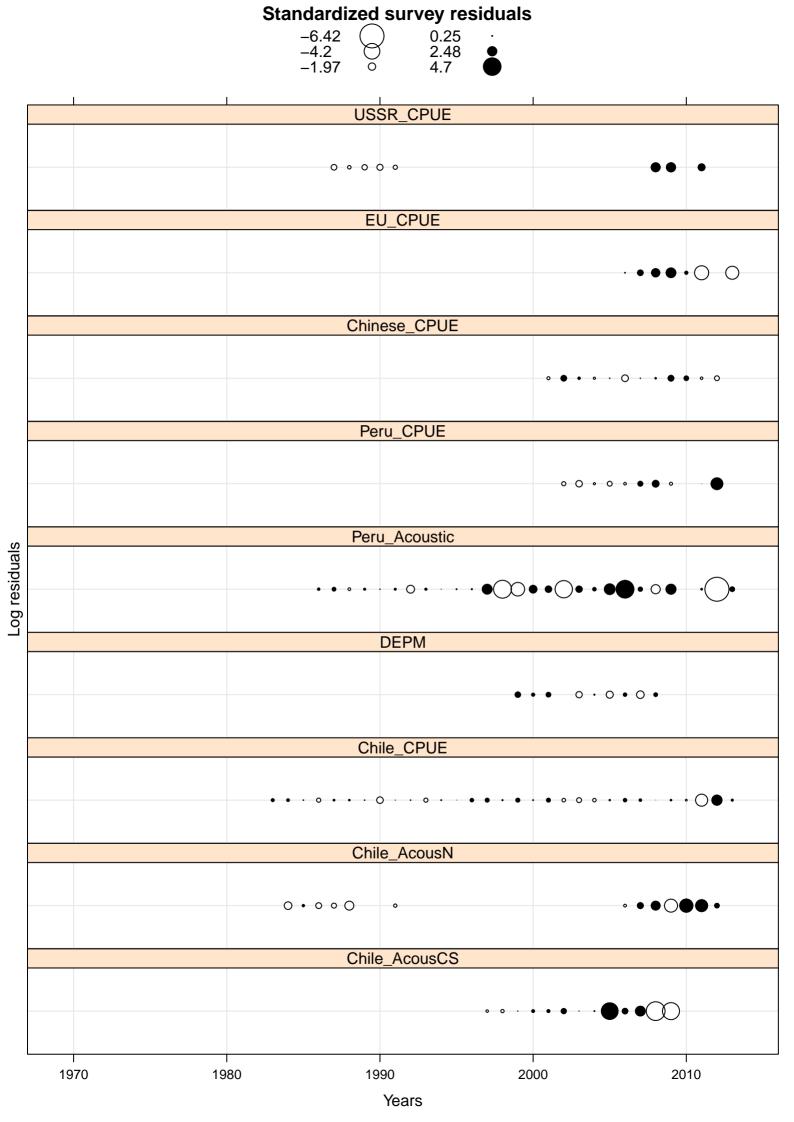
Age fits SC_Chile_PS Observed Predicted 8 10 12 2 4 6 8 10 12 2 4 6 8 10 12 2 4 6 8 10 12 2 4 6 2 4 6 8 10 12 2 4 6 8 10 12 1976 1977 1978 1980 1975 1979 0.4 0.4 0.3 0.3 0.2 0.2 0.1 0.1 0.0 0.0 1981 1982 1983 1984 1985 1986 0.4 0.4 0.3 - 0.3 0.2 0.2 0.1 0.1 0.0 0.0 1987 1990 1991 1988 1989 1992 0.4 0.4 0.3 0.3 0.2 0.2 0.1 0.1 0.0 0.0 1994 1995 1996 1997 1998 1993 Proportion at age 0.4 0.4 0.3 0.3 0.2 0.2 0.1 0.1 0.0 0.0 2002 2003 1999 2000 2001 2004 0.4 0.4 0.3 0.3 0.2 0.2 0.1 0.1 0.0 0.0 2005 2006 2007 2008 2009 2010 0.4 0.4 0.3 0.3 0.2 0.2 0.1 0.1 0.0 0.0 2012 2011 2013 0.4 0.4 0.3 0.3 0.2 0.2 0.1 0.1 0.0 0.0 2 4 6 8 10 12 2 4 6 8 10 12 2 4 6 8 10 12 Age

