

Fit of catch data

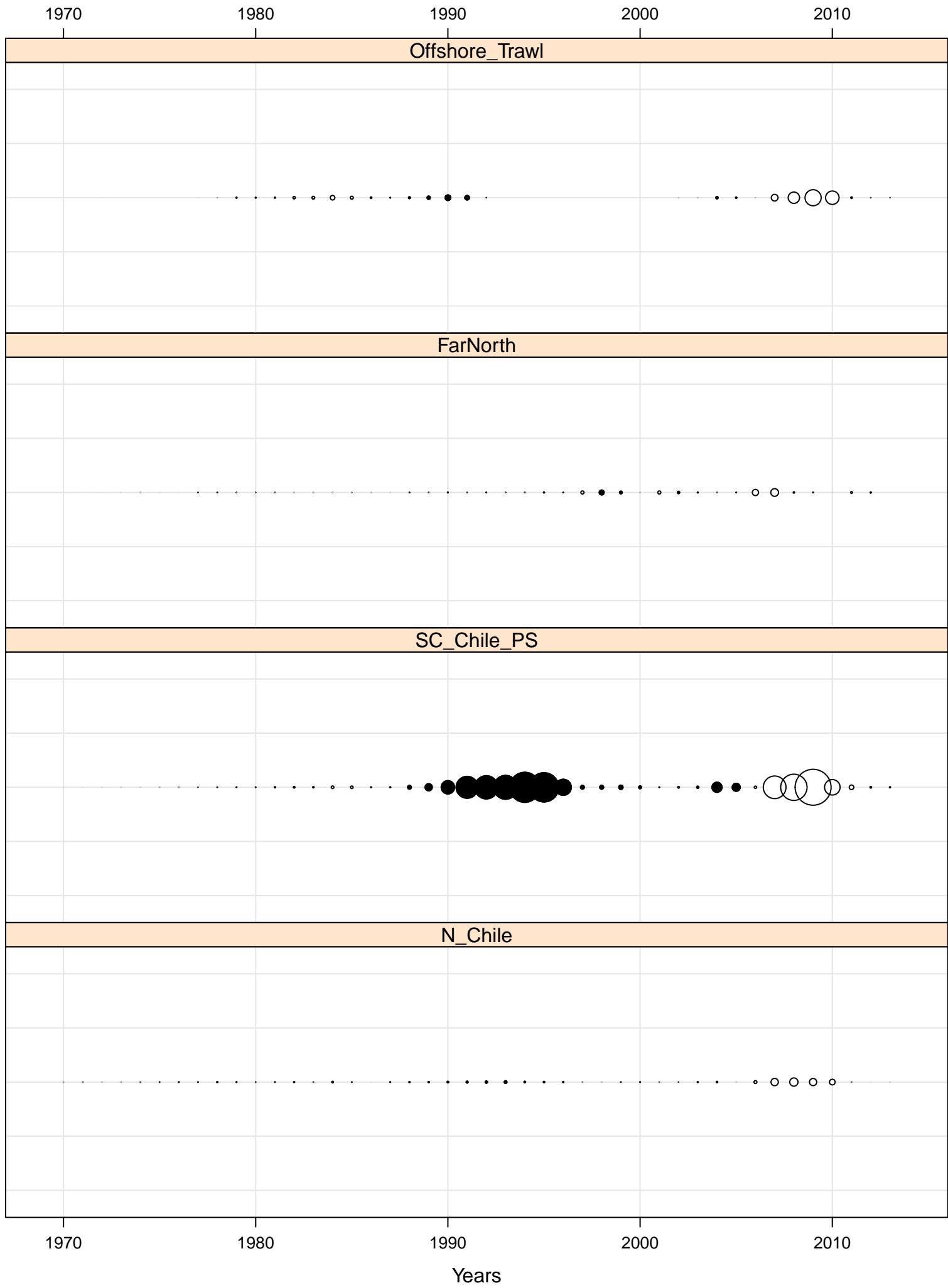
Total catch



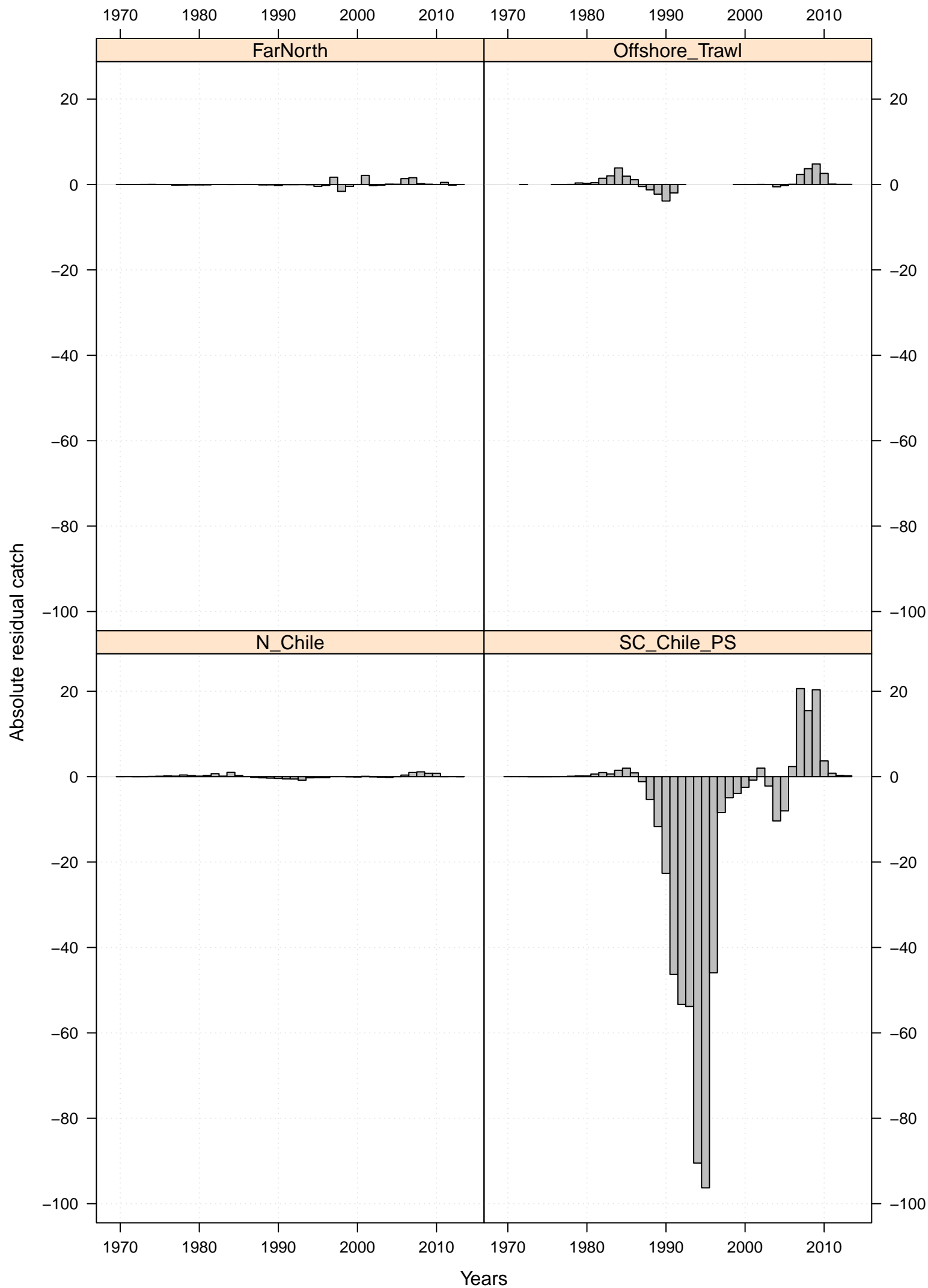
Total catch by fleet



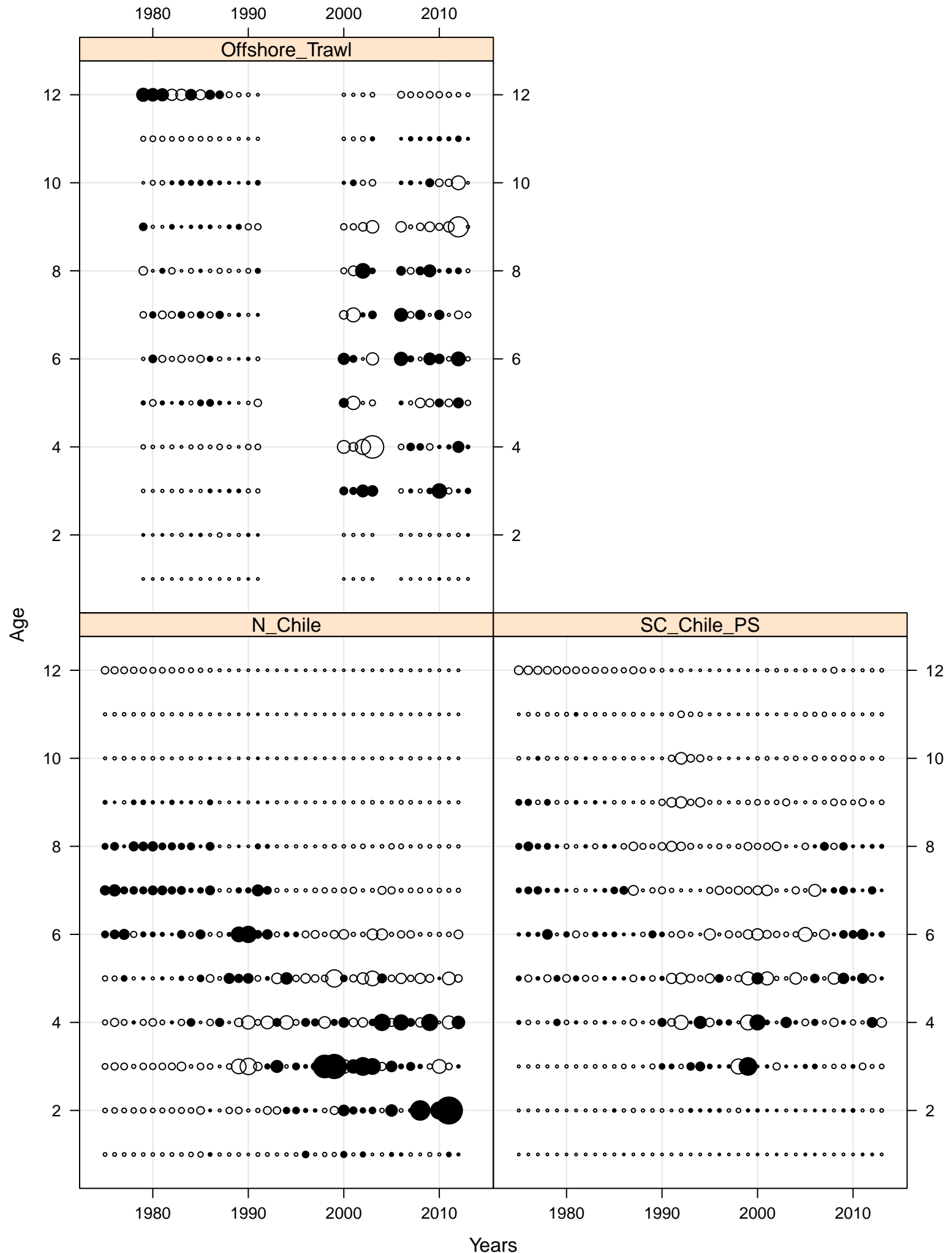
Catch residuals by fleet



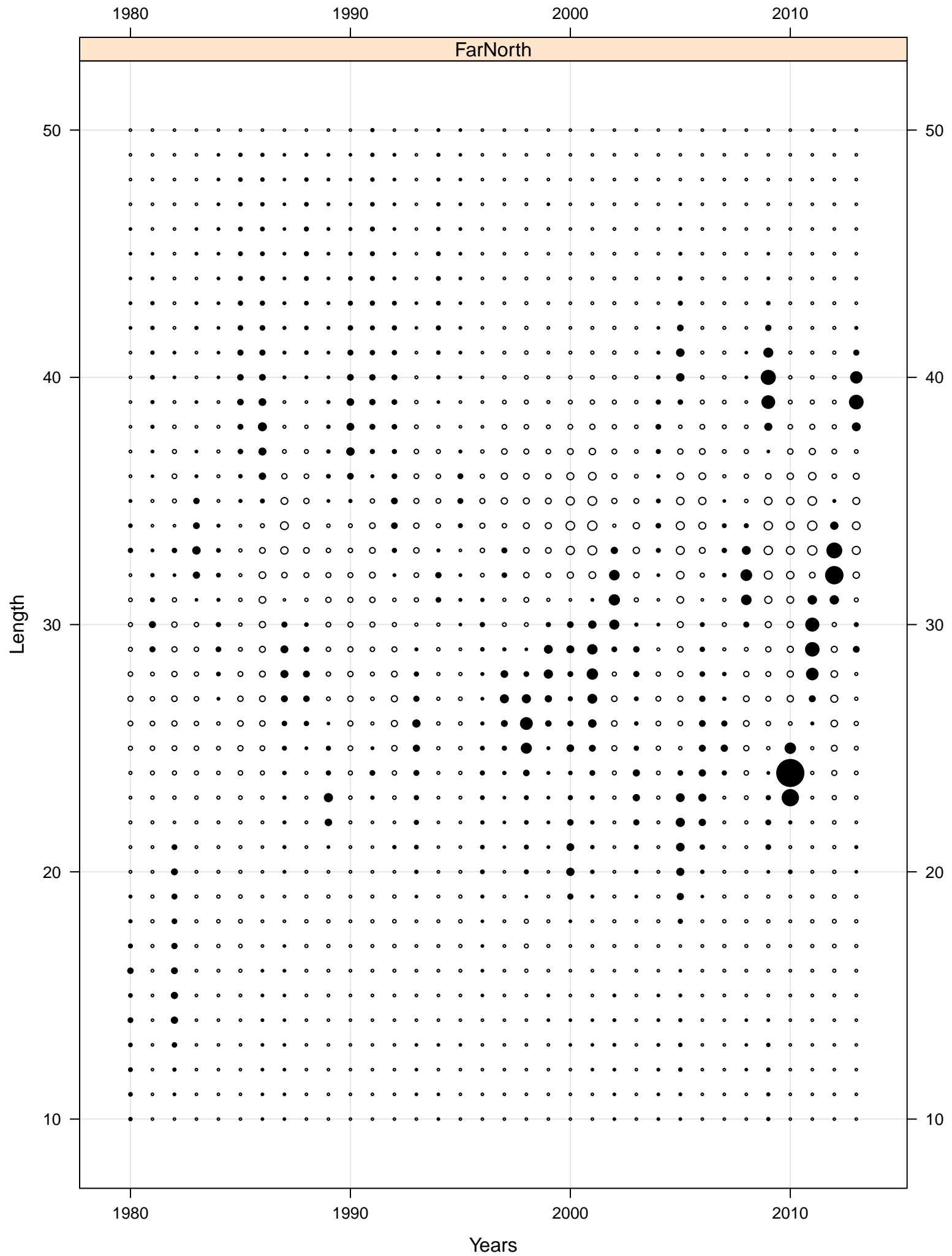
Absolute residual catch by fleet



Residuals catch-at-age by fleet



Residuals catch-at-length by fleet



