

m1

Model years: 1931-2018

Number of stocks: 1

Number of regions: 1

Number of fleets: 1

Fleet Age Comp Models: Multinomial

Number of indices: 4

Index Age Comp Models: Multinomial, Multinomial, Multinomial, Multinomial

Recruitment model for each stock: Random about mean

No Environmental covariates.

Number of Selectivity blocks: 7

tivity Block Types: Age-specific, Age-specific, Age-specific, Age-specific, Age-specific, Age-specific, Age-specific

Fleet 1 Selectivity Blocks: c(1, 2, 3)

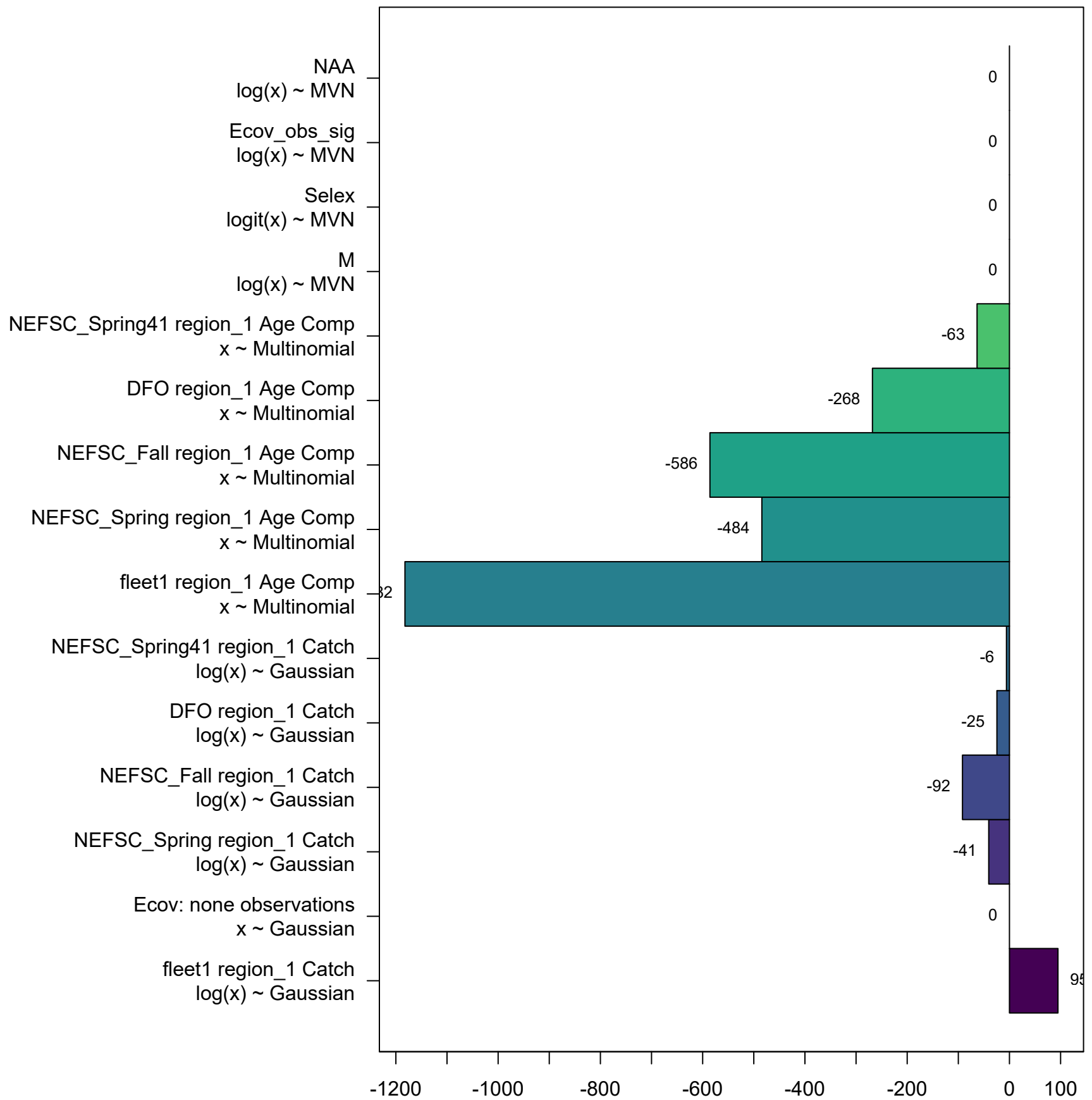
Index 1 Selectivity Blocks: 4

Index 2 Selectivity Blocks: 5

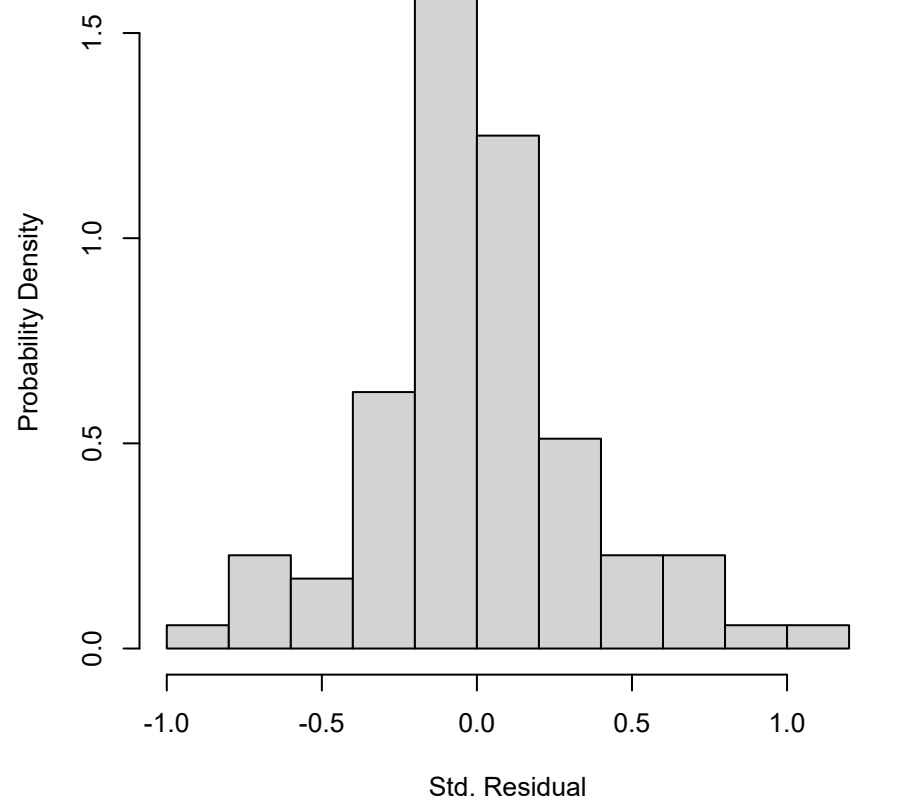
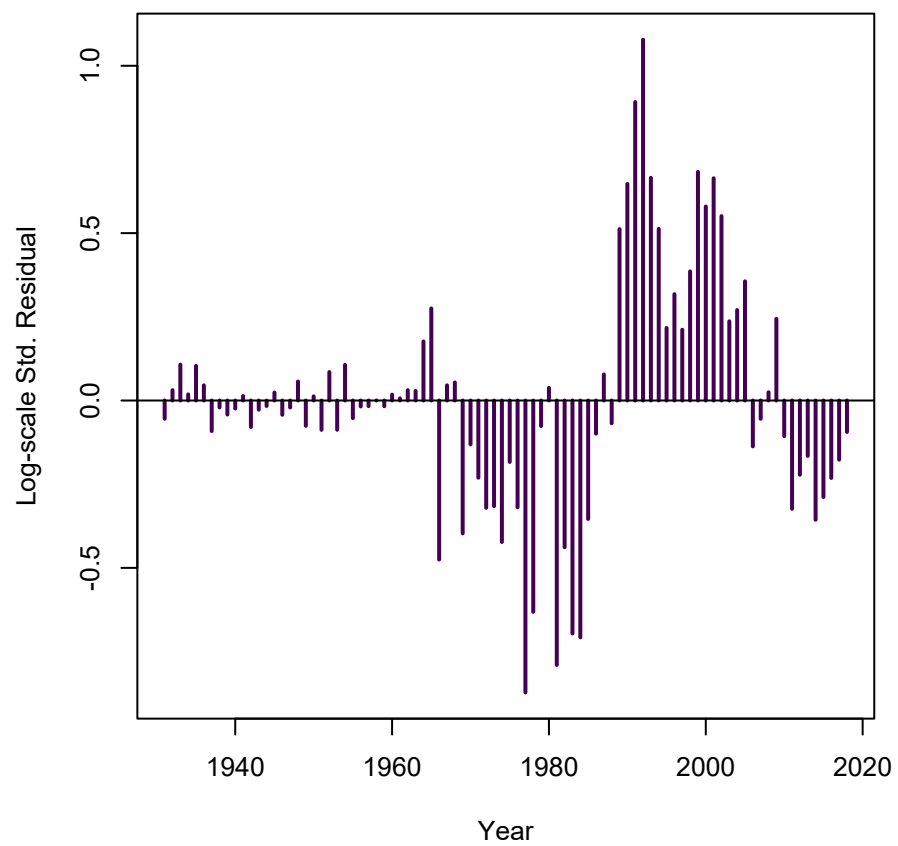
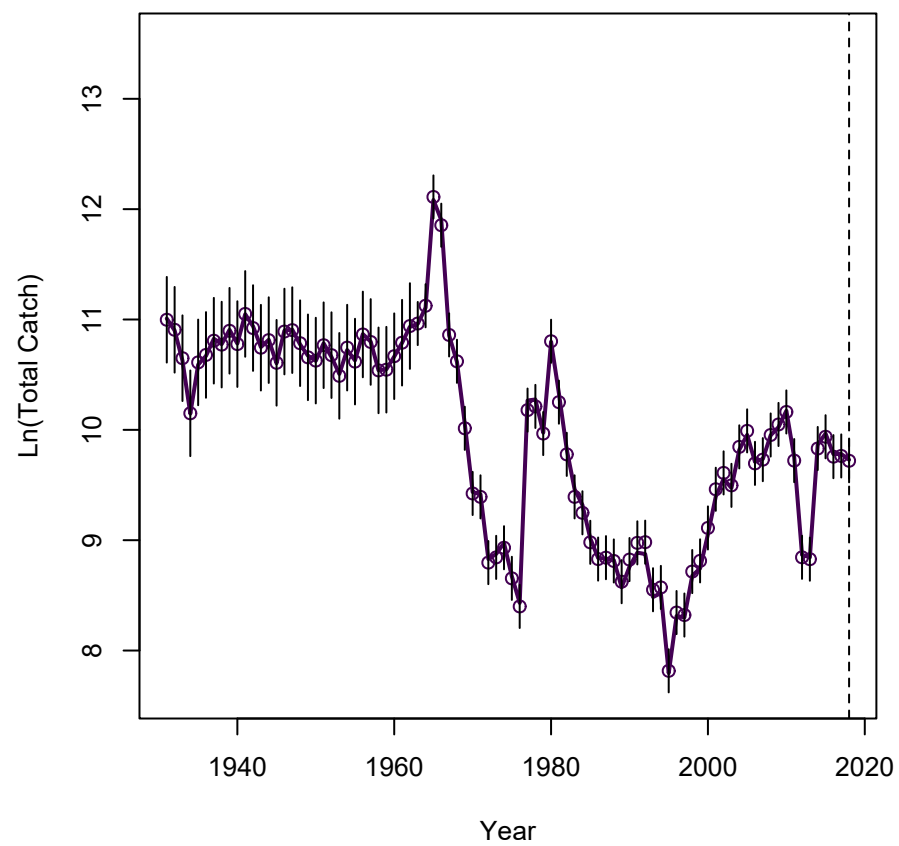
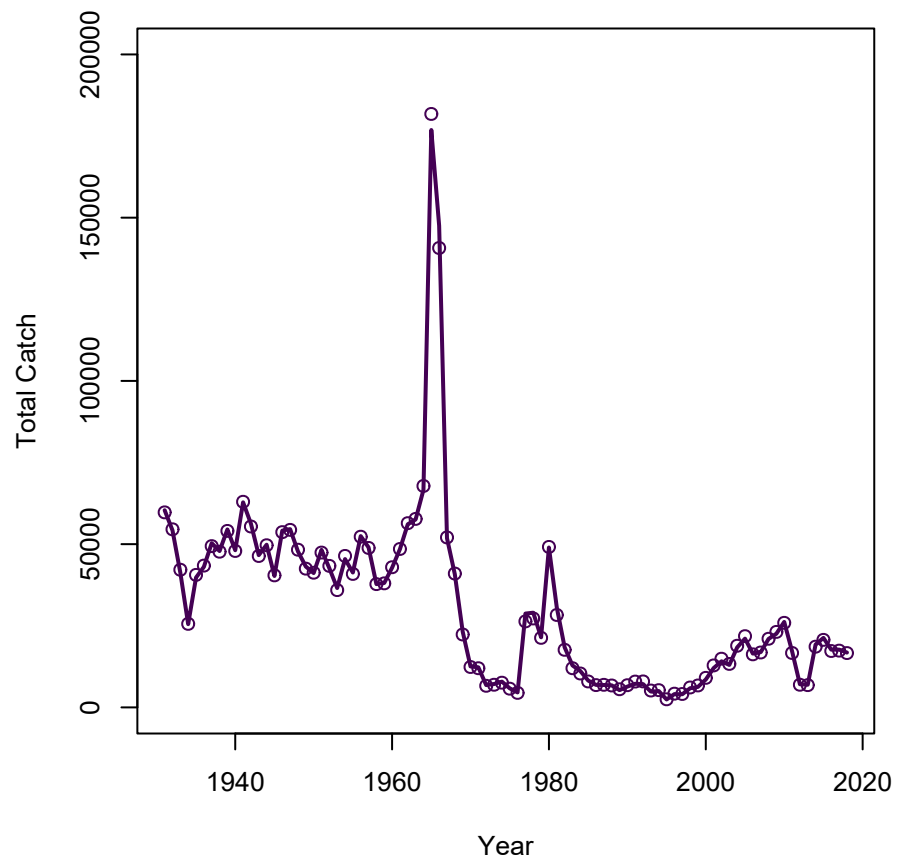
Index 3 Selectivity Blocks: 6

Index 4 Selectivity Blocks: 7

Run date: 2025-10-20 14:38:06 JST



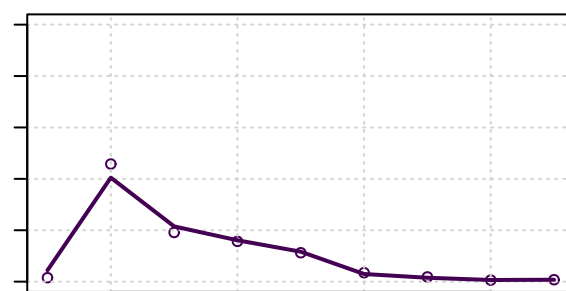
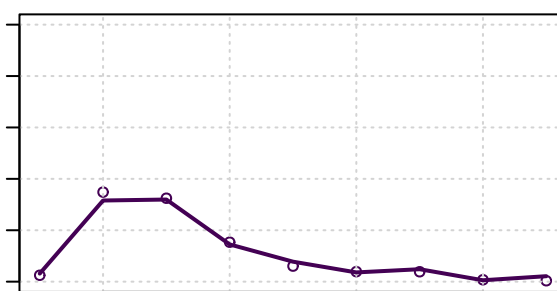
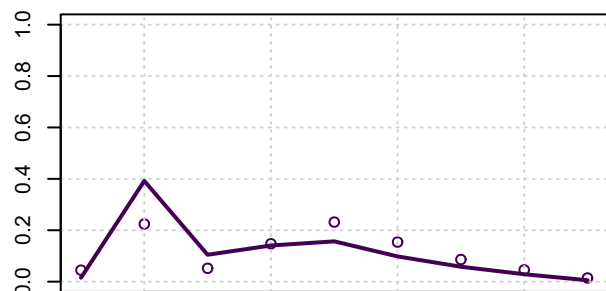
**fleet1 in region\_1**



fleet1 in region\_1  
Year = 1936

Year = 1931

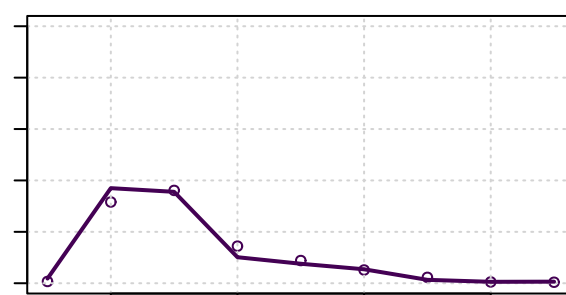
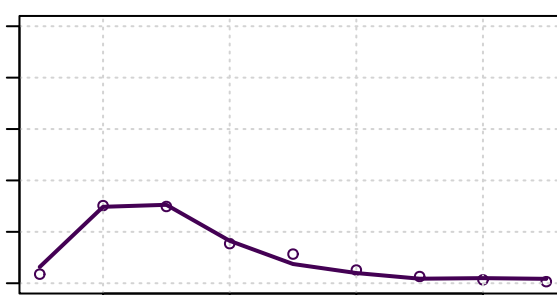
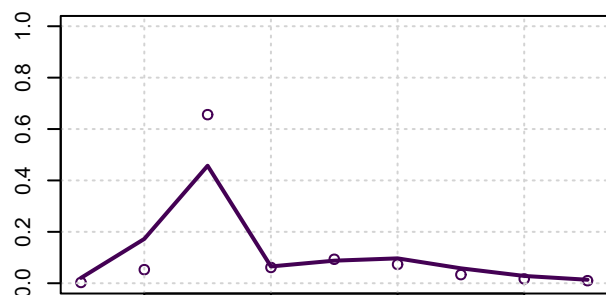
Year = 1941



Year = 1932

Year = 1937

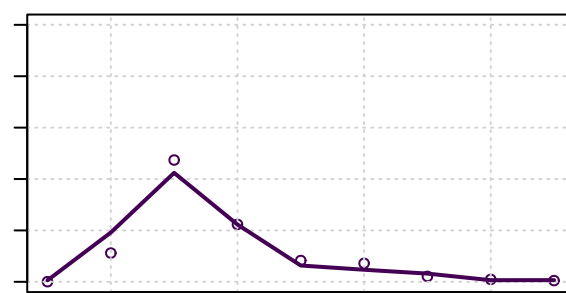
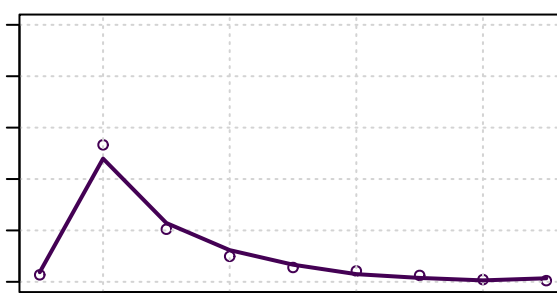
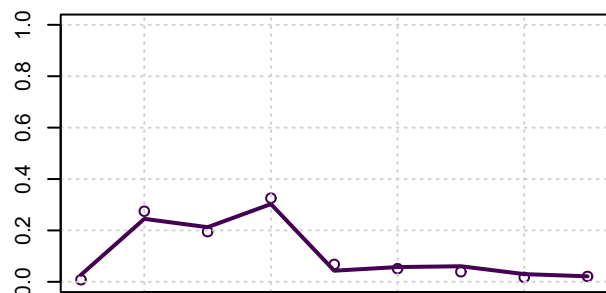
Year = 1942



Year = 1933

Year = 1938

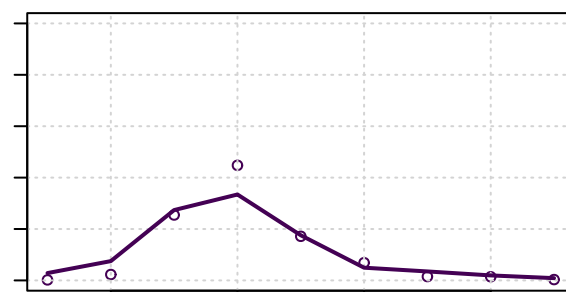
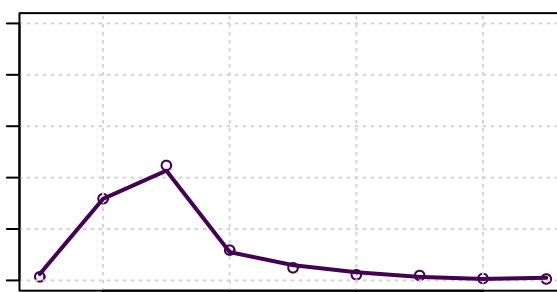
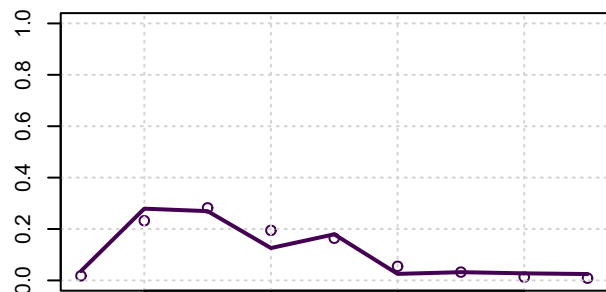
Year = 1943



Year = 1934

Year = 1939

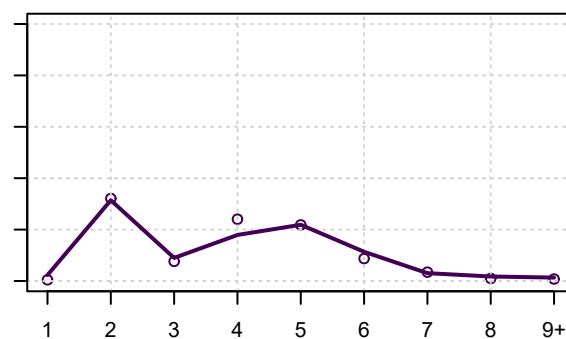
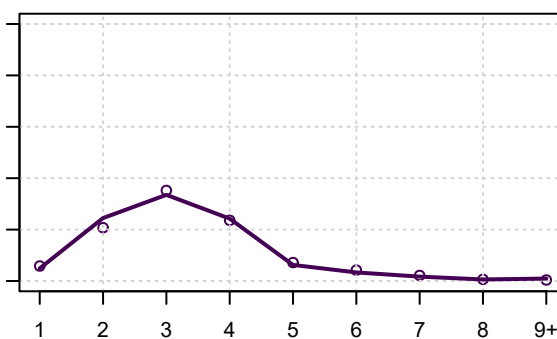
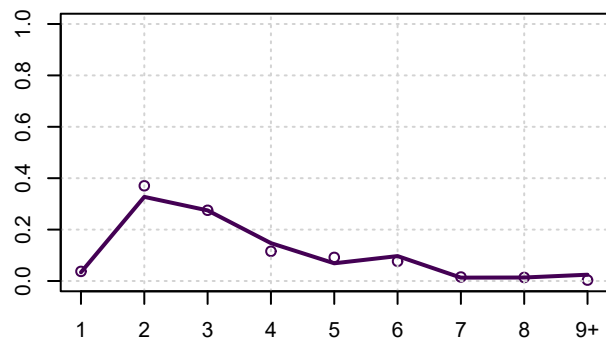
Year = 1944



Year = 1935

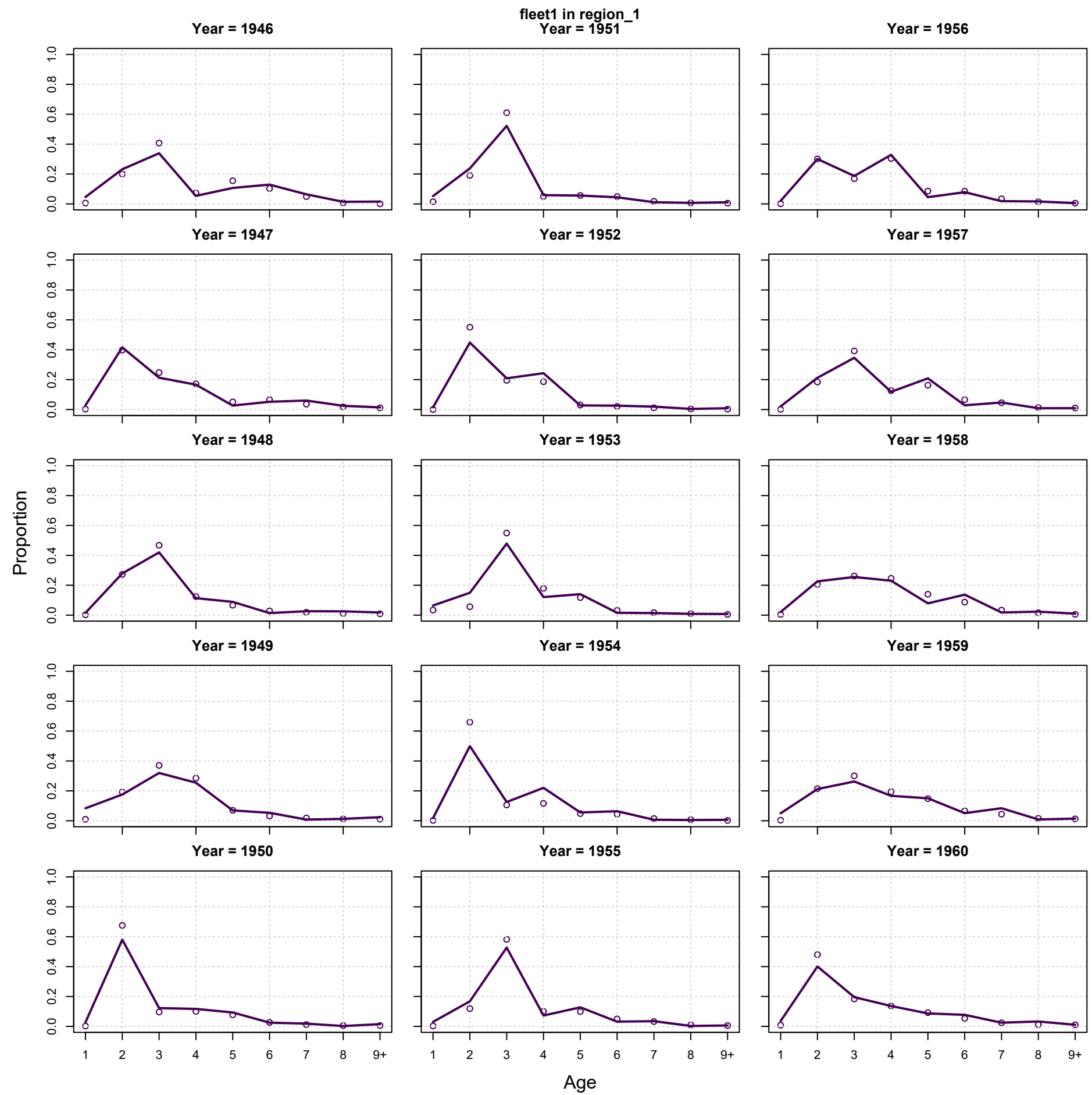
Year = 1940

Year = 1945



Age

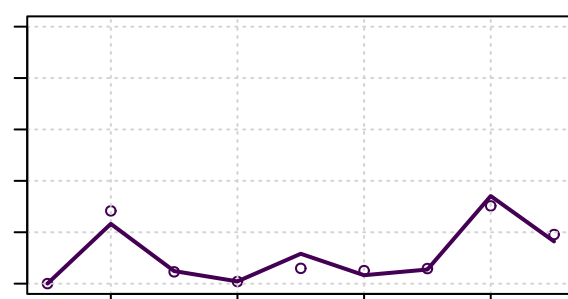
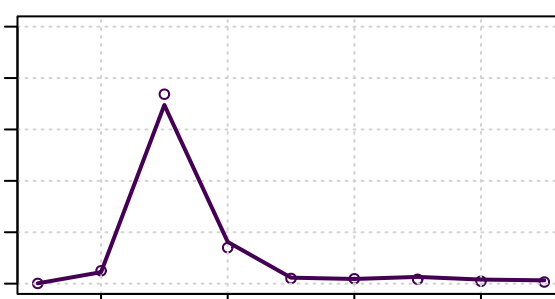
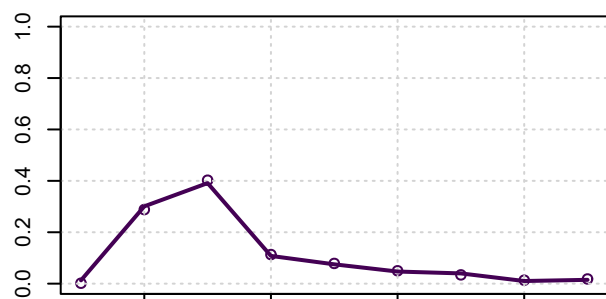
Proportion



fleet1 in region\_1  
Year = 1966

Year = 1961

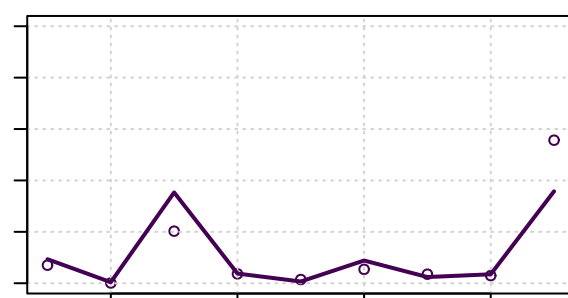
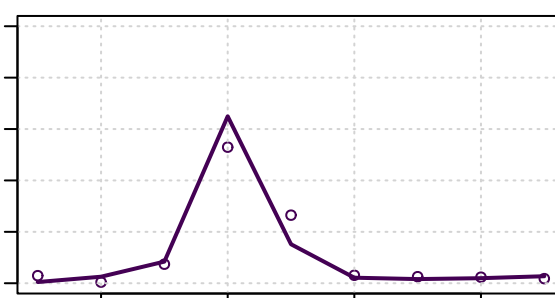
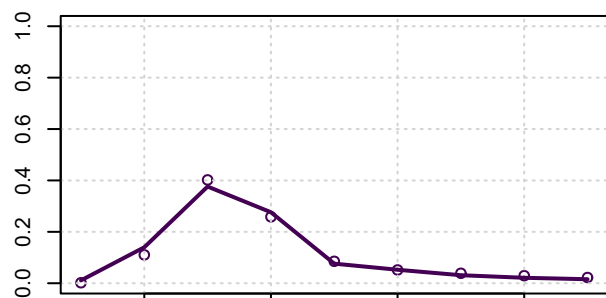
Year = 1971



Year = 1962

Year = 1967

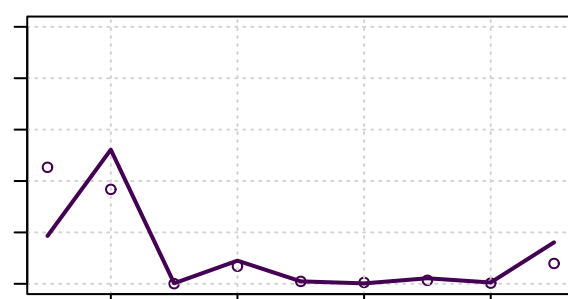
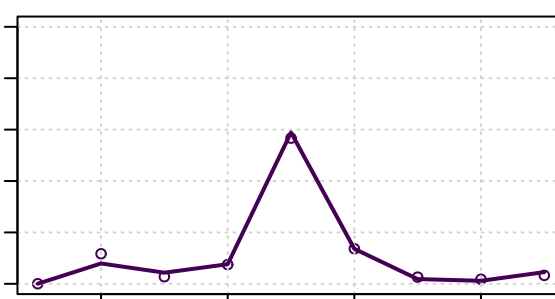
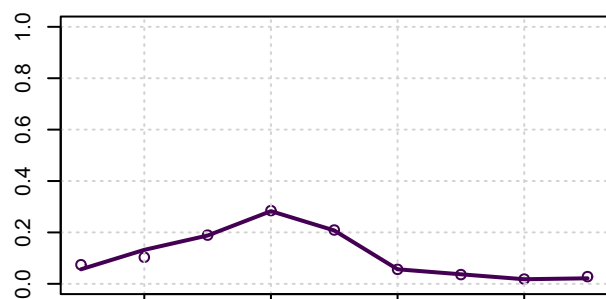
Year = 1972



Year = 1963

Year = 1968

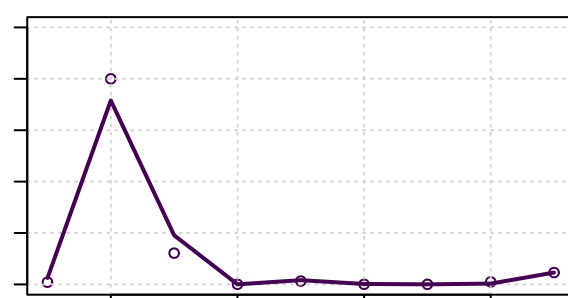
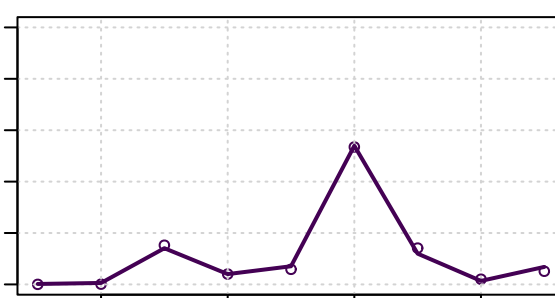
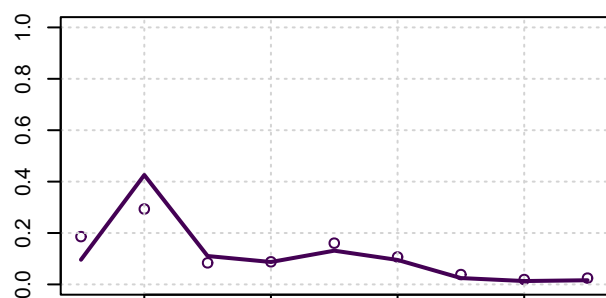
Year = 1973



Year = 1964

Year = 1969

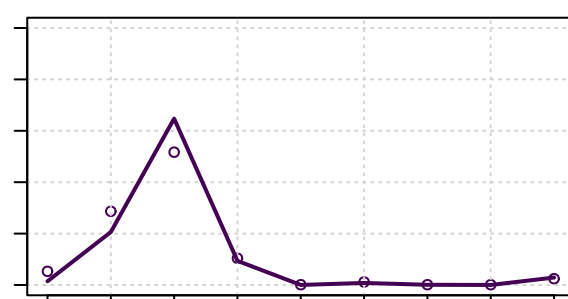
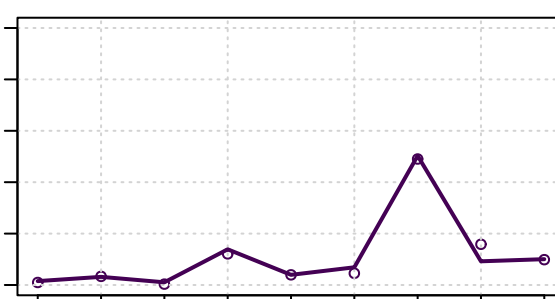
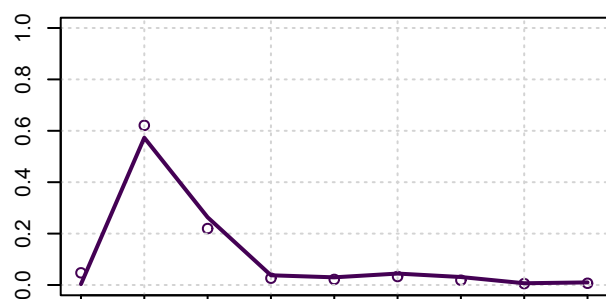
Year = 1974



Year = 1965

Year = 1970

Year = 1975



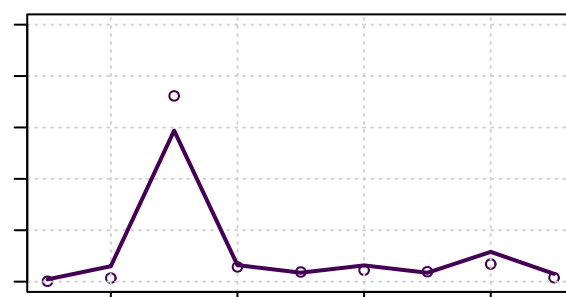
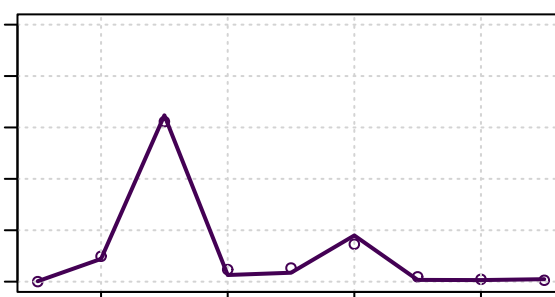
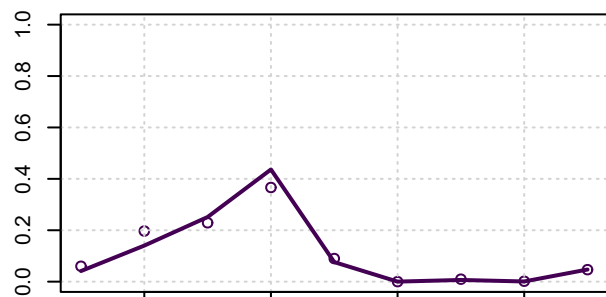
Age

Proportion

fleet1 in region\_1  
Year = 1981

Year = 1976

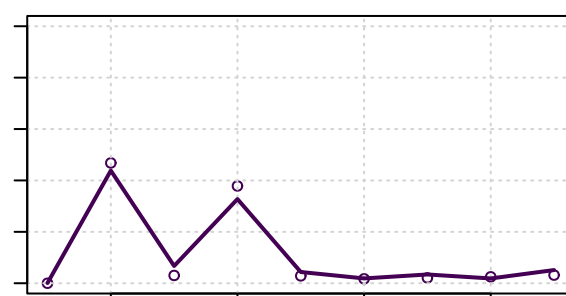
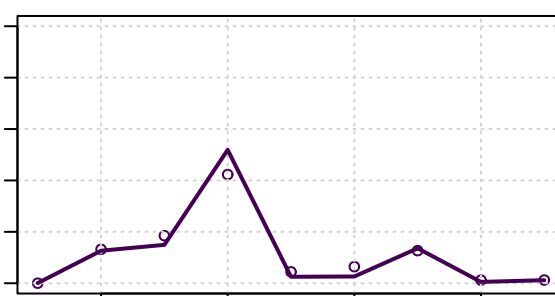
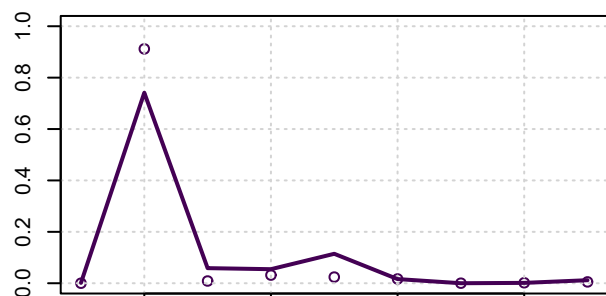
Year = 1986