Age fits Offshore_Trawl Predicted Observed 4 6 8 10 12 8 10 12 10 12 2 6 8 10 12 2 6 8 10 12 1979 1980 1981 1982 1983 0.5 0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.1 0.1 0.0 0.0 1984 1985 1986 1987 1988 0.5 0.5 0.4 0.4 0.3 - 0.3 0.2 0.2 0.1 0.1 0.0 0.0 1989 1990 1991 2000 2001 0.5 0.5 Proportion at age 0.4 0.4 0.3 0.3 0.2 0.2 0.1 0.1 0.0 0.0 2002 2003 2006 2007 2008 0.5 0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.1 0.1 0.0 0.0 2009 2010 2012 2013 2011 0.5 0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.1 0.1 0.0 0.0 6 8 10 12 2 6 8 2 2 6 8 10 12 4 6 8 10 12 4 2 4 6 8 10 12 4 10 12 4 Age

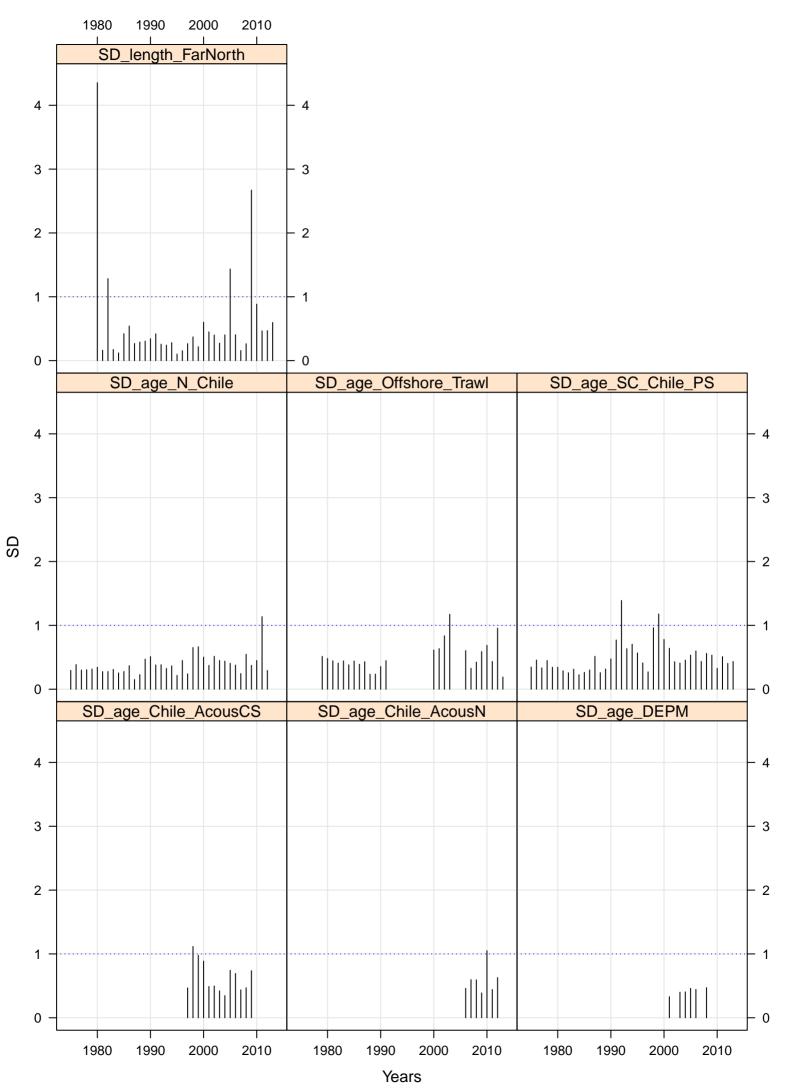
Length fits FarNorth Observed Predicted 10 20 30 40 10 20 30 40 50 1980 1981 1982 1983 1984 0.5 0.4 0.3 0.2 0.1 0.0 1985 1986 1987 1988 1989 0.5 0.4 0.3 0.2 0.1 0.0 1990 1994 1991 1992 1993 0.5 0.4 0.3 0.2 0.1 0.0 1996 1997 1995 1998 1999 Proportion at length 0.5 0.4 0.3 0.2 0.1 0.0 2000 2001 2002 2003 2004 0.5 0.4 0.3 0.2 0.1 0.0 2006 2007 2009 2005 2008 0.5 0.4 0.3 0.2 0.1 0.0 2010 2011 2012 2013 0.5 0.4 0.3 0.2 0.1 0.0 20 30 40 50 30 40 50 10 10 20 Length