Age fits N_Chile

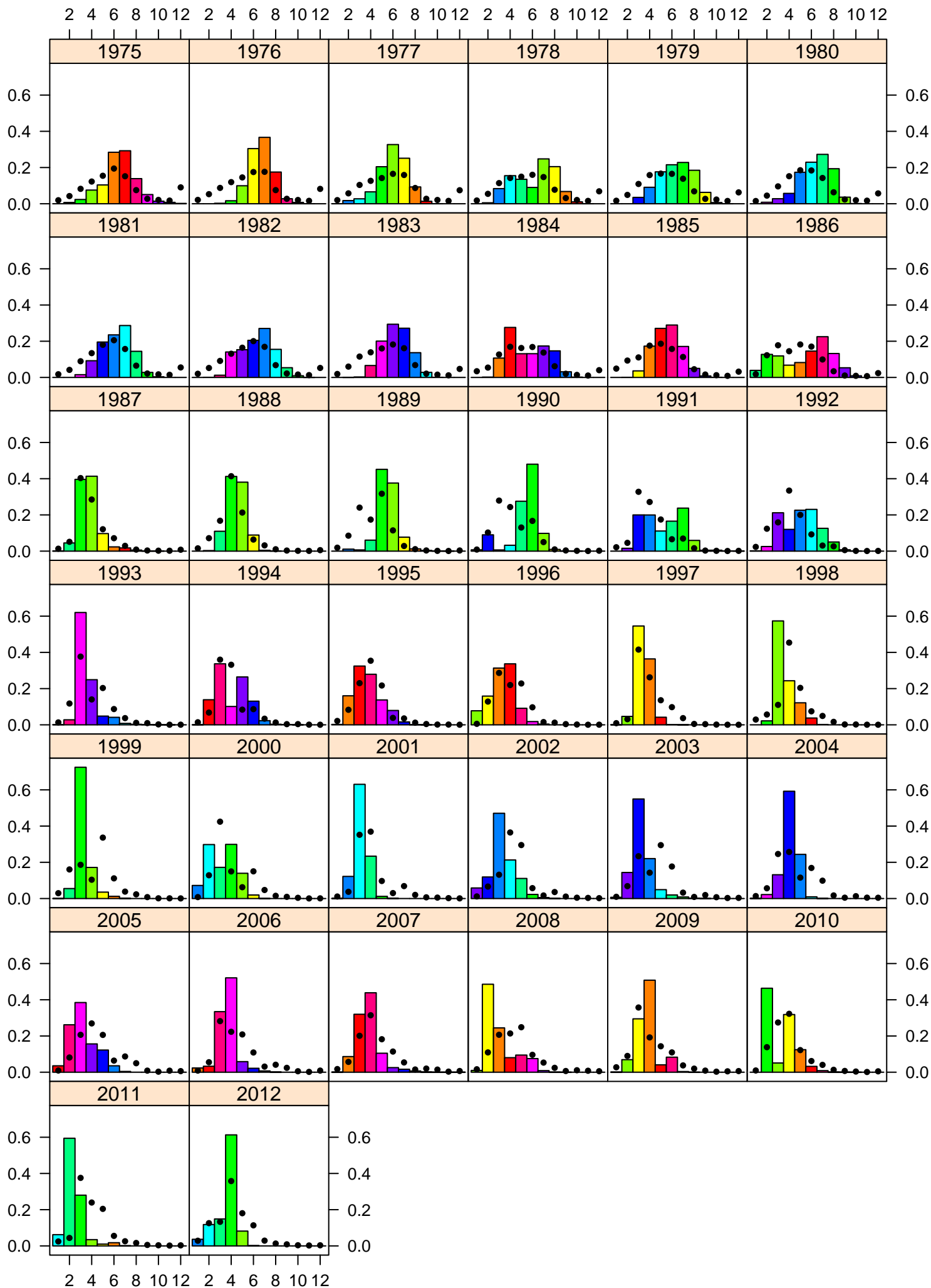
Observed



Predicted



Proportion at age



Age

Age fits SC_Chile_PS

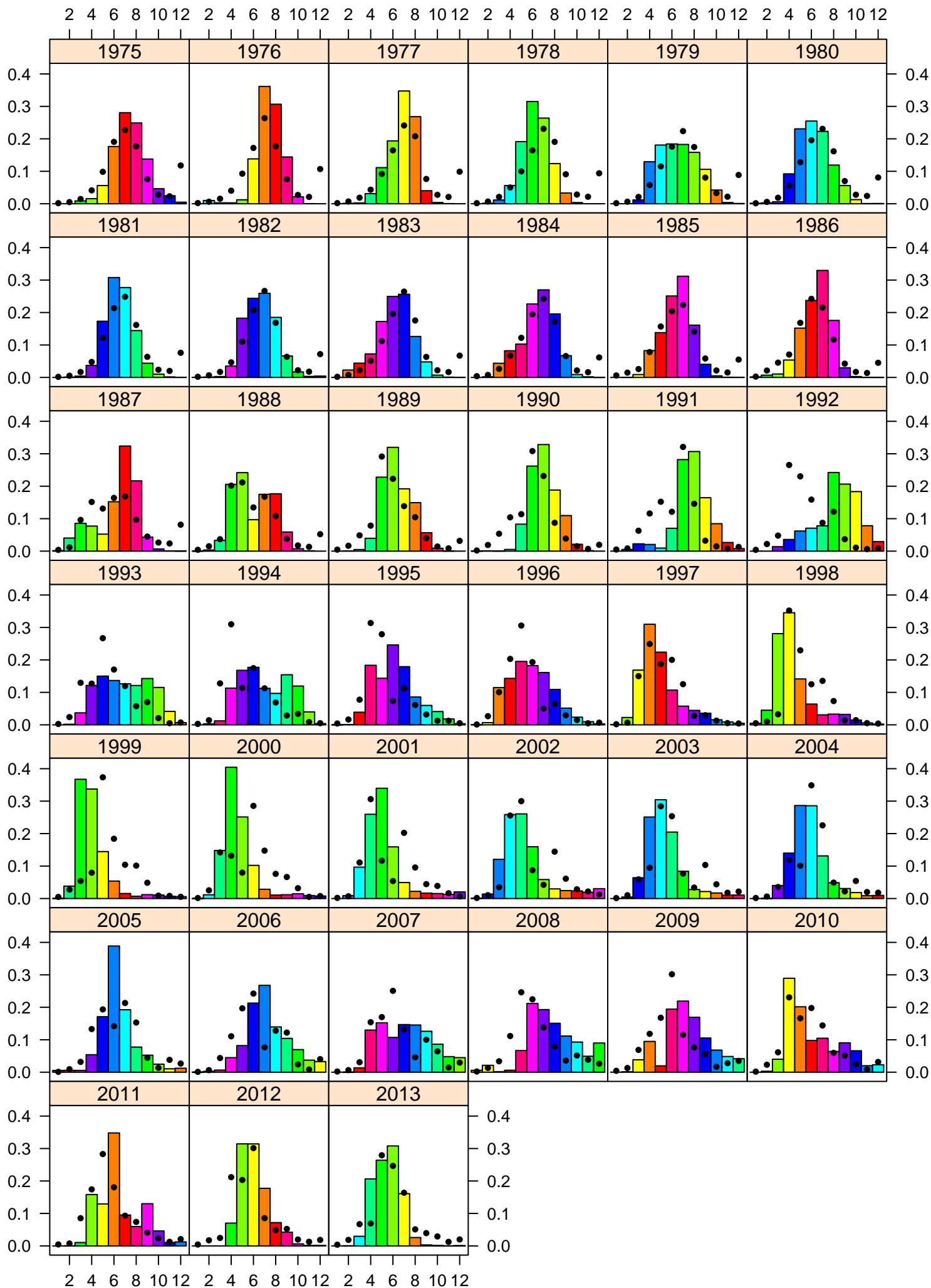
Observed



Predicted



Proportion at age



Age

Age fits Offshore_Trawl

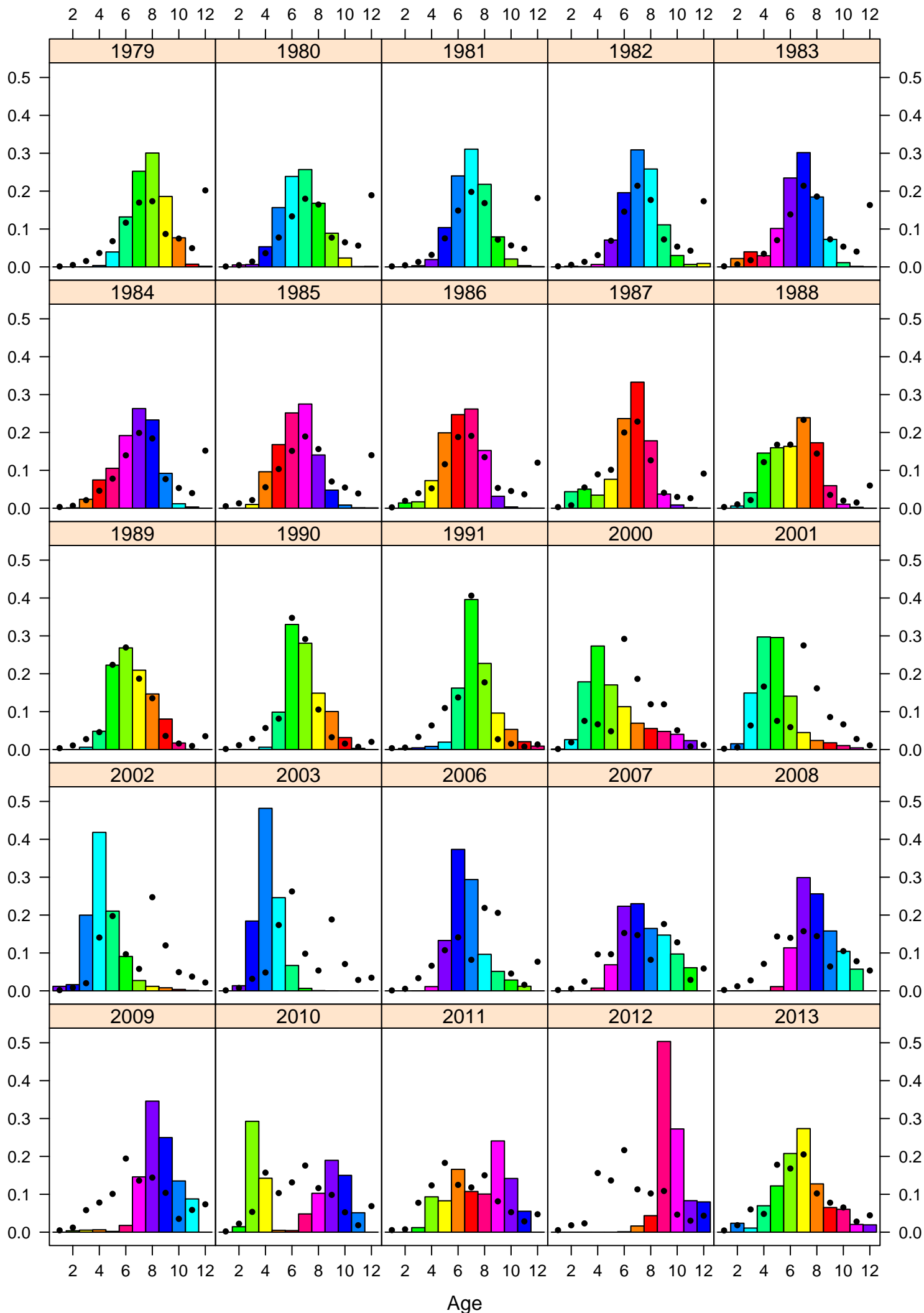
Observed



Predicted



Proportion at age



Length fits FarNorth