Year = 1977

Year = 1982

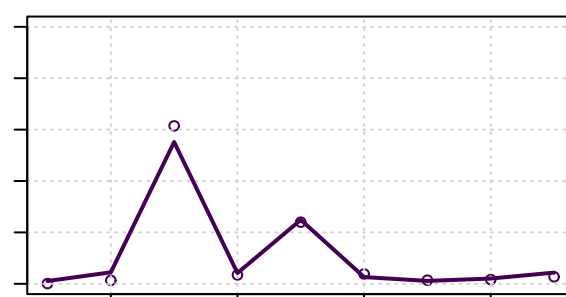
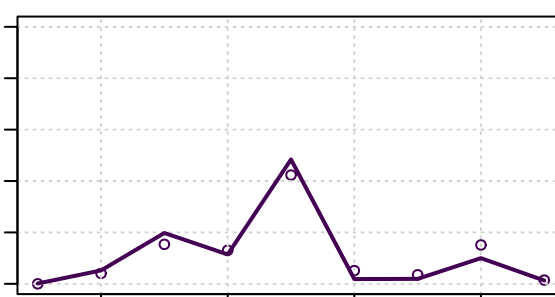
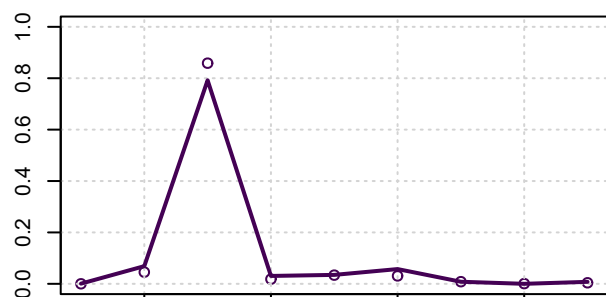
Year = 1987



Year = 1978

Year = 1983

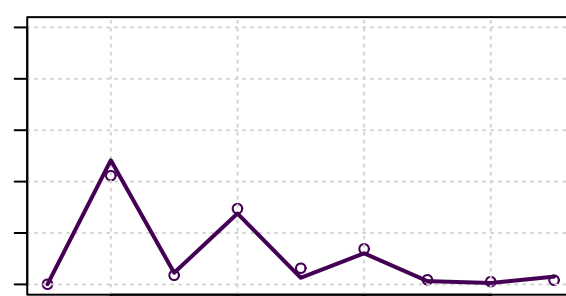
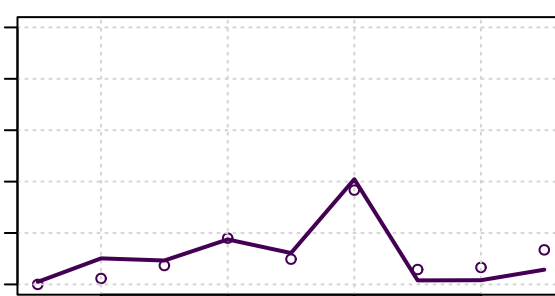
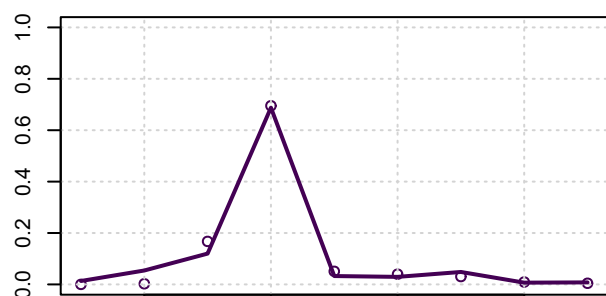
Year = 1988



Year = 1979

Year = 1984

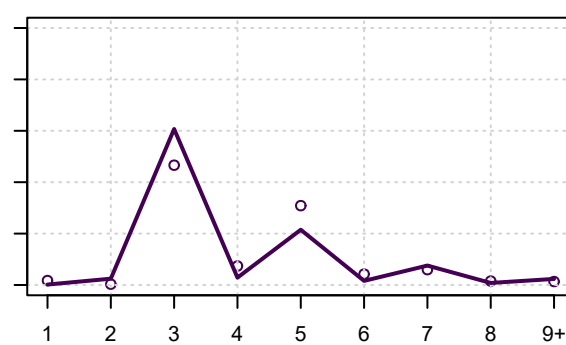
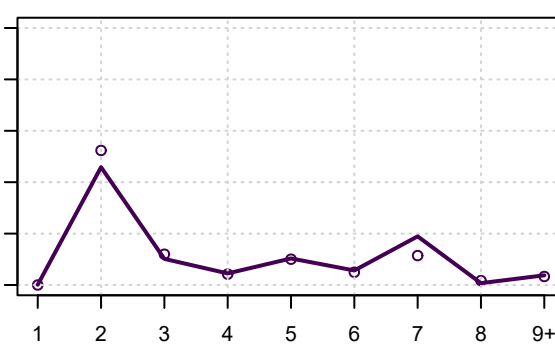
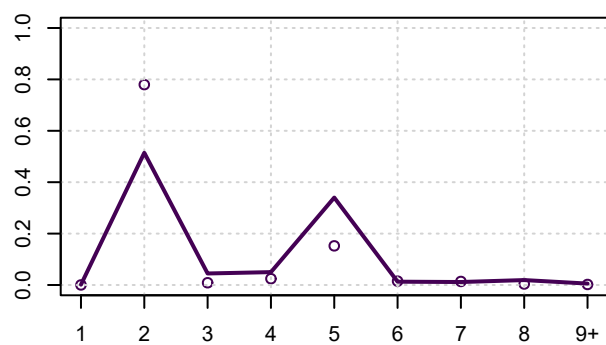
Year = 1989



Year = 1980

Year = 1985

Year = 1990



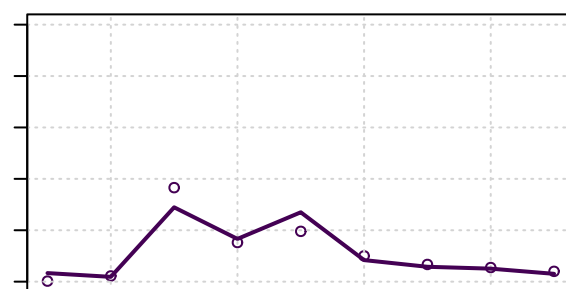
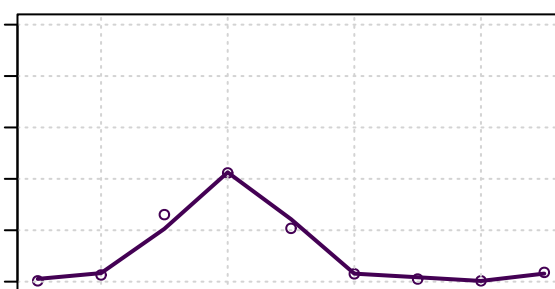
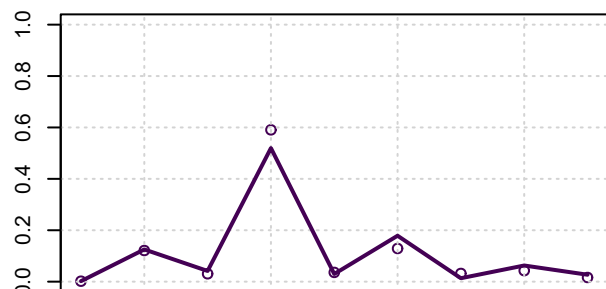
Age

Proportion

fleet1 in region\_1  
Year = 1996

Year = 1991

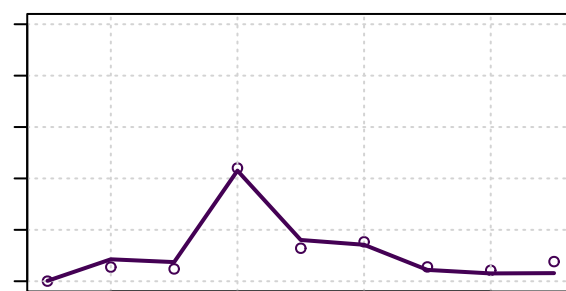
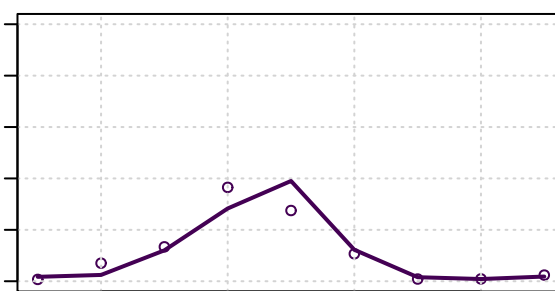
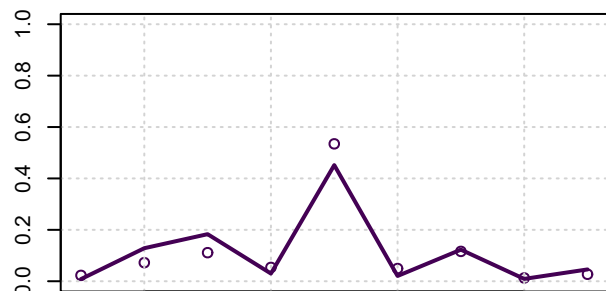
Year = 2001



Year = 1992

Year = 1997

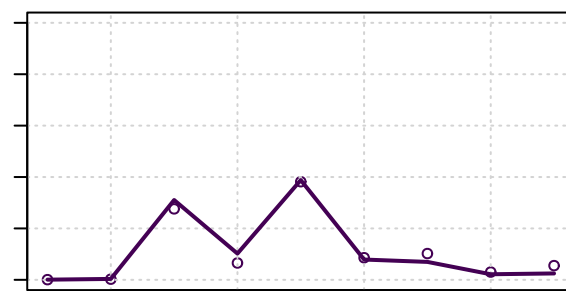
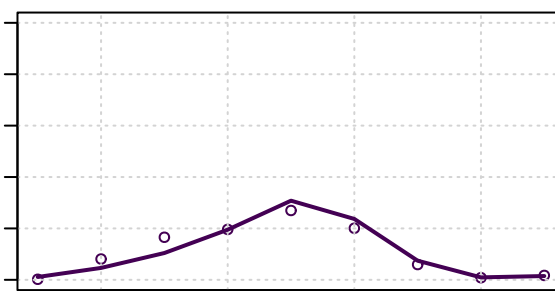
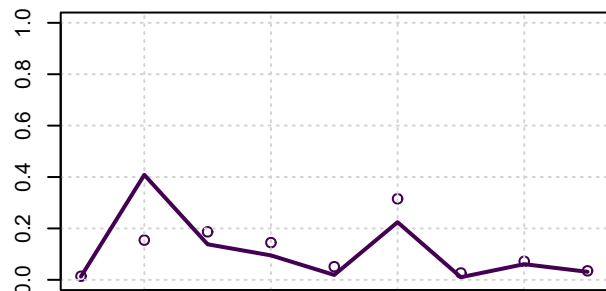
Year = 2002



Year = 1993

Year = 1998

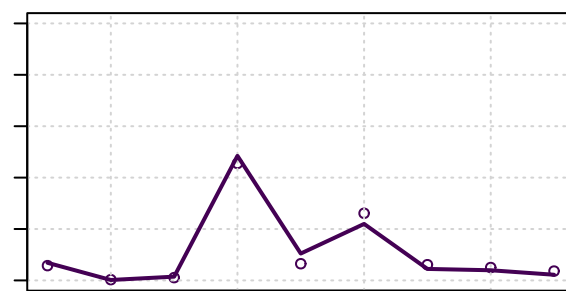
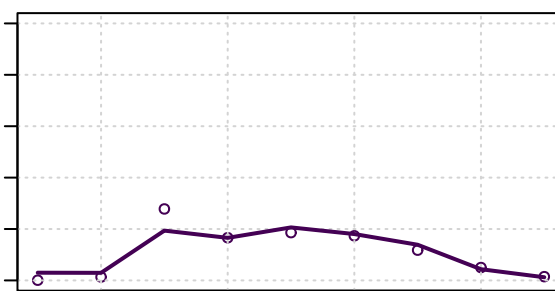
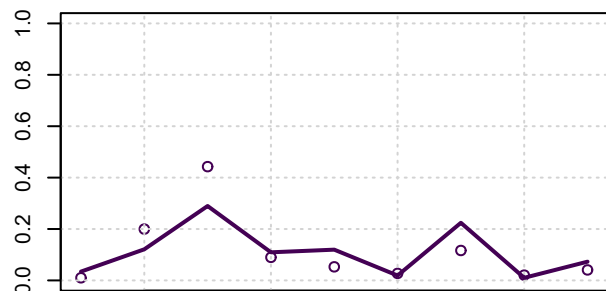
Year = 2003



Year = 1994

Year = 1999

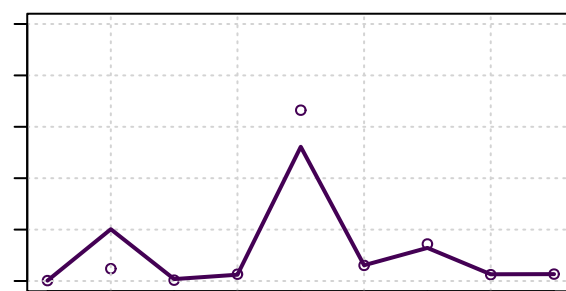
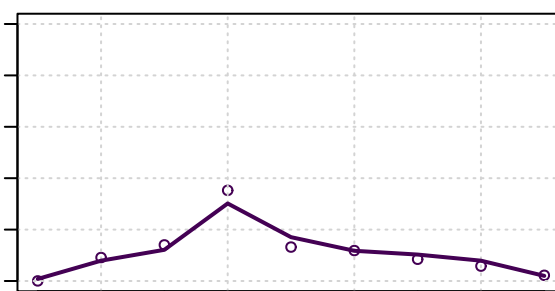
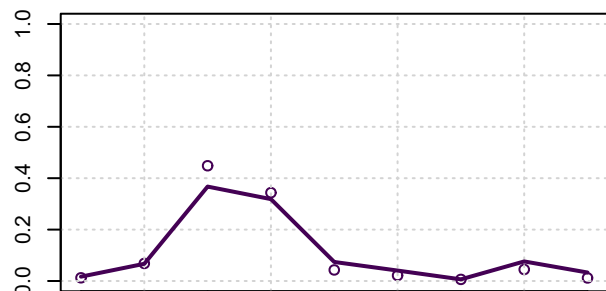
Year = 2004



Year = 1995

Year = 2000

Year = 2005



Age

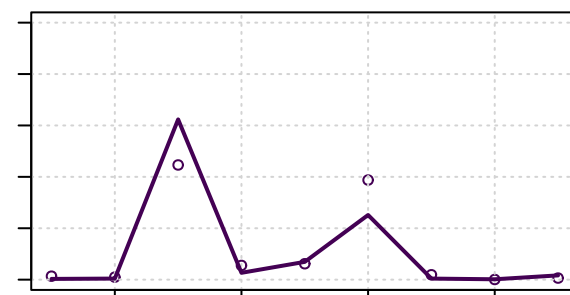
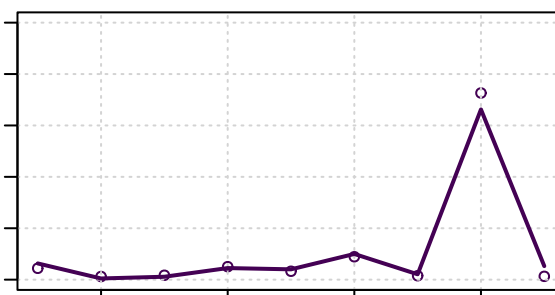
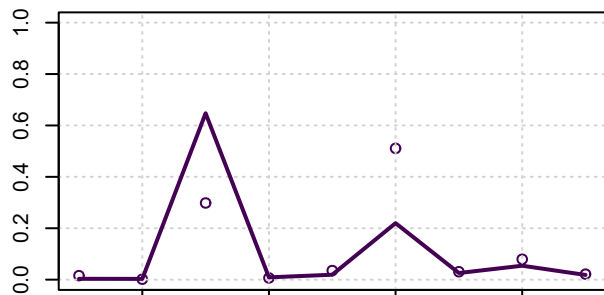
Proportion



fleet1 in region\_1  
Year = 2011

Year = 2006

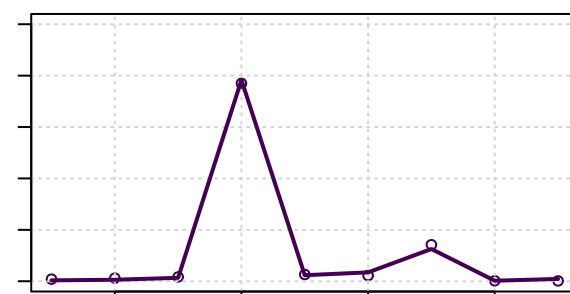
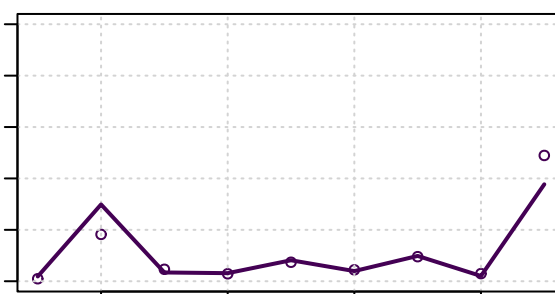
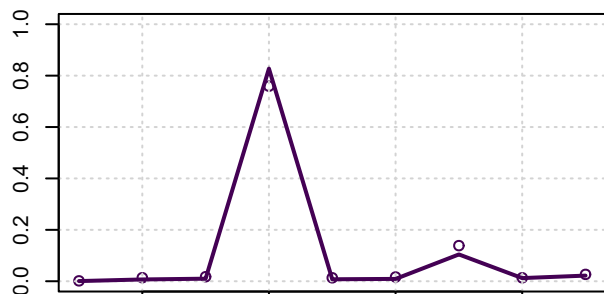
Year = 2016



Year = 2007

Year = 2012

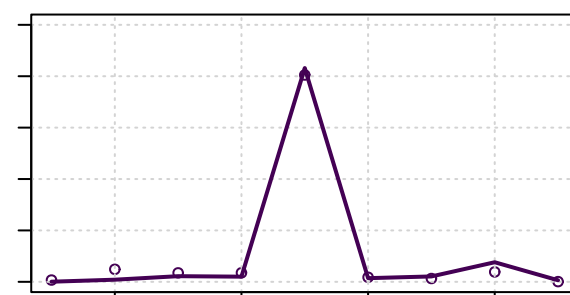
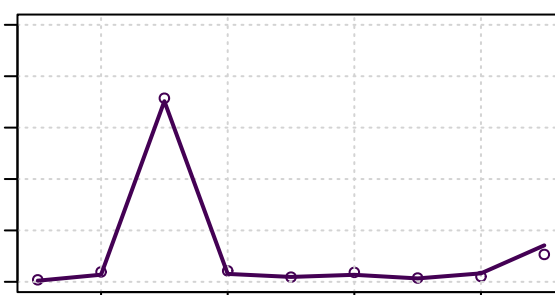
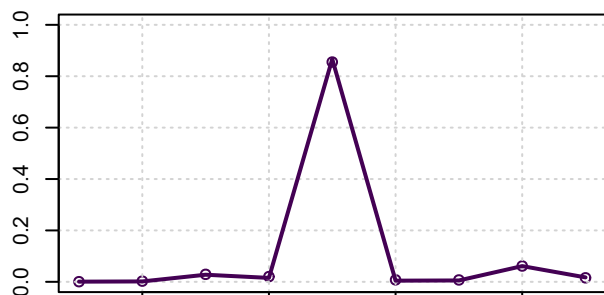
Year = 2017



Year = 2008

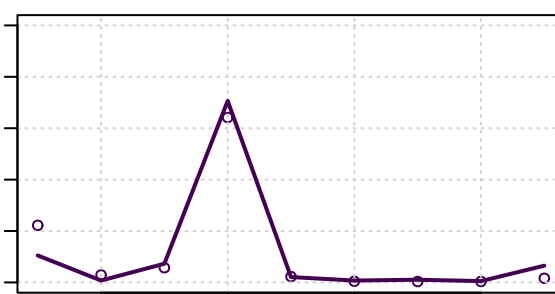
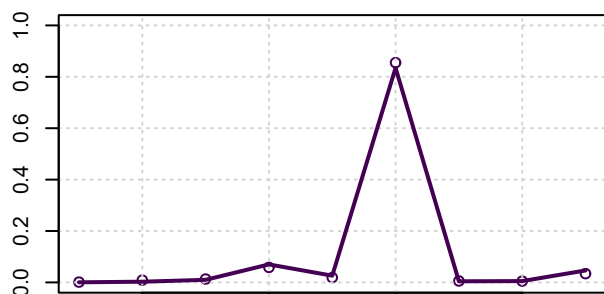
Year = 2013

Year = 2018



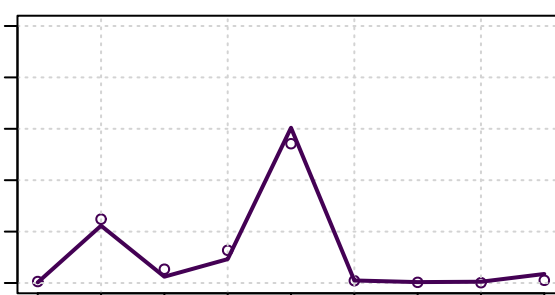
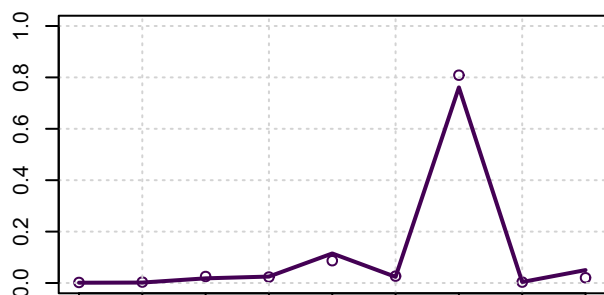
Year = 2009

Year = 2014



Year = 2010

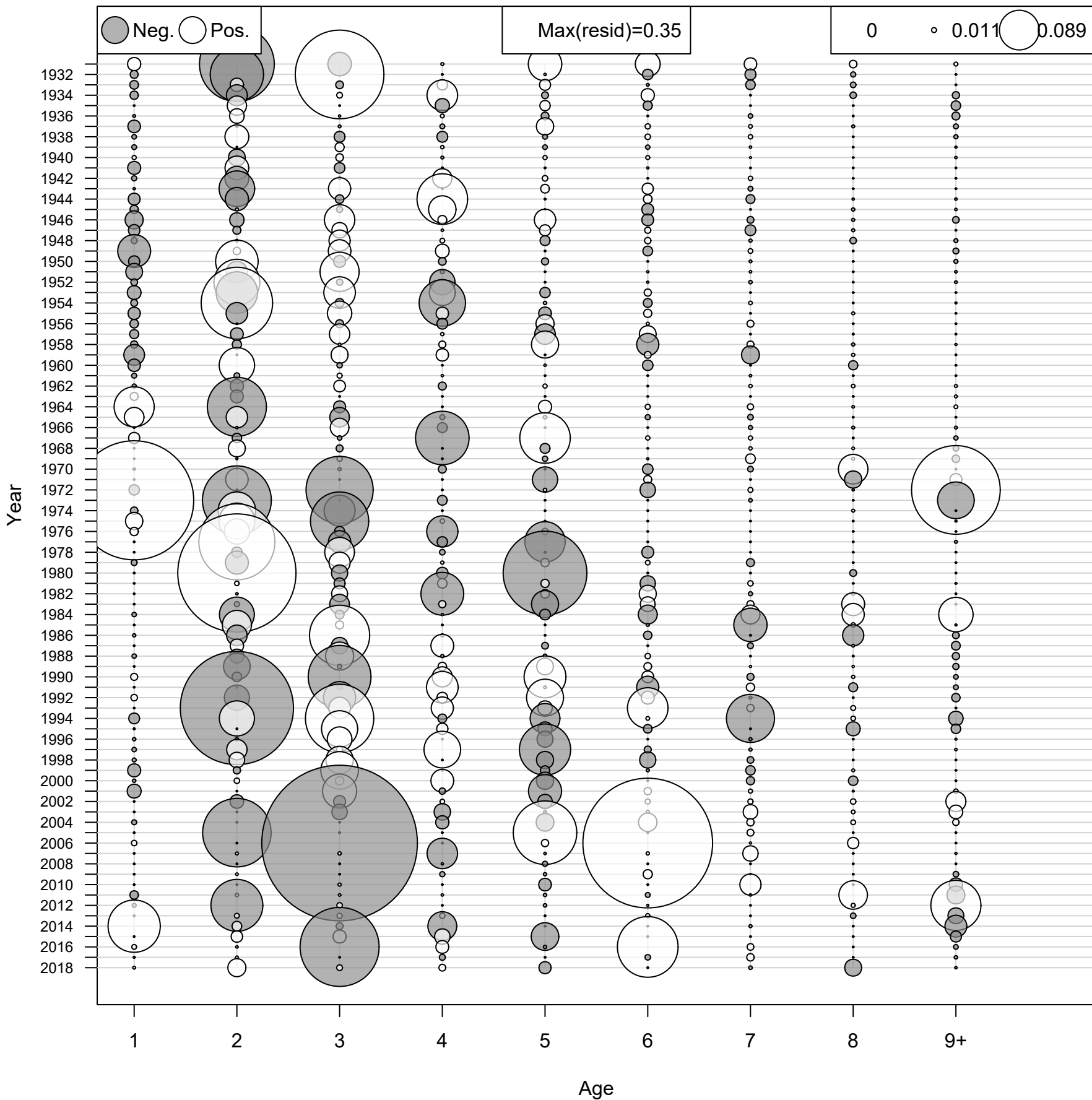
Year = 2015



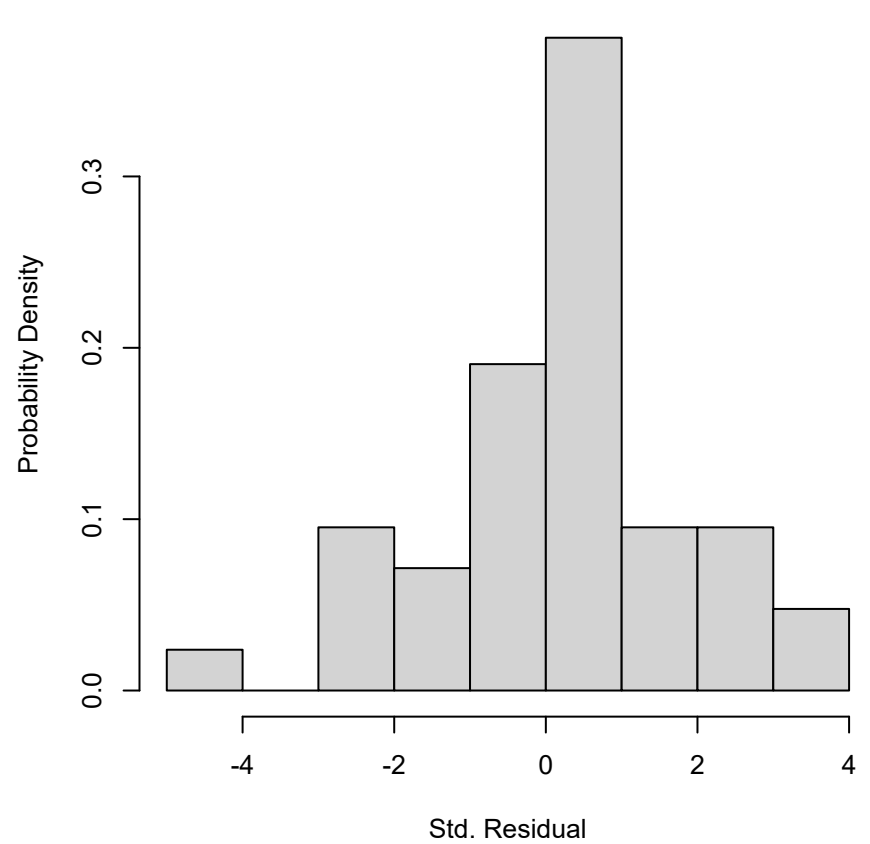
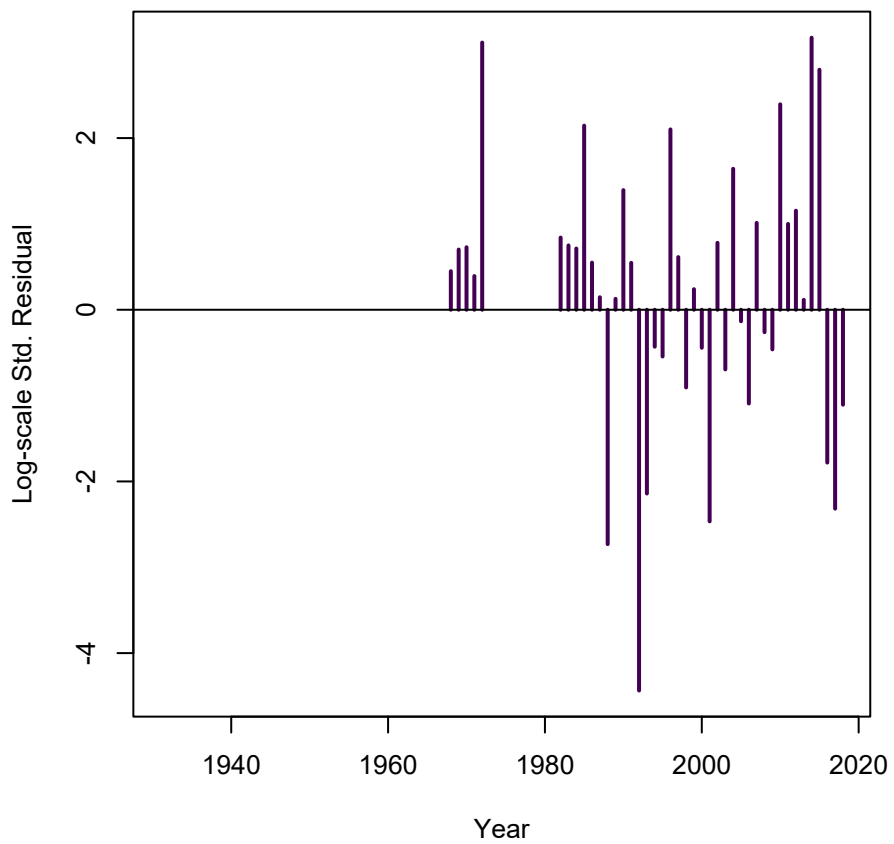
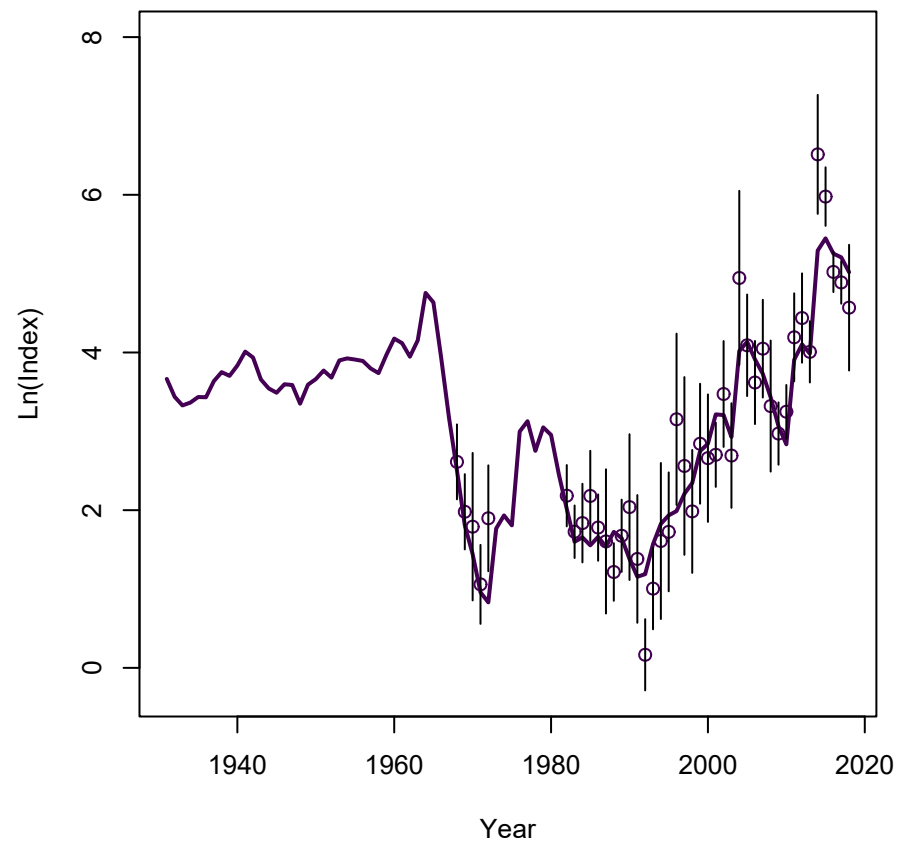
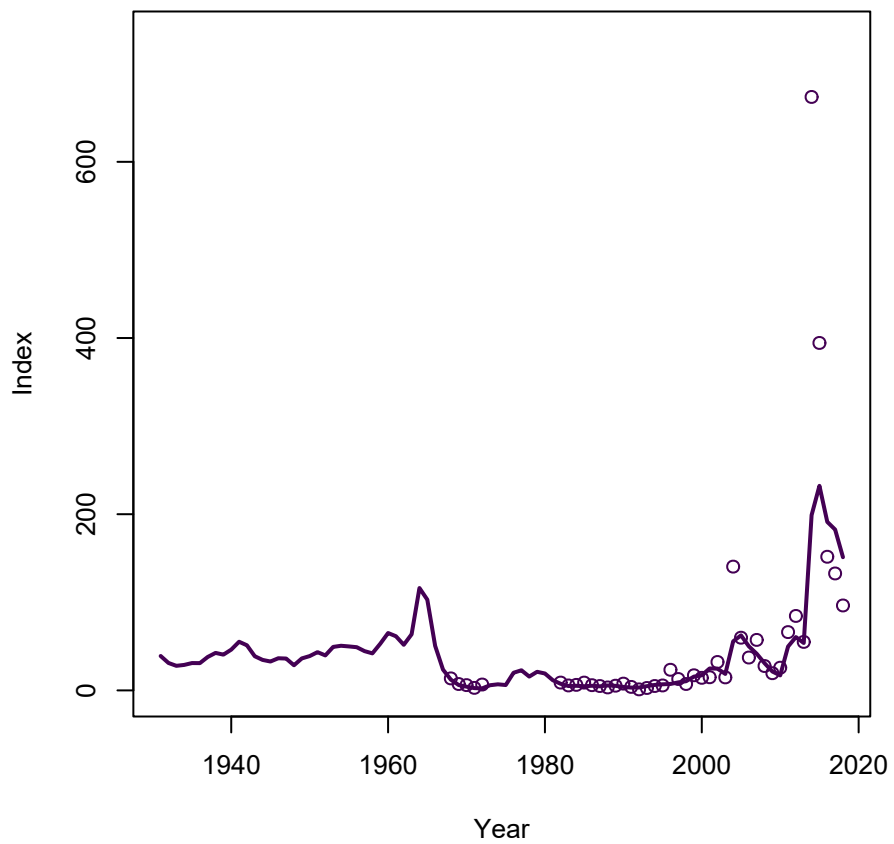
Proportion

Age

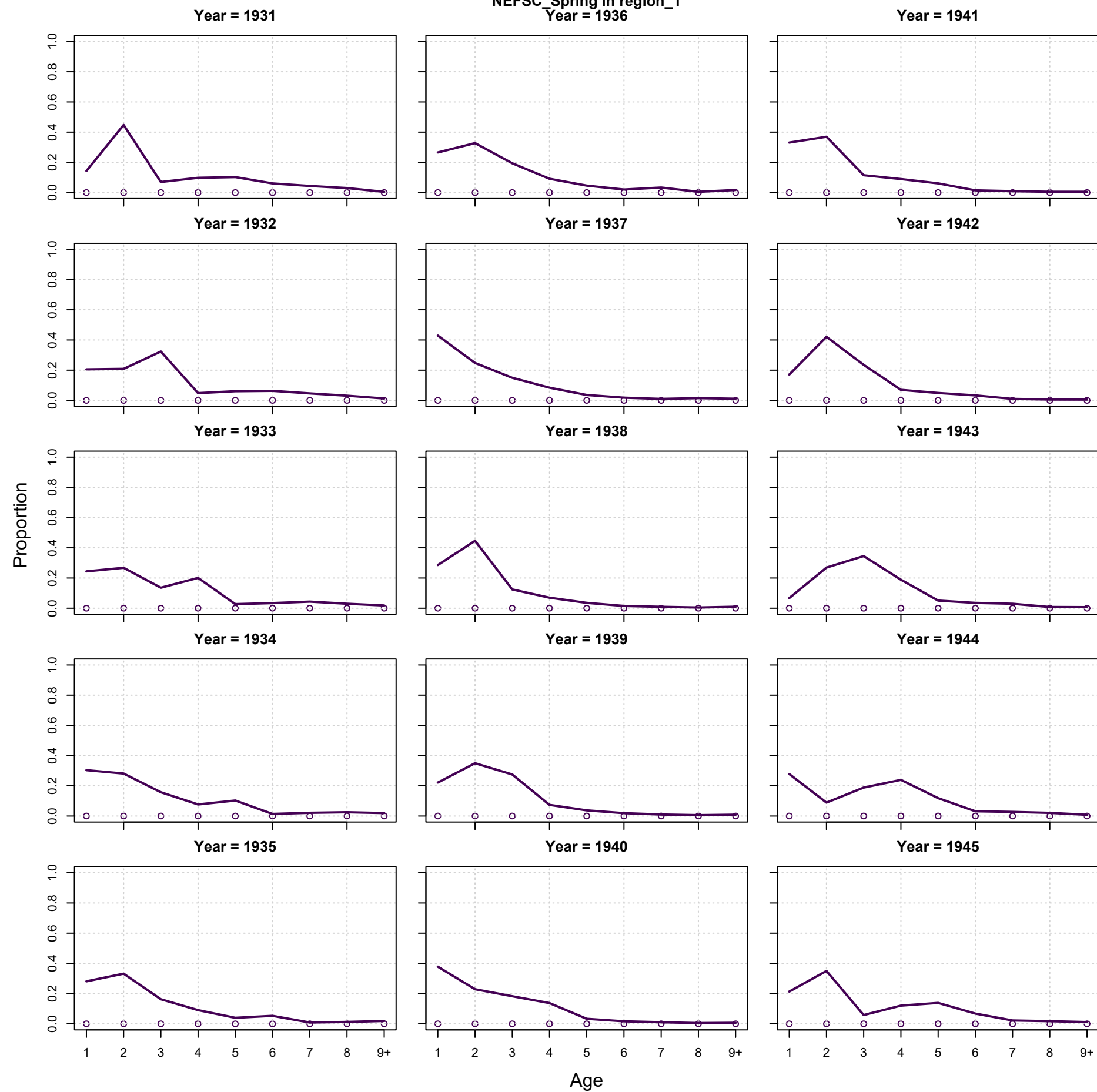
# Age Comp Residuals (Observed-Predicted) for fleet1