Fit of survey data

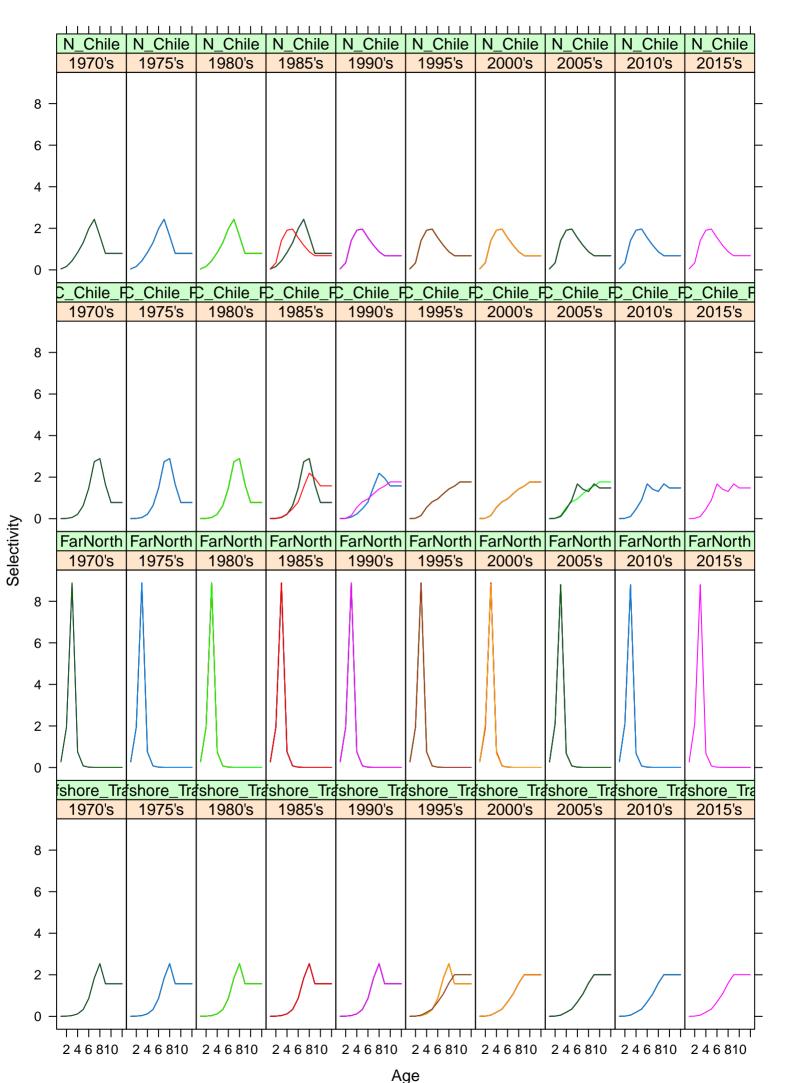


SD per input series

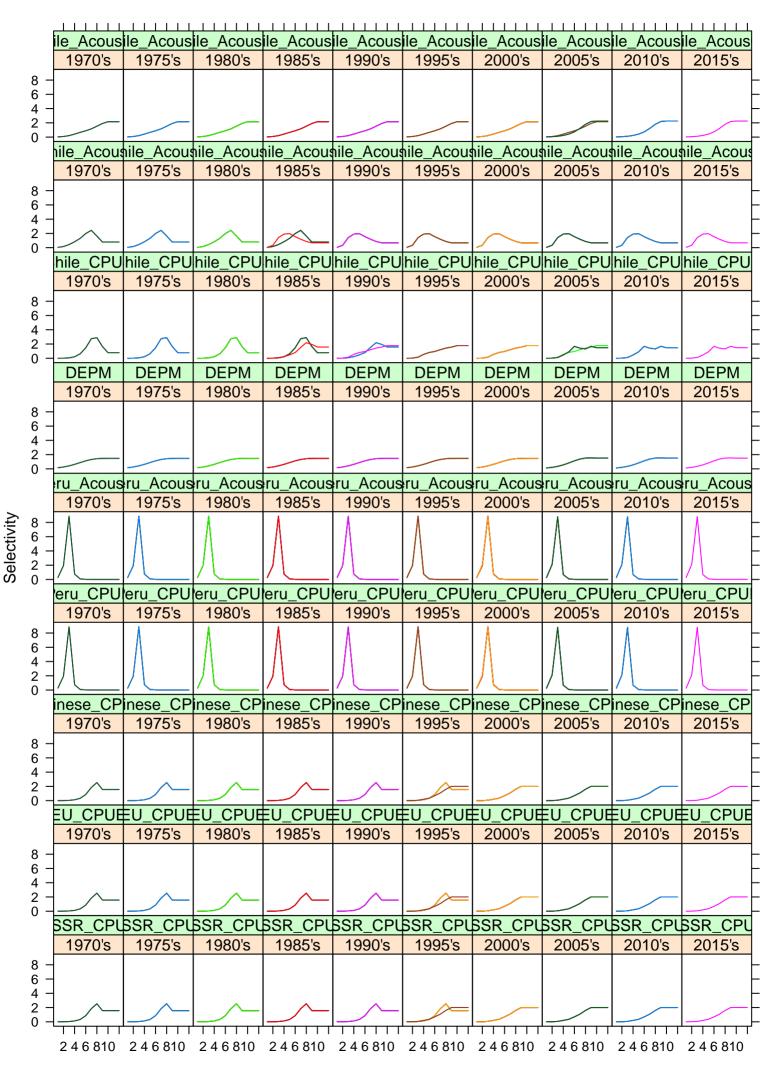


Fleet & Survey sel & F