Observed



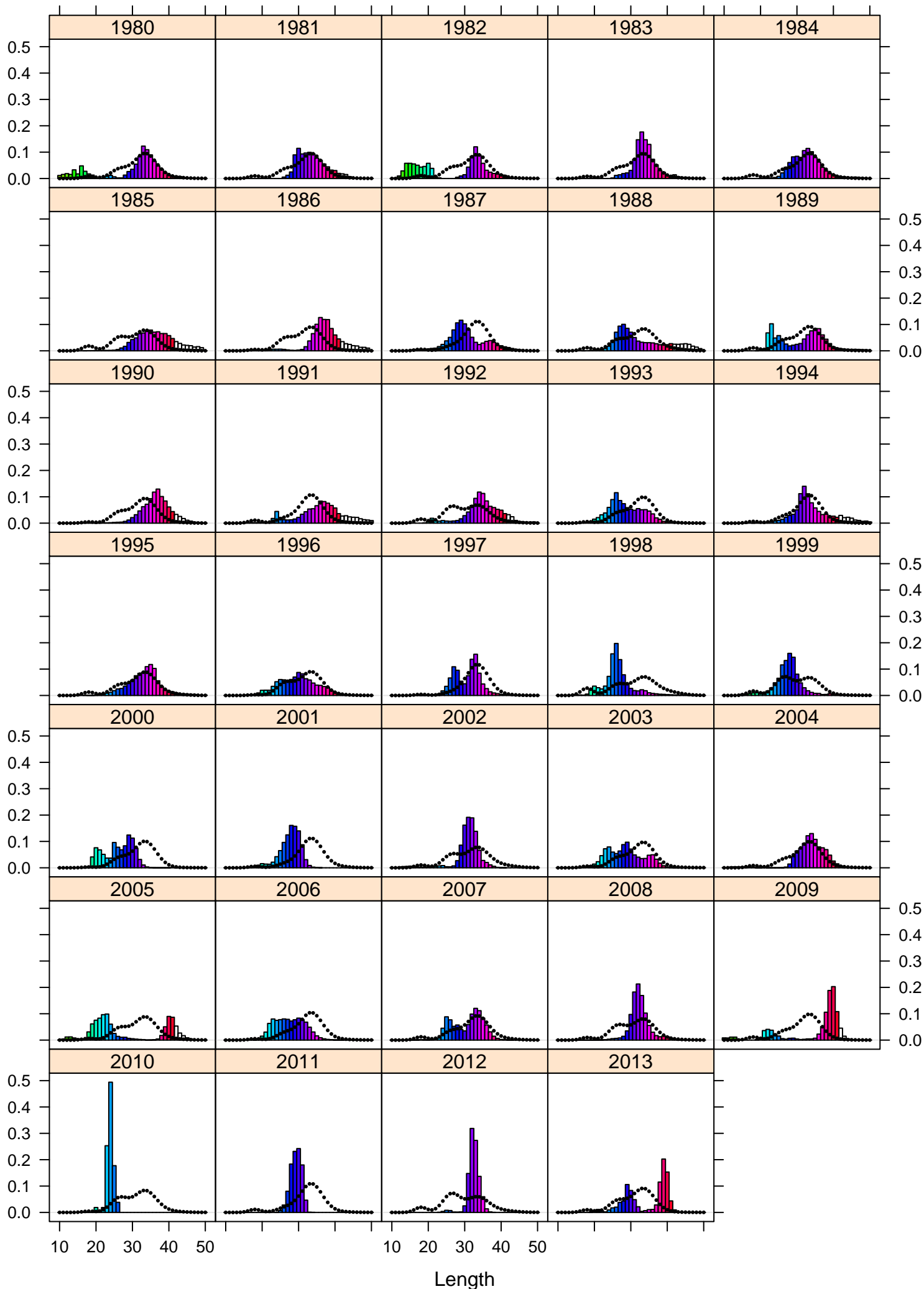
Predicted



10 20 30 40 50

10 20 30 40 50

Proportion at length



Predicted and observed catches by fleet

Observed



Predicted



1970

1980

1990

2000

2010

Offshore_Trawl

SC_Chile_PS

4000

3000

2000

1000

0

FarNorth

N_Chile

4000

3000

2000

1000

0

1970

1980

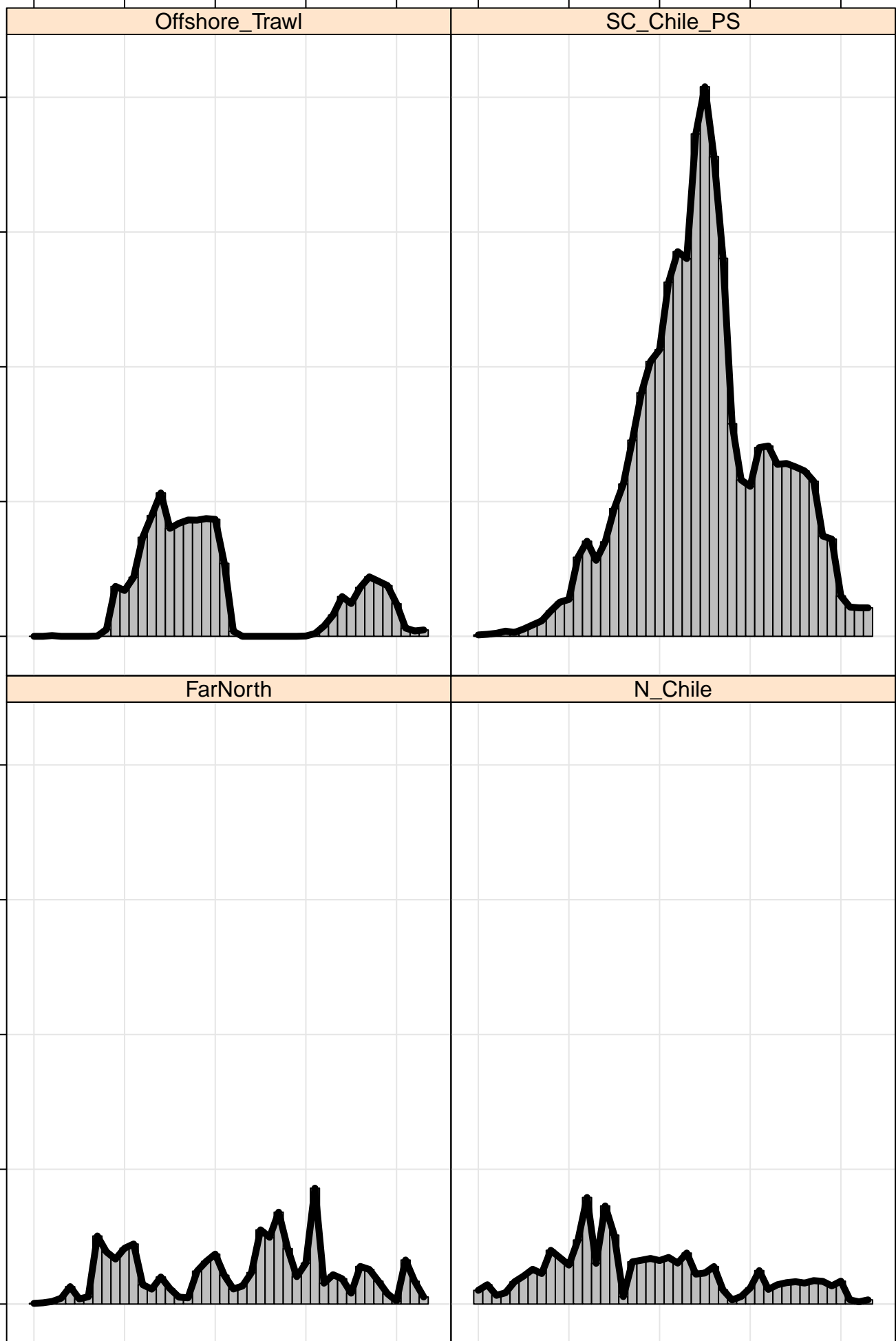