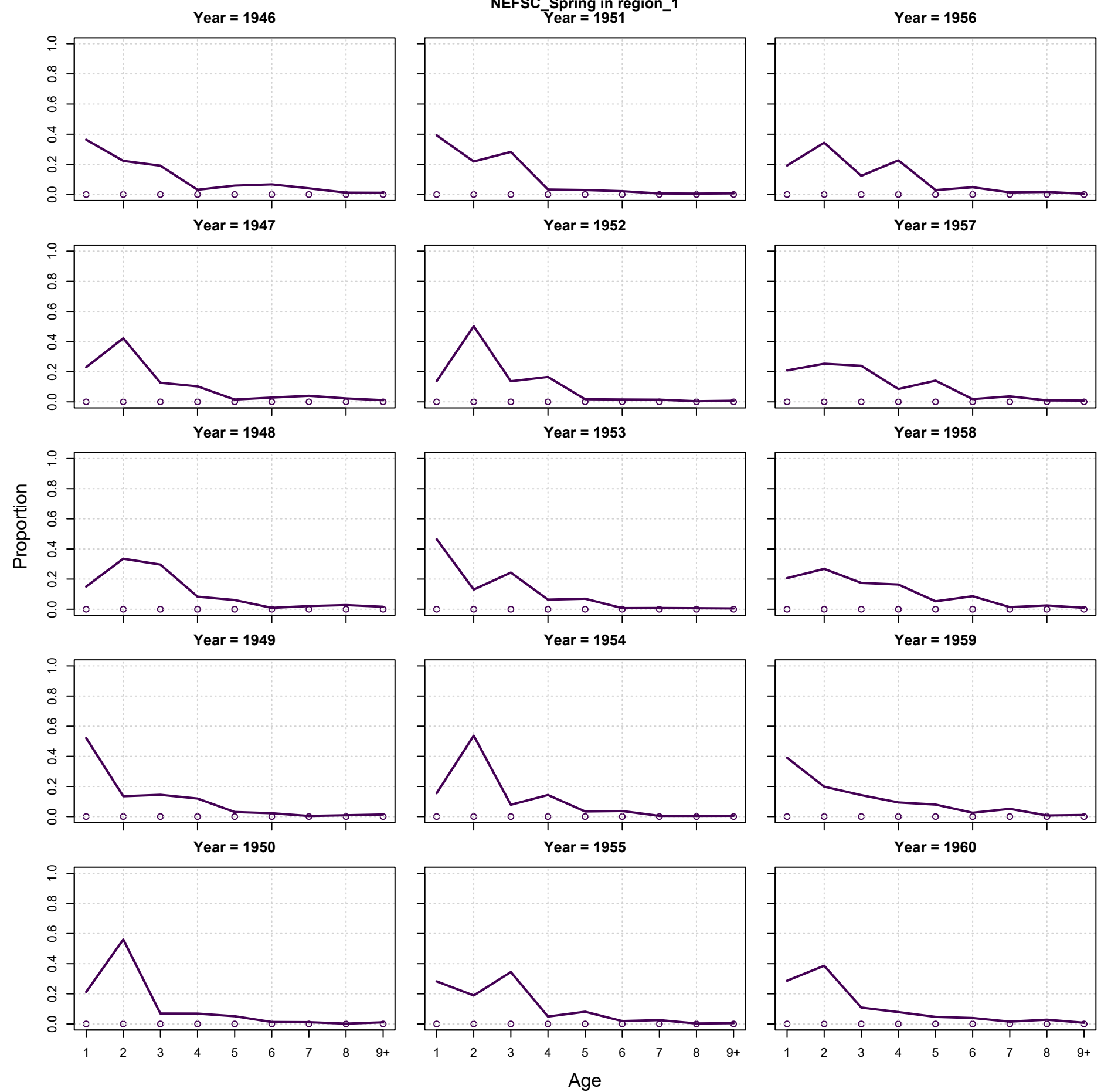
NEFSC\_Spring in region\_1



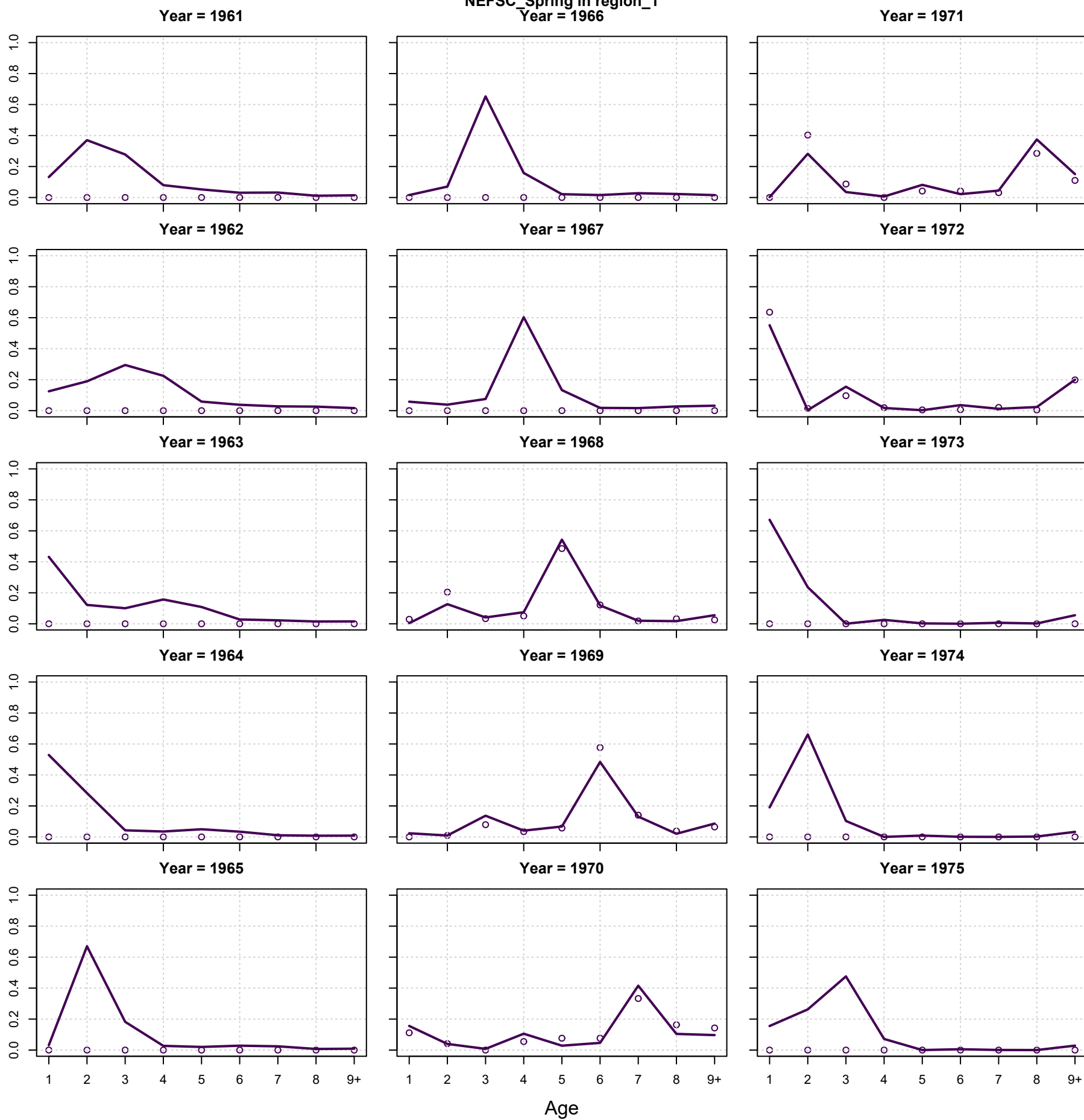
# NEFSC\_Spring in region\_1



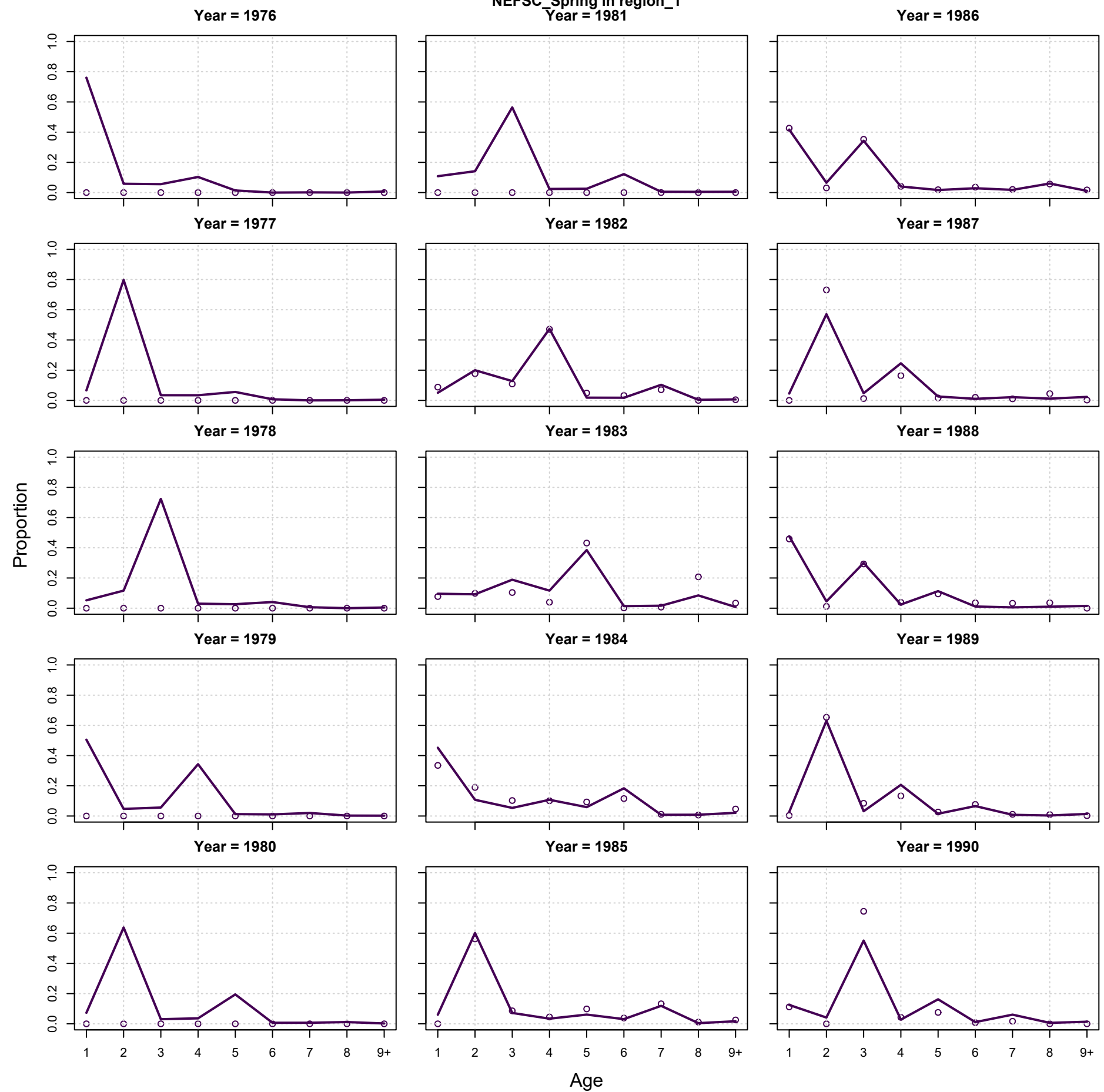
# NEFSC\_Spring in region\_1



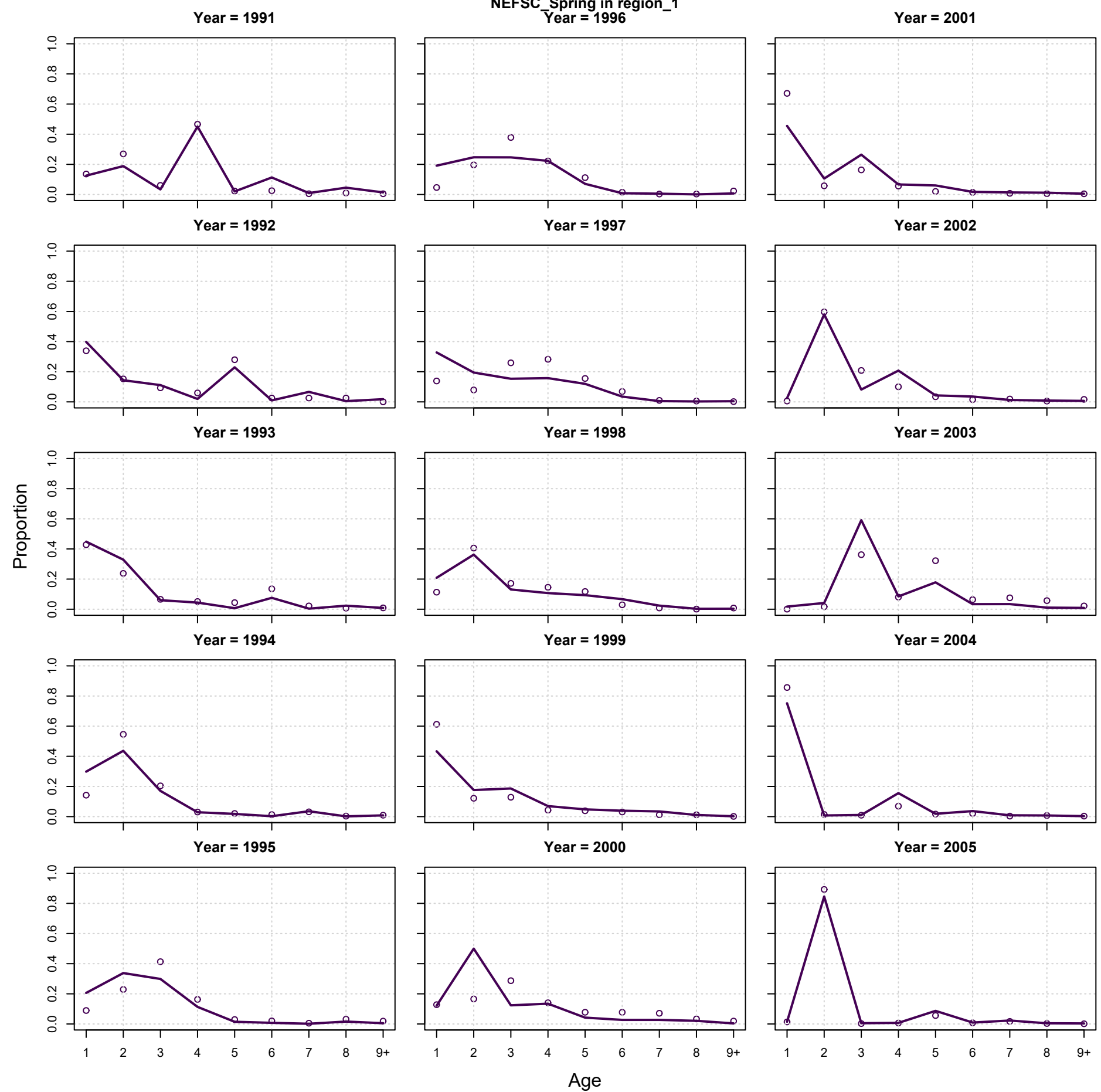
NEFSC\_Spring in region\_1  
Year = 1966



# NEFSC Spring in region\_1



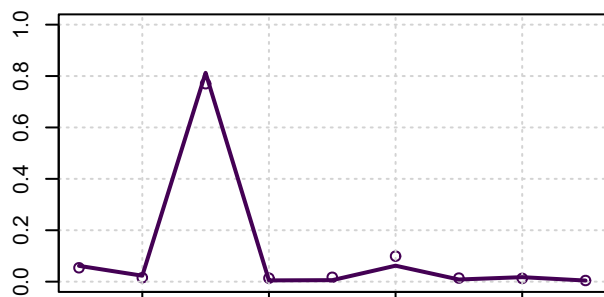
# NEFSC Spring in region\_1



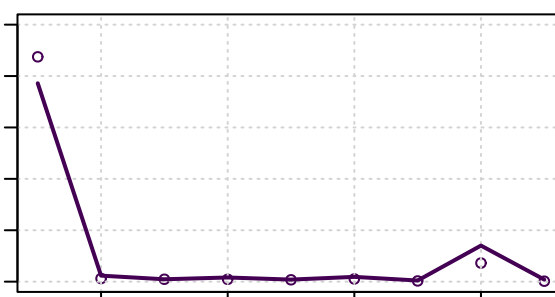


# NEFSC\_Spring in region\_1

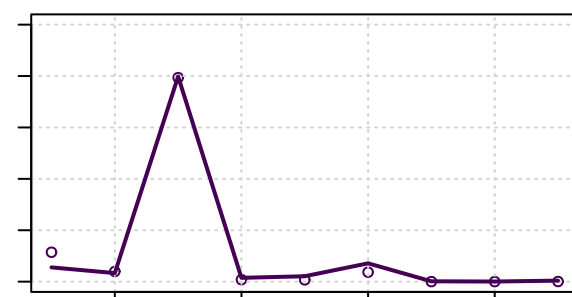
Year = 2006



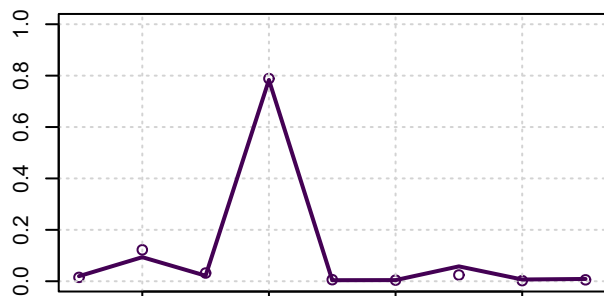
Year = 2011



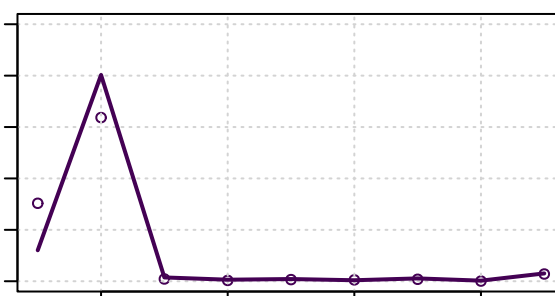
Year = 2016



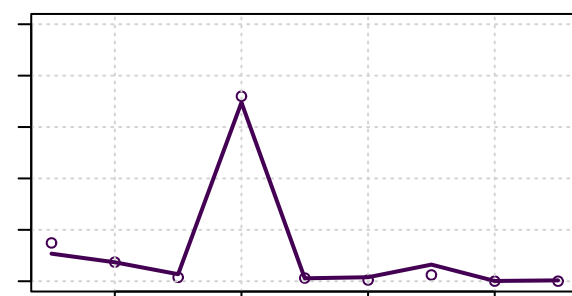
Year = 2007



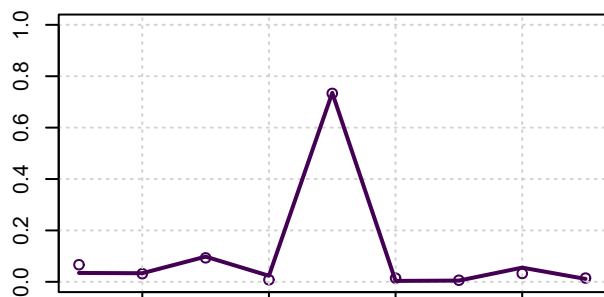
Year = 2012



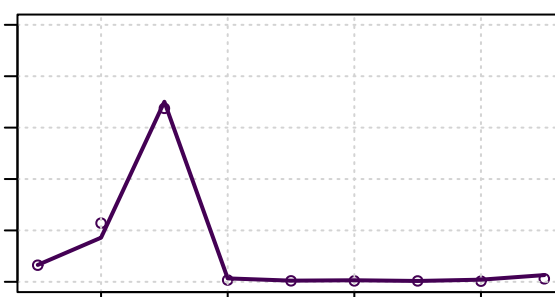
Year = 2017



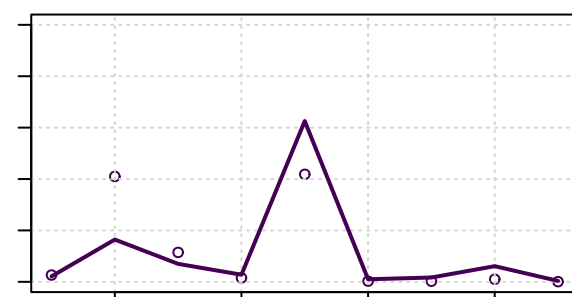
Year = 2008



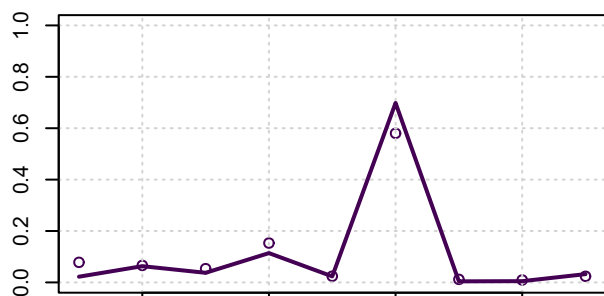
Year = 2013



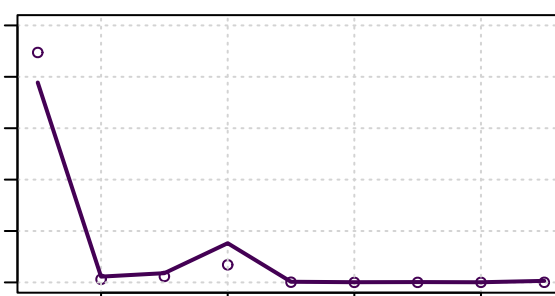
Year = 2018



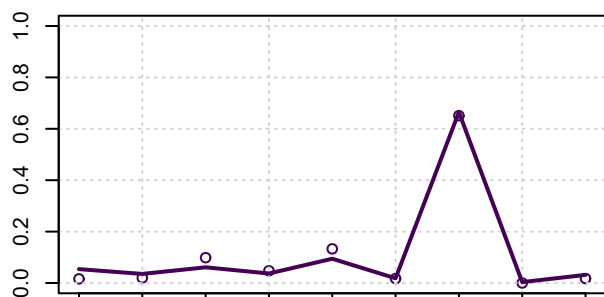
Year = 2009



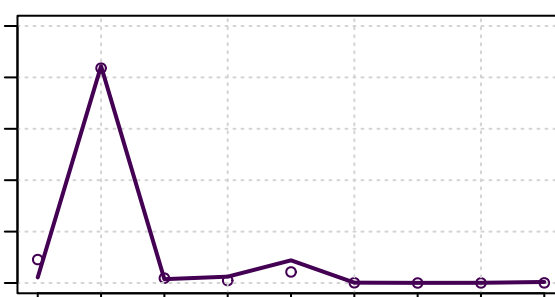
Year = 2014



Year = 2010

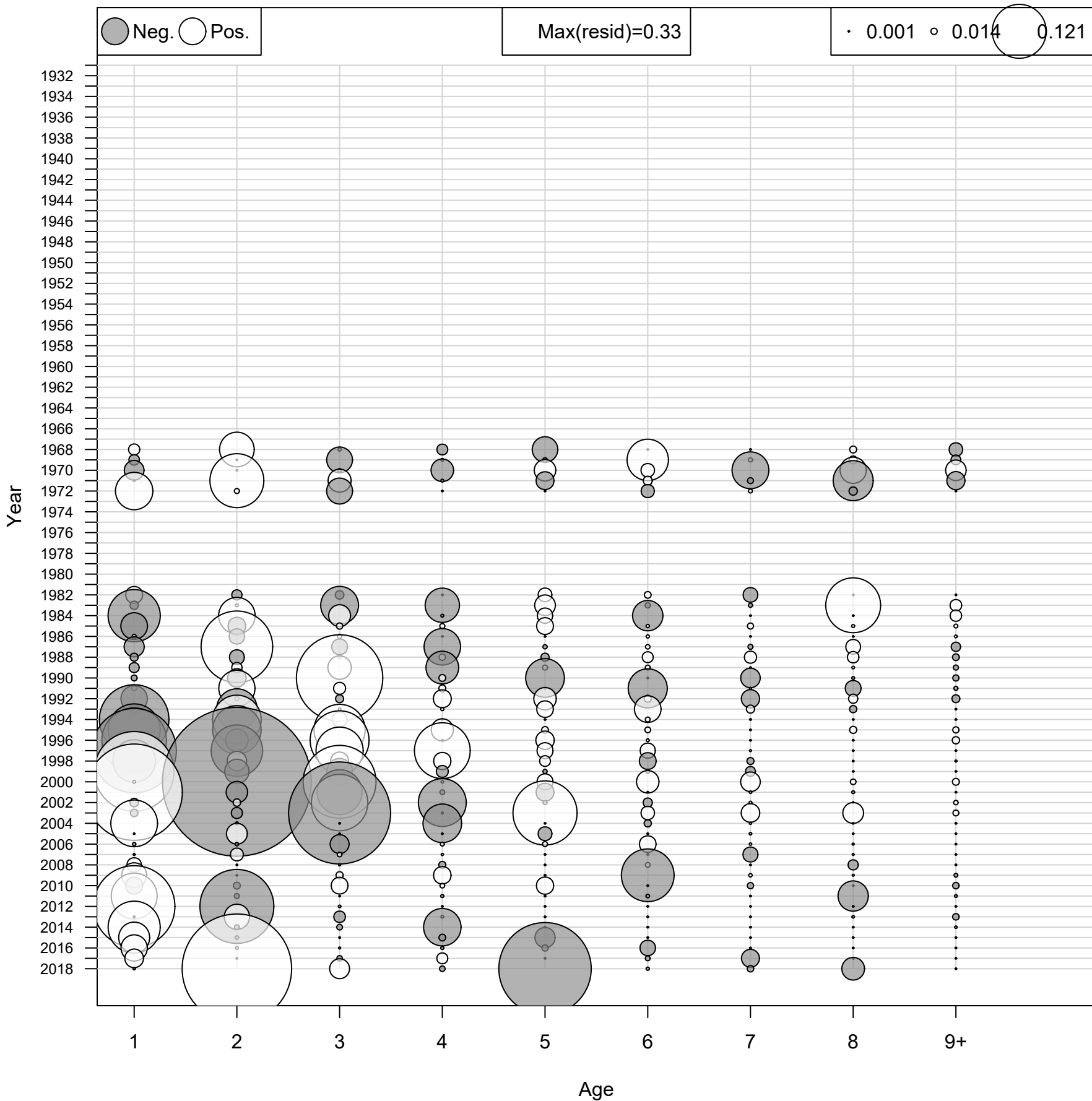


Year = 2015

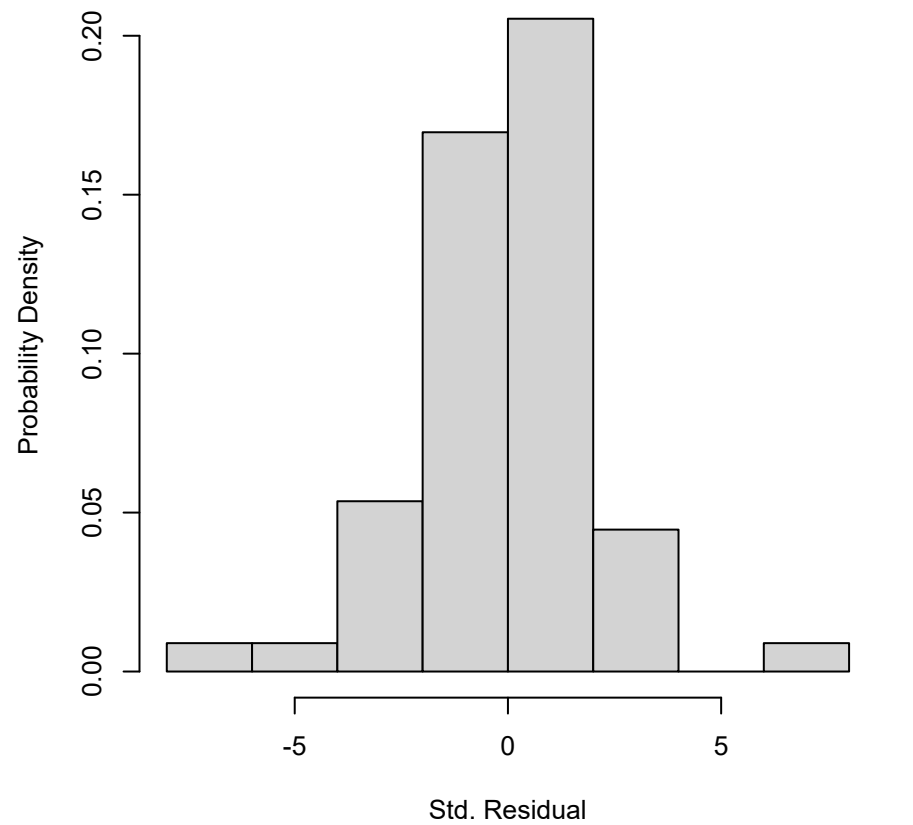
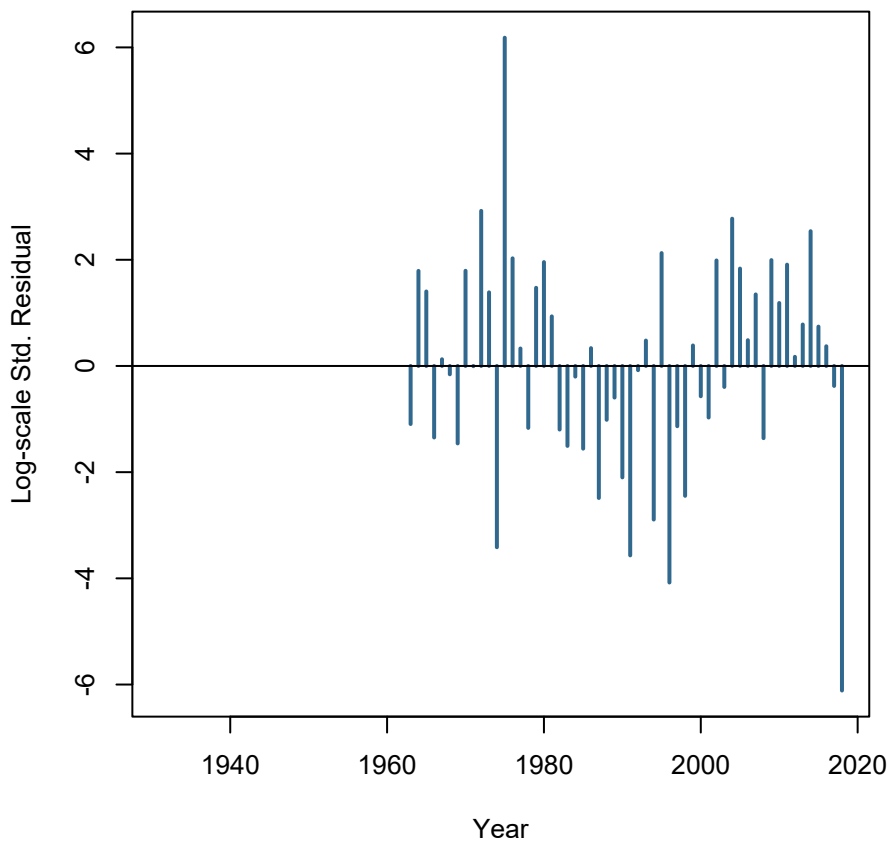
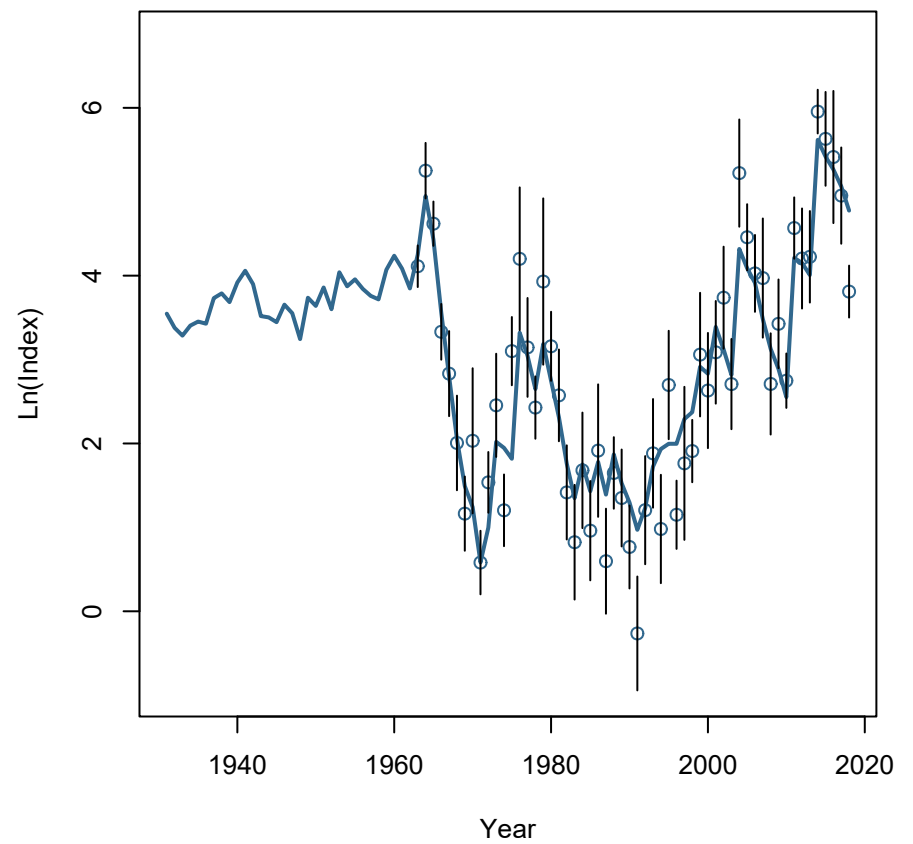
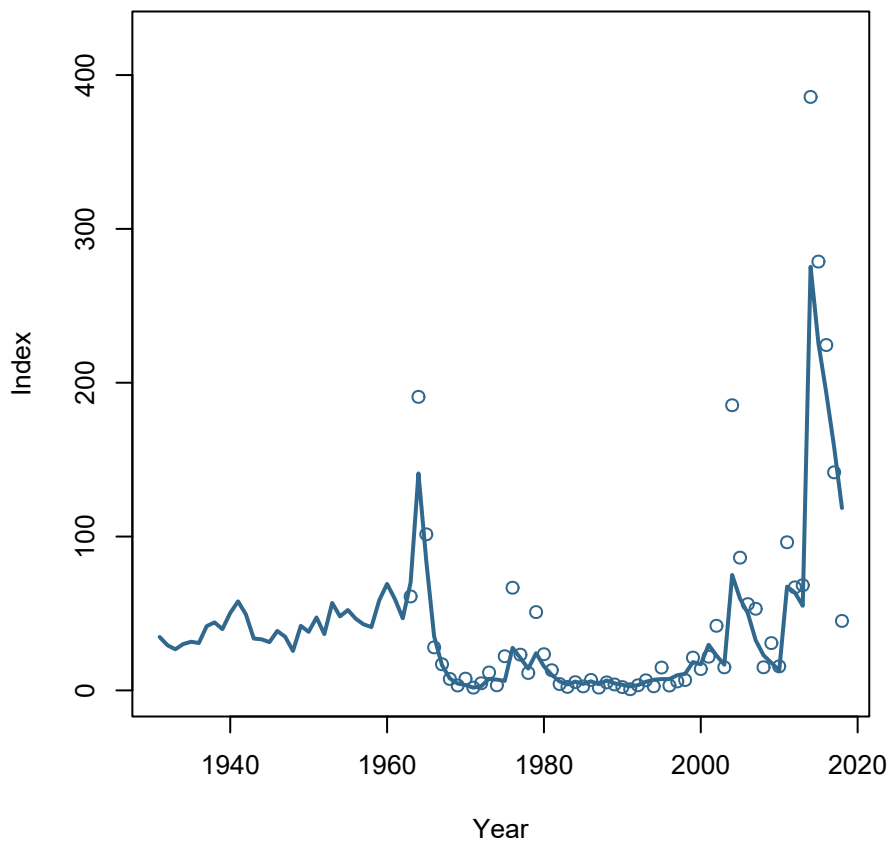


Age

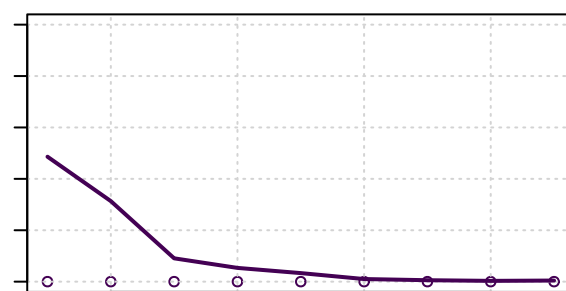
# Age Comp Residuals (Observed-Predicted) for NEFSC\_Spring