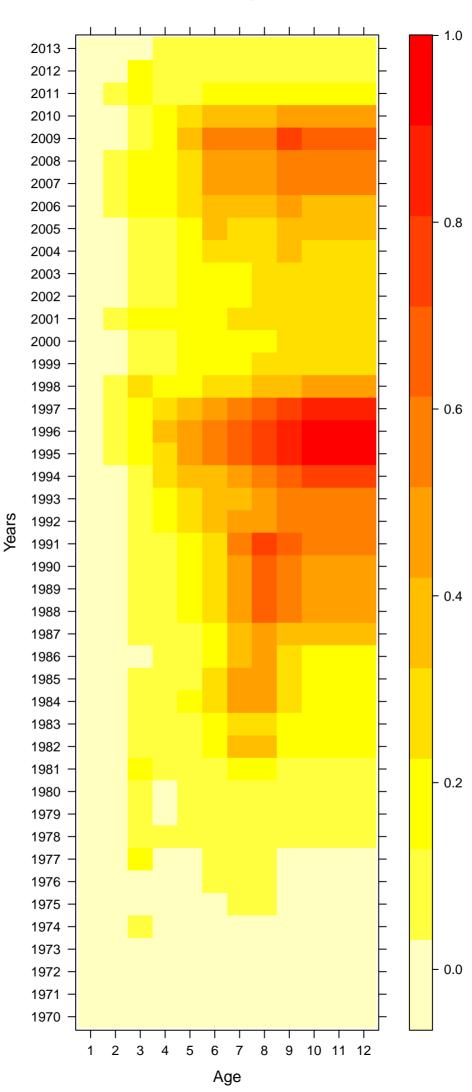
Selectivity of the Fishery by Pentad



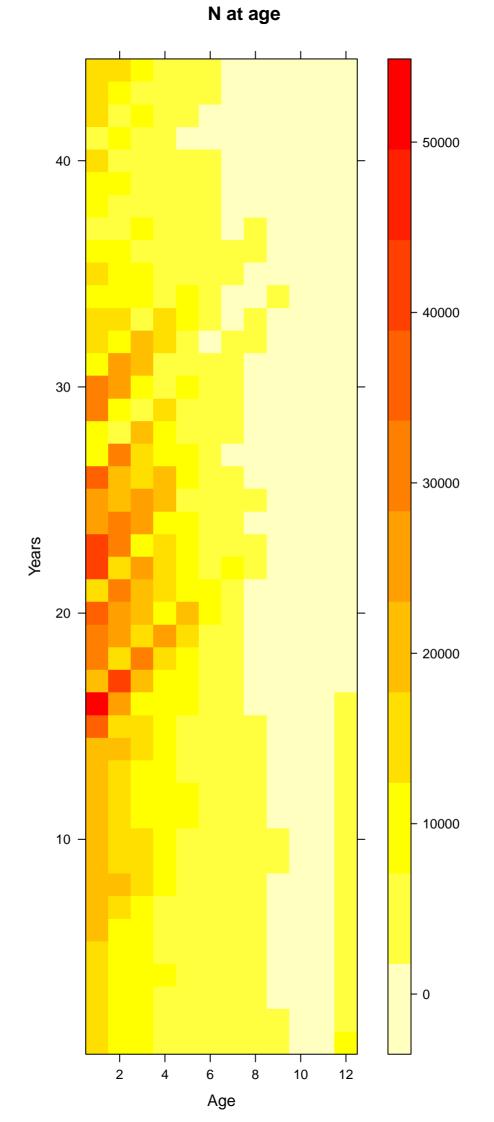
Selectivity of the survey by Pentad