1990

2000

2010

Years

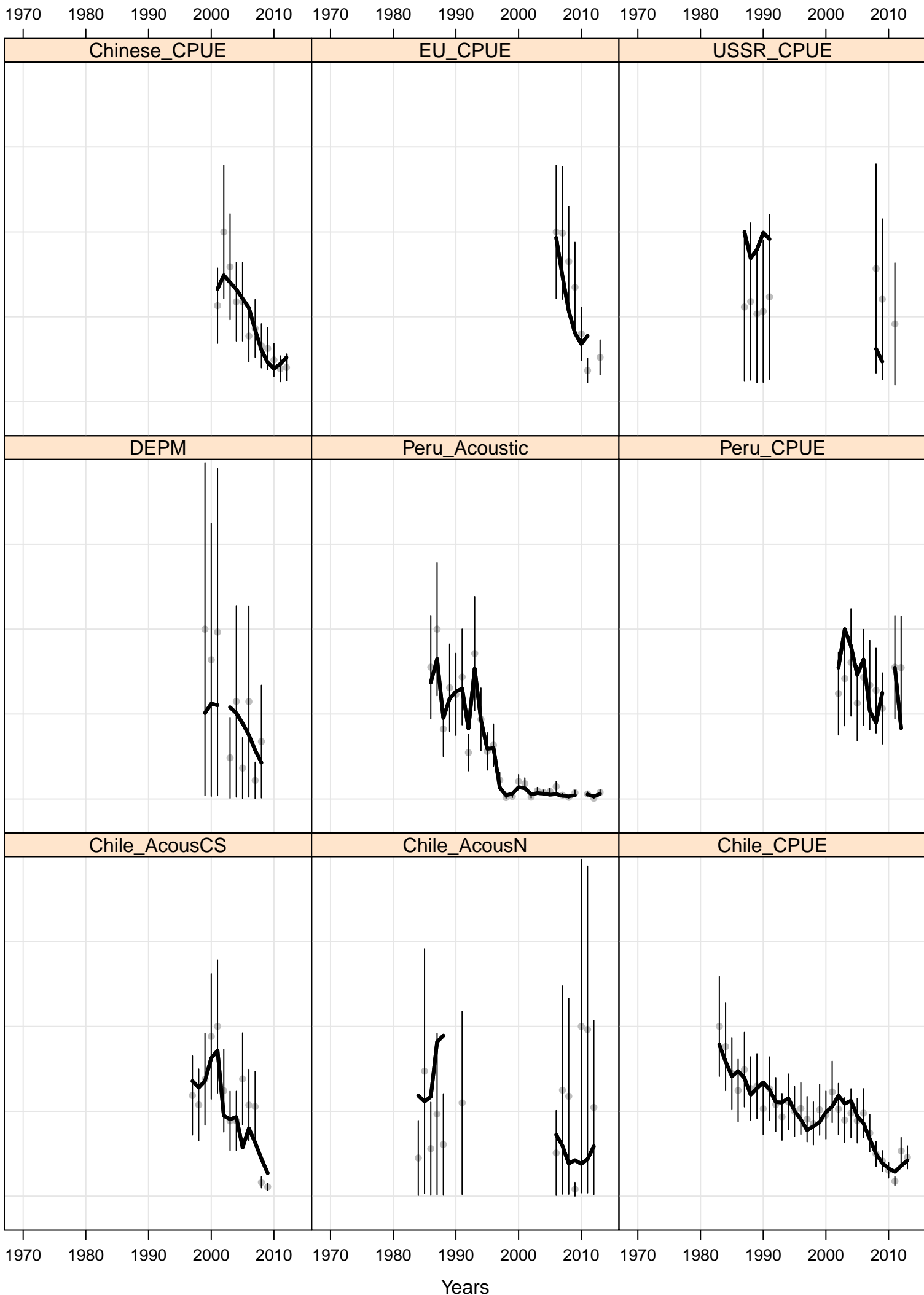
Thousand tonnes



Fit of survey data

Predicted and observed indices

Observed ● Predicted —



Standardized survey residuals

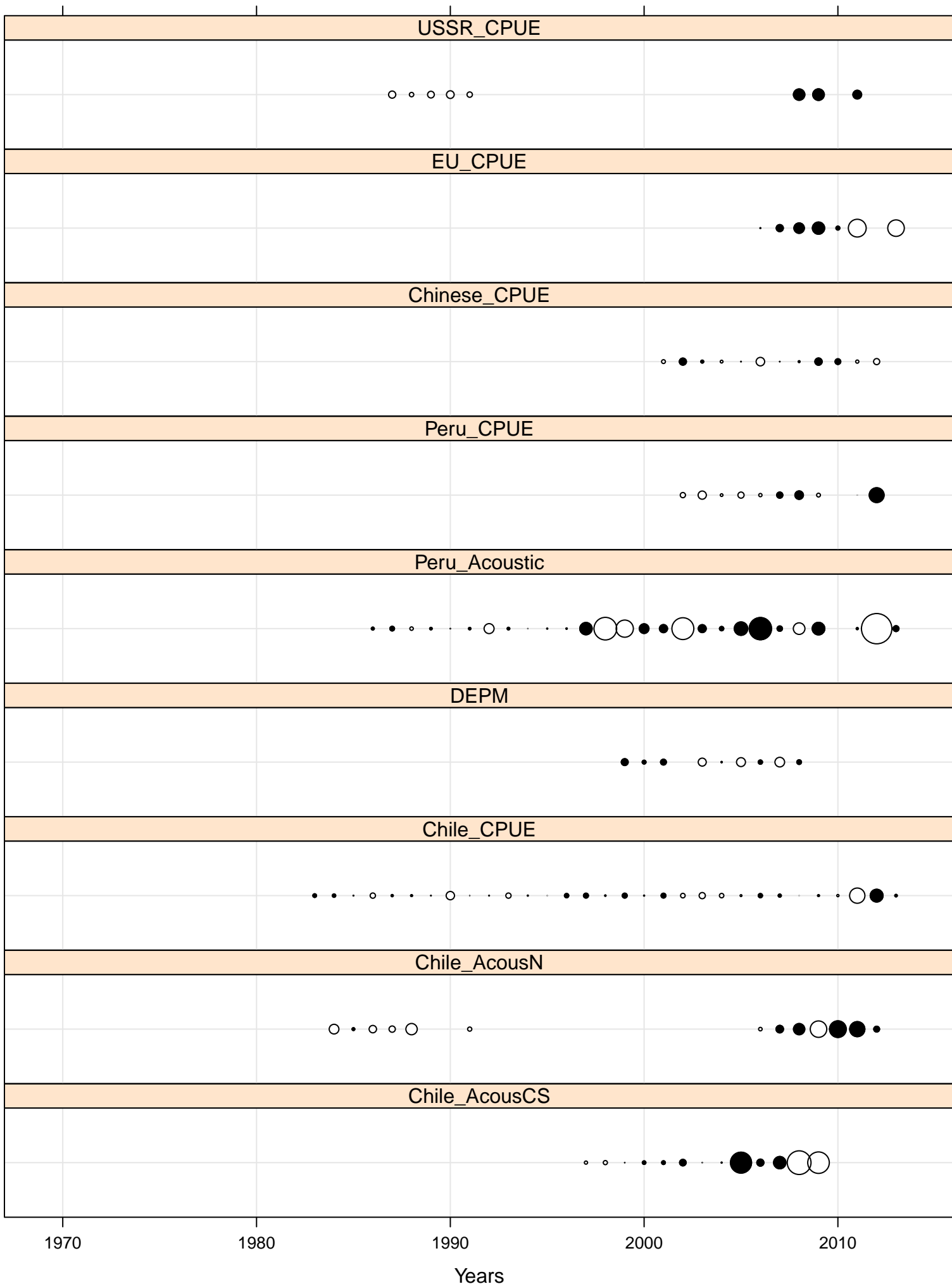
-6.42
-4.2
-1.97



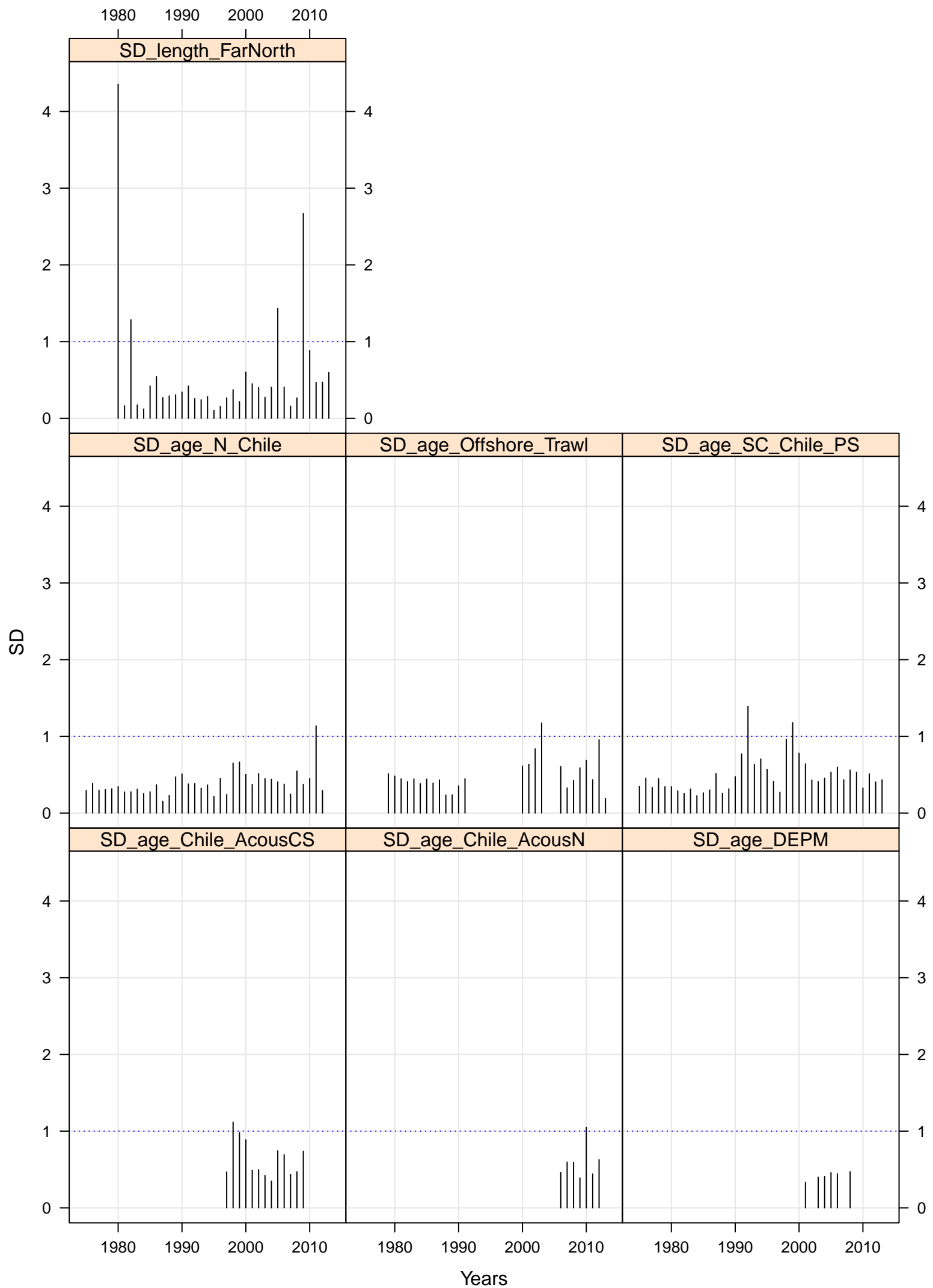
0.25
2.48
4.7



Log residuals