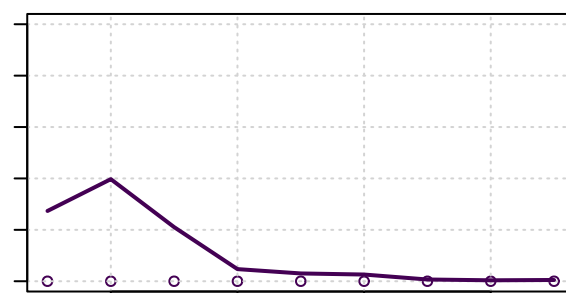
NEFSC\_Fall in region\_1



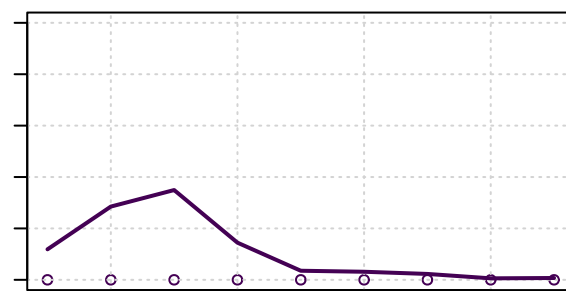
**Year = 1941**



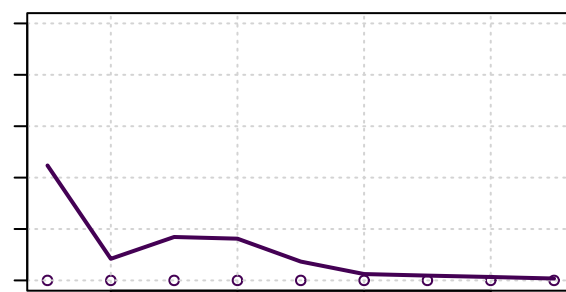
**Year = 1942**



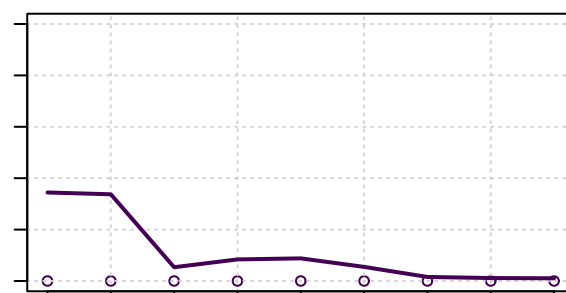
**Year = 1943**



**Year = 1944**



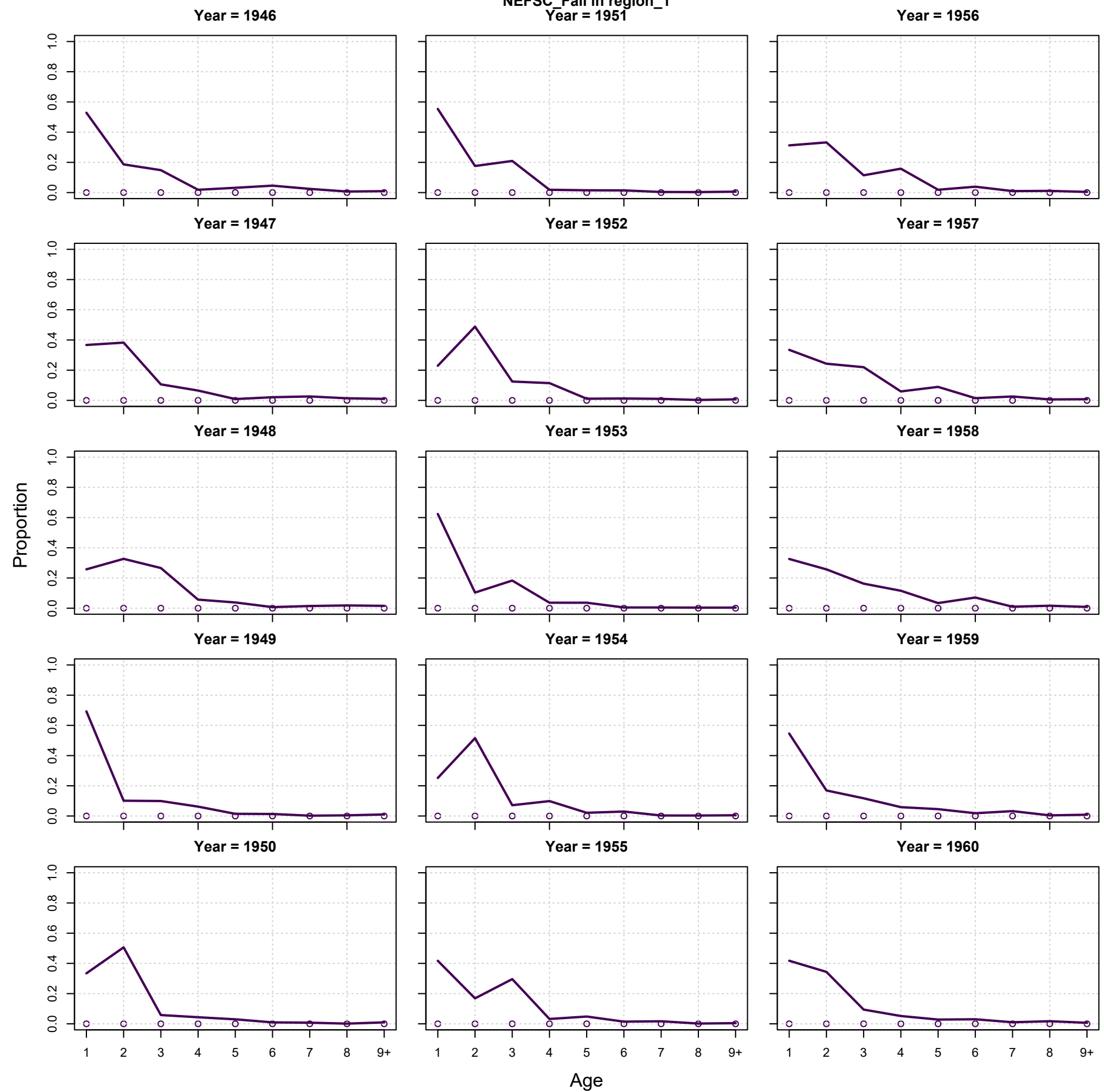
**Year = 1945**



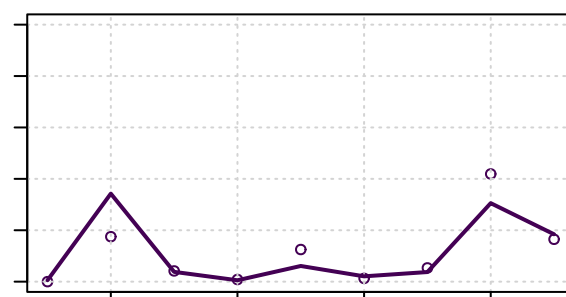
1	2	3	4	5	6	7	8	9+	1	2	3	4	5	6	7	8	9+	1	2	3	4	5	6	7	8	9+
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Age

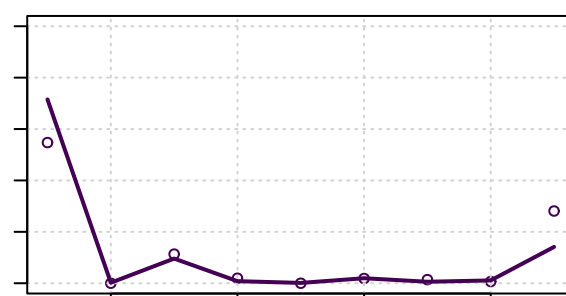
# NEFSC\_Fall in region\_1



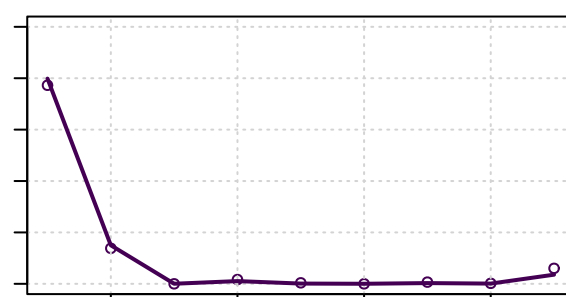
**Year = 1971**



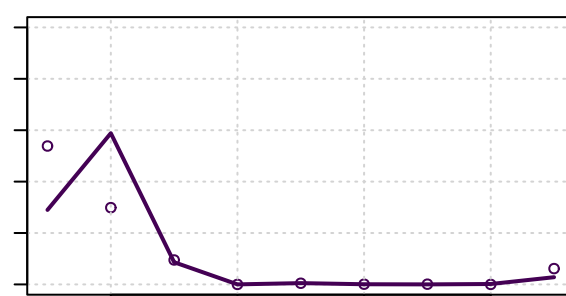
**Year = 1972**



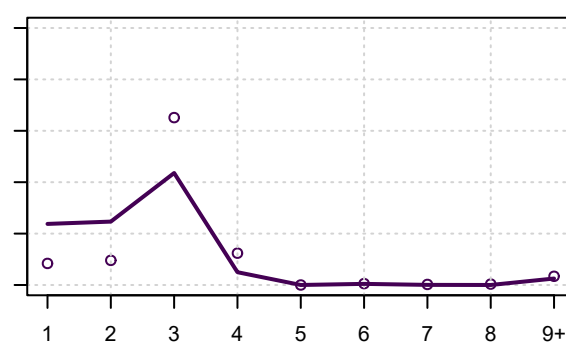
**Year = 1973**



**Year = 1974**

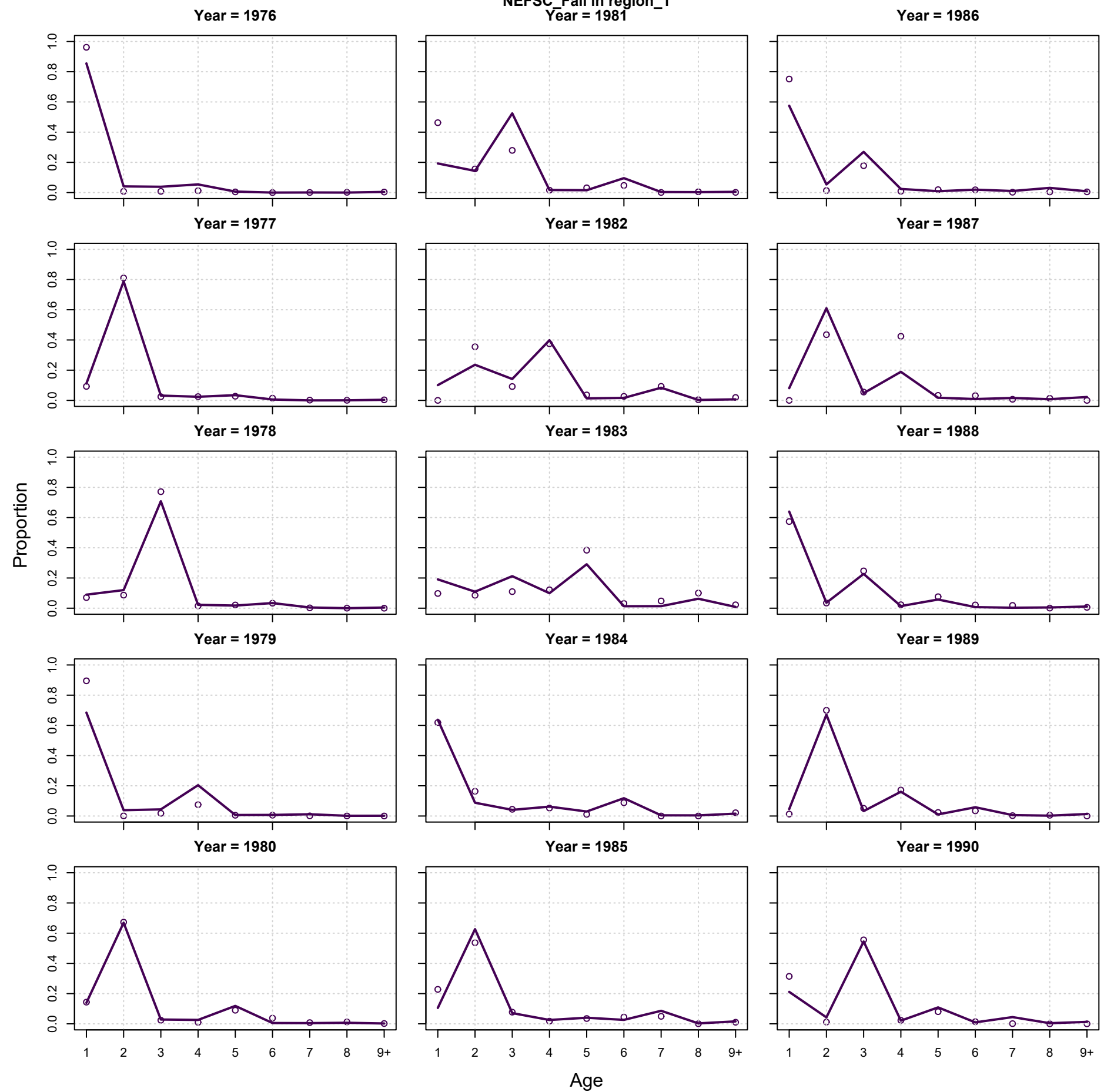


**Year = 1975**

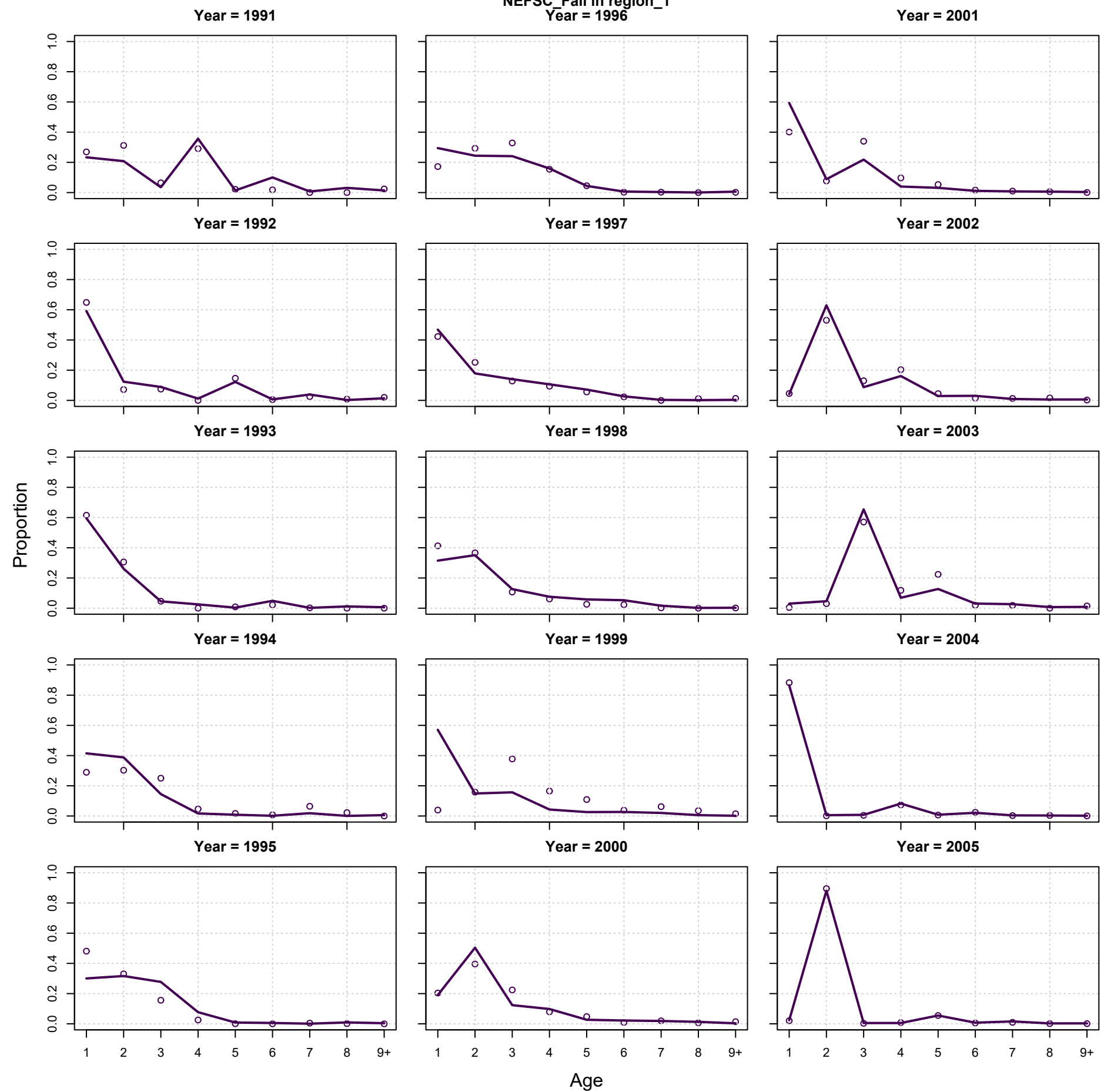


Proportion

# NEFSC\_Fall in region\_1

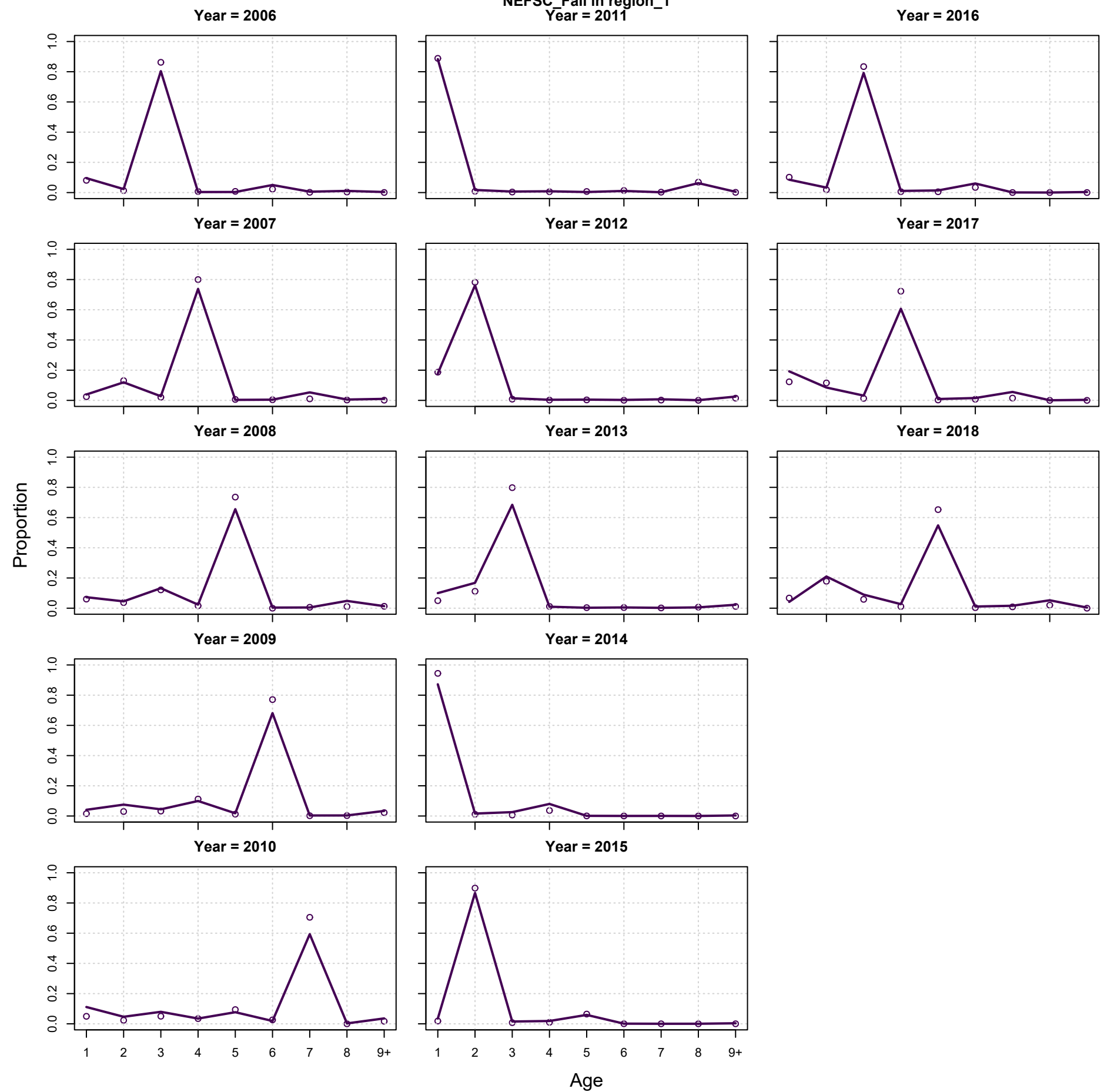


# NEFSC\_Fall in region\_1

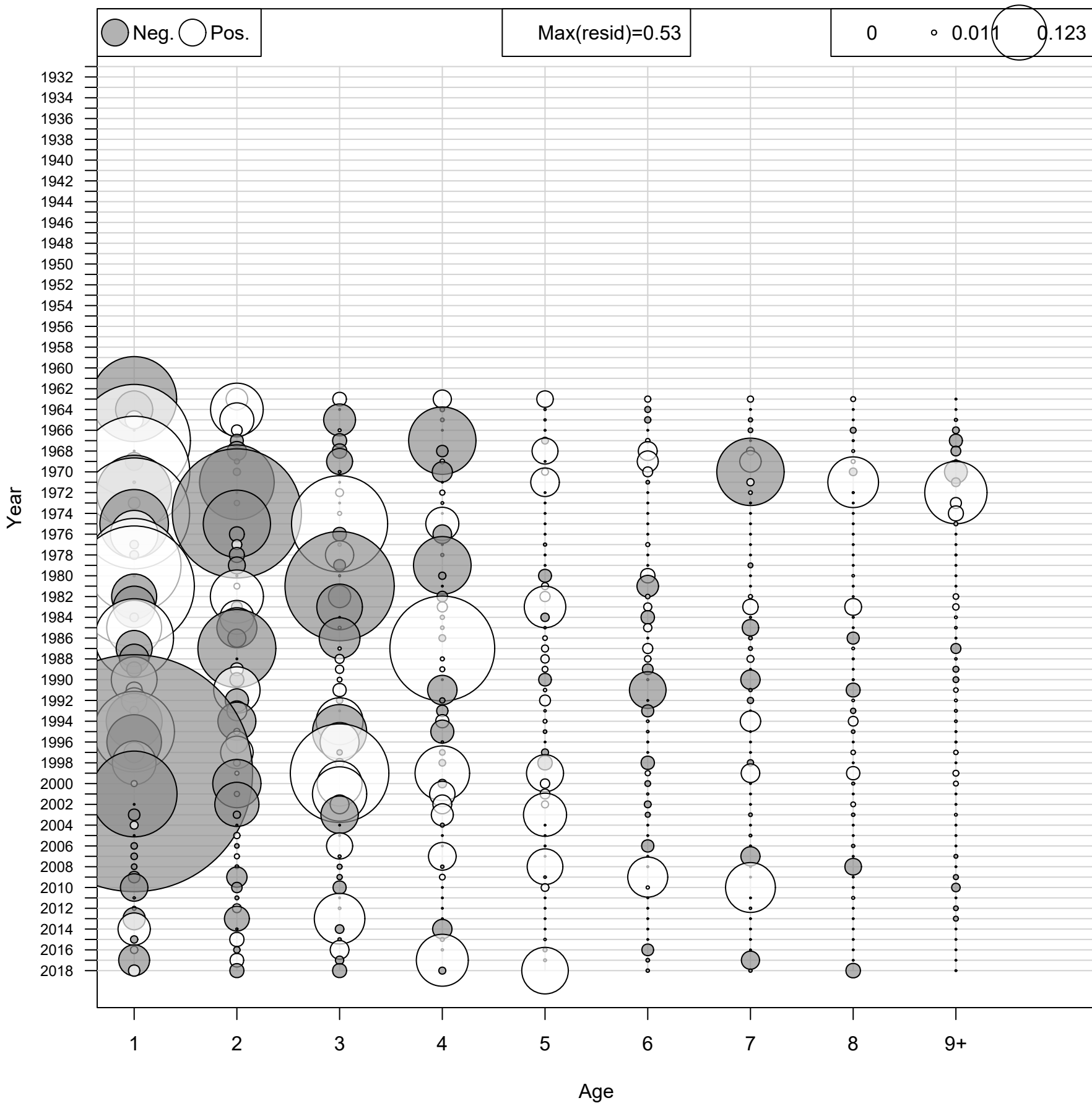




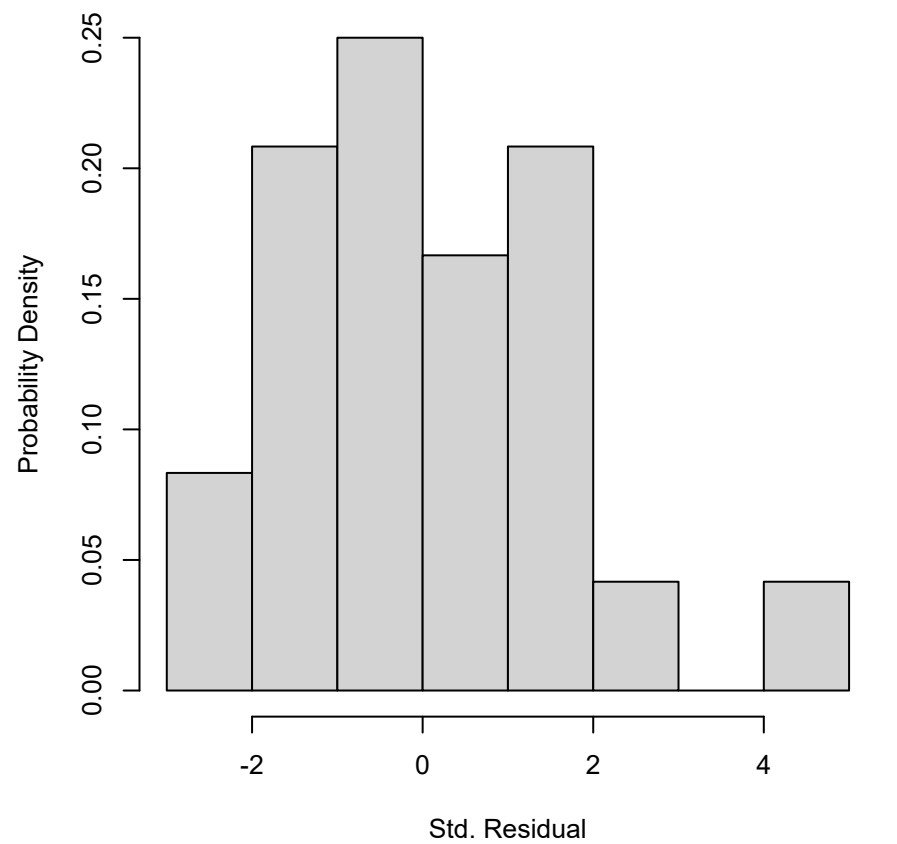
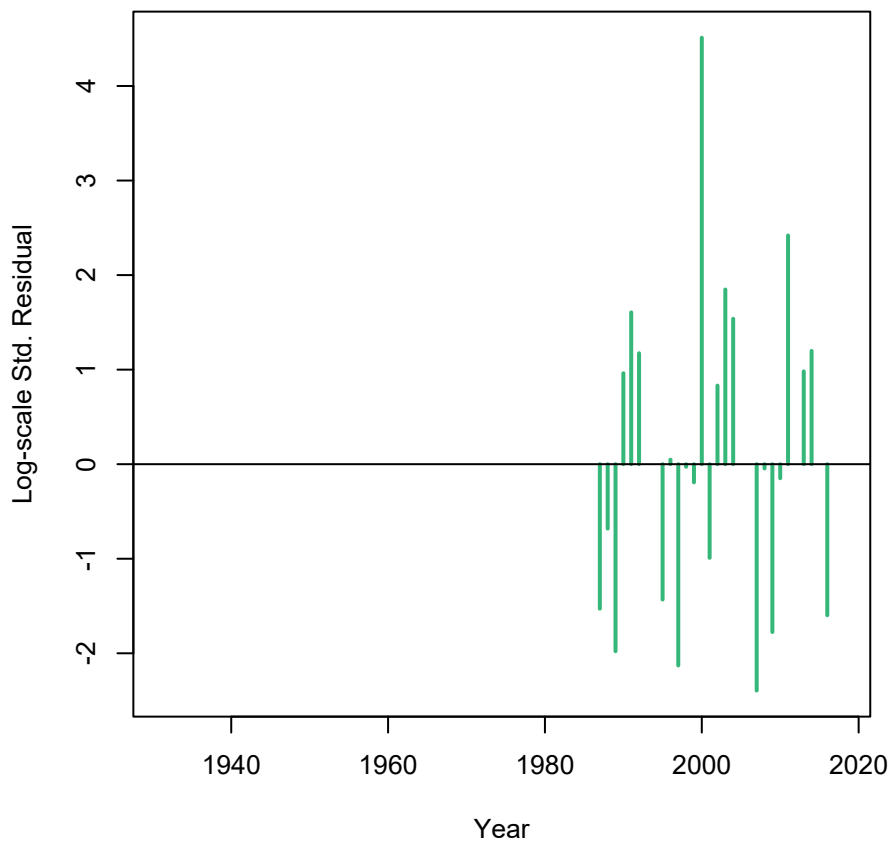
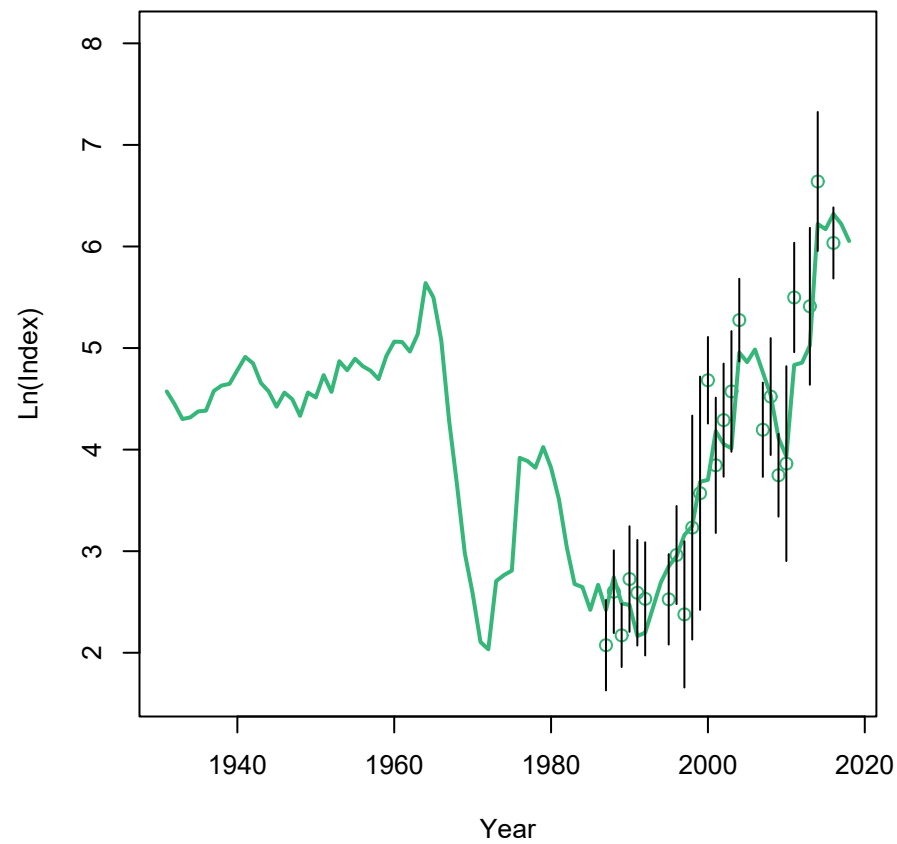
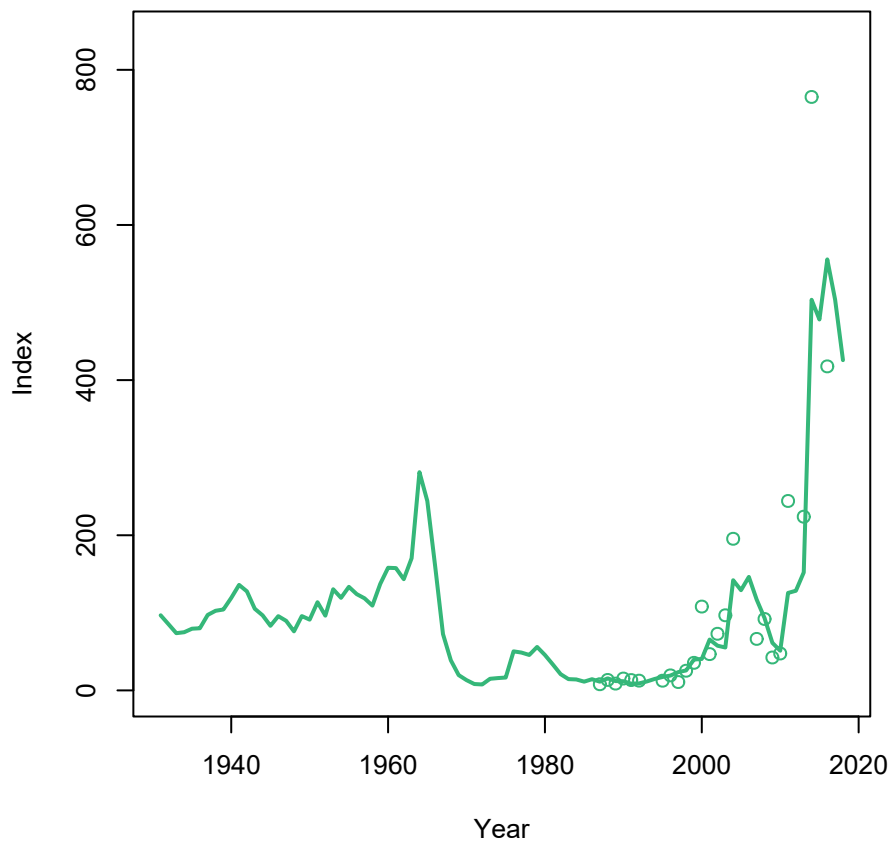
# NEFSC\_Fall in region\_1



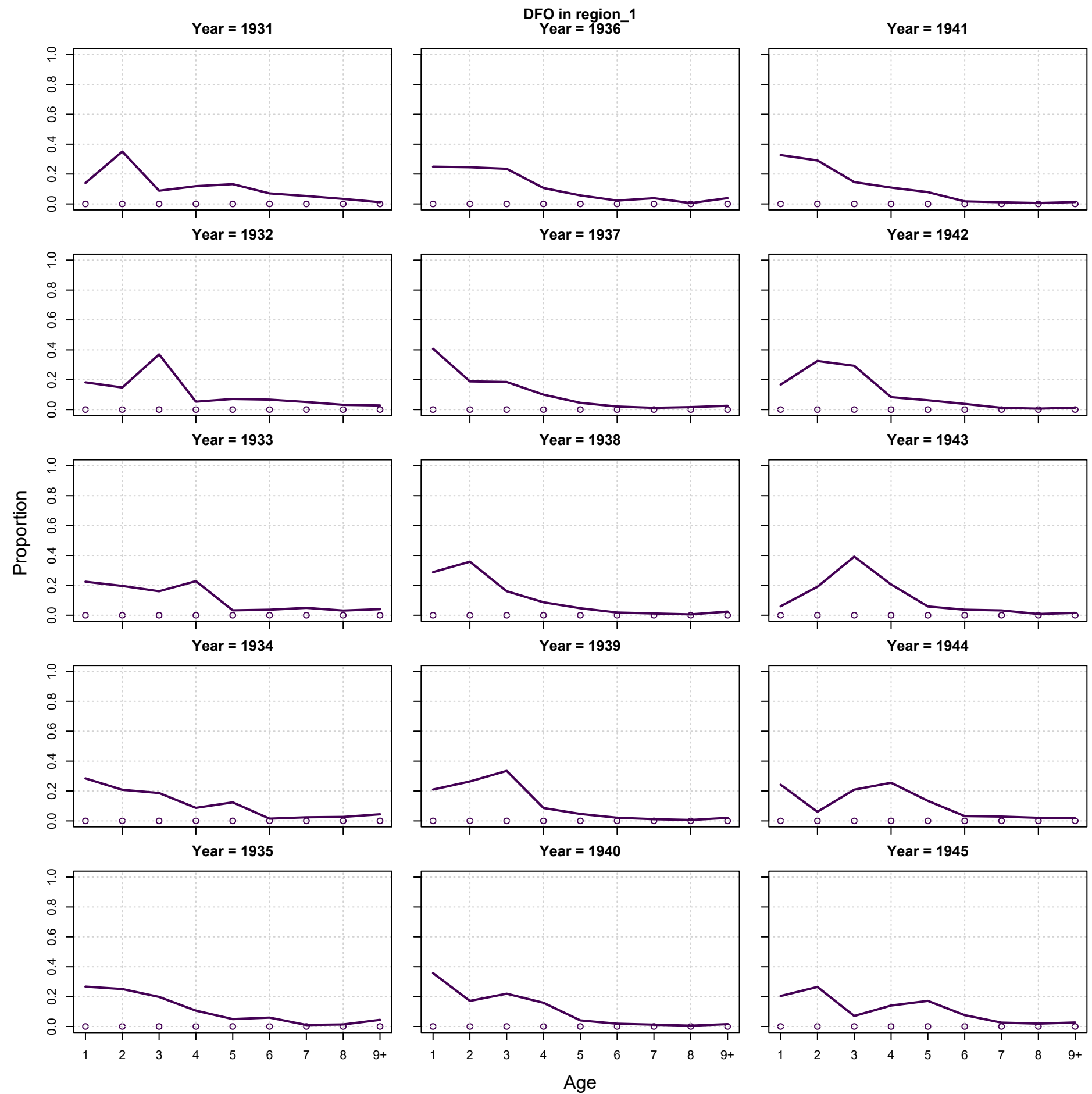
# Age Comp Residuals (Observed-Predicted) for NEFSC\_Fall