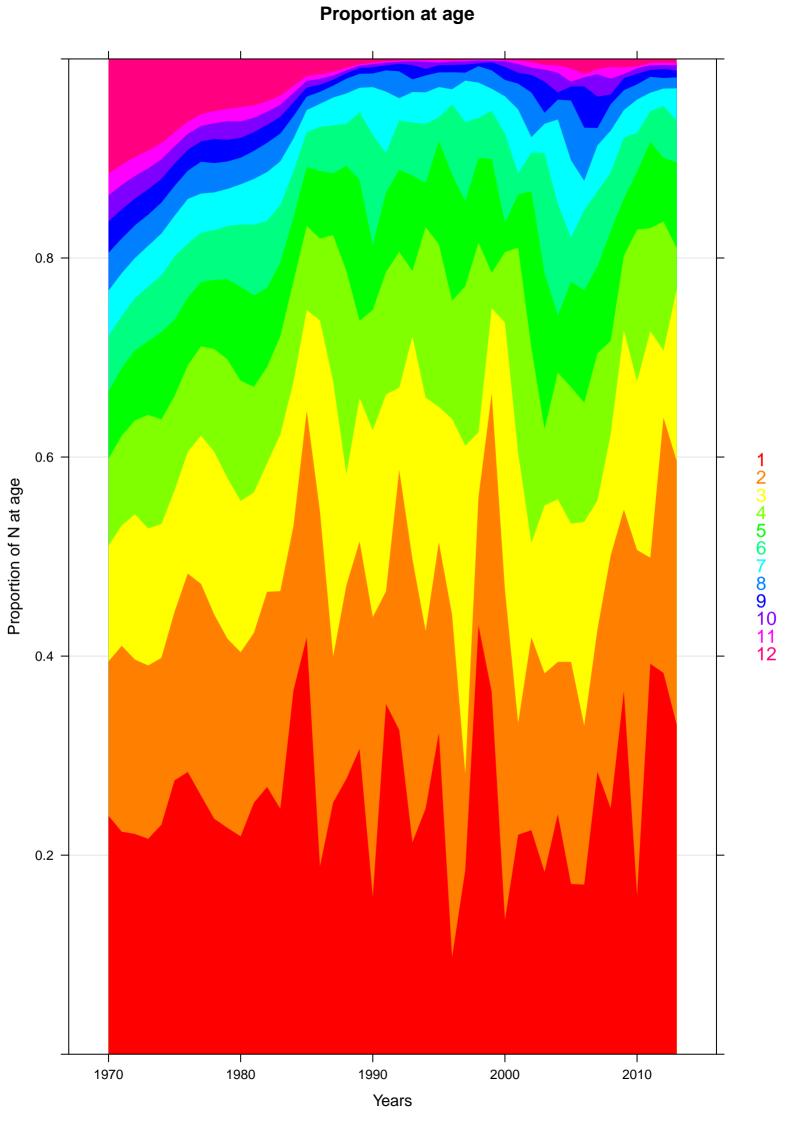






F proportion at age 8.0 0.6 1 2 3 4 5 6 7 8 9 10 11 12 Proportion of F at age 0.4 0.2 1990 1 2000 1980 1 2010 1970 Years