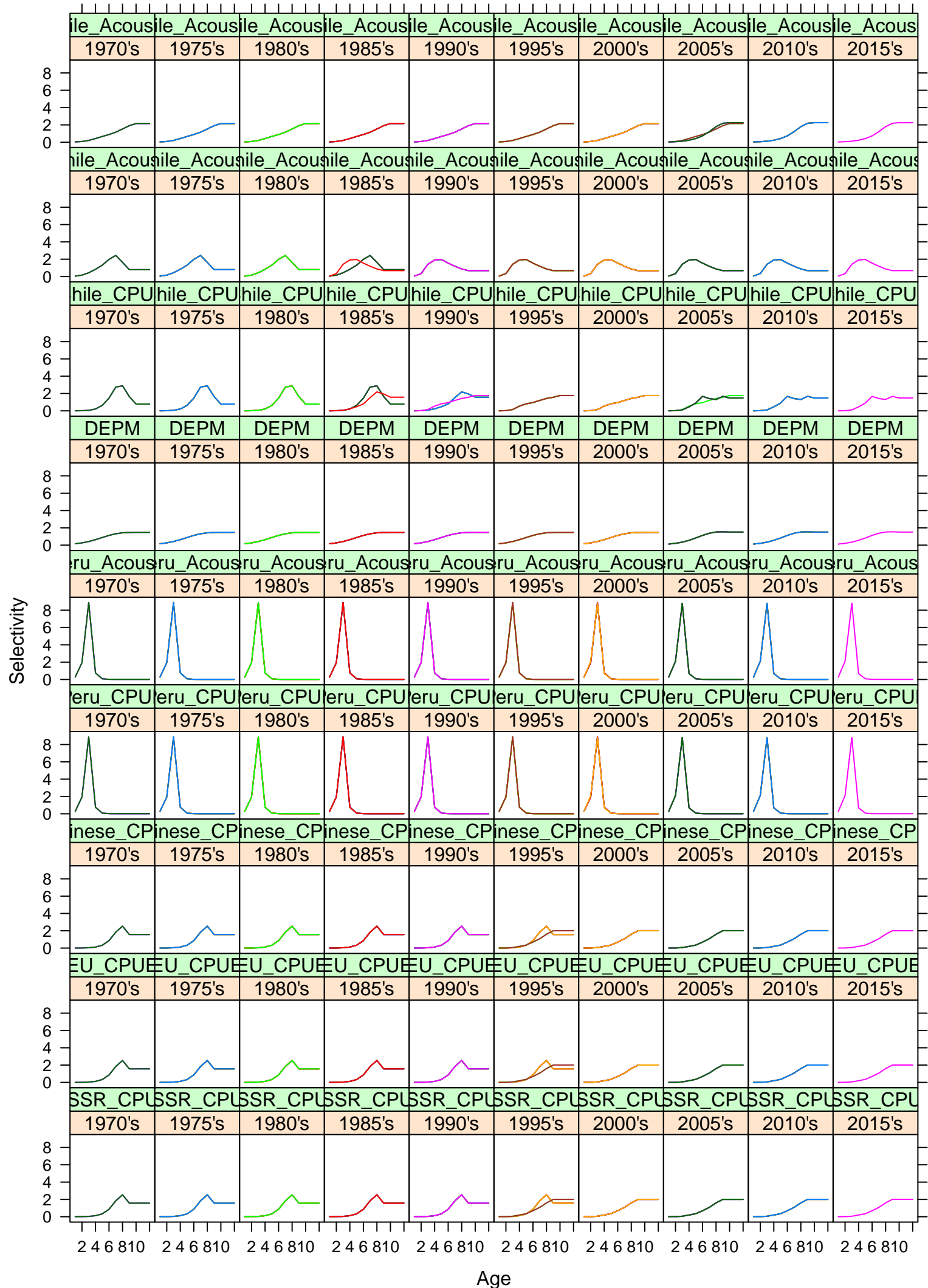


SD per input series

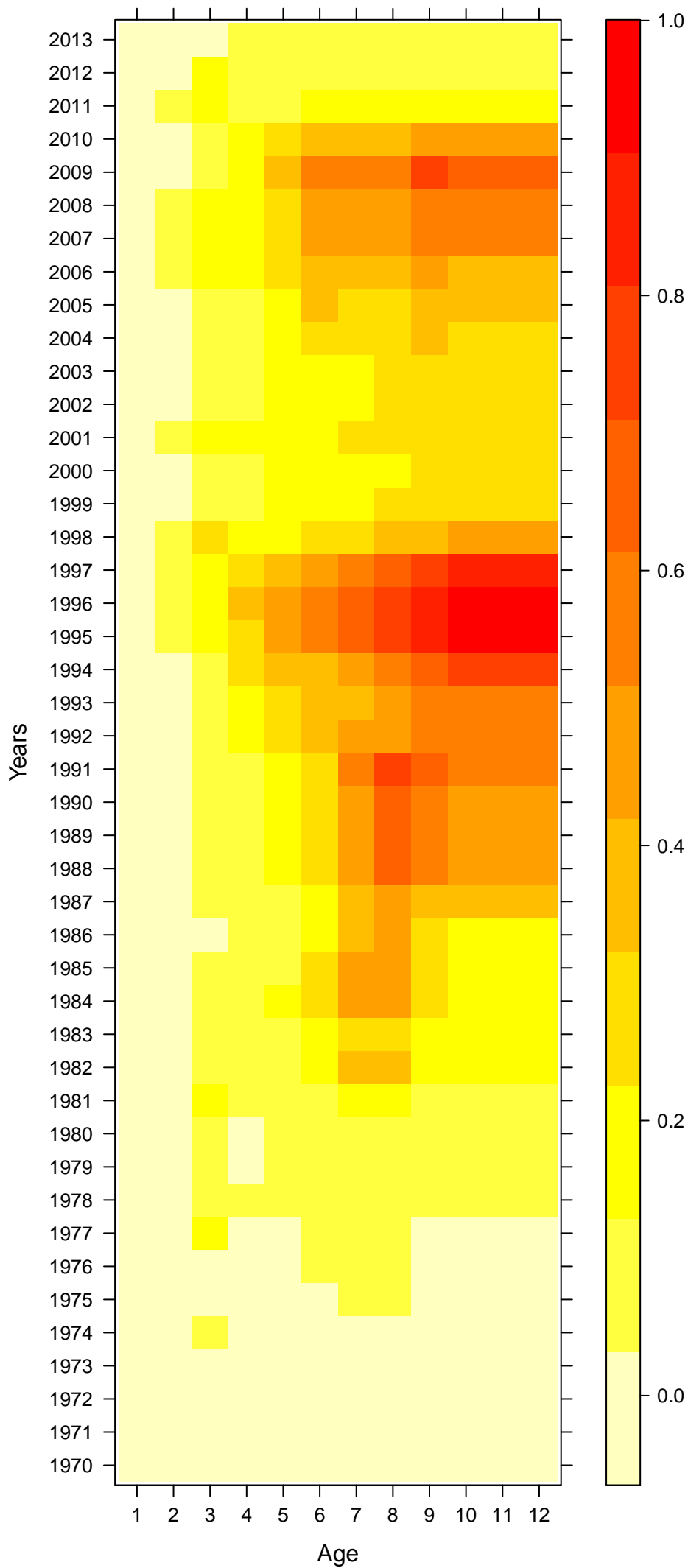


Fleet & Survey sel & F

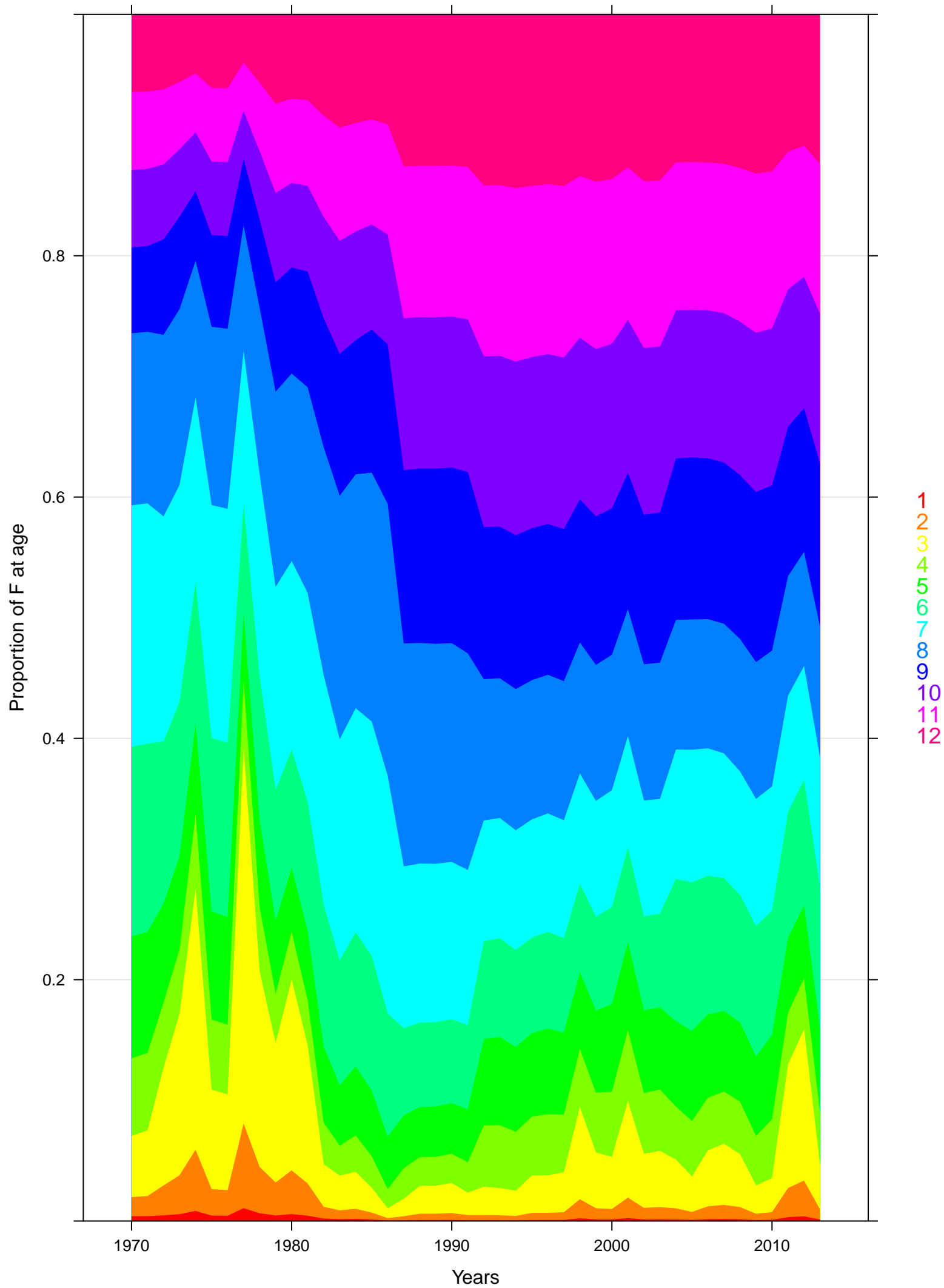
Selectivity of the survey by Pentad



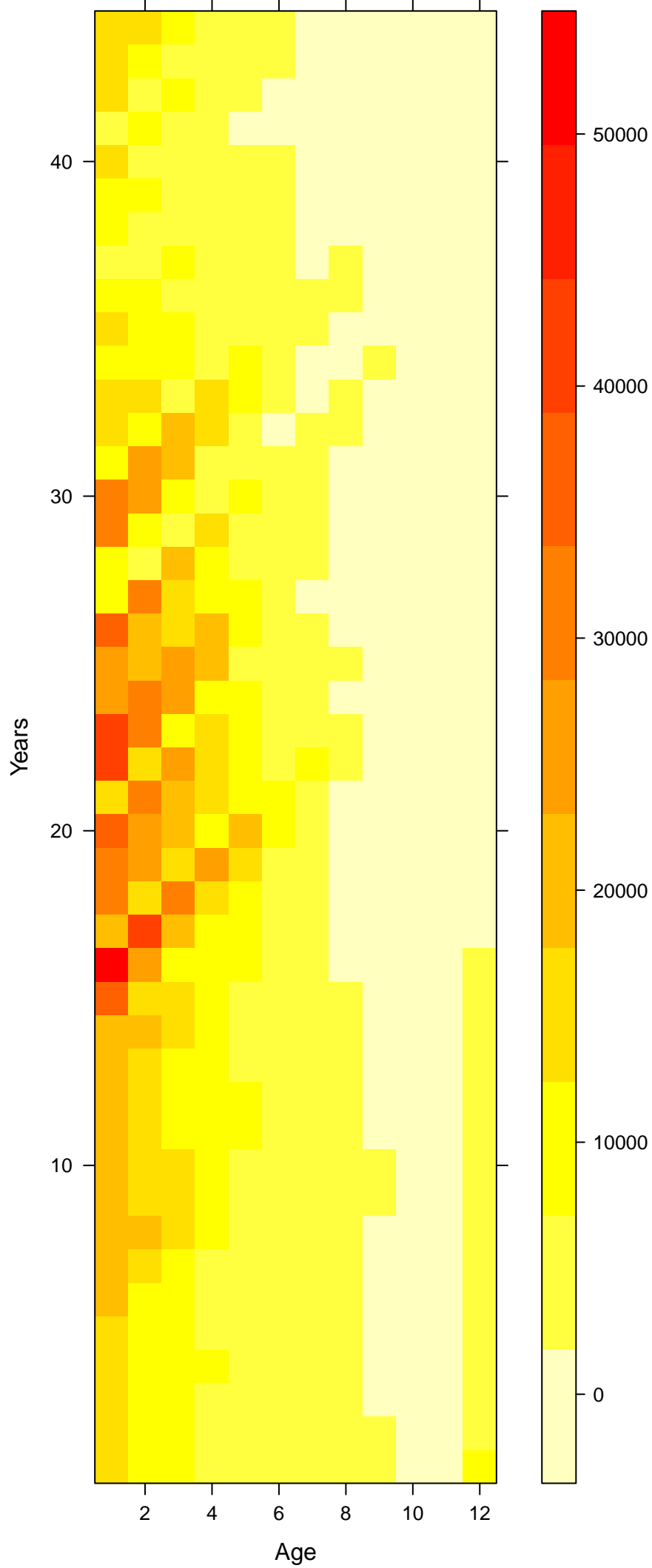
F at age



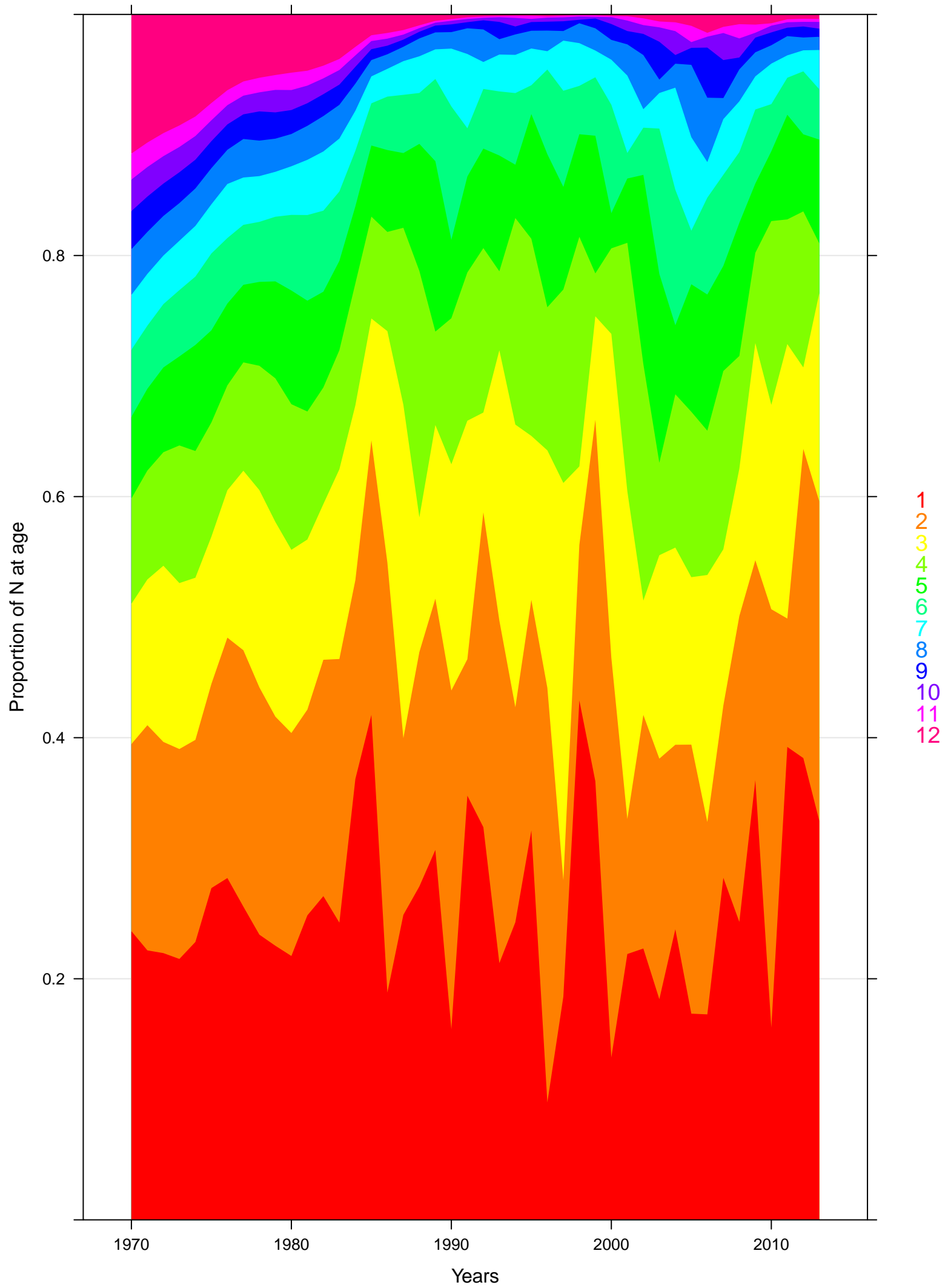
F proportion at age



N at age



Proportion at age



Fishery mean age