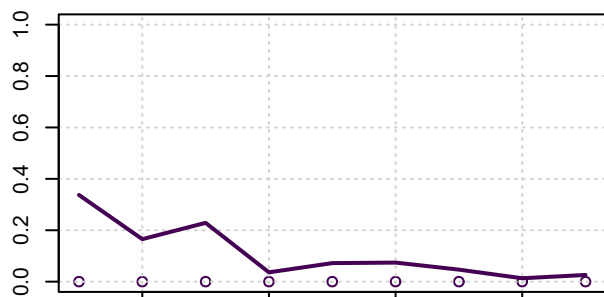
DFO in region\_1



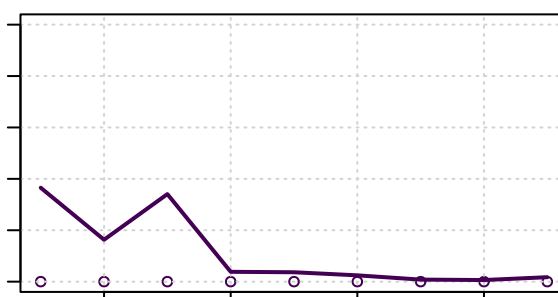
# DFO in region\_1



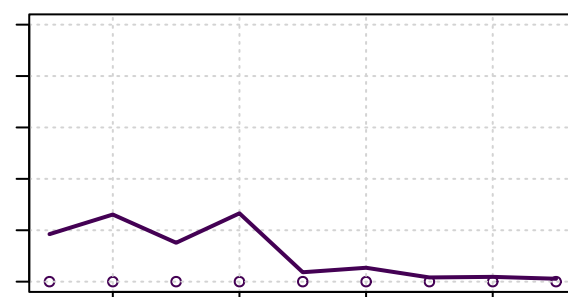
**Year = 1946**



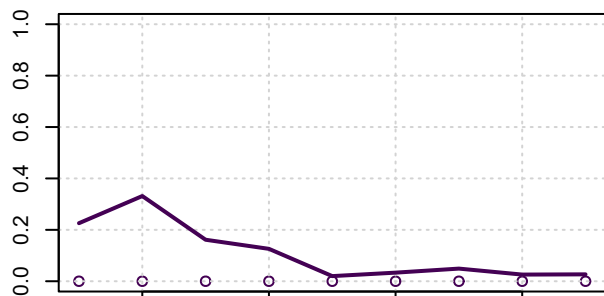
**DFO in region\_1**  
**Year = 1951**



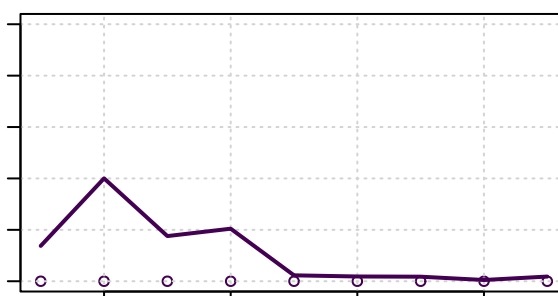
**Year = 1956**



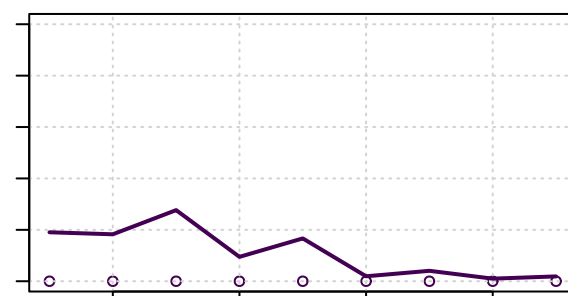
**Year = 1947**



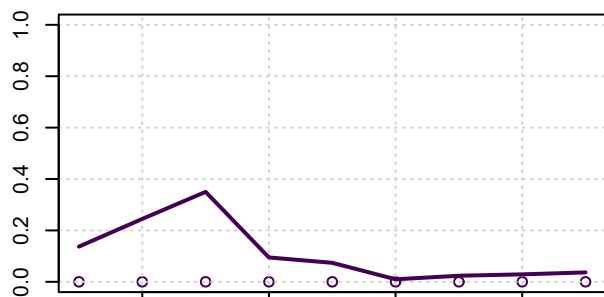
**Year = 1952**



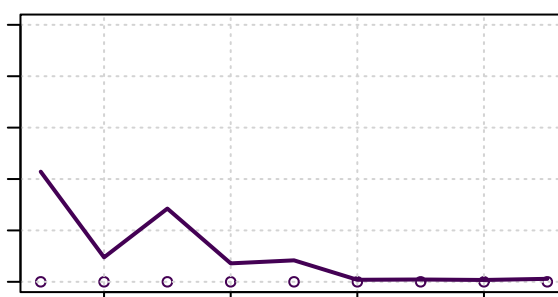
**Year = 1957**



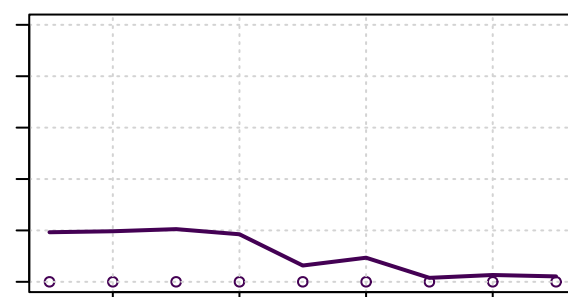
**Year = 1948**



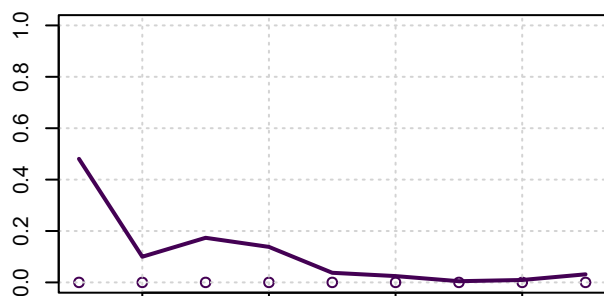
**Year = 1953**



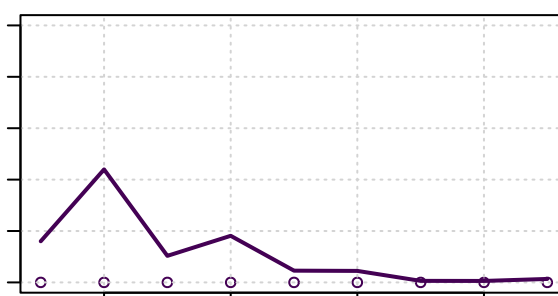
**Year = 1958**



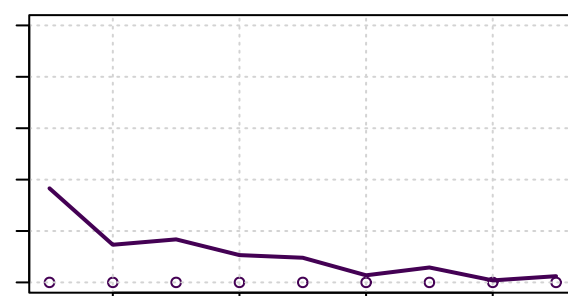
**Year = 1949**



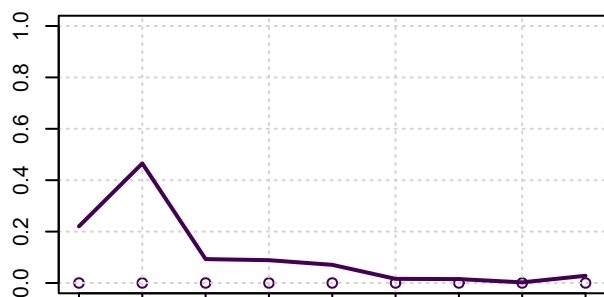
**Year = 1954**



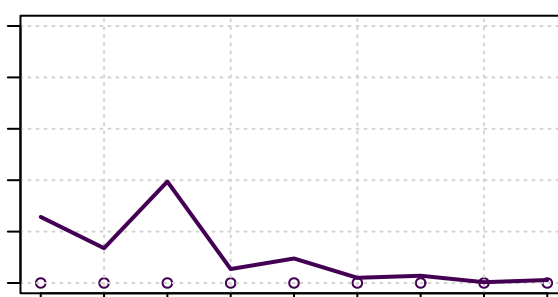
**Year = 1959**



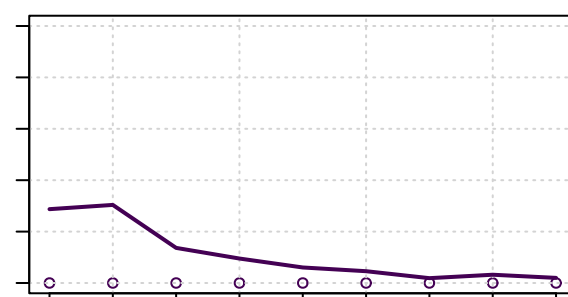
**Year = 1950**



**Year = 1955**



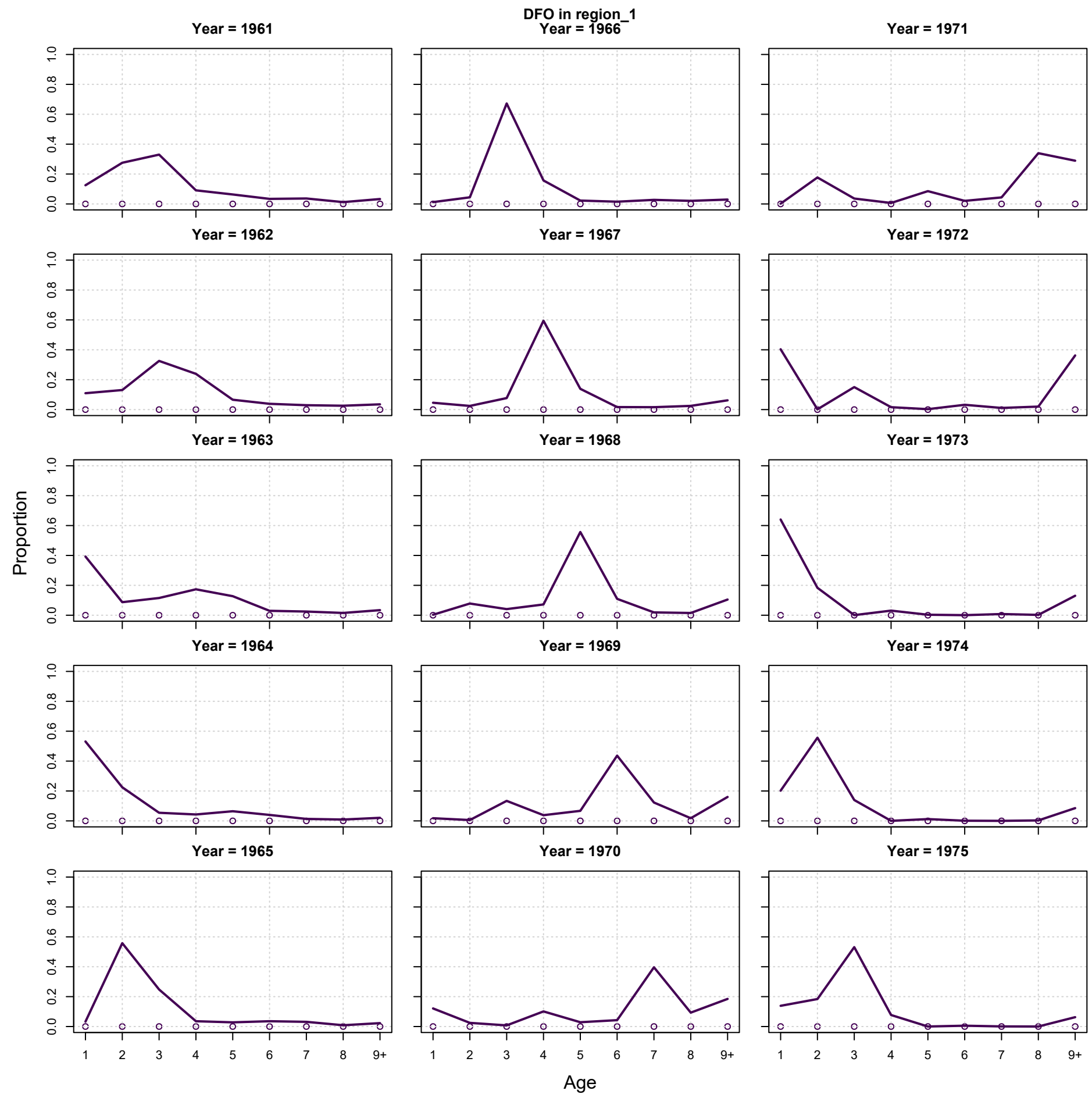
**Year = 1960**



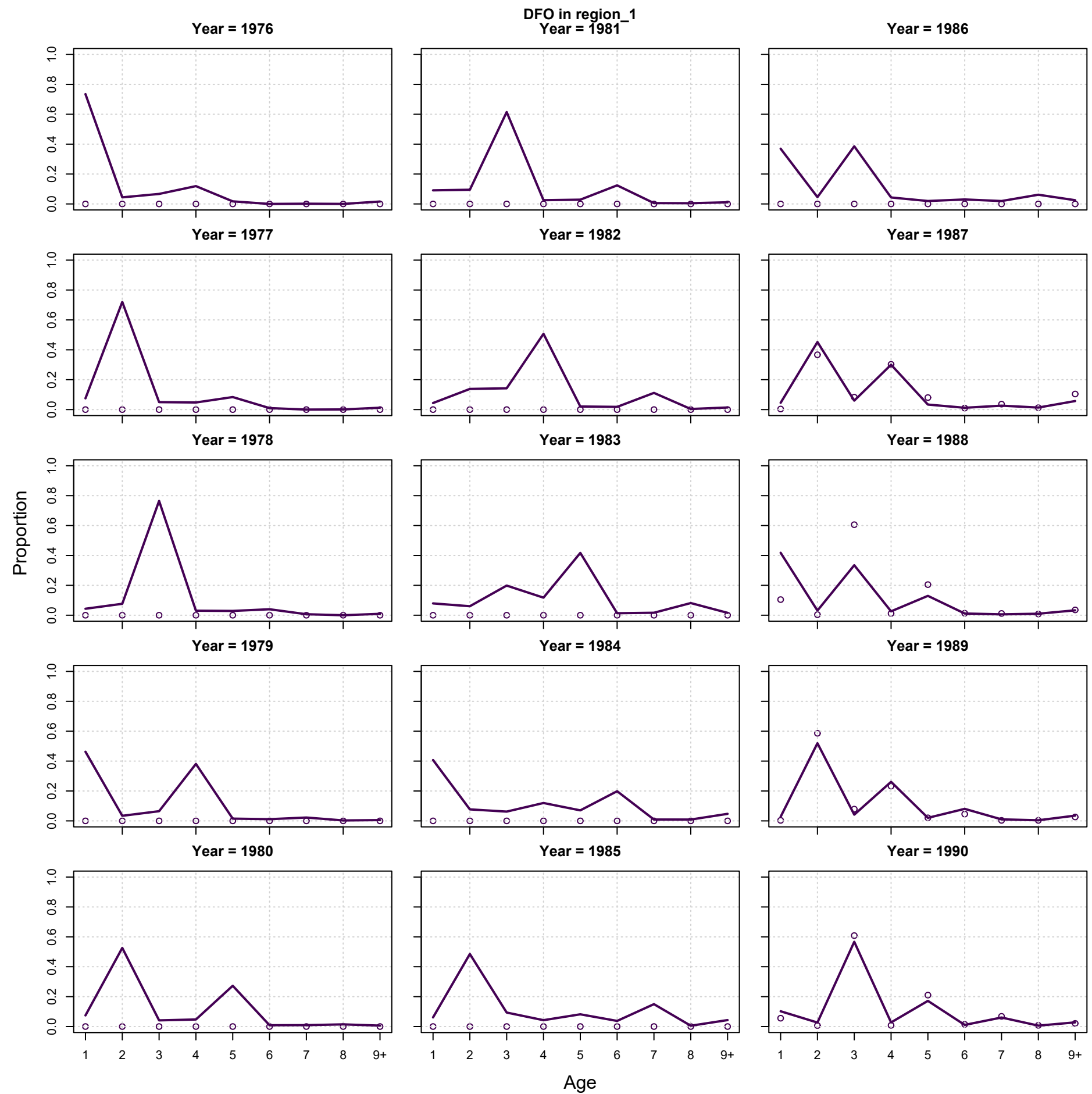
Proportion

Age

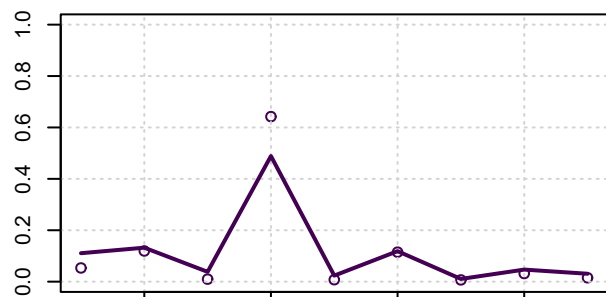
# DFO in region\_1



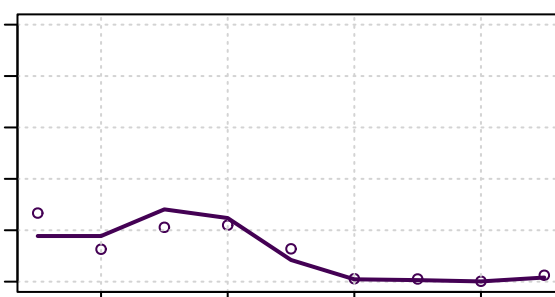
# DFO in region\_1



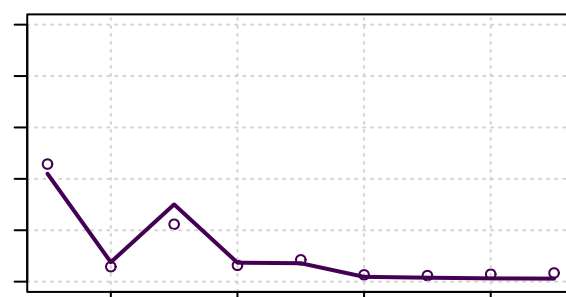
**Year = 1991**



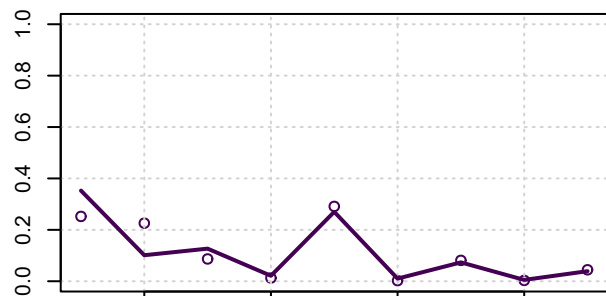
**DFO in region\_1**  
**Year = 1996**



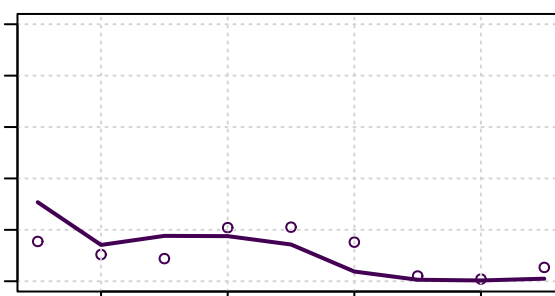
**Year = 2001**



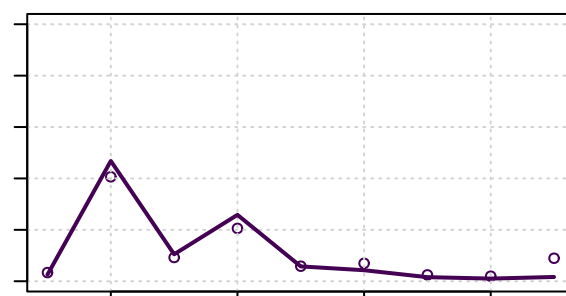
**Year = 1992**



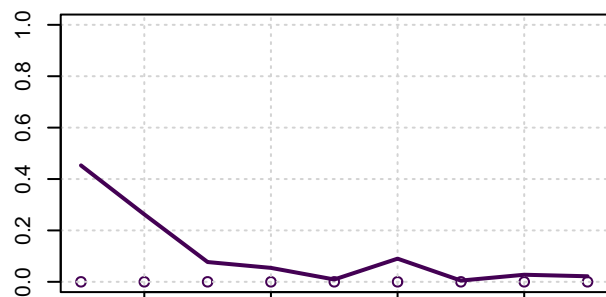
**Year = 1997**



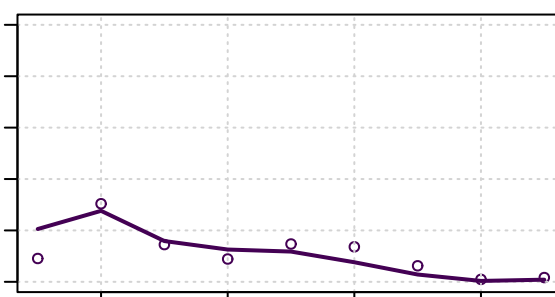
**Year = 2002**



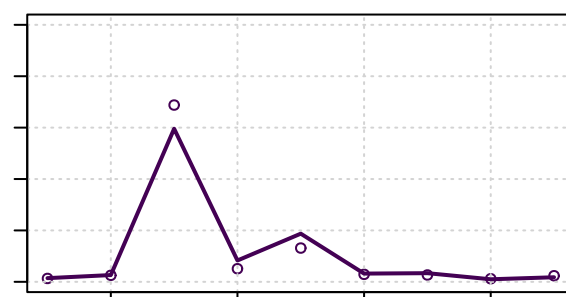
**Year = 1993**



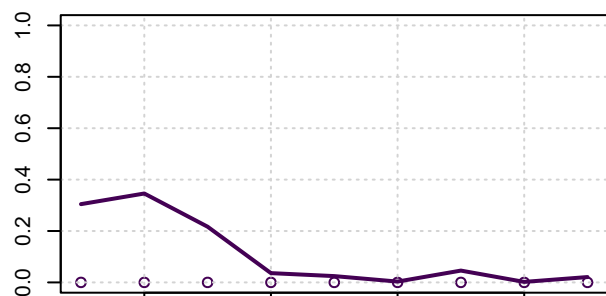
**Year = 1998**



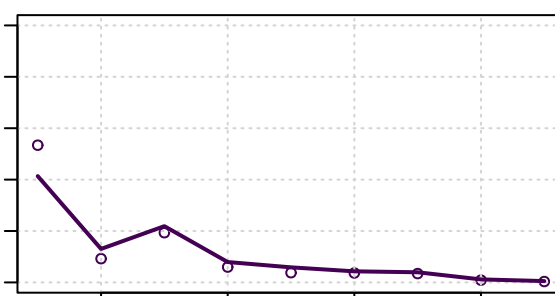
**Year = 2003**



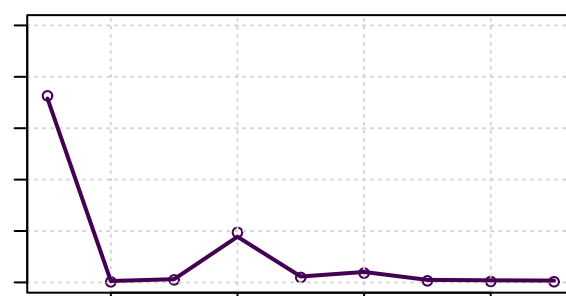
**Year = 1994**



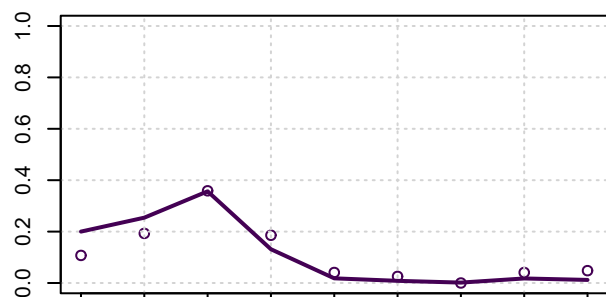
**Year = 1999**



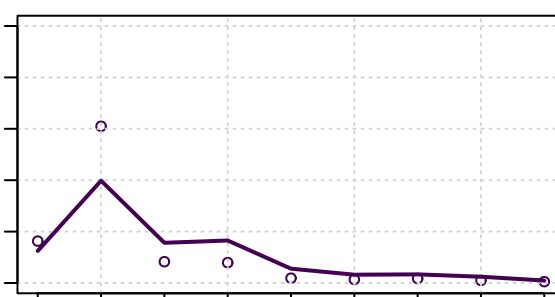
**Year = 2004**



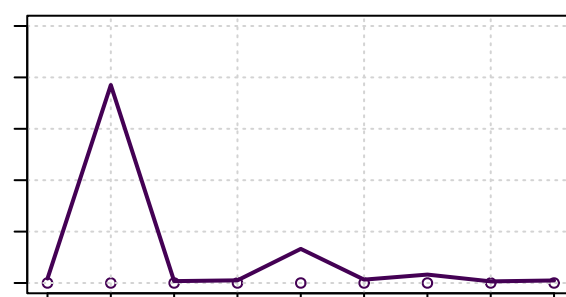
**Year = 1995**



**Year = 2000**



**Year = 2005**





DFO in region\_1  
Year = 2011

Year = 2006

Year = 2016

Year = 2007

Year = 2012

Year = 2017

Year = 2008

Year = 2013

Year = 2018

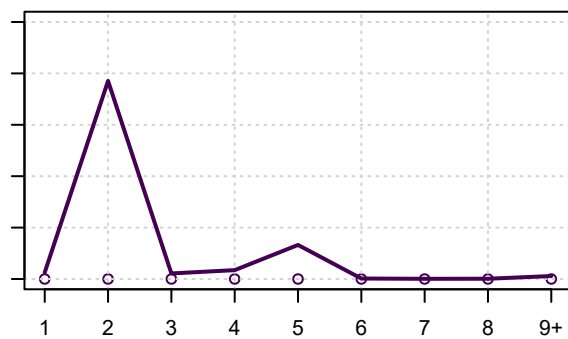
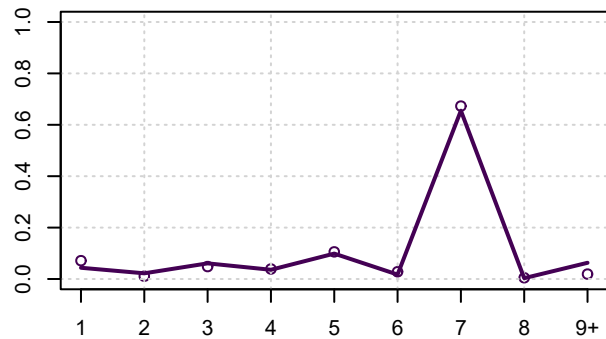
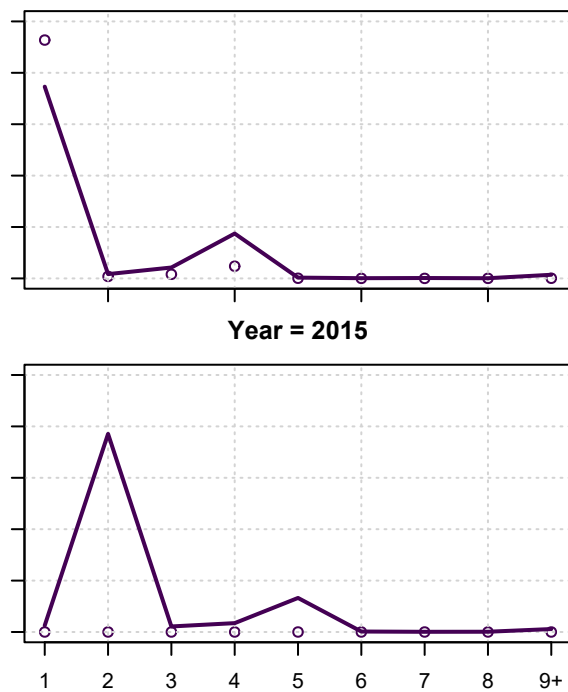
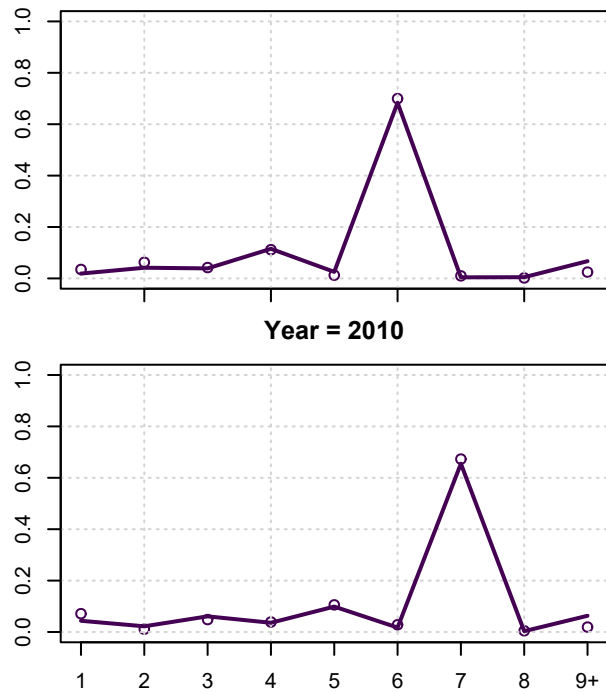
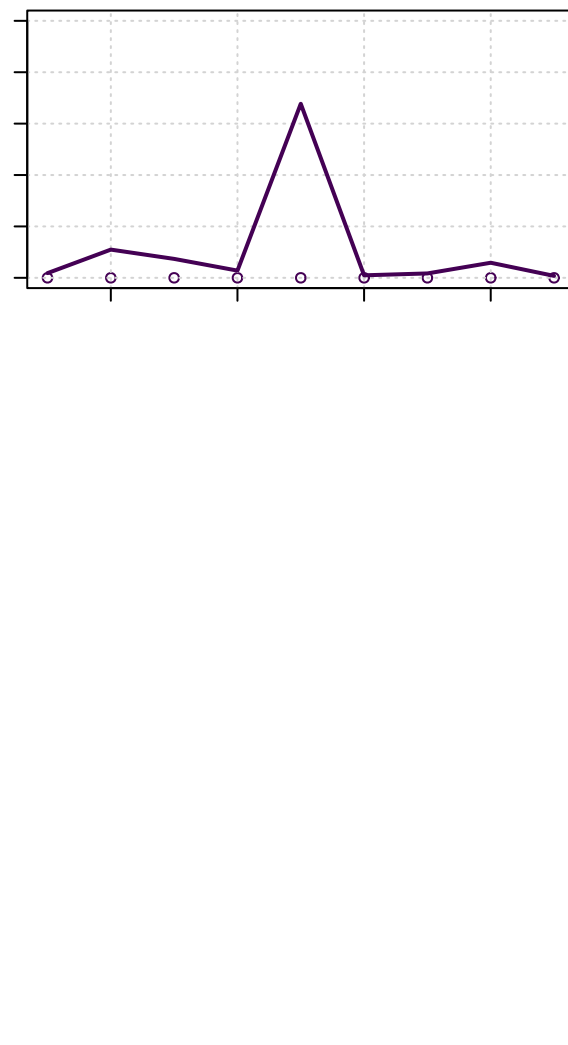
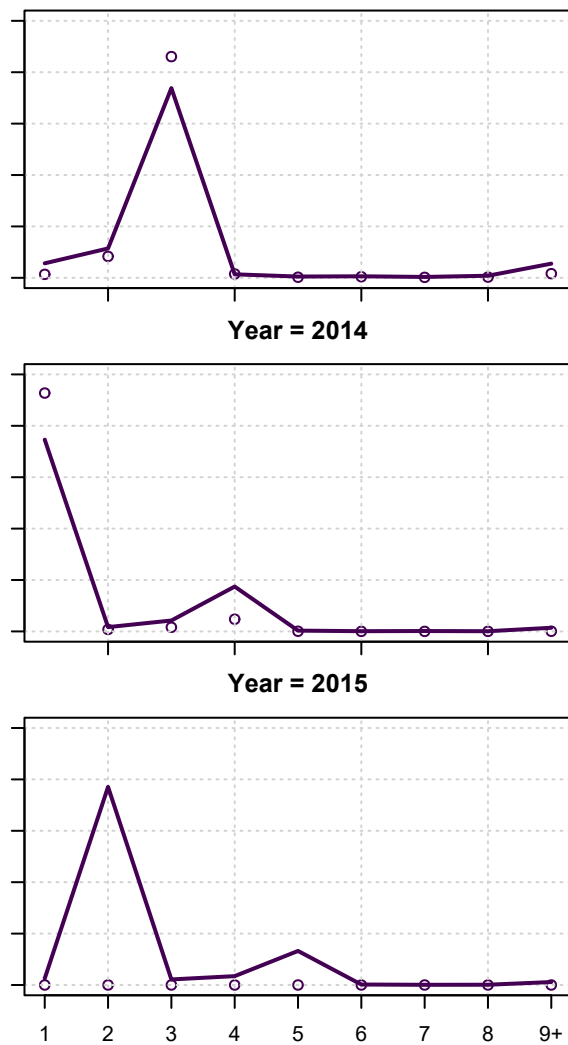
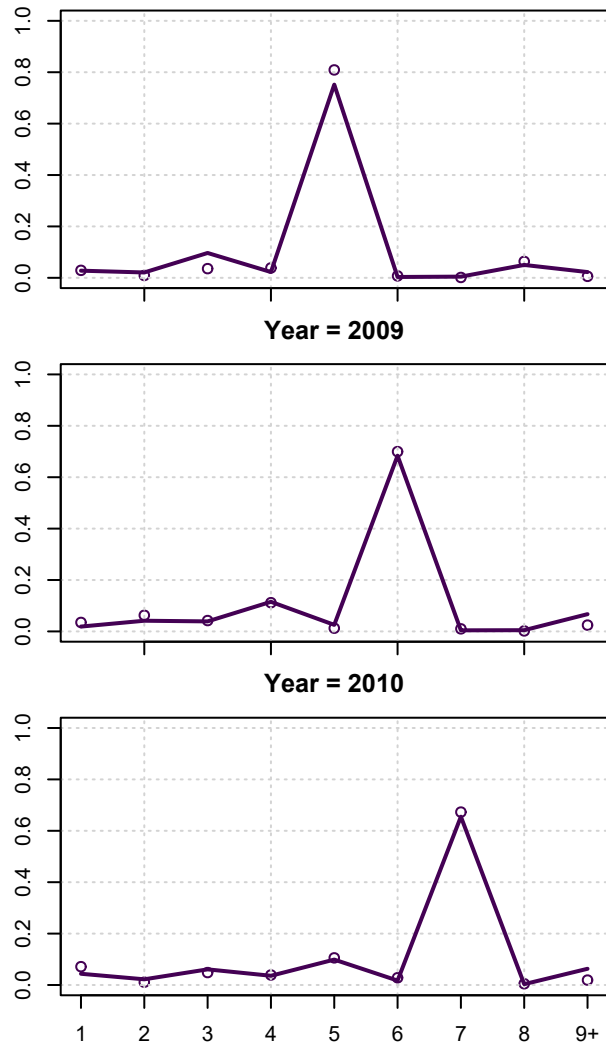
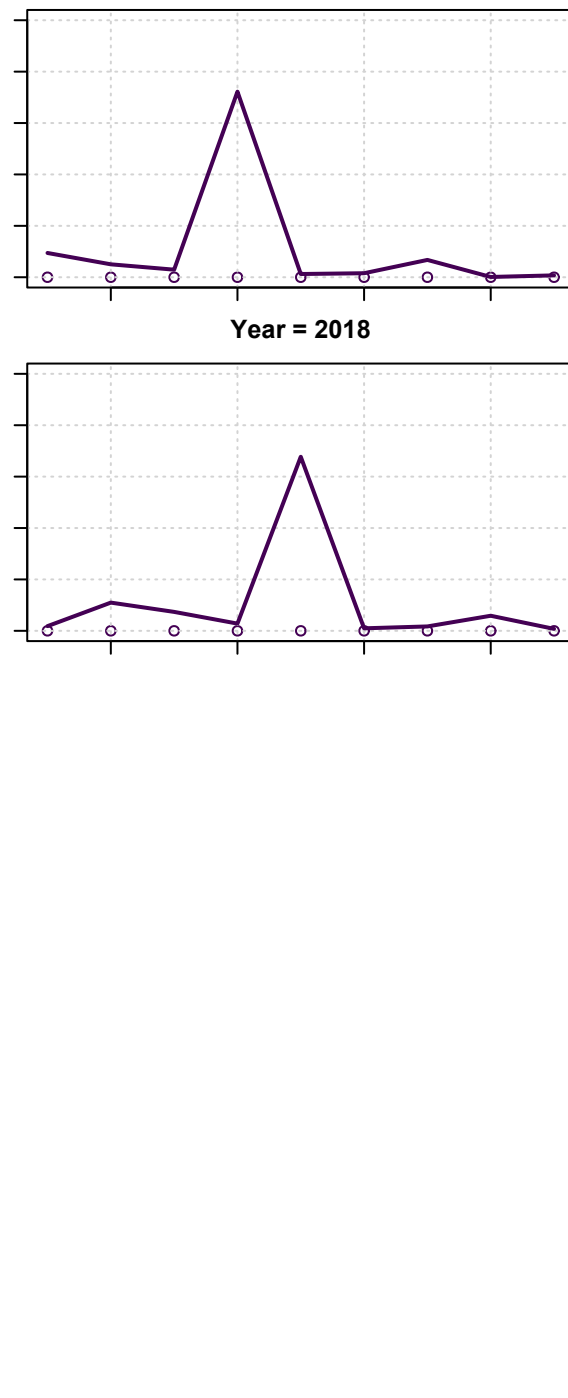
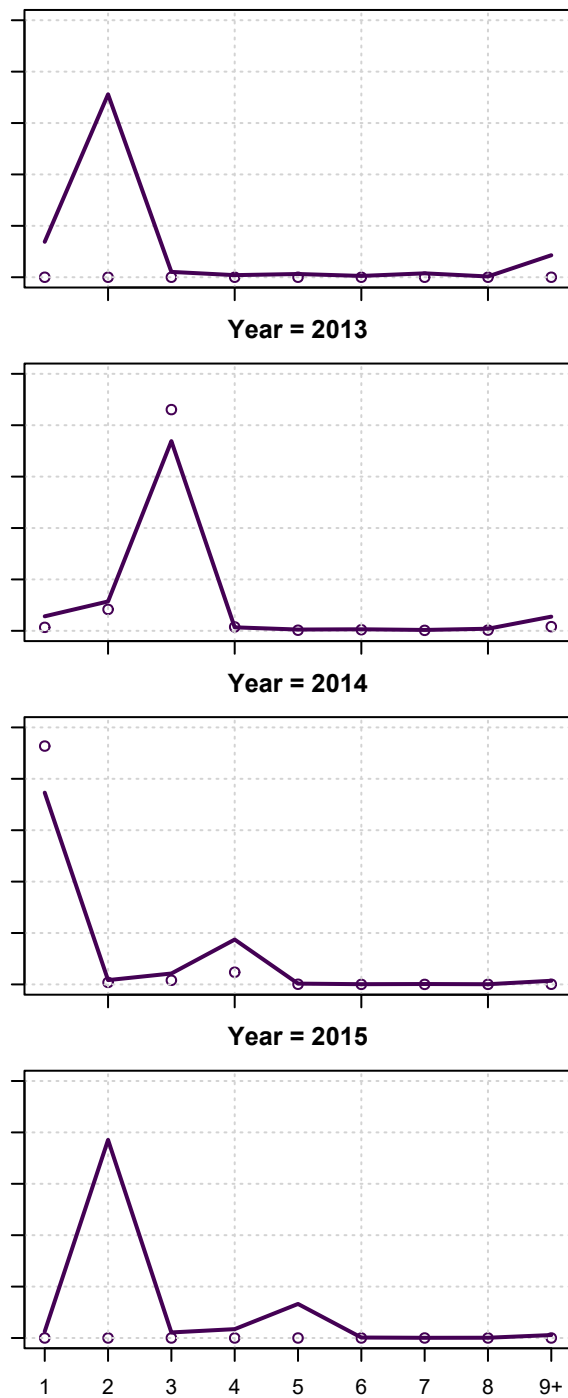
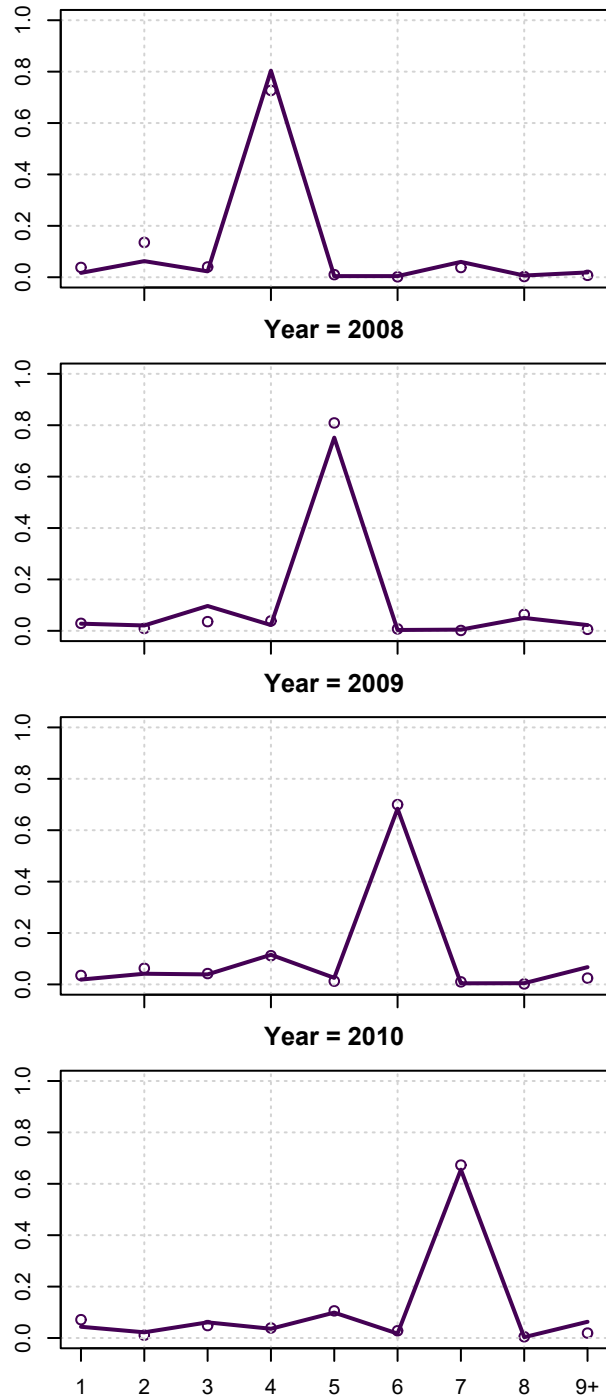
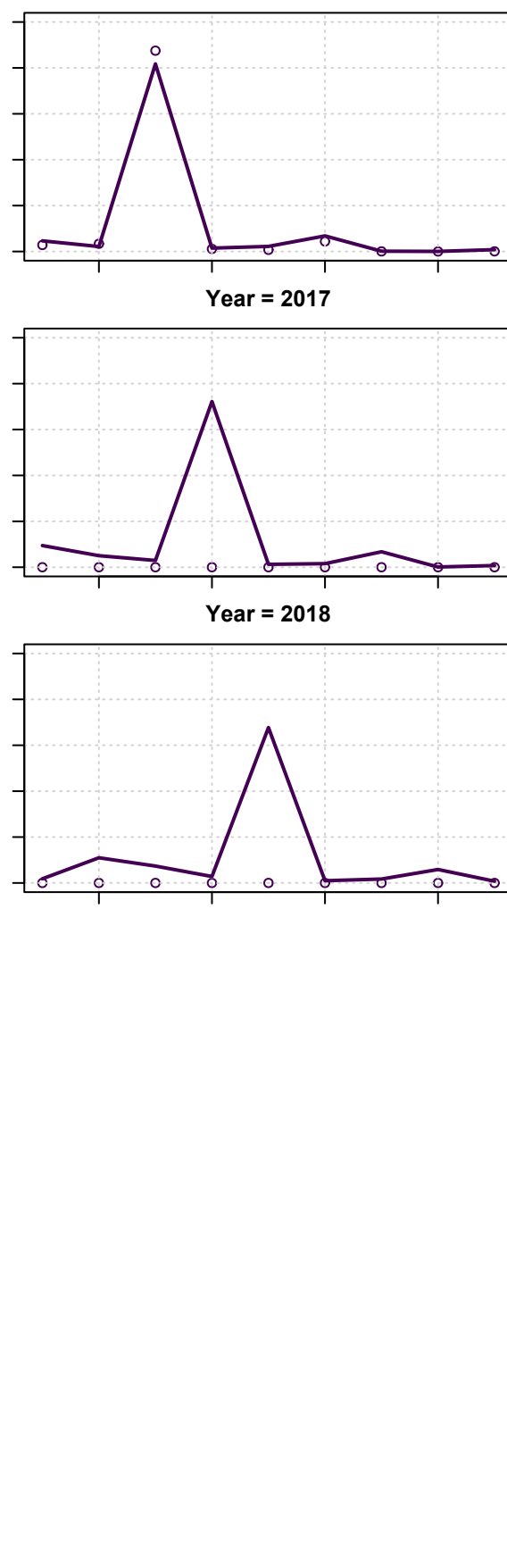
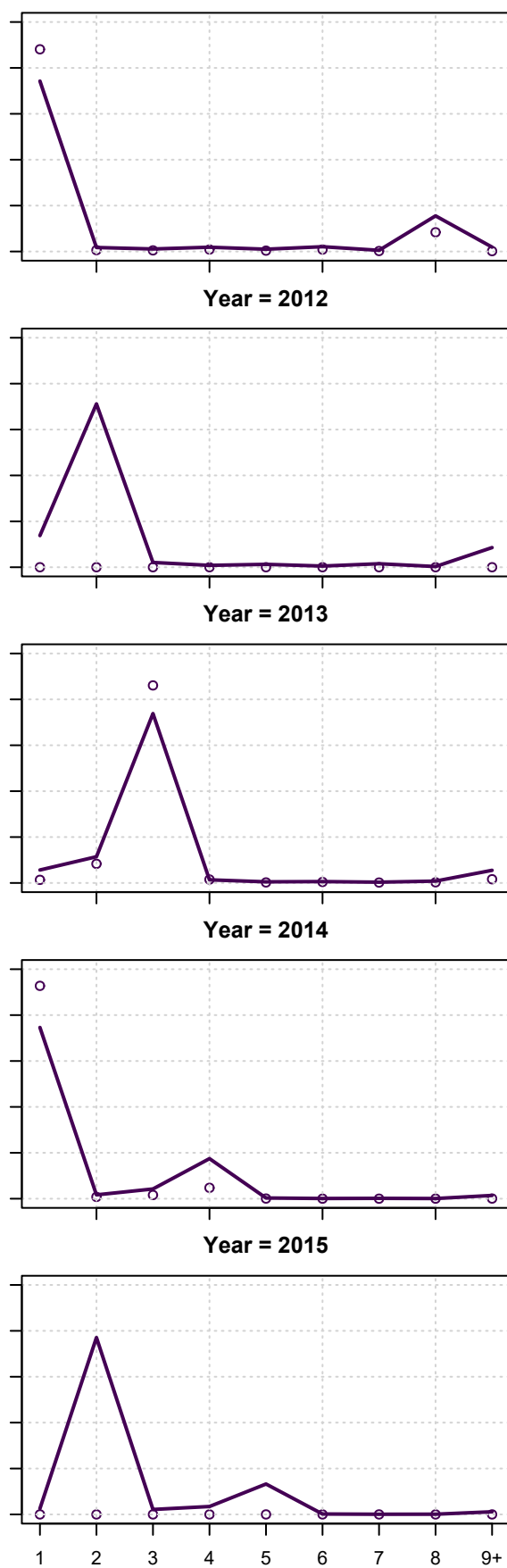
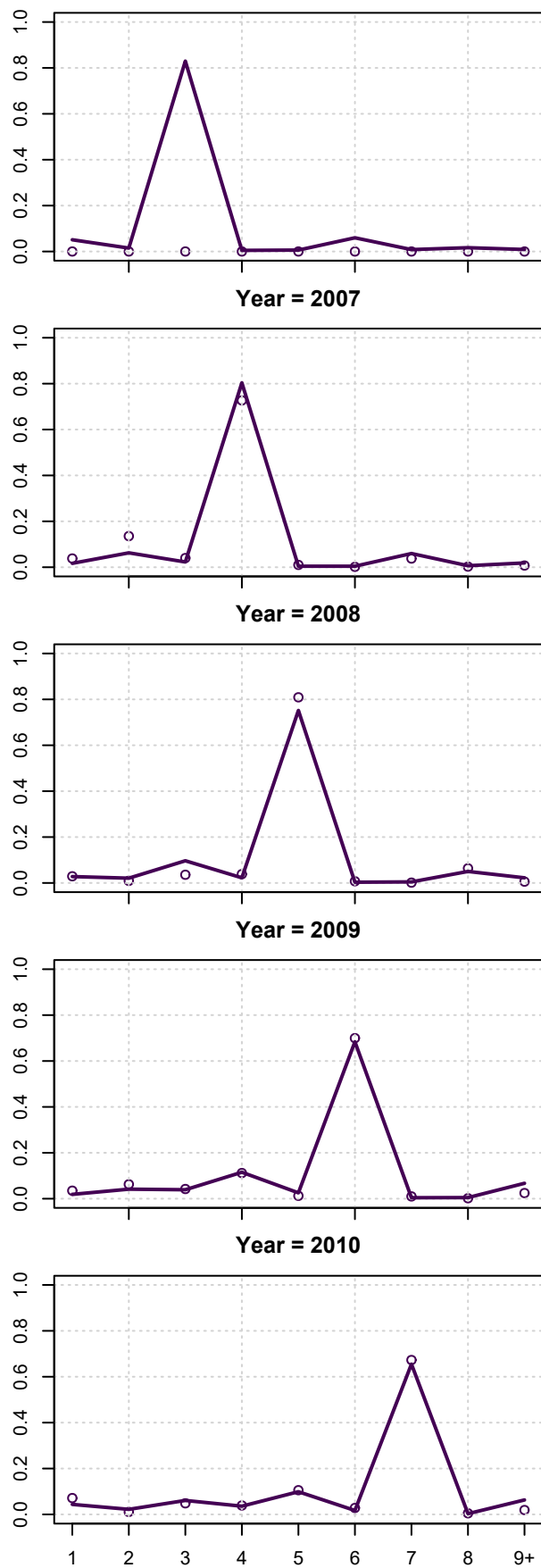
Year = 2009