Fishery mean age Modelled Observed SC_Chile_PS - 10 - 8 6 - 2 Age Offshore_Trawl N_Chile 10 8 6 4 2

1980

1990

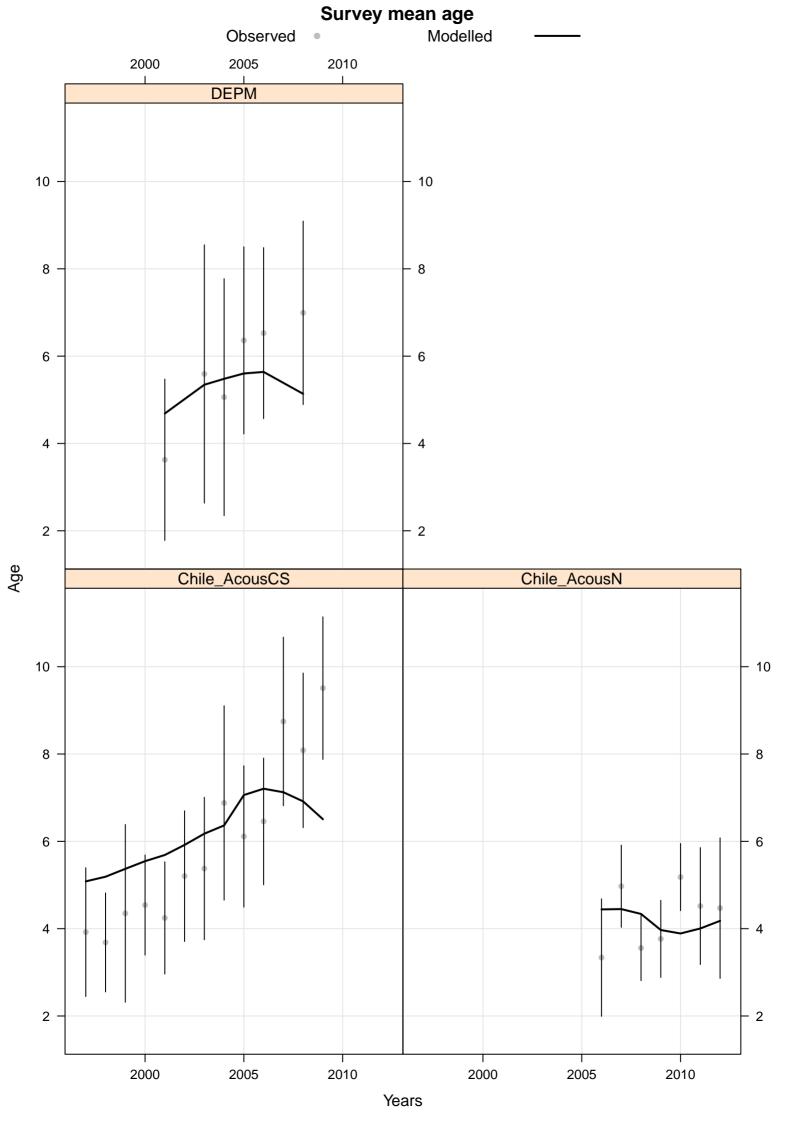
2000

2010

Years

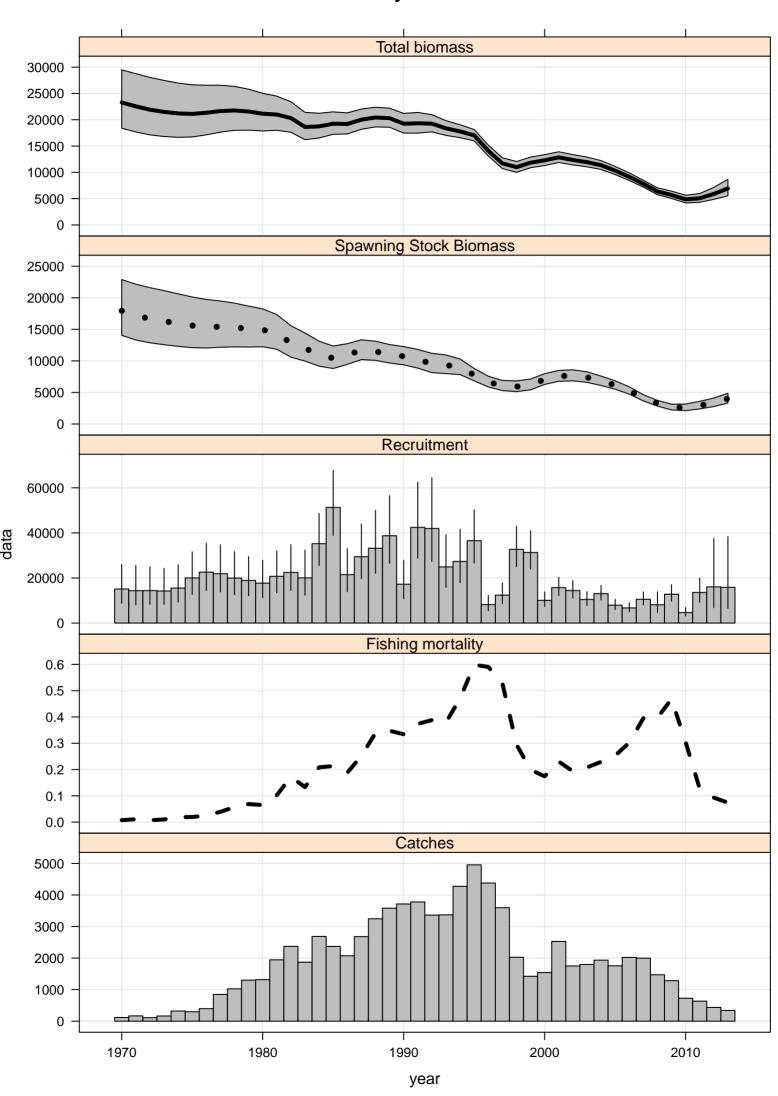