Observed



Modelled



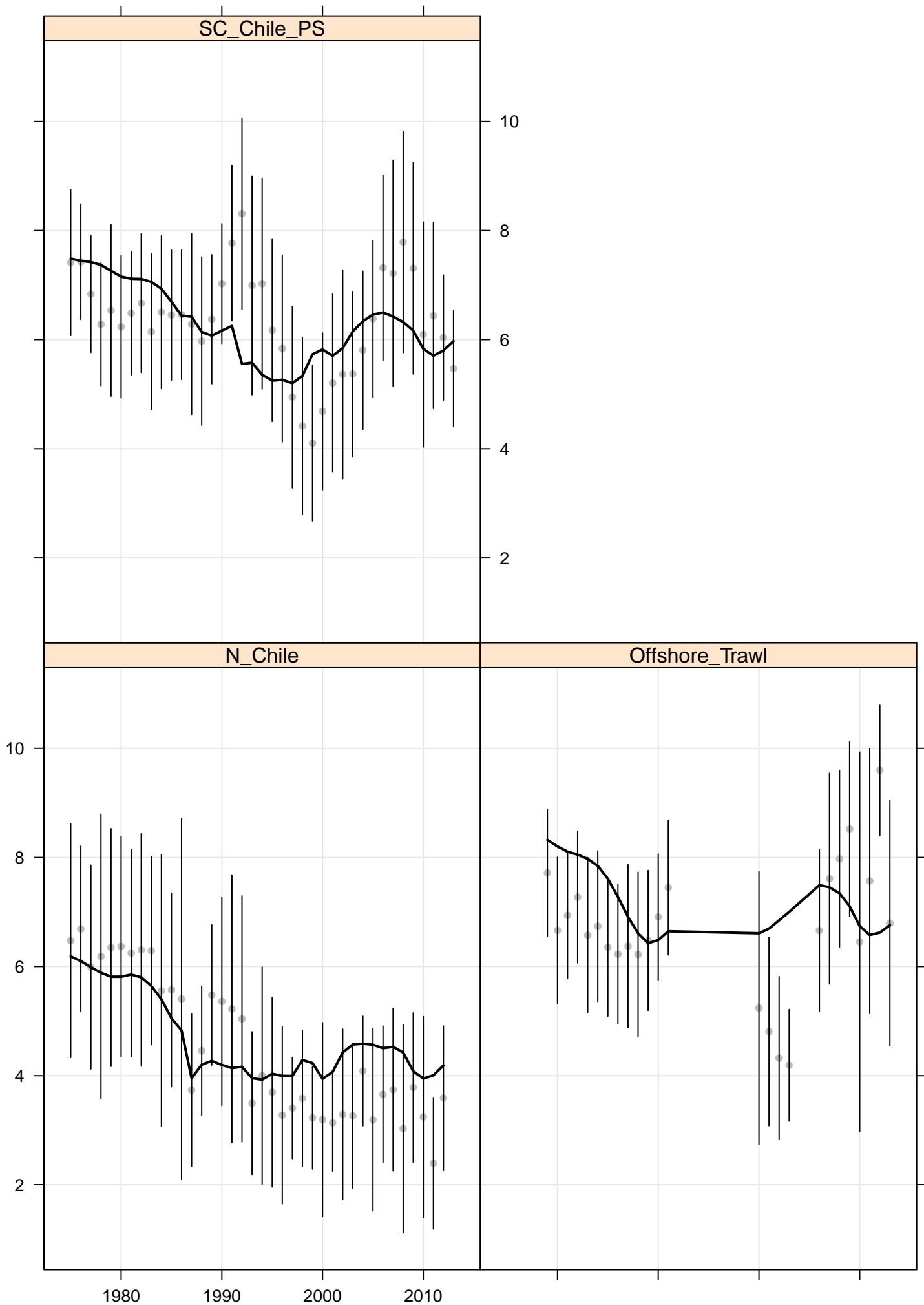
Age

SC_Chile_PS

N_Chile

Offshore_Trawl

Years

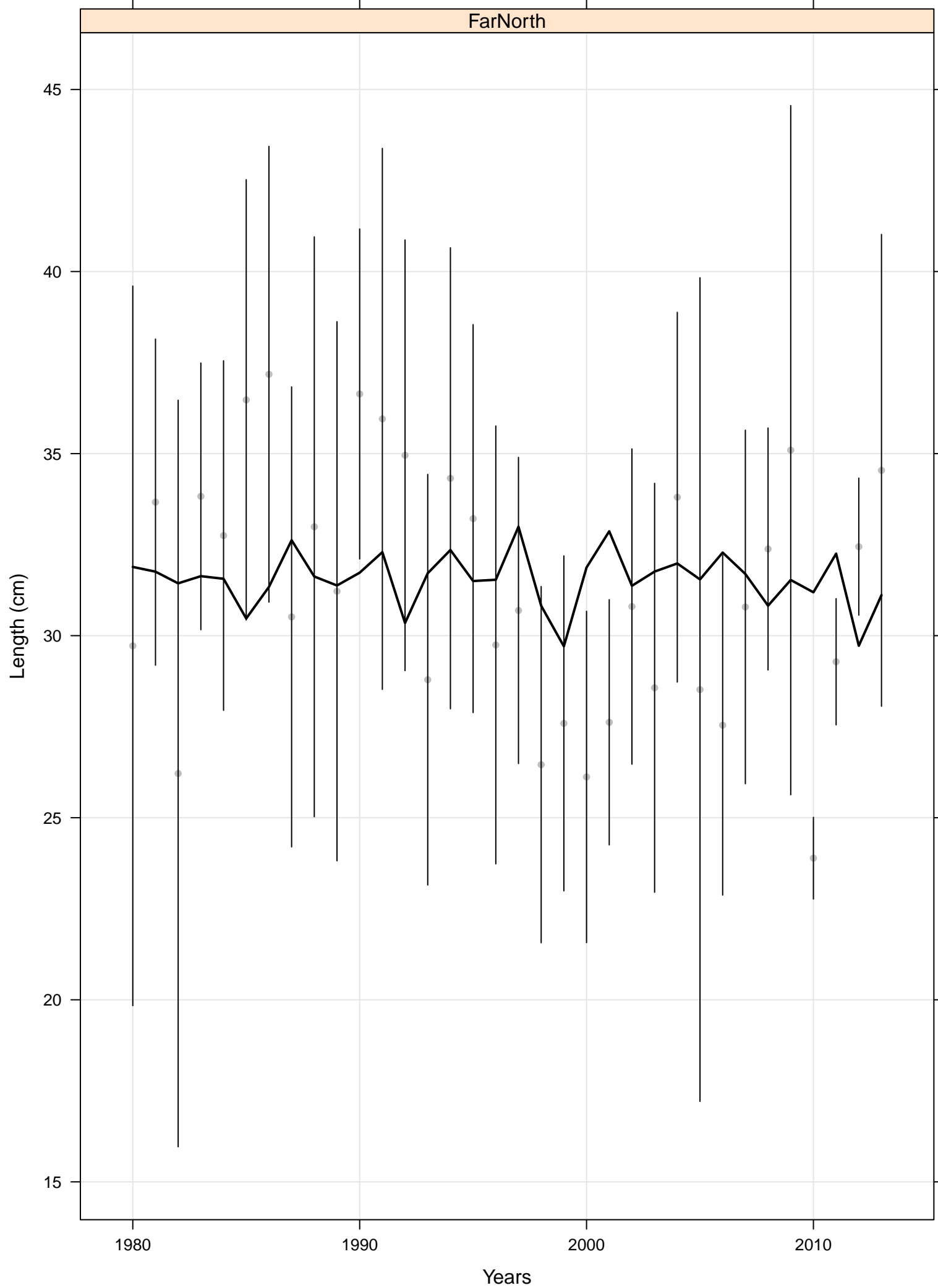


Fishery mean length

Observed



Modelled



Survey mean age

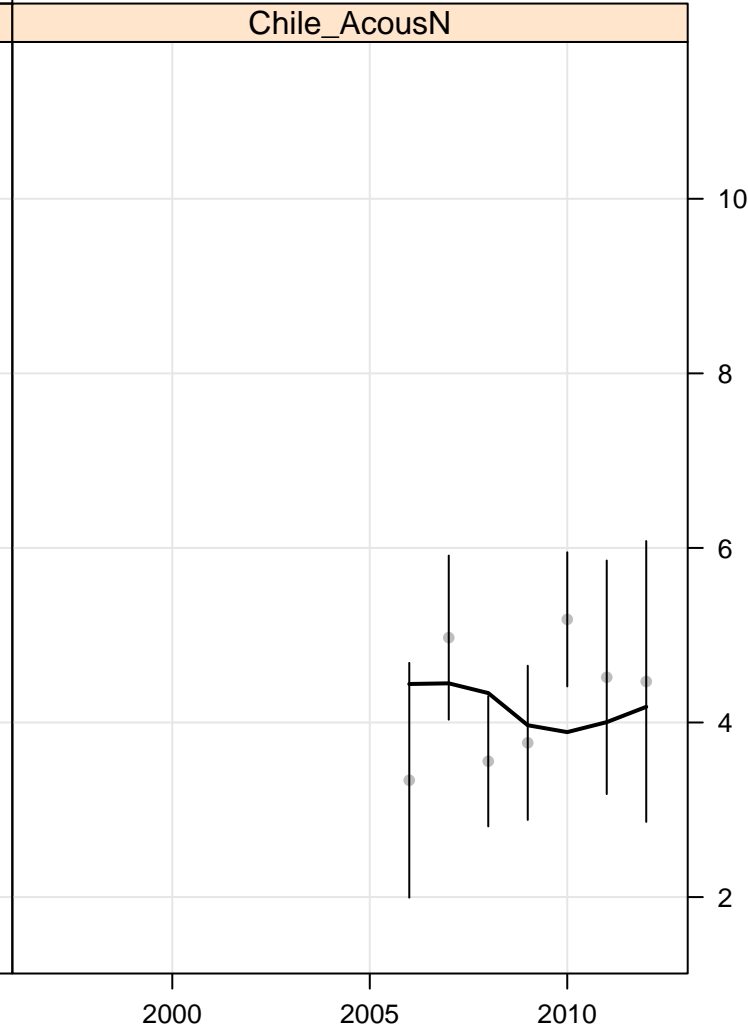
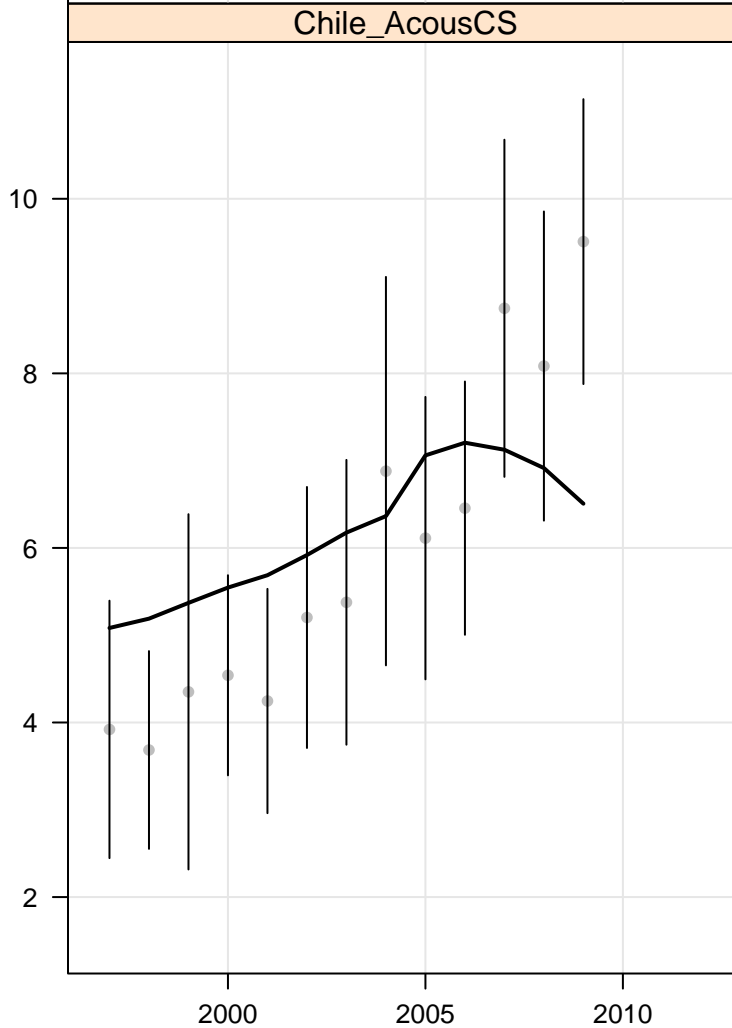
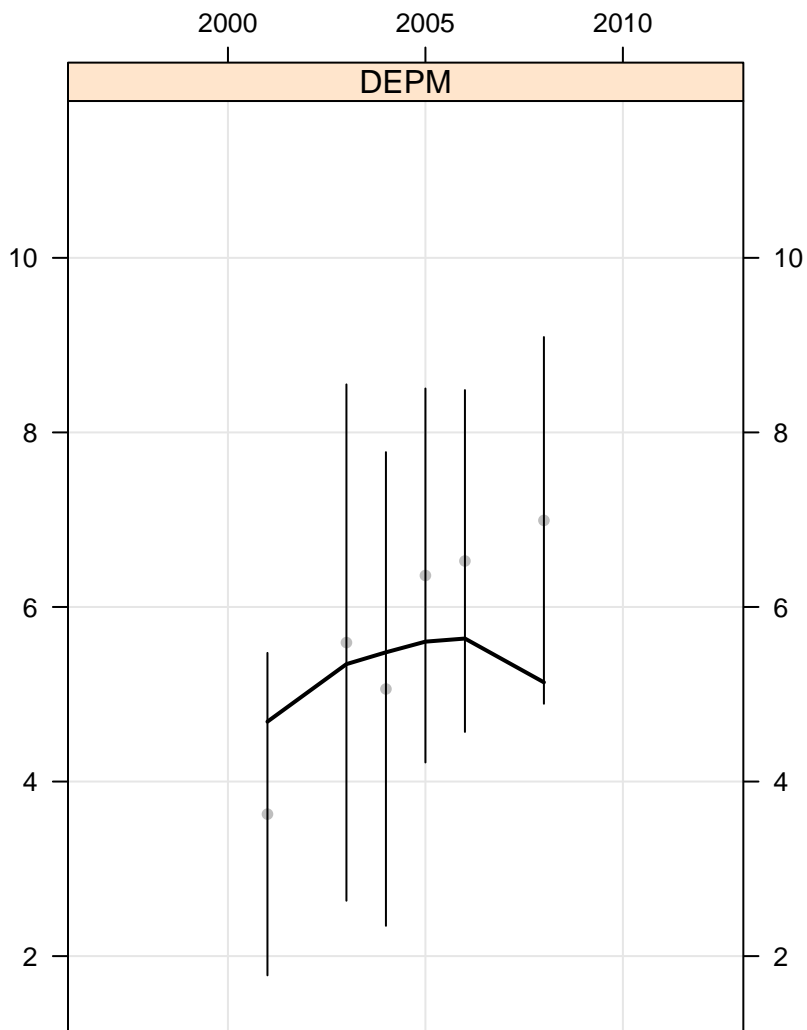
Observed