Year = 2014

Year = 2010

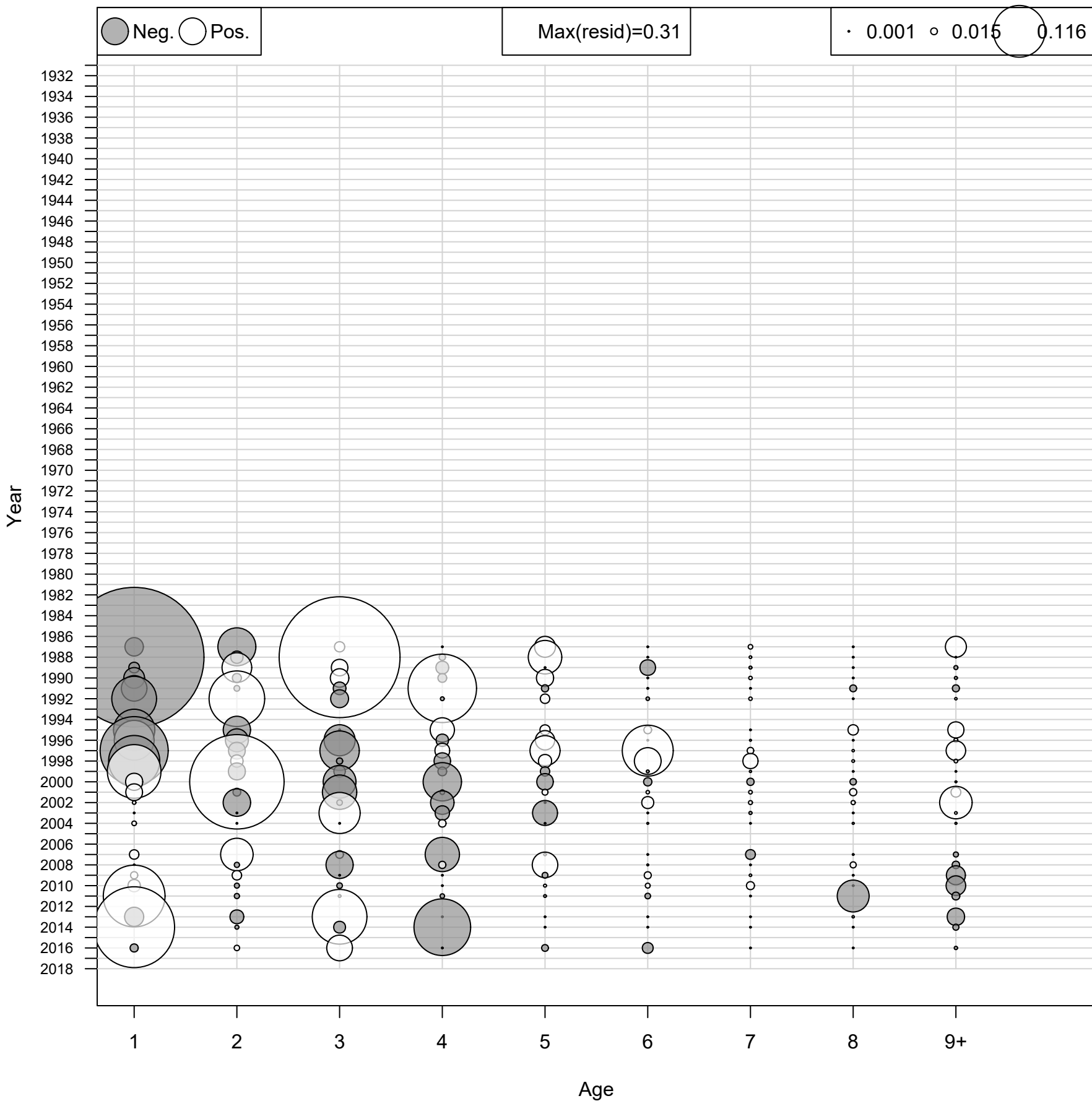
Year = 2015

Proportion

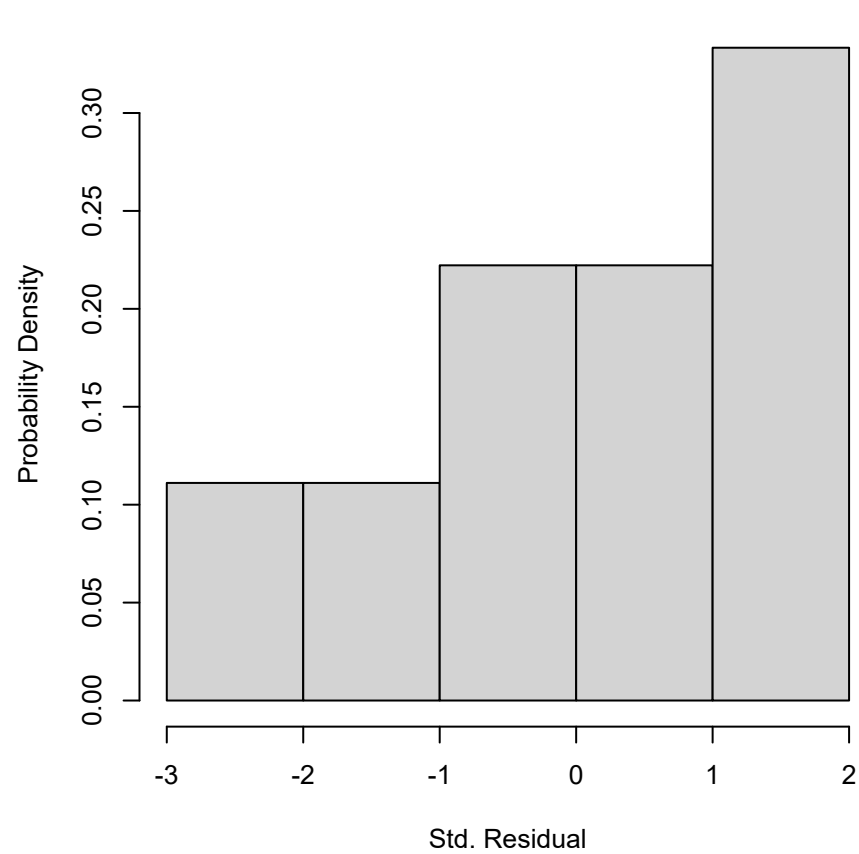
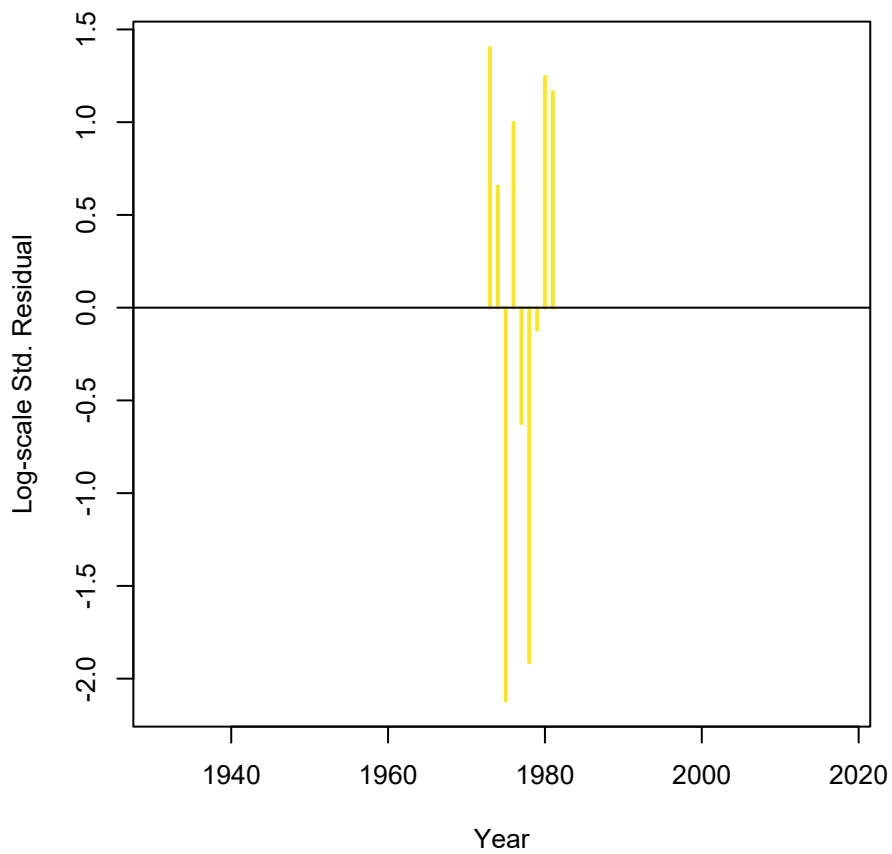
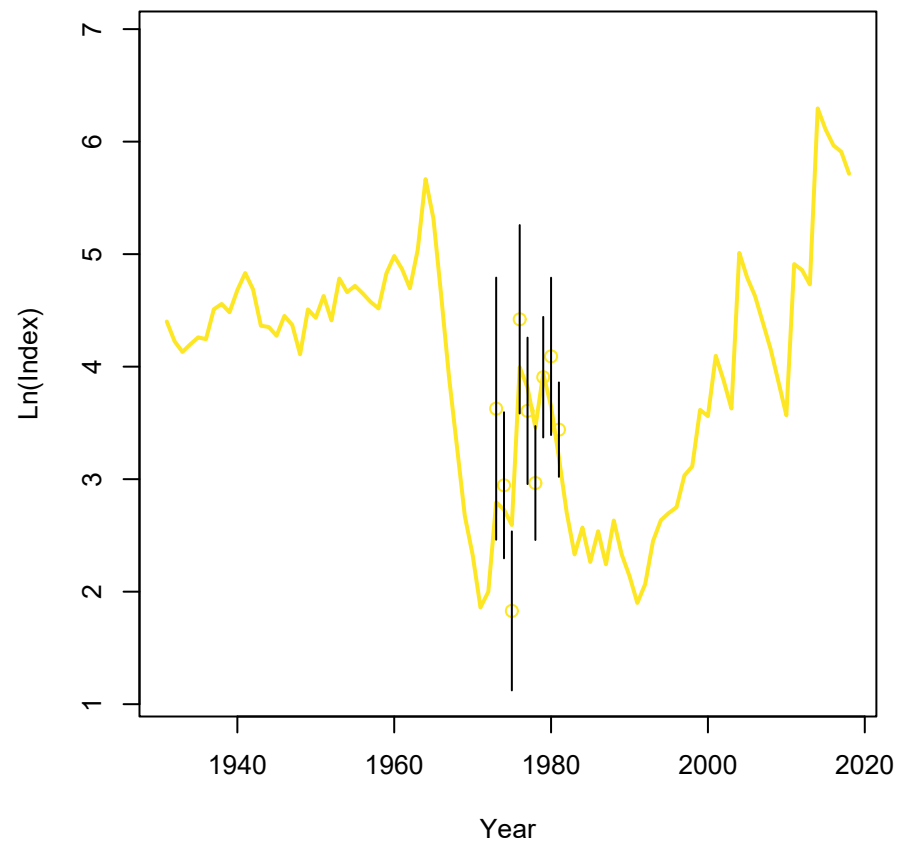
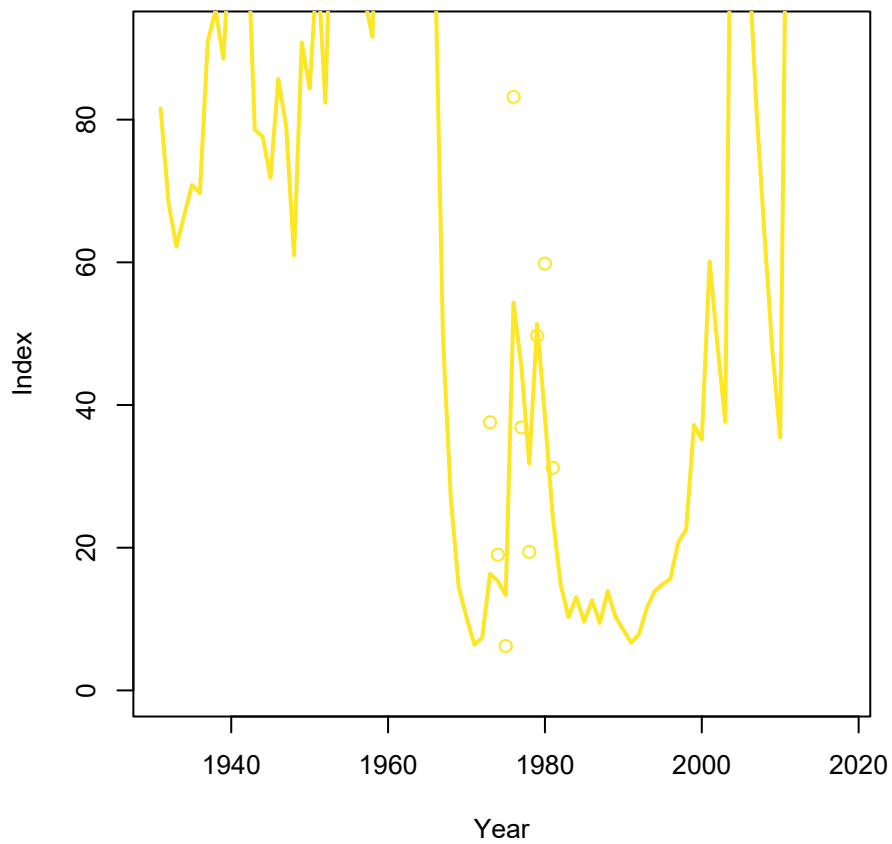


Age

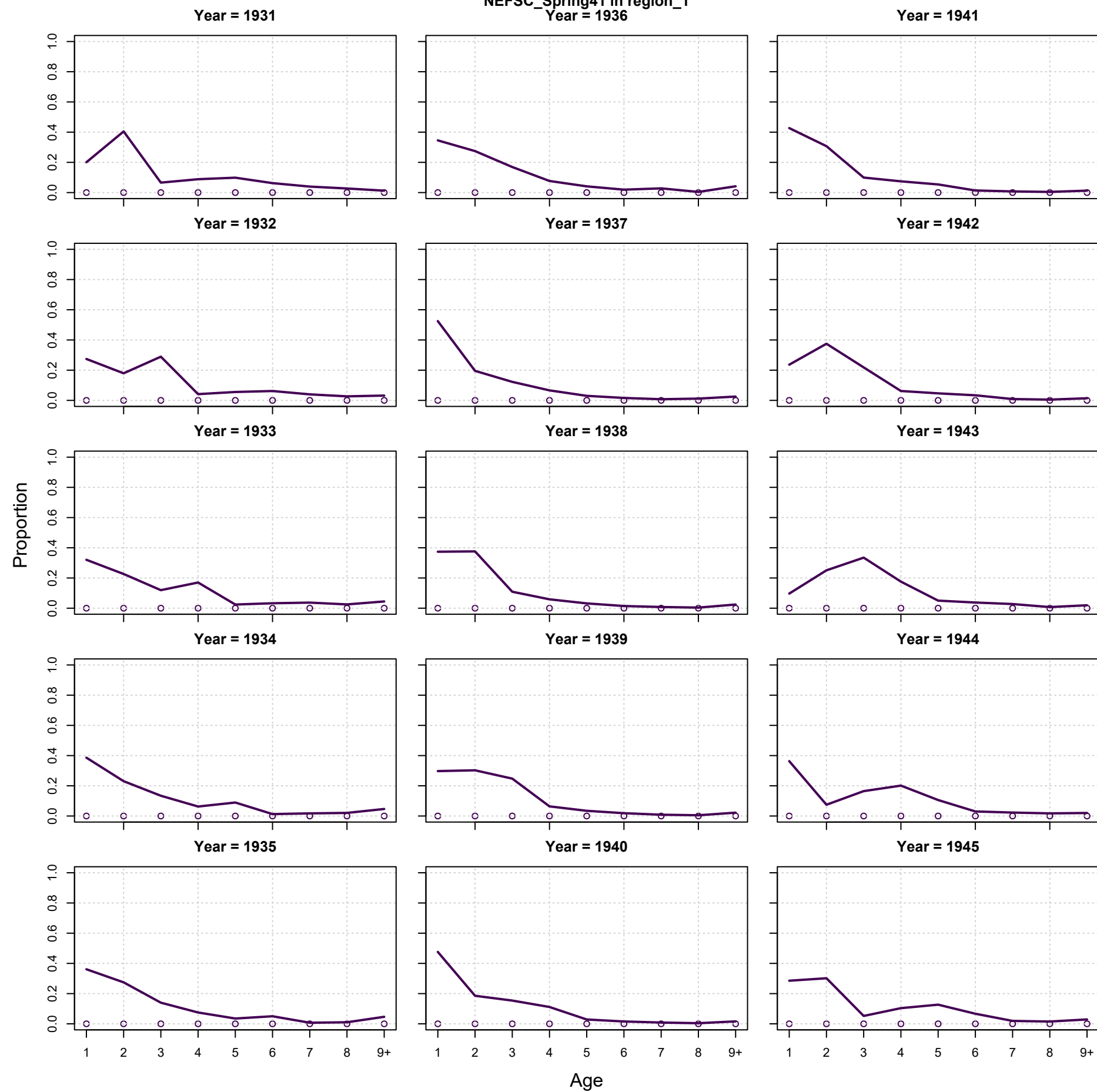
# Age Comp Residuals (Observed-Predicted) for DFO