Fishery mean length

Modelled Observed FarNorth Length (cm) Years

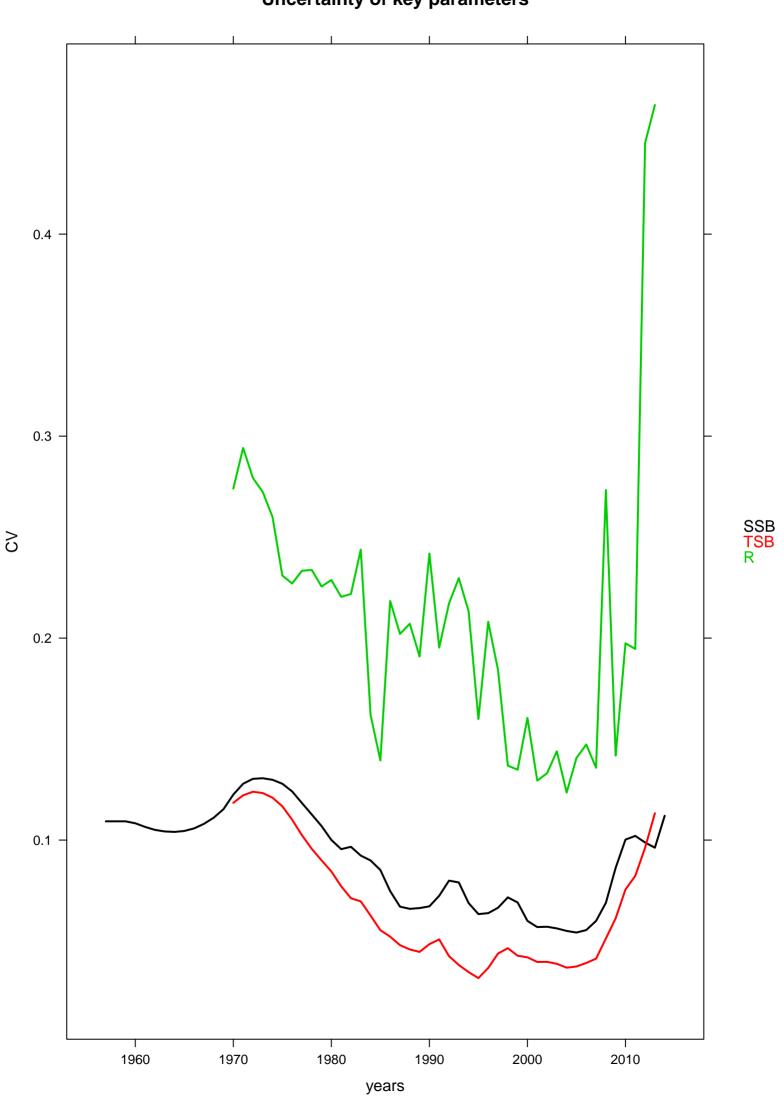


Stock summary

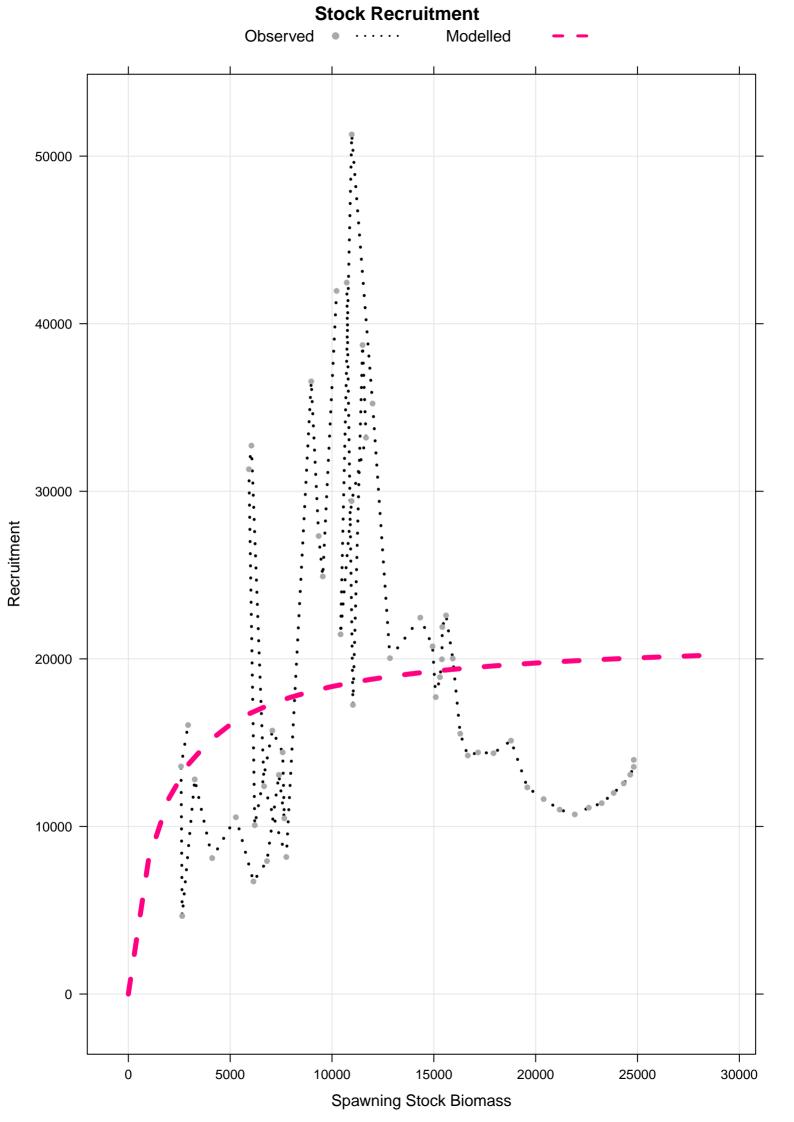
Summary sheet



Uncertainty of key parameters



Mature - Immature fish **Immature** Mature Biomass in kt Years



Fished vs. unfished biomass Fished Unfished 50000 -40000 -Total biomass 30000 20000 10000 -1970 1980 1990 2000 2010 Years