Modelled



Age

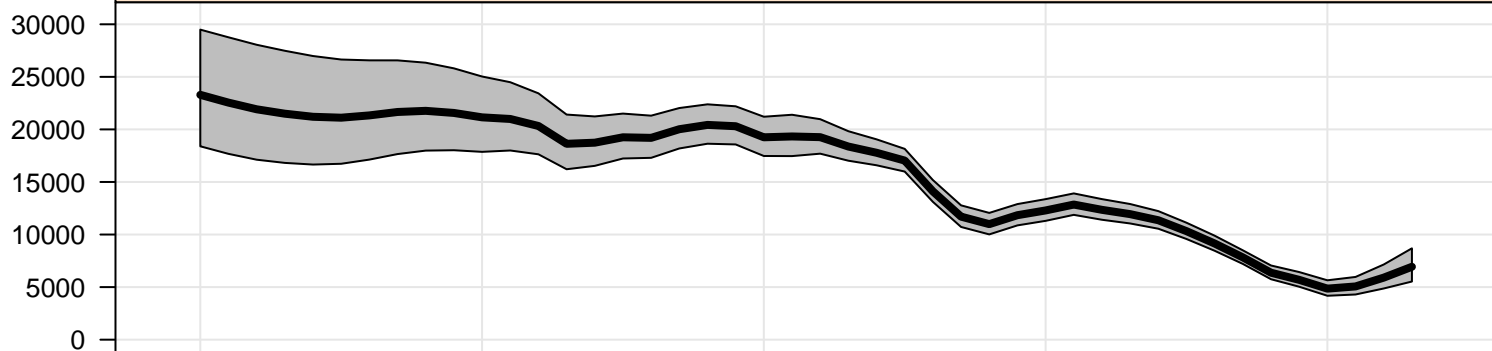


Years

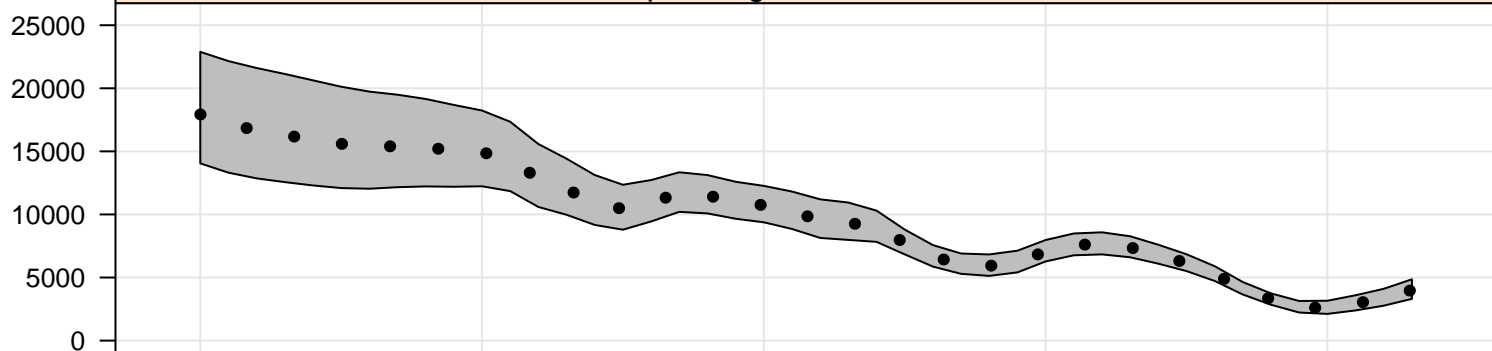
Stock summary

Summary sheet

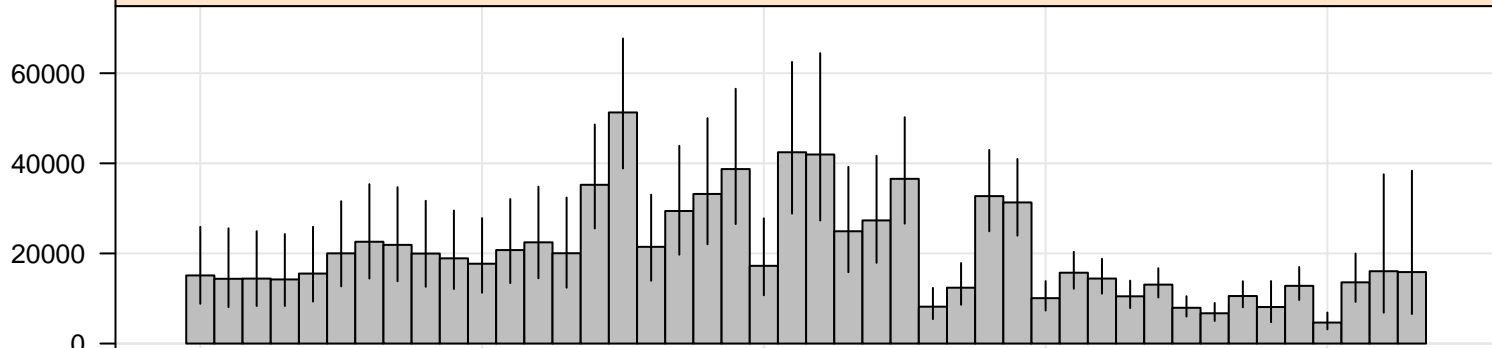
Total biomass



Spawning Stock Biomass



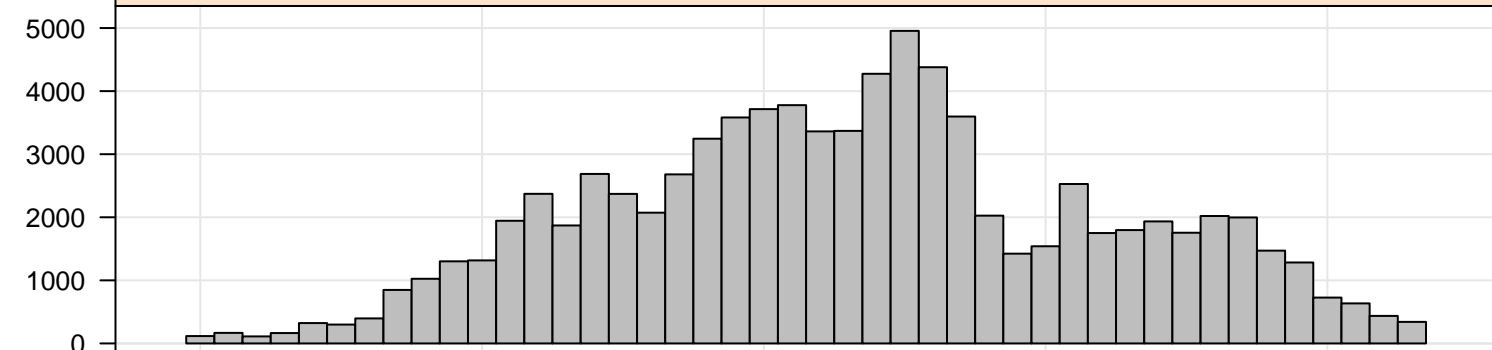
Recruitment



Fishing mortality



Catches



1970

1980

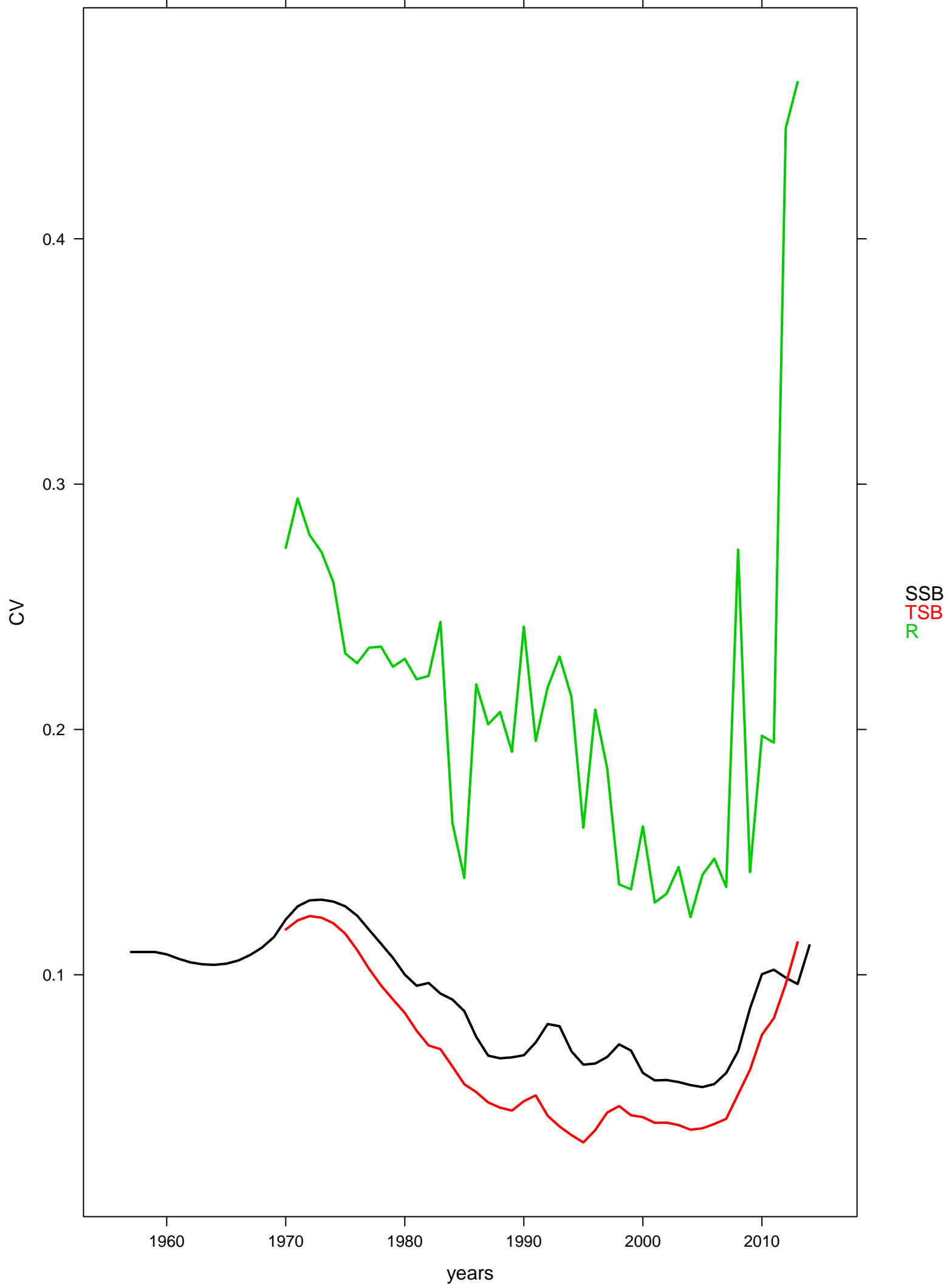
1990

2000

2010

year

Uncertainty of key parameters