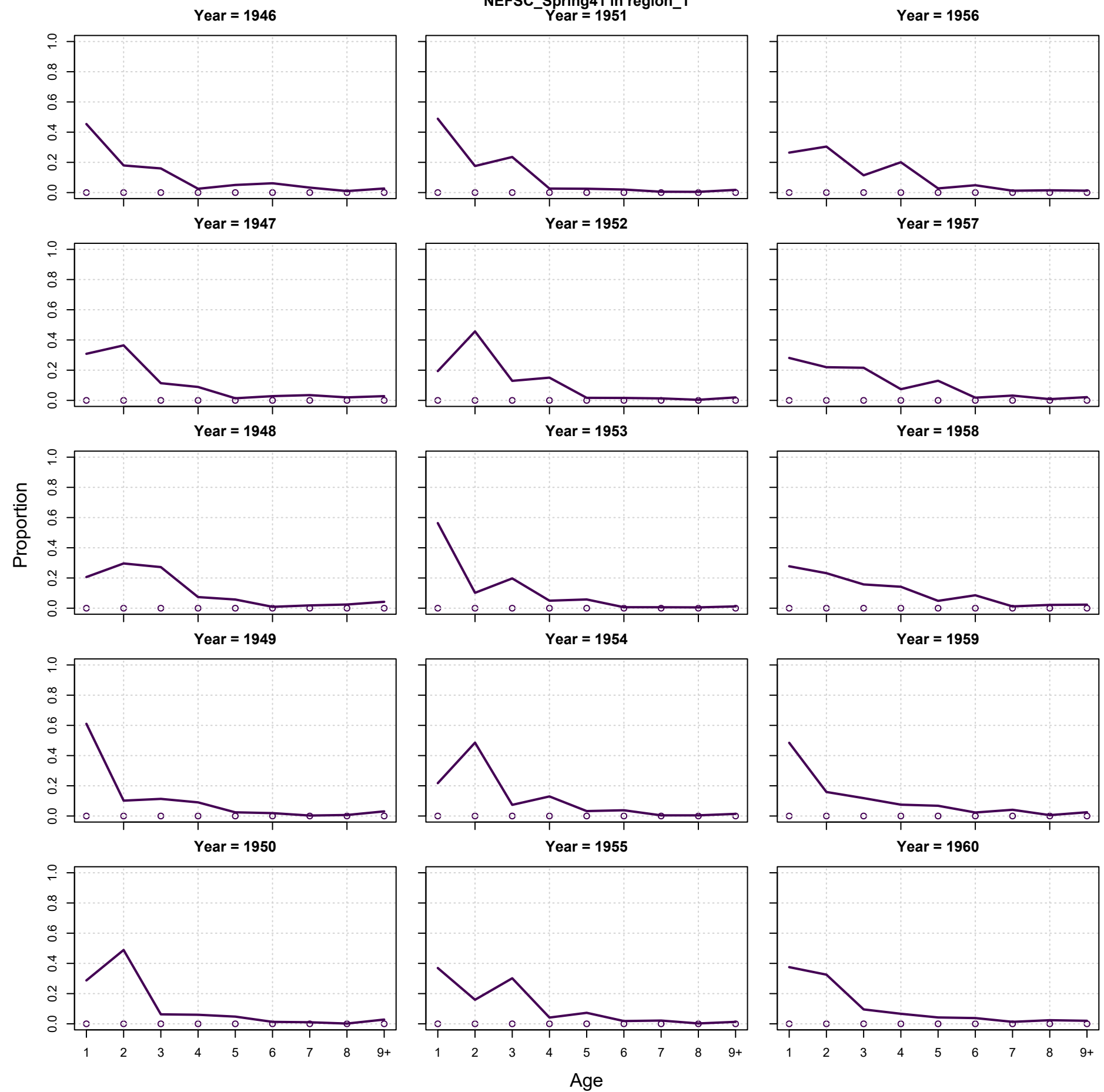
NEFSC\_Spring41 in region\_1



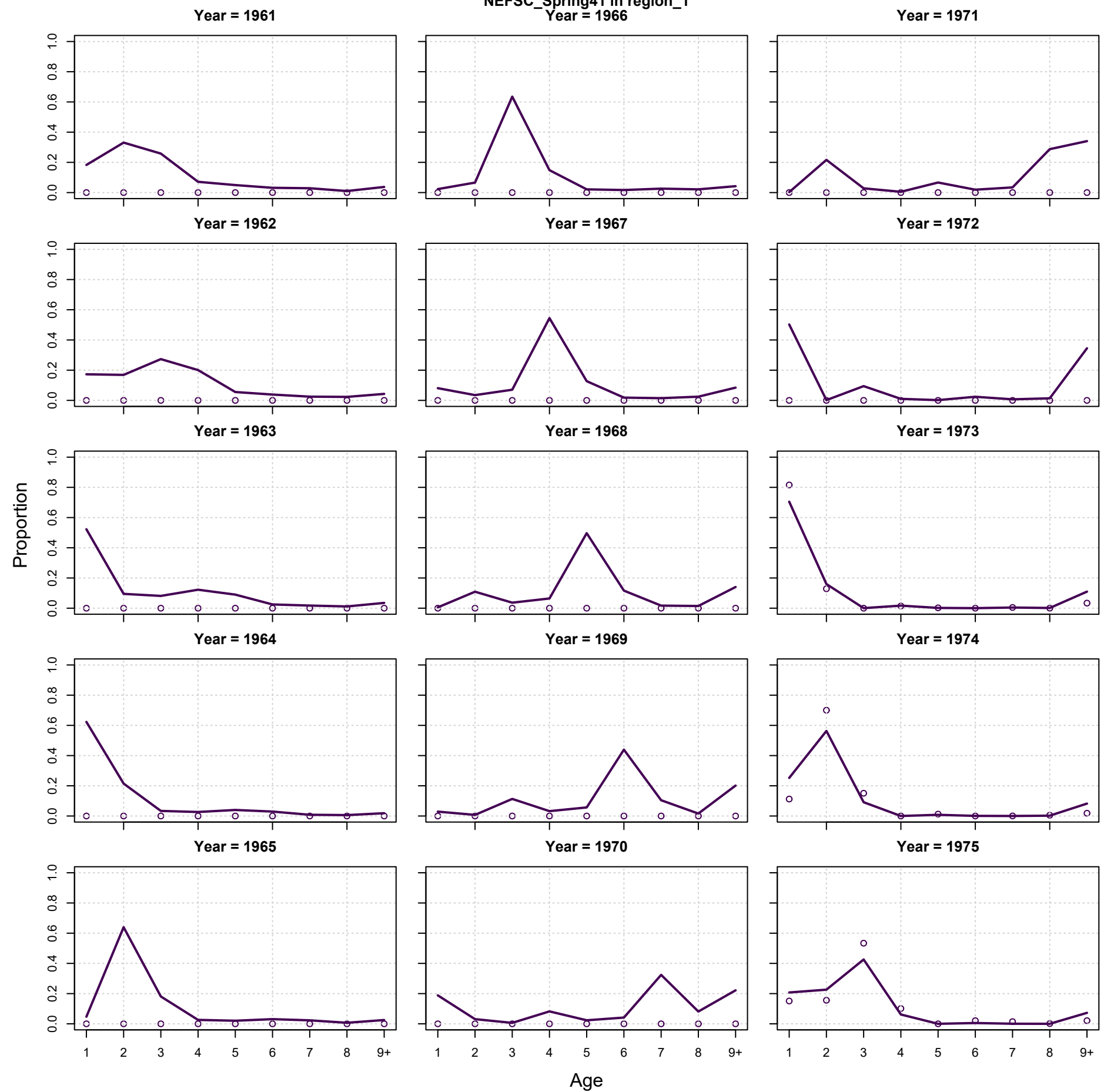
NEFSC\_Spring41 in region\_1



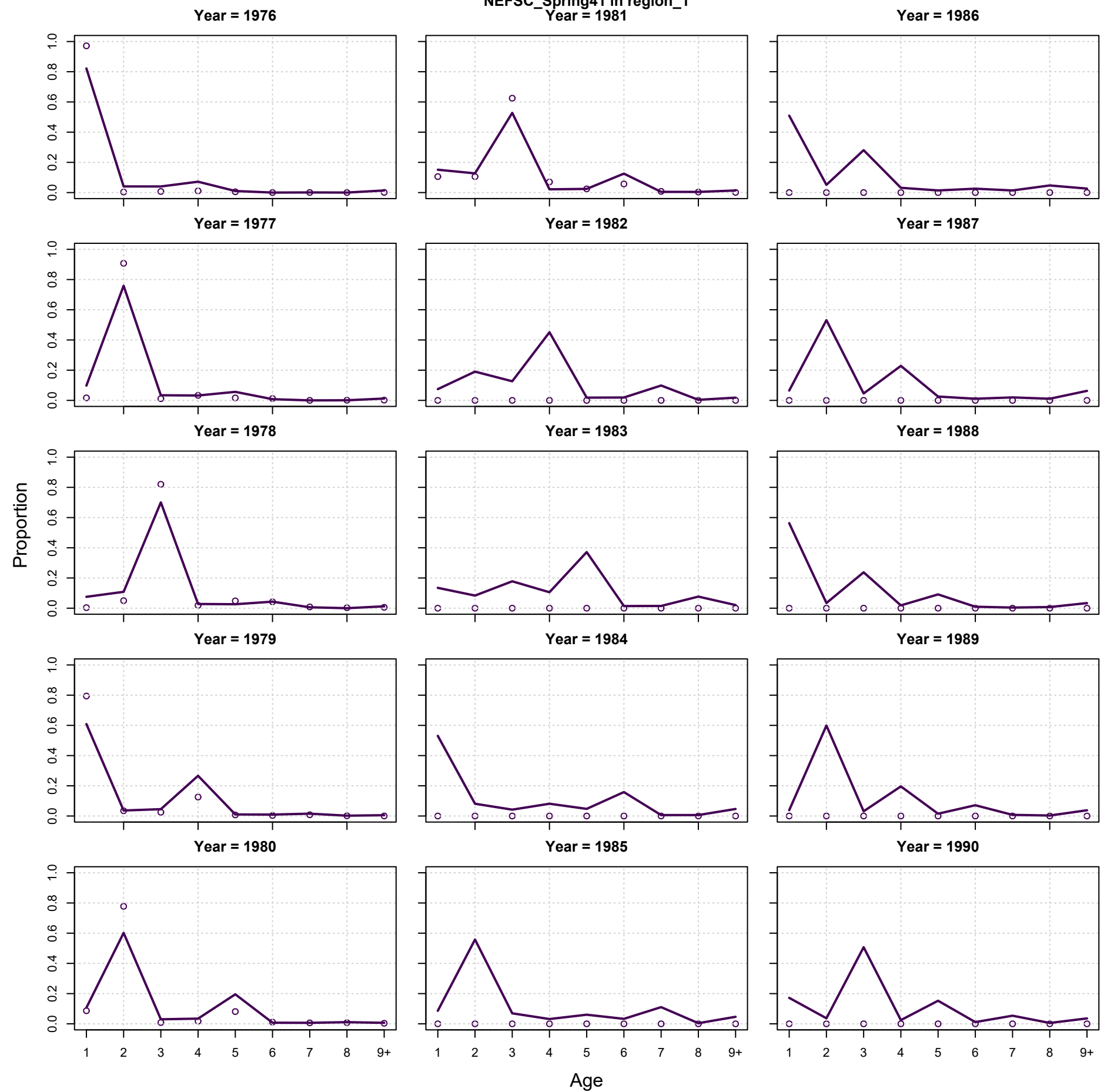
NEFSC\_Spring41 in region\_1



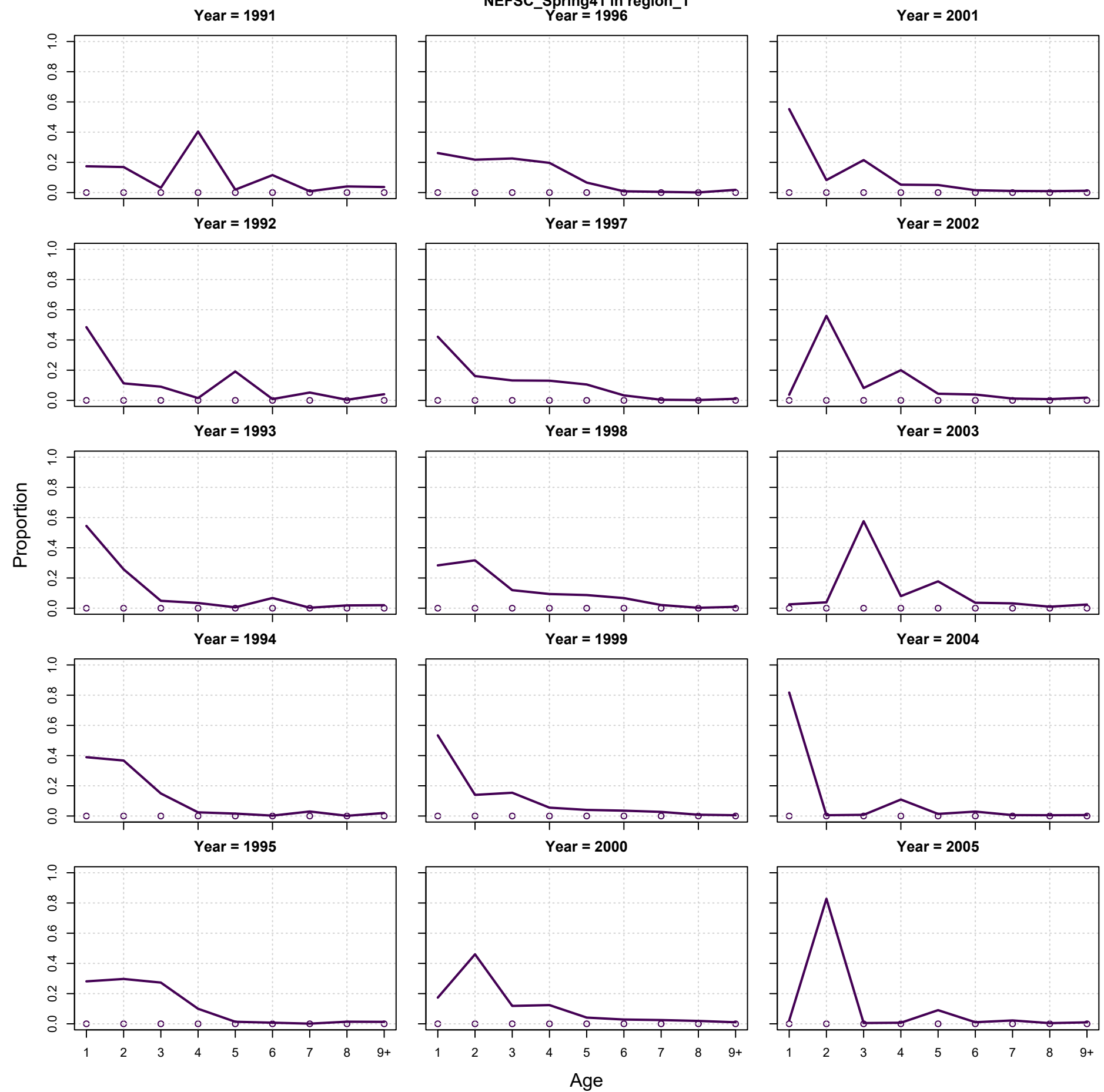
NEFSC\_Spring41 in region\_1



NEFSC\_Spring41 in region\_1

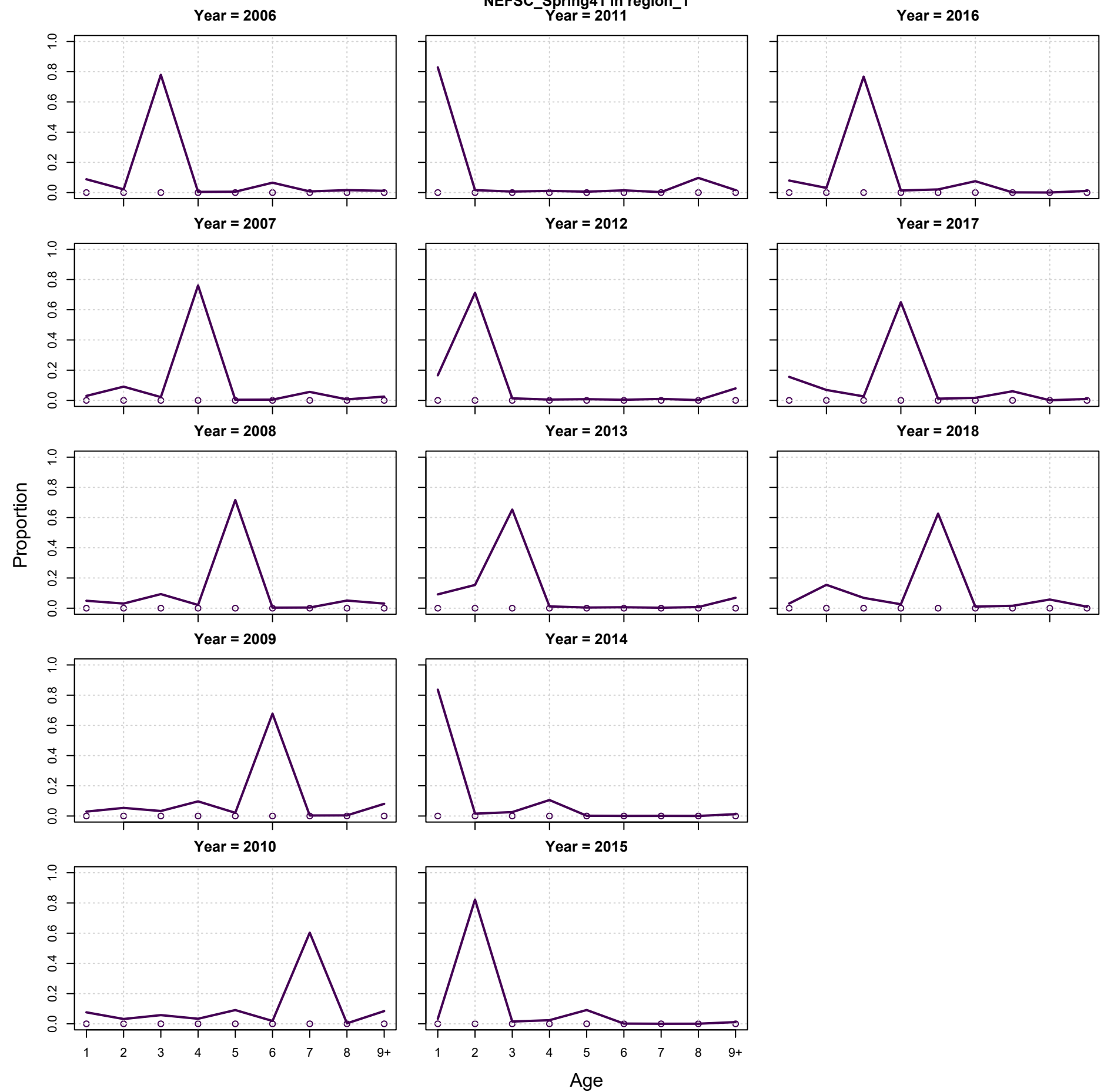


NEFSC\_Spring41 in region\_1

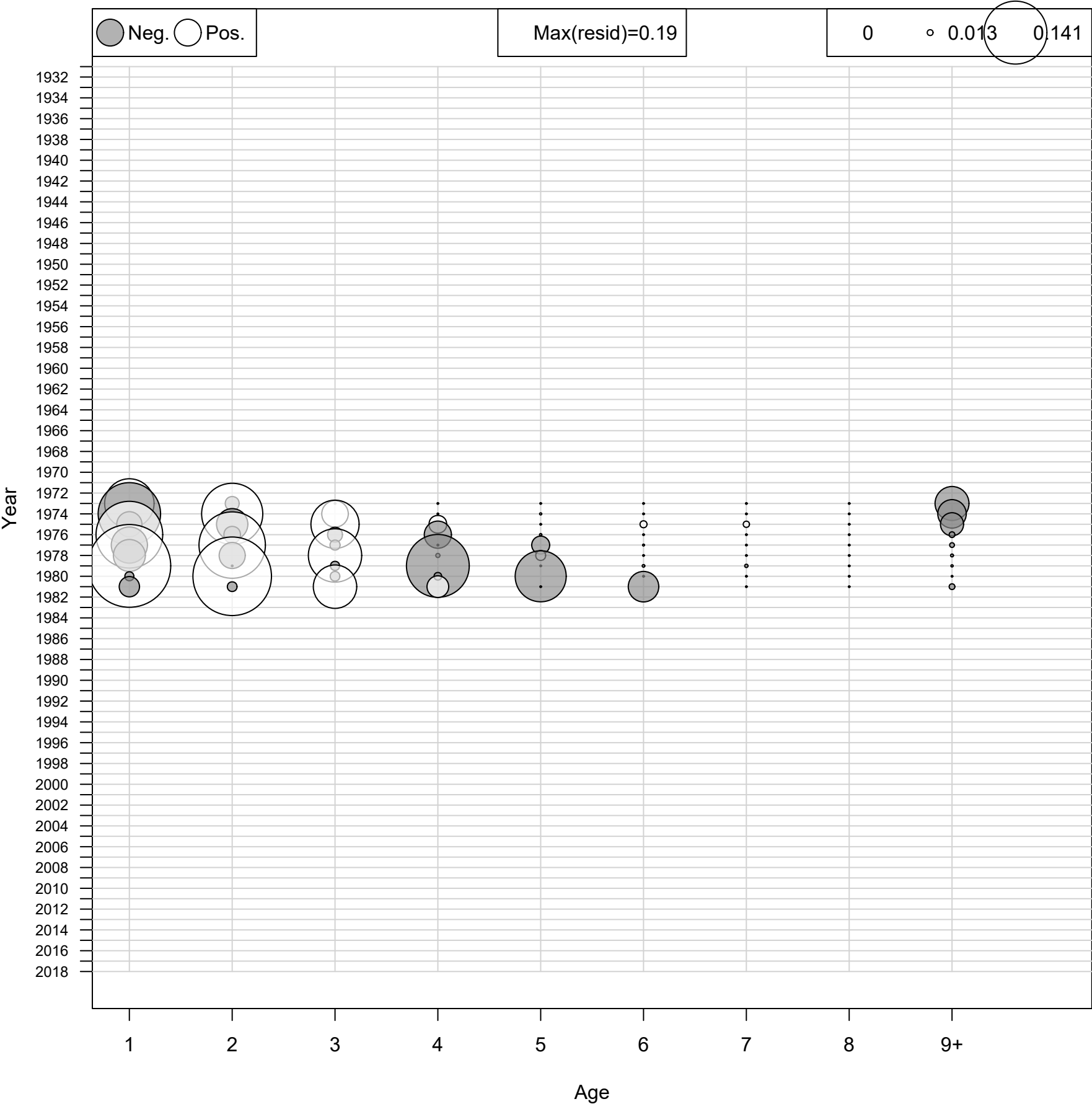




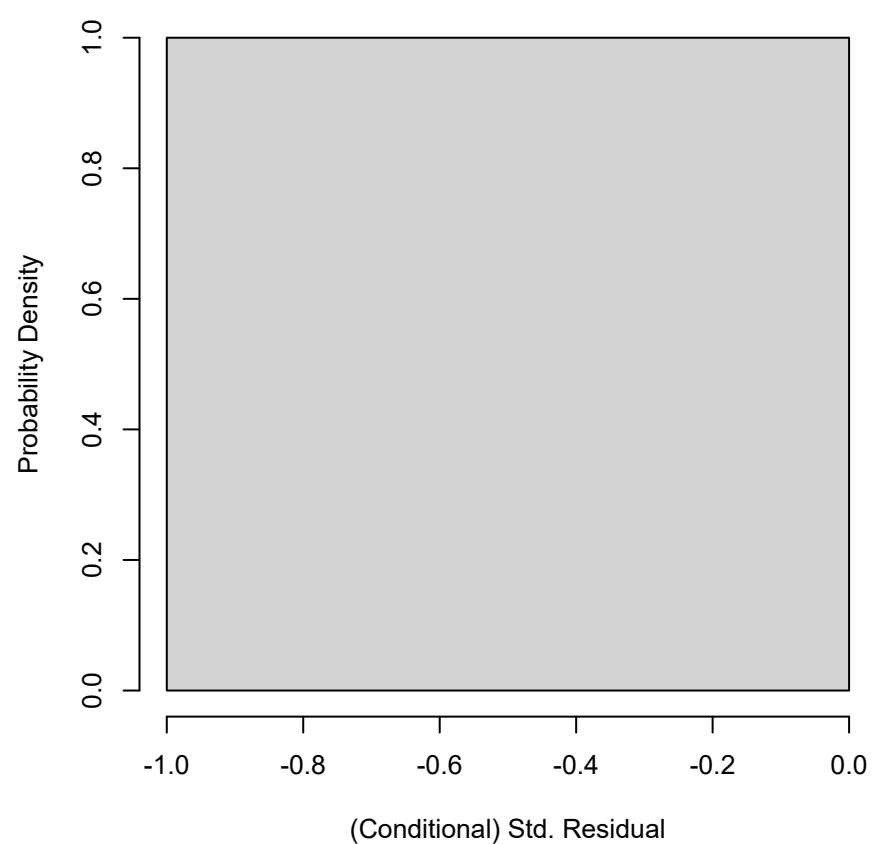
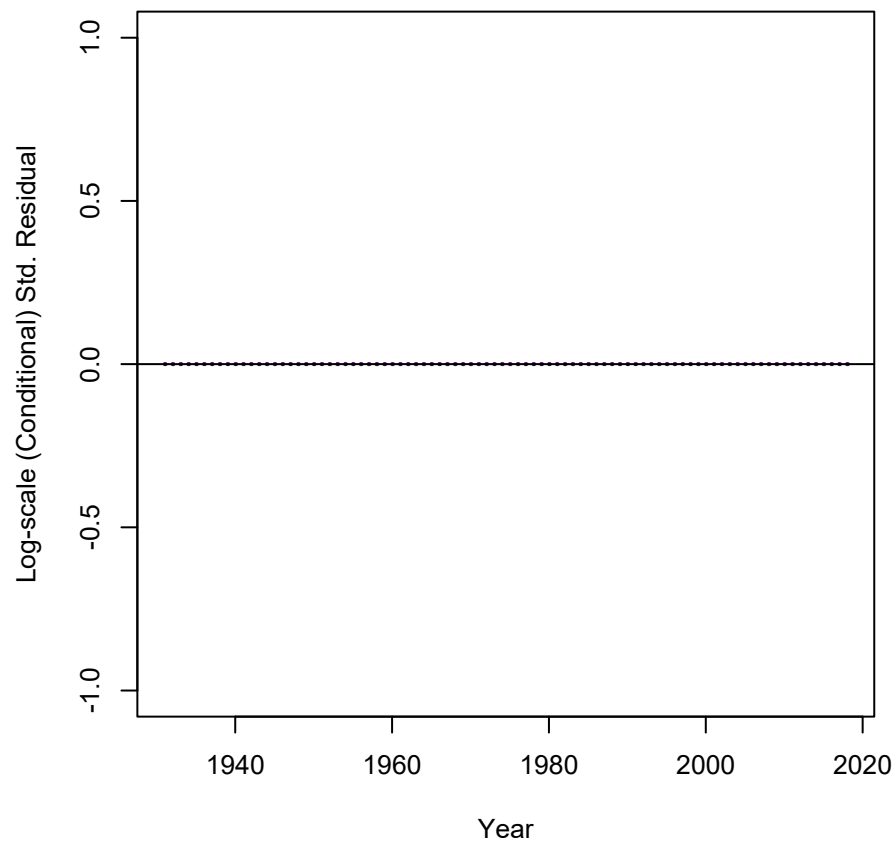
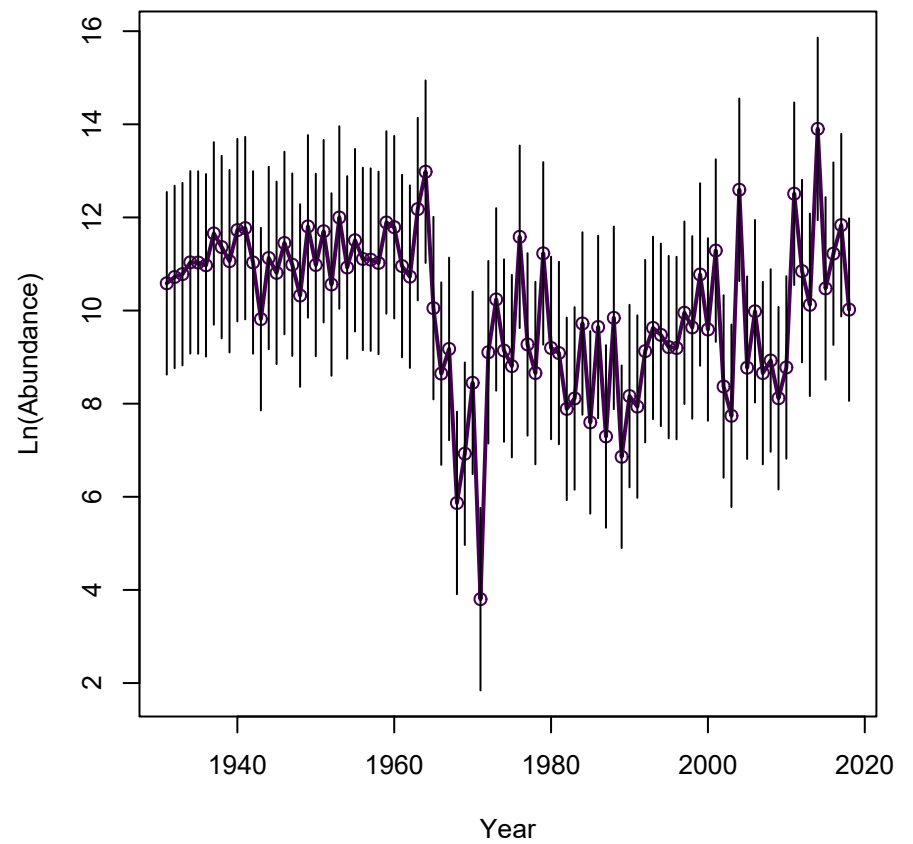
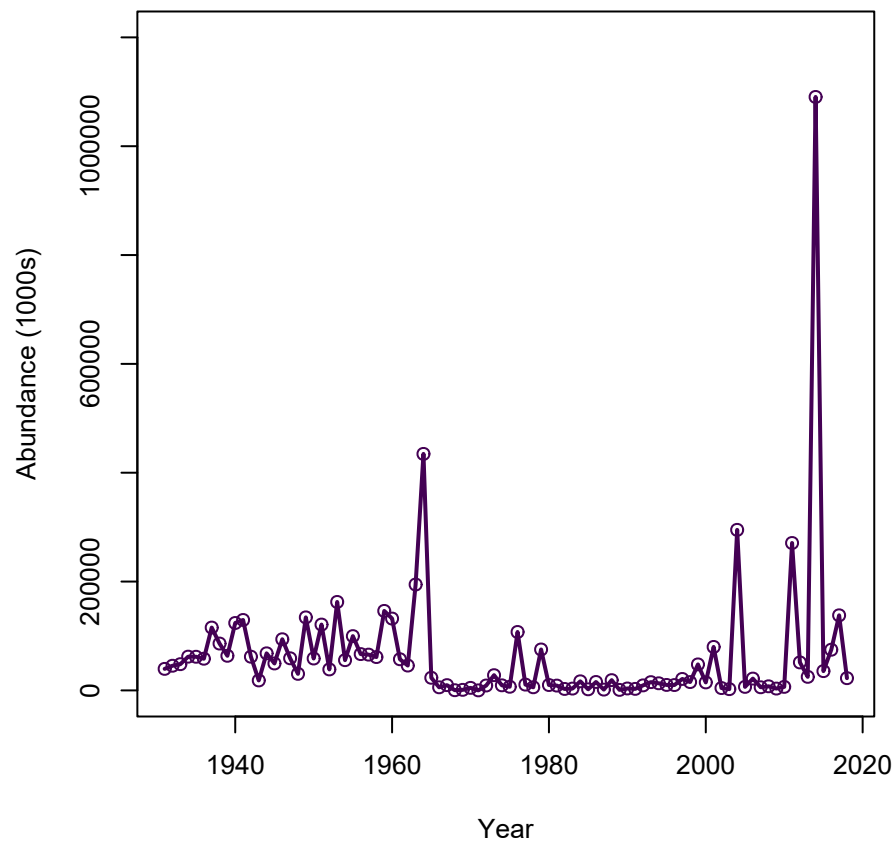
NEFSC\_Spring41 in region\_1



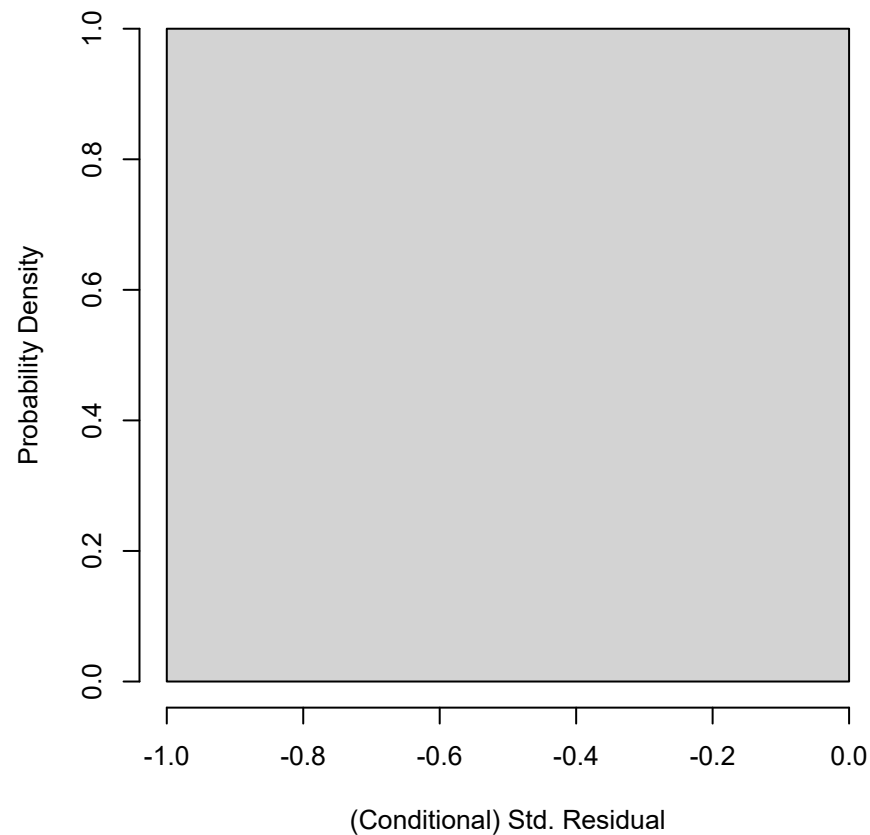
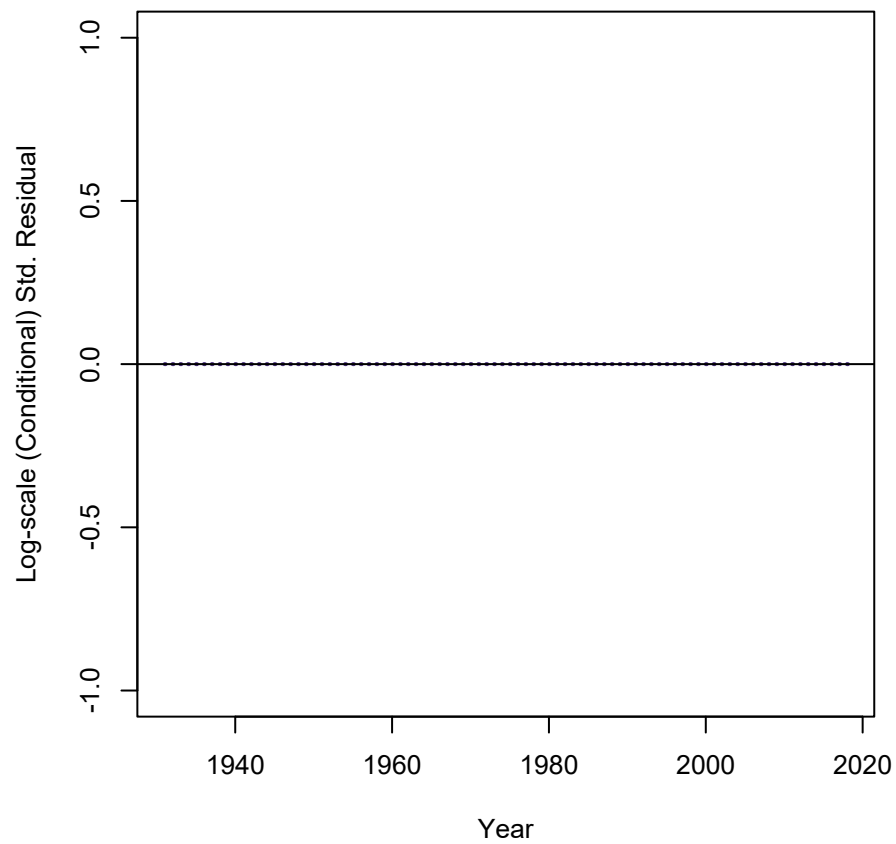
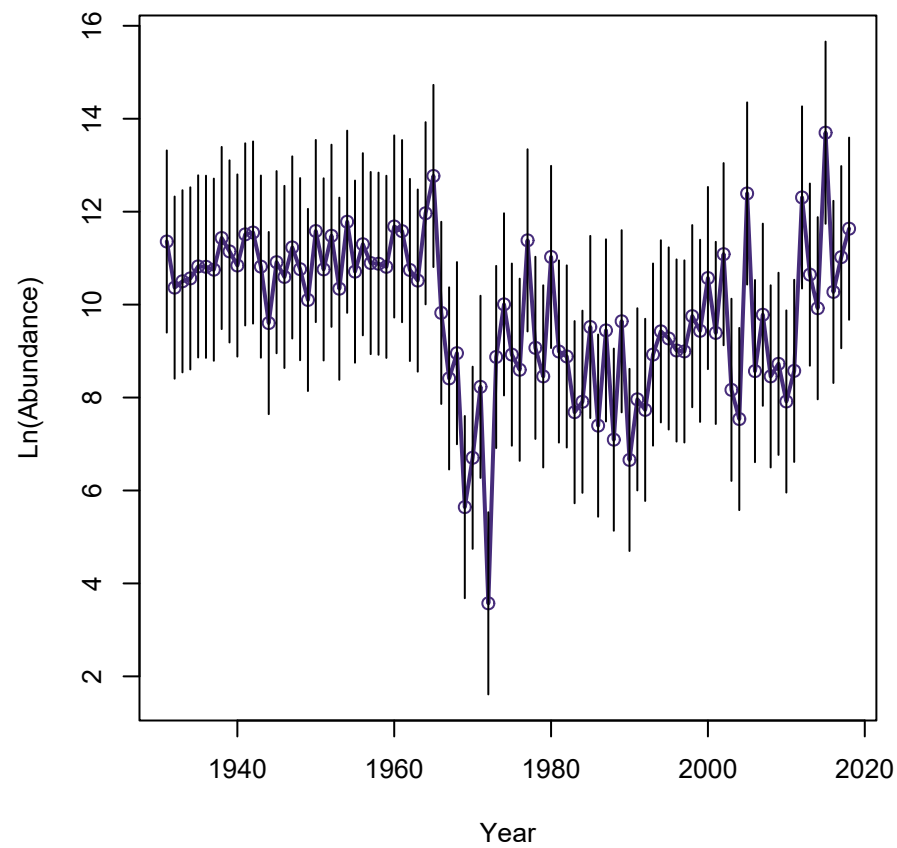
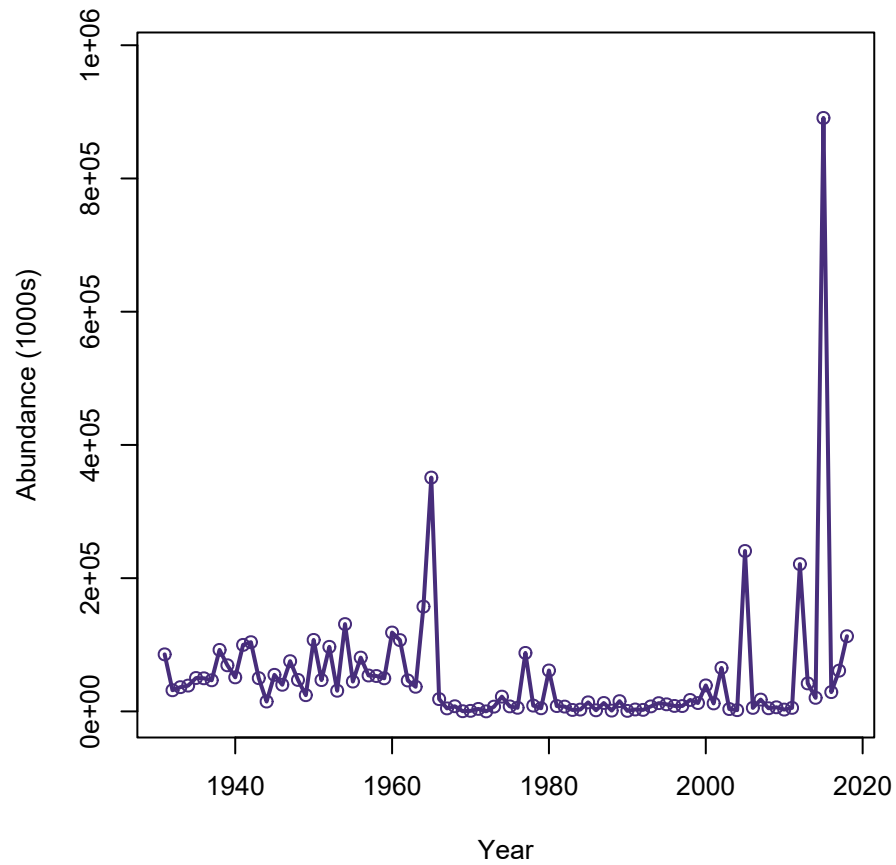
Age Comp Residuals (Observed-Predicted) for NEFSC\_Spring41



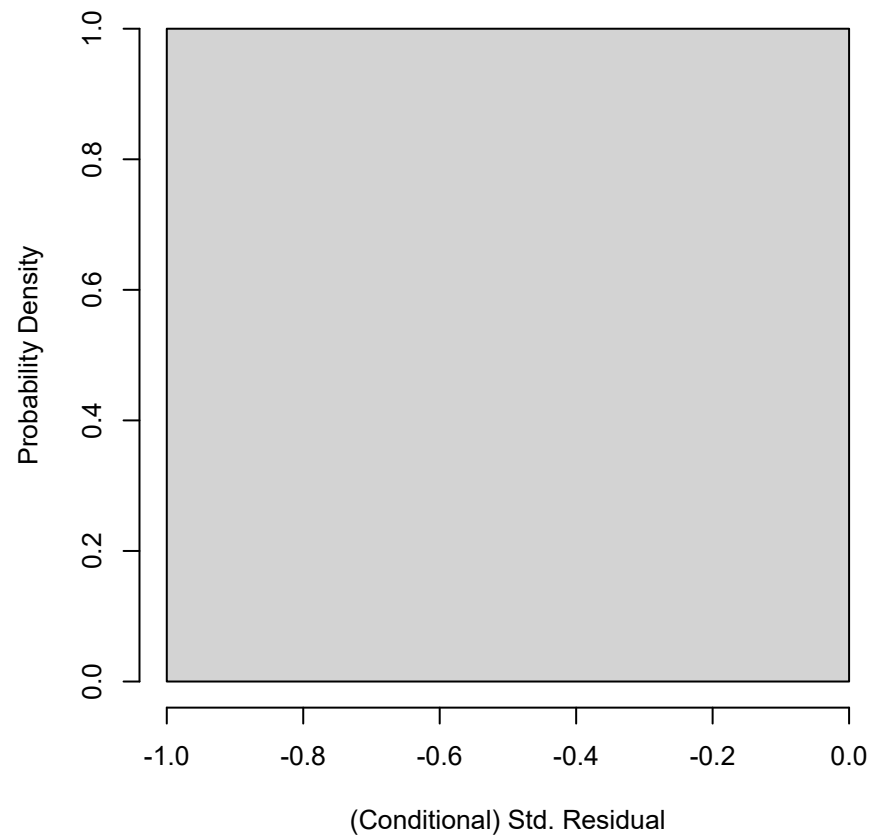
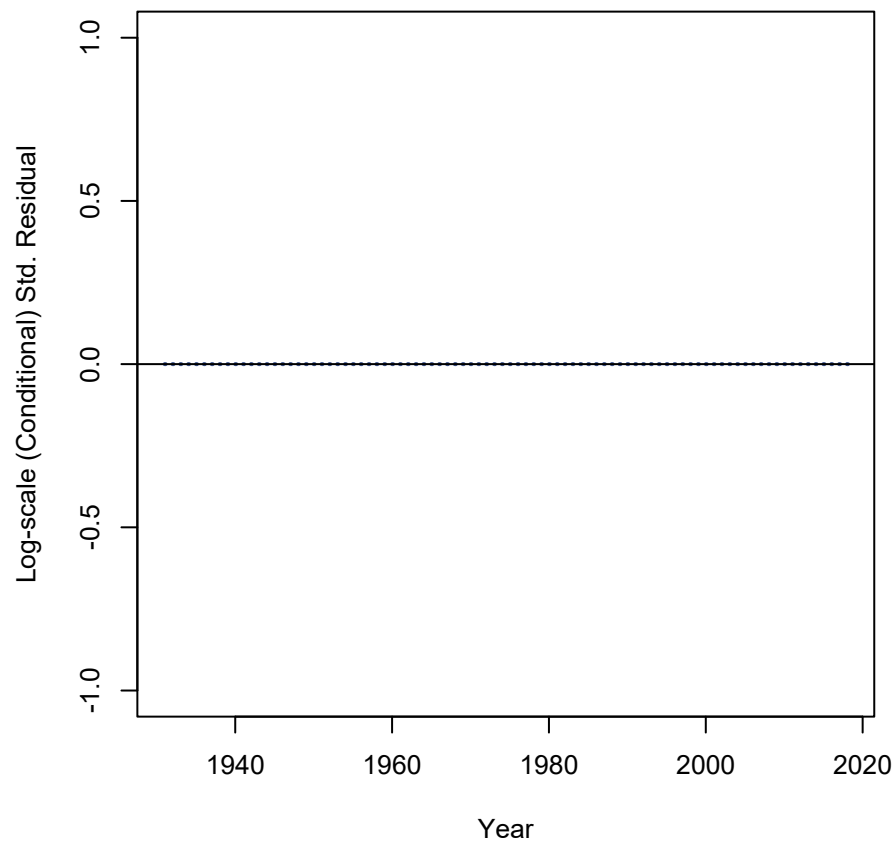
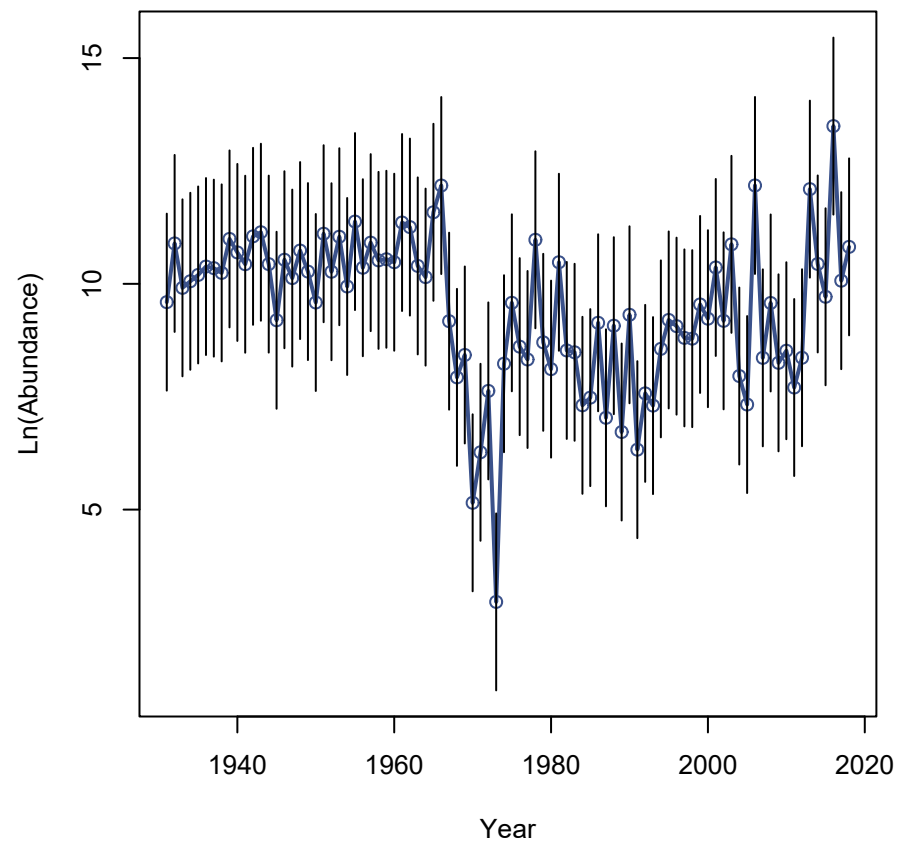
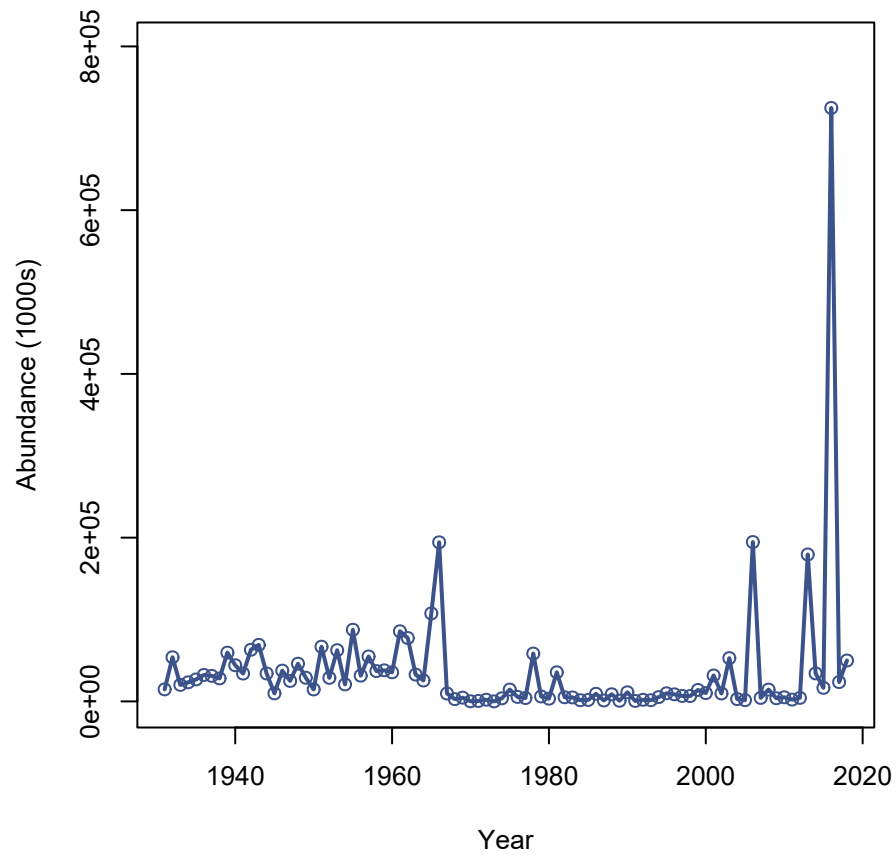
# Conditional Expected and Posterior Estimates of Age 1 Abundance



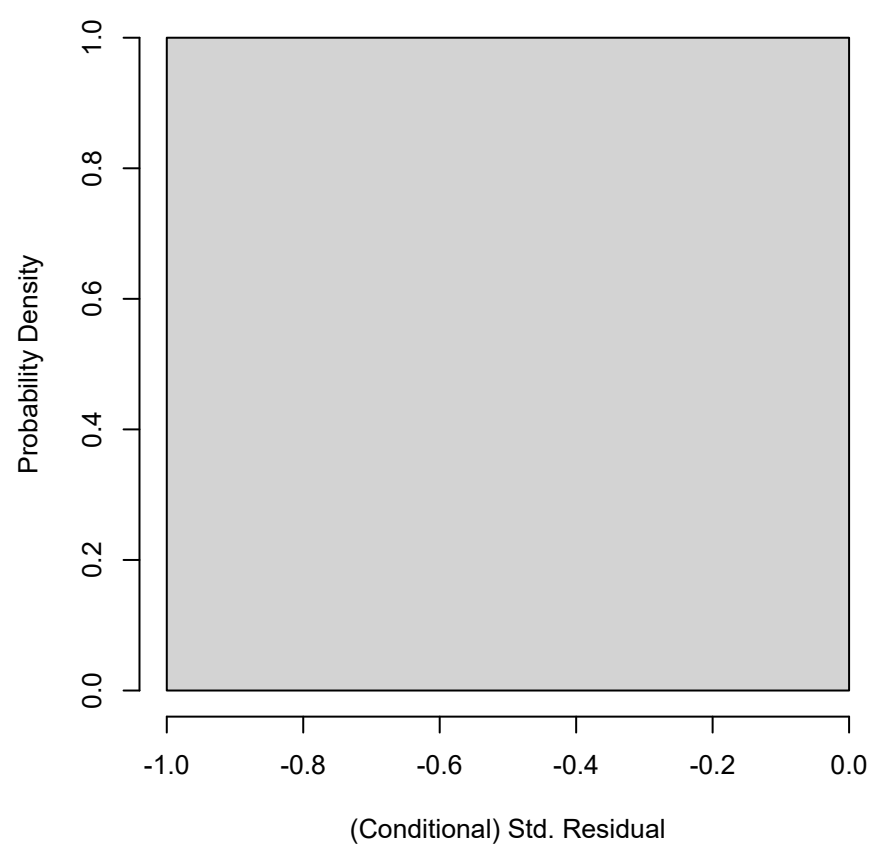
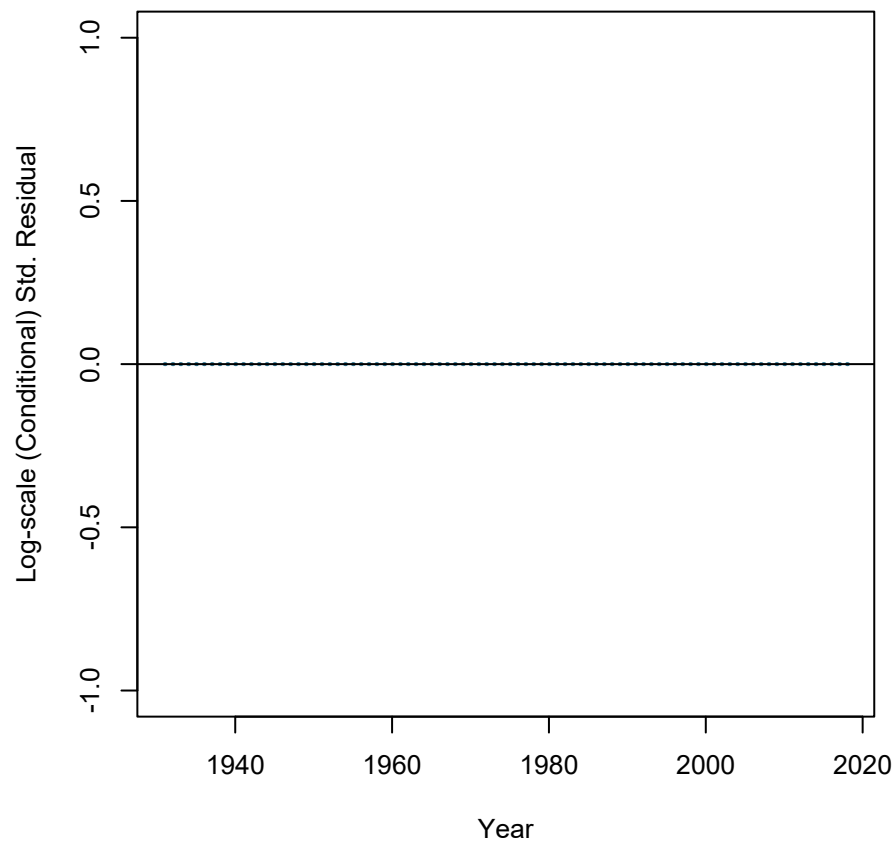
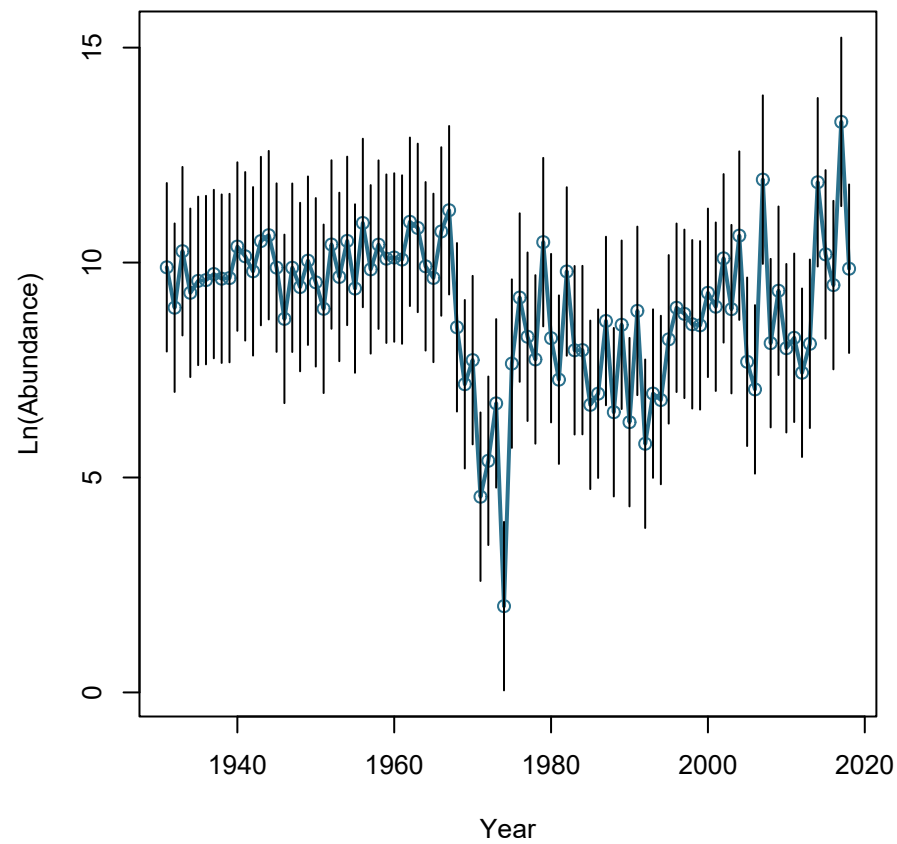
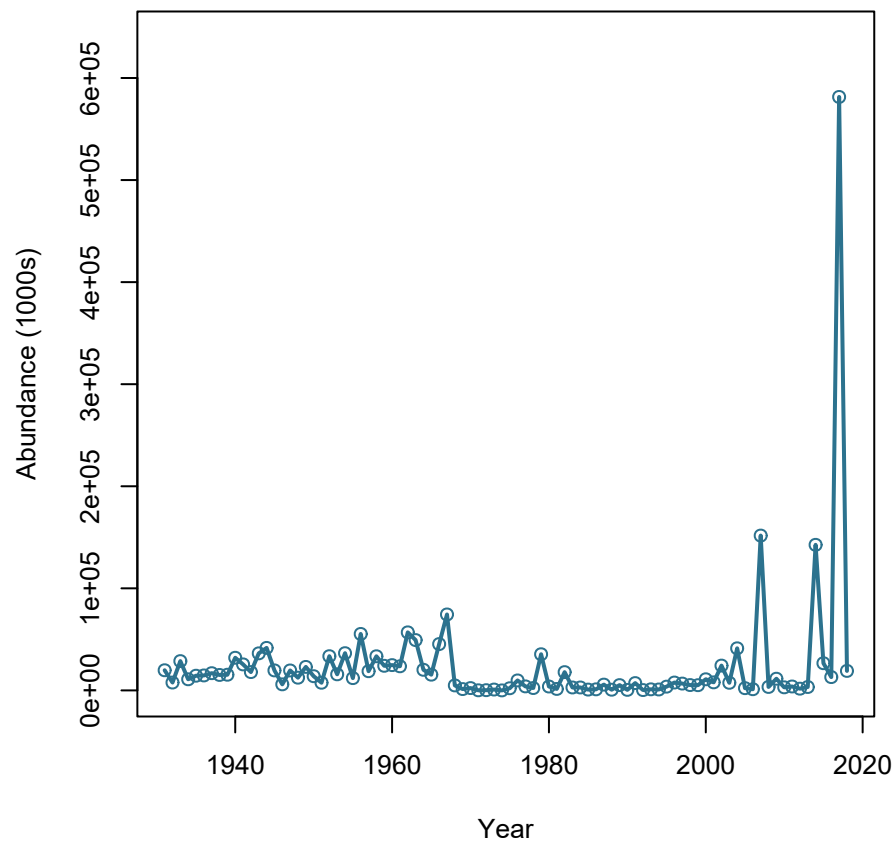
# Conditional Expected and Posterior Estimates of Age 2 Abundance



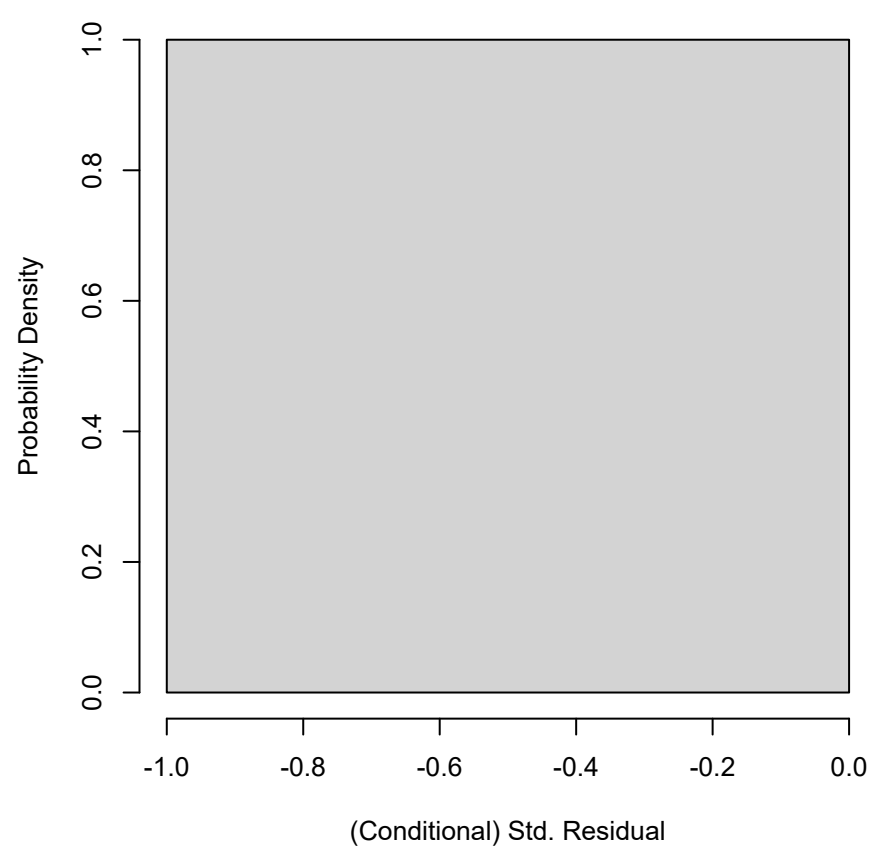
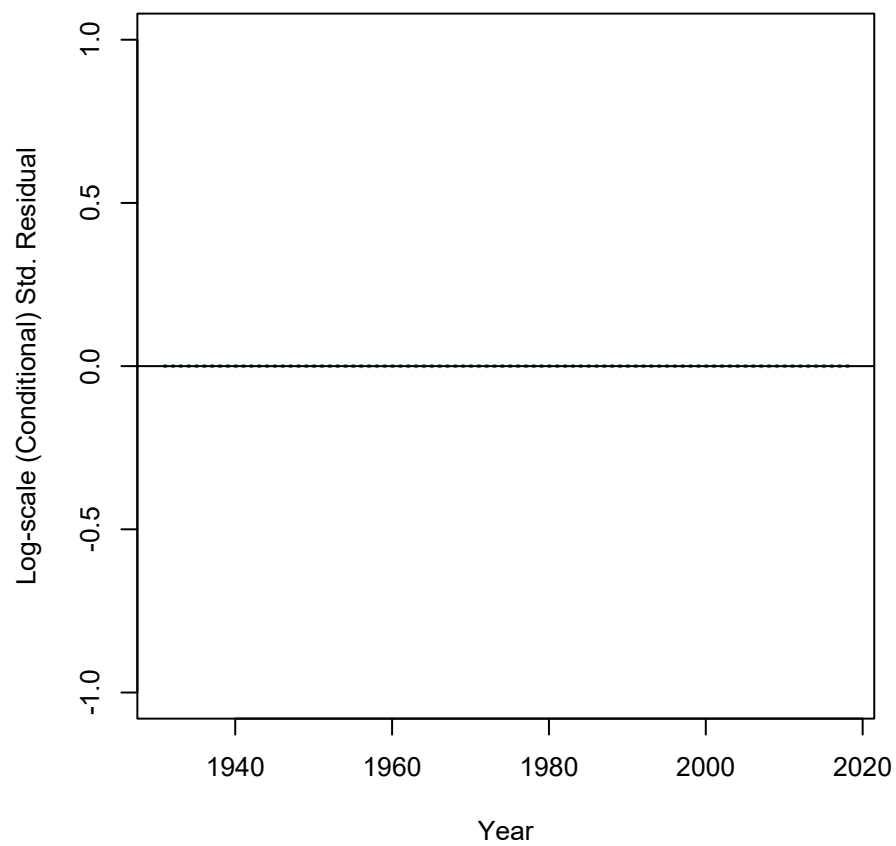
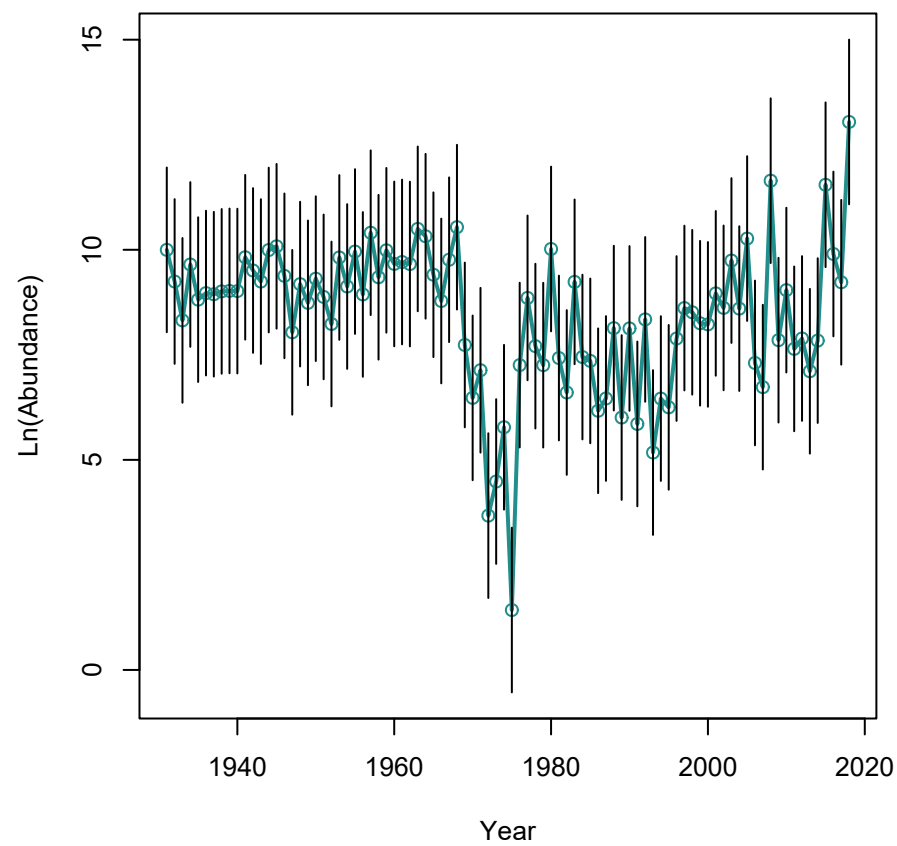
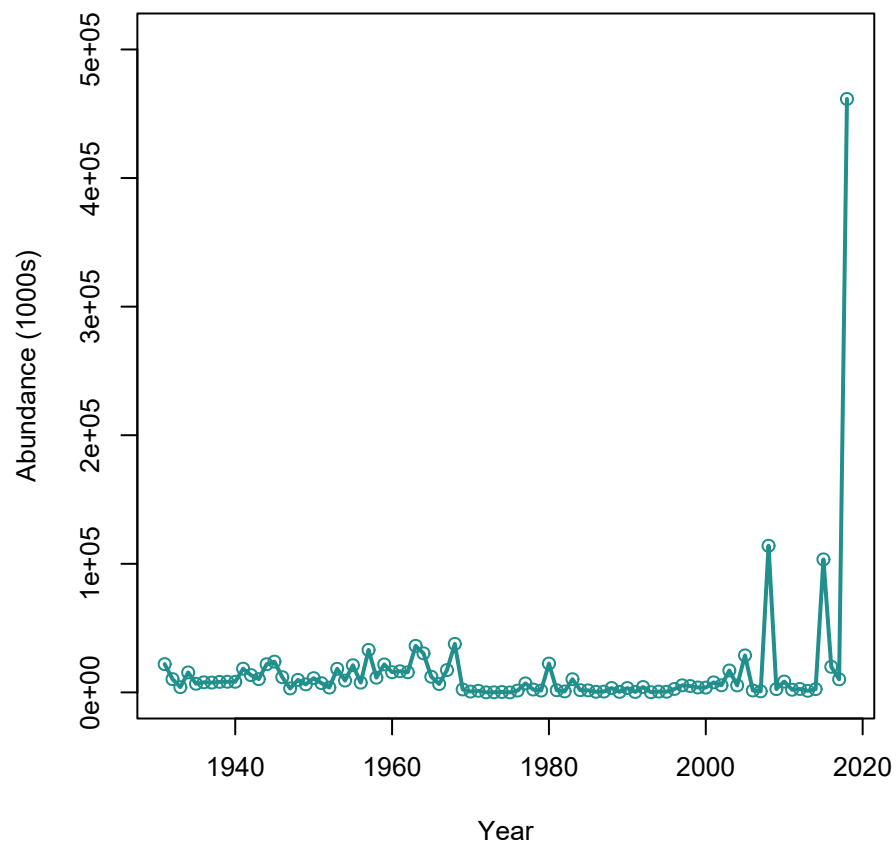
Conditional Expected and Posterior Estimates of Age 3 Abundance



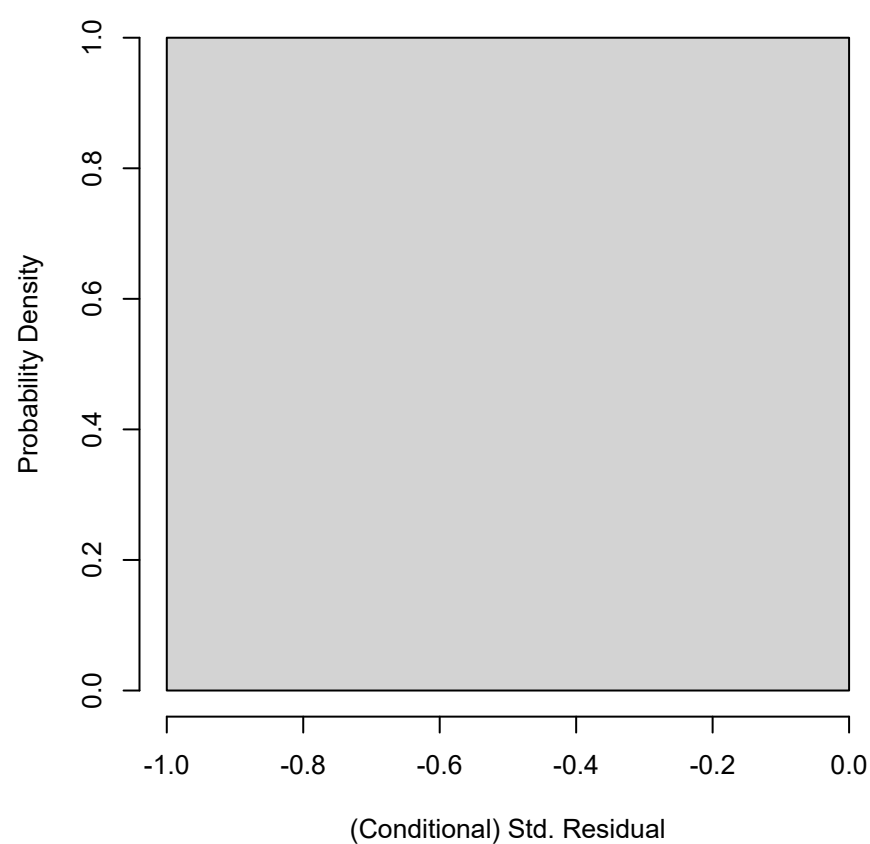
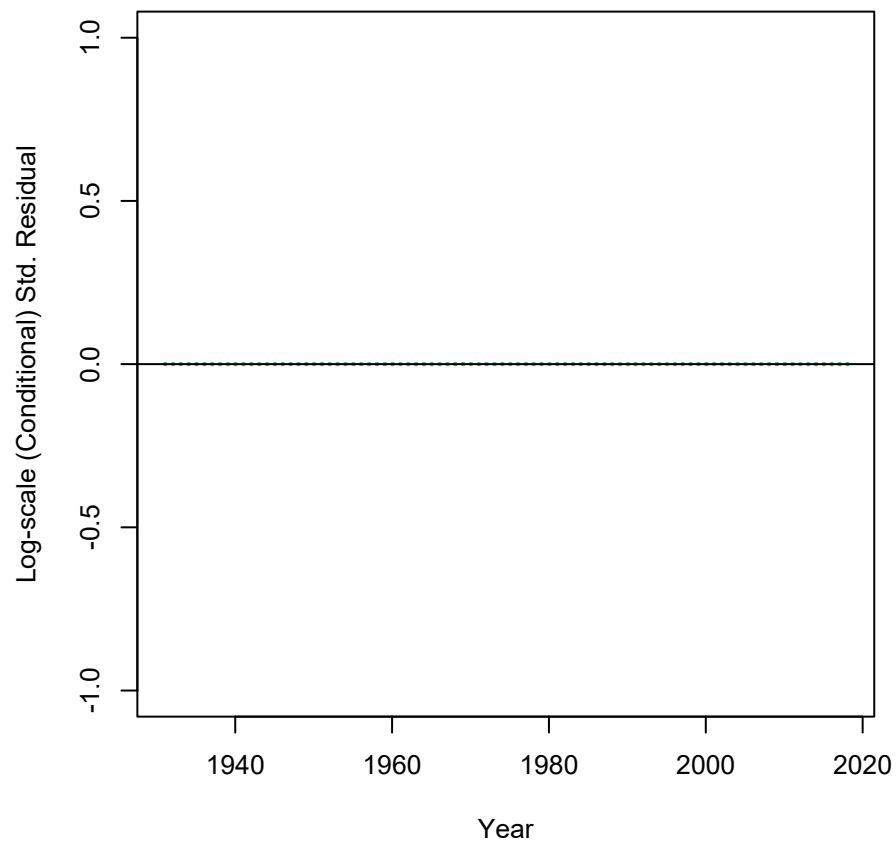
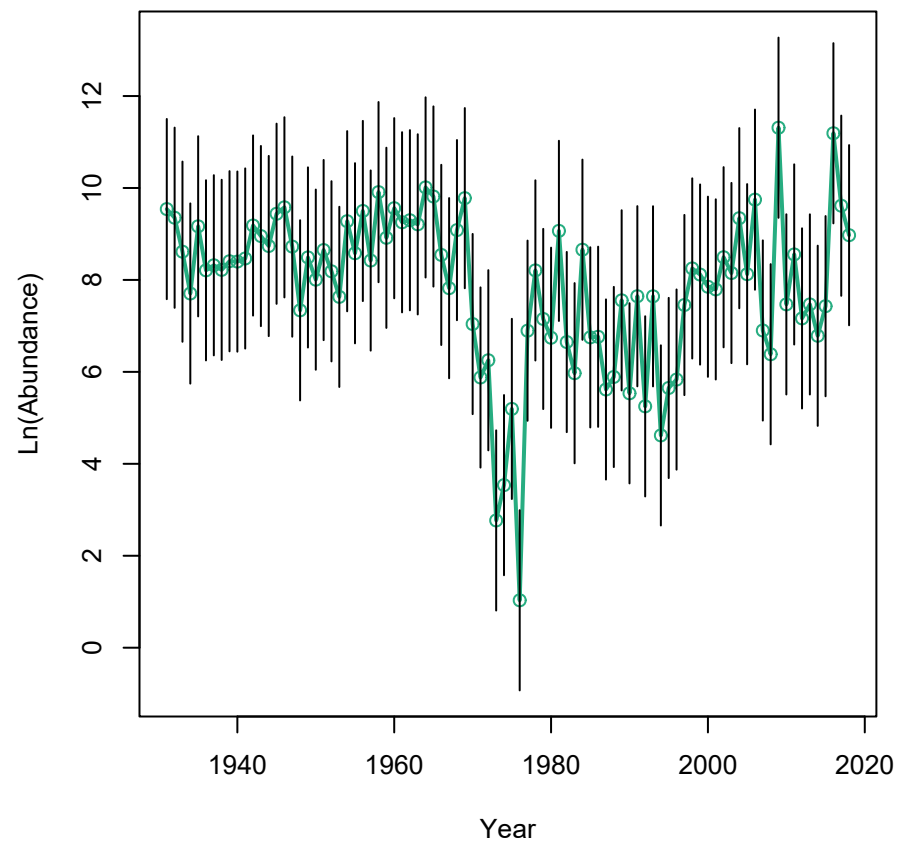
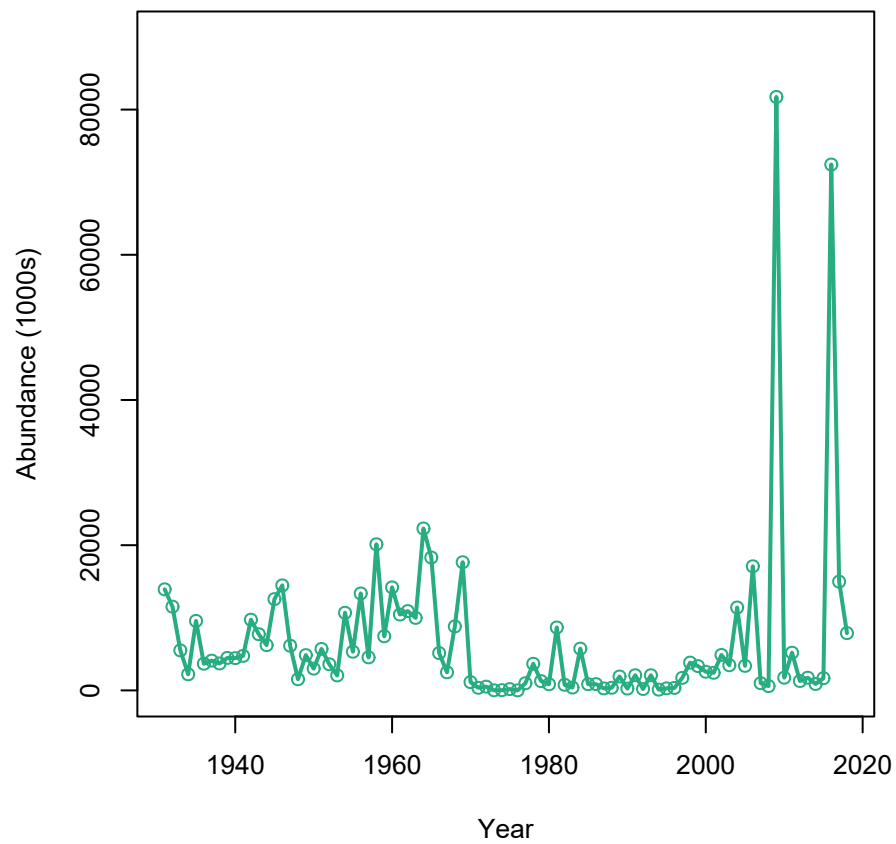
# Conditional Expected and Posterior Estimates of Age 4 Abundance



# Conditional Expected and Posterior Estimates of Age 5 Abundance

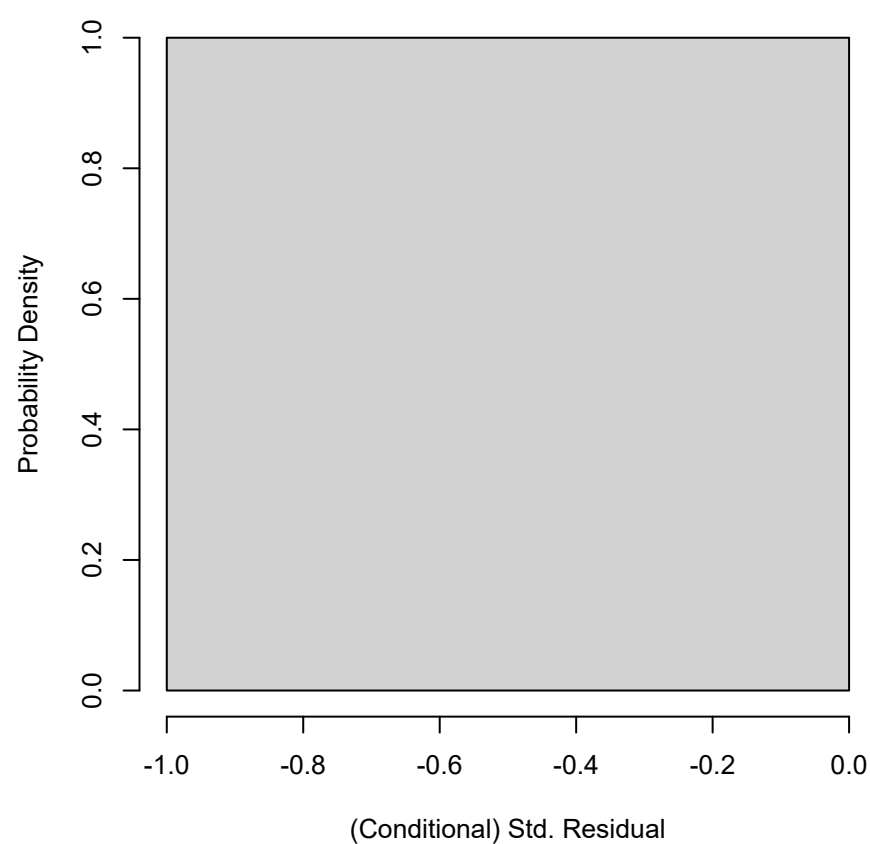
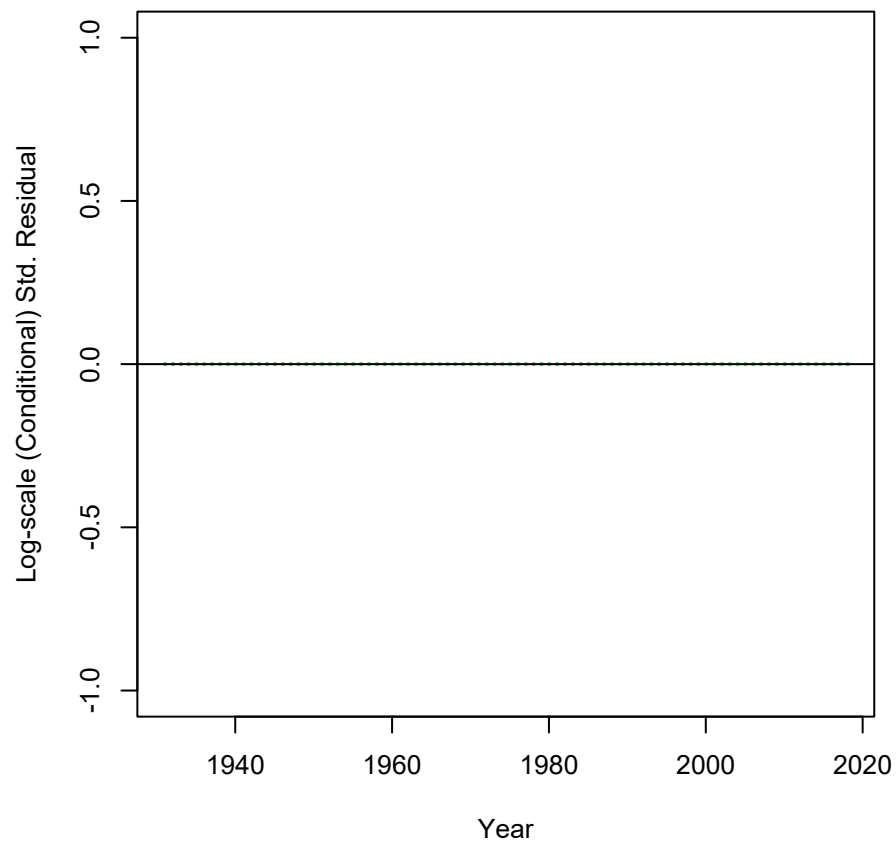
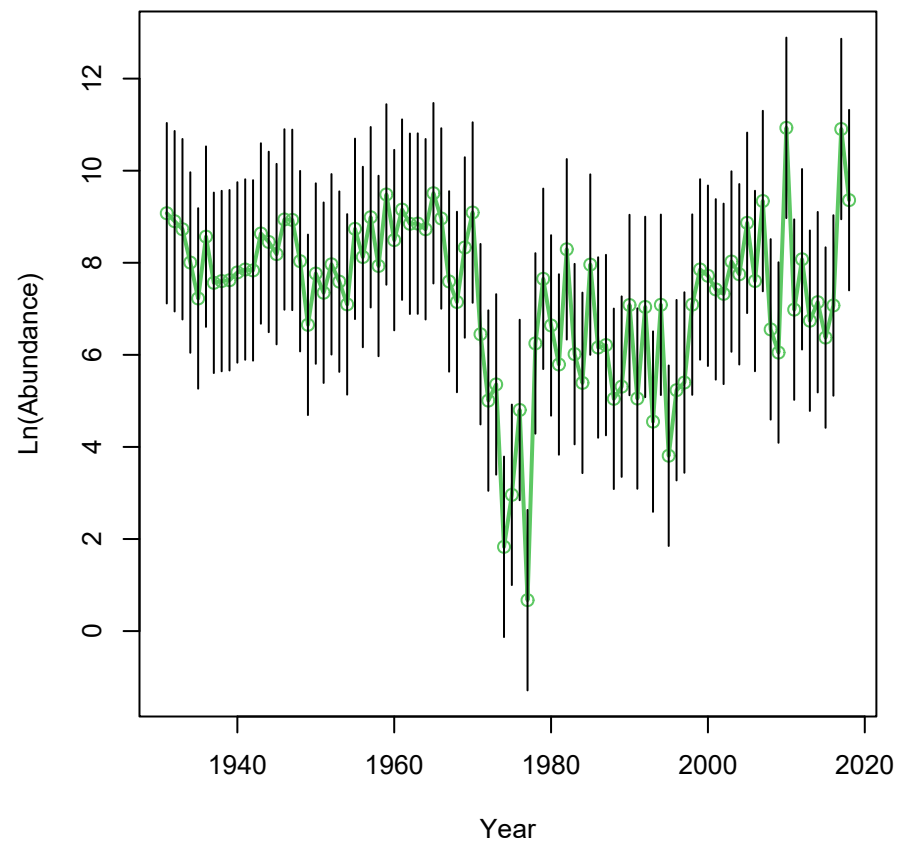
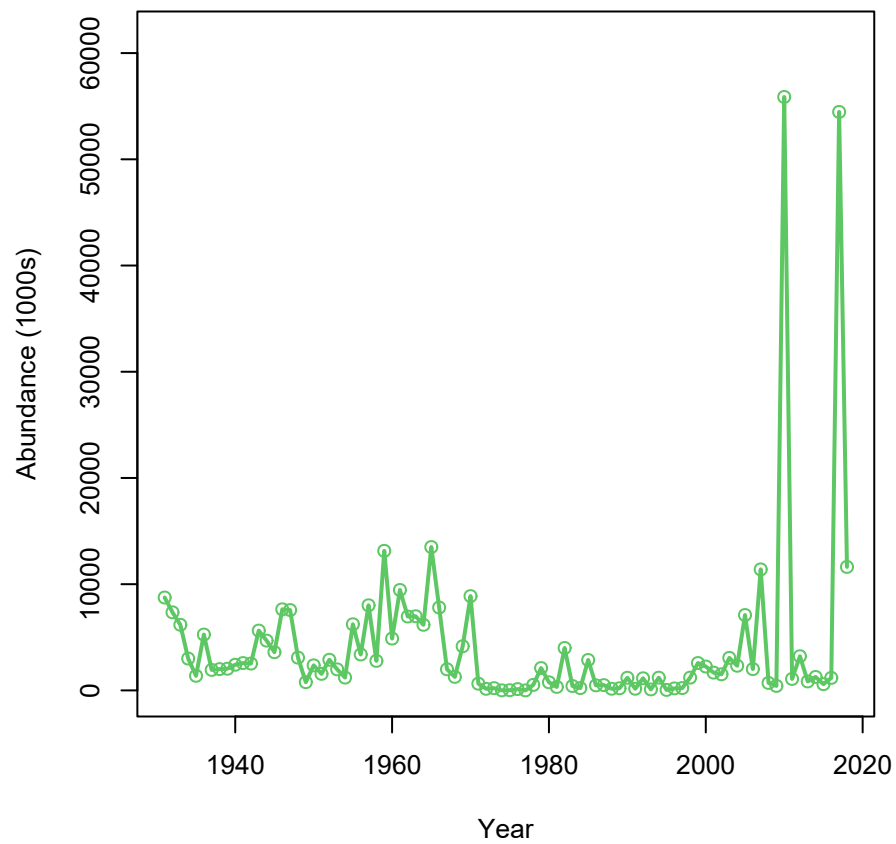


# Conditional Expected and Posterior Estimates of Age 6 Abundance

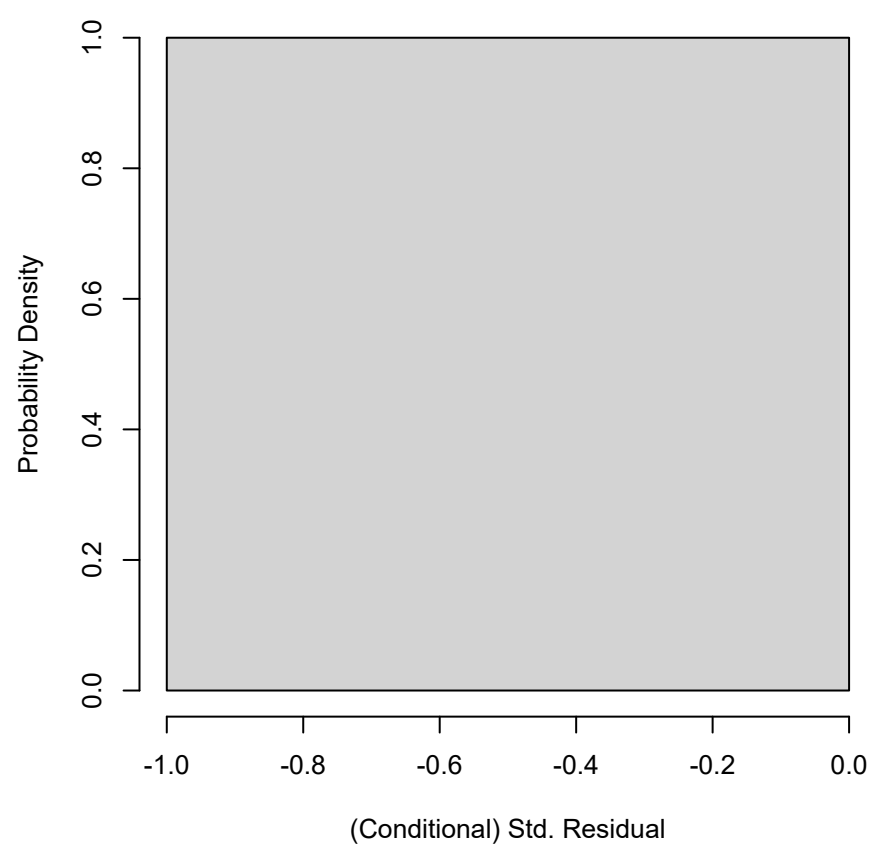