Mature – Immature fish

Mature

Immature —

Biomass in kt

20000

15000

10000

5000

1970

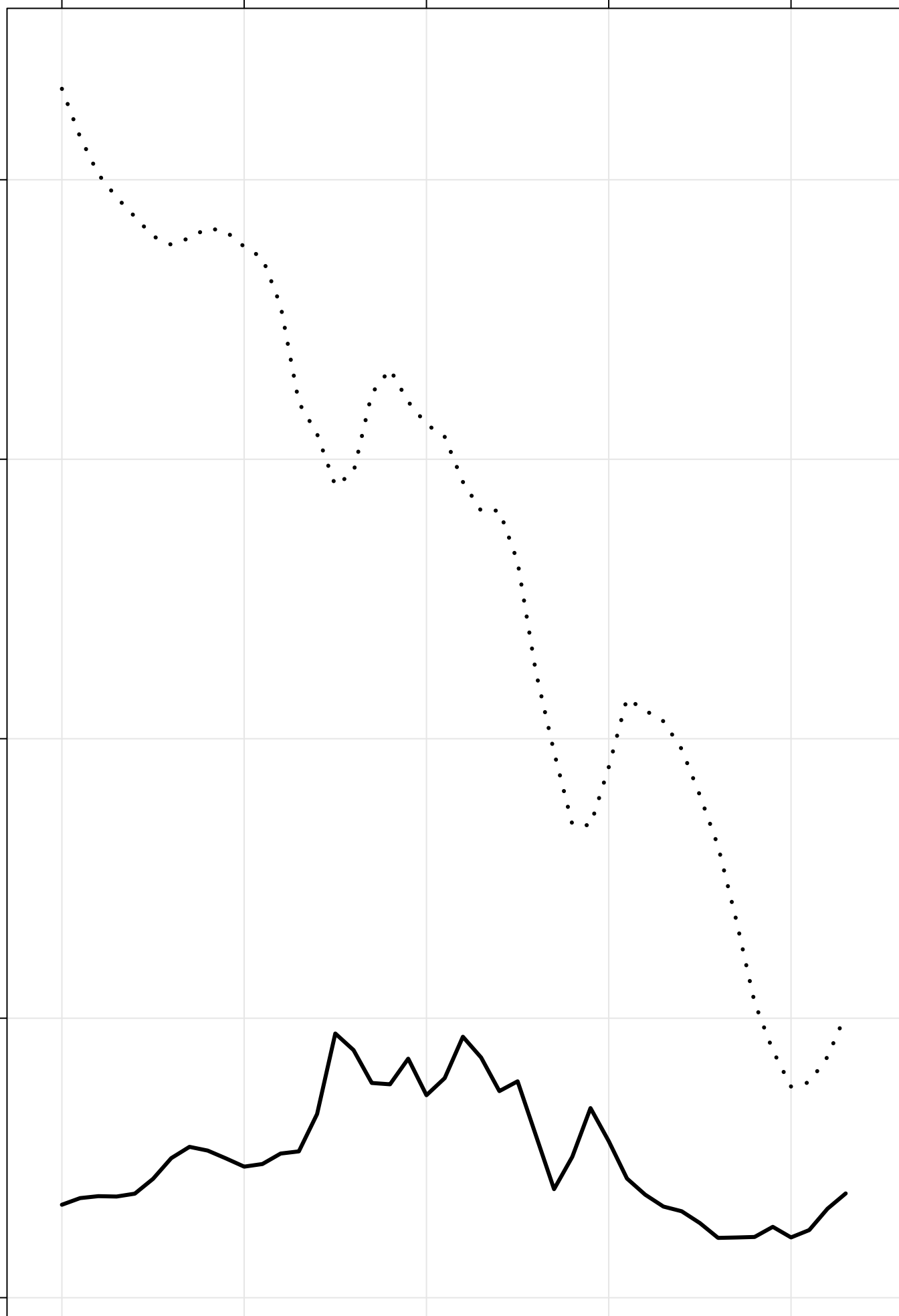
1980

1990

2000

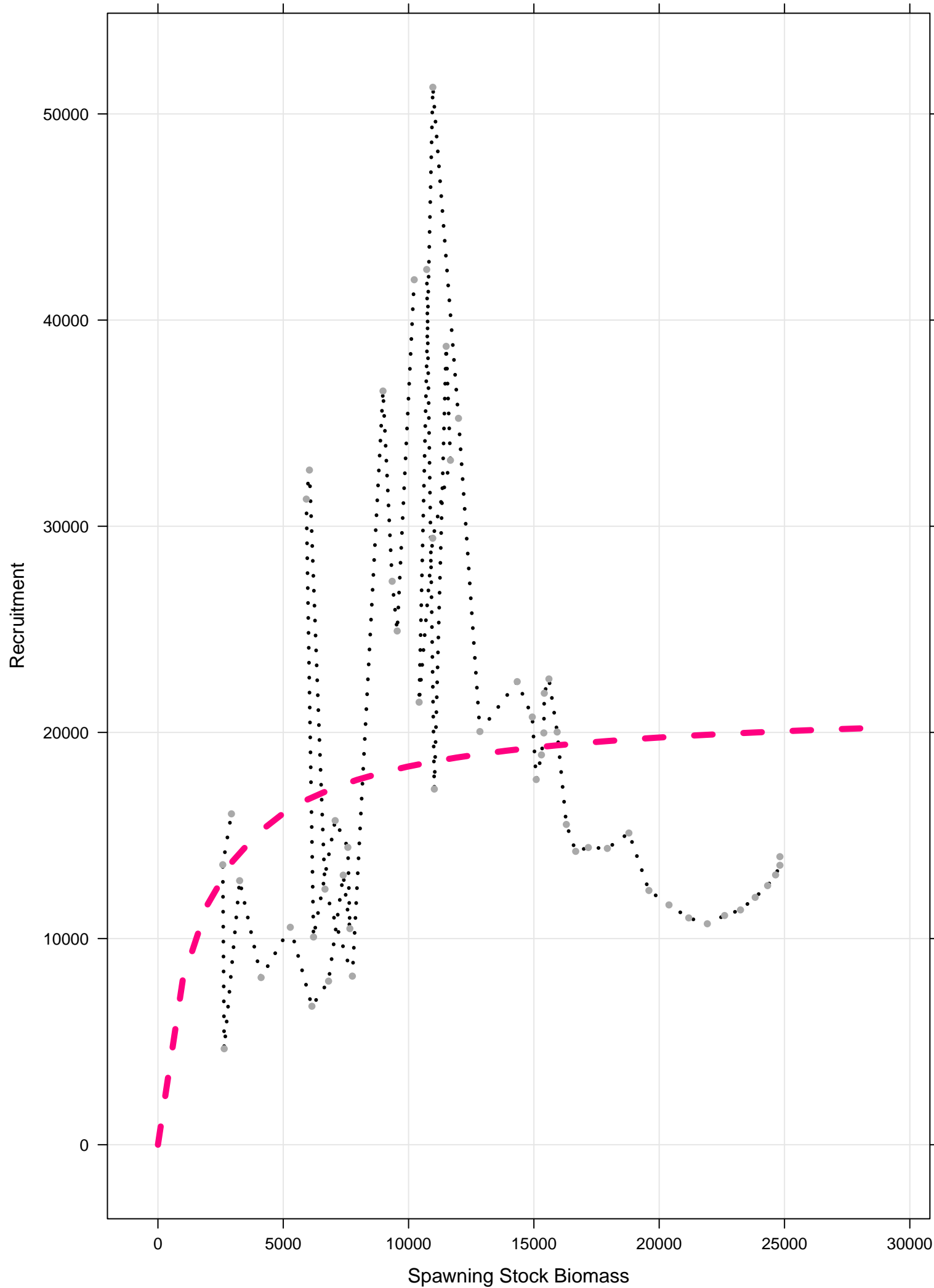
2010

Years



Stock Recruitment

Observed ● Modelled - - -



Fished vs. unfished biomass

Fished



Unfished



Total biomass

50000
40000
30000
20000
10000

1970

1980

1990

2000

2010

Years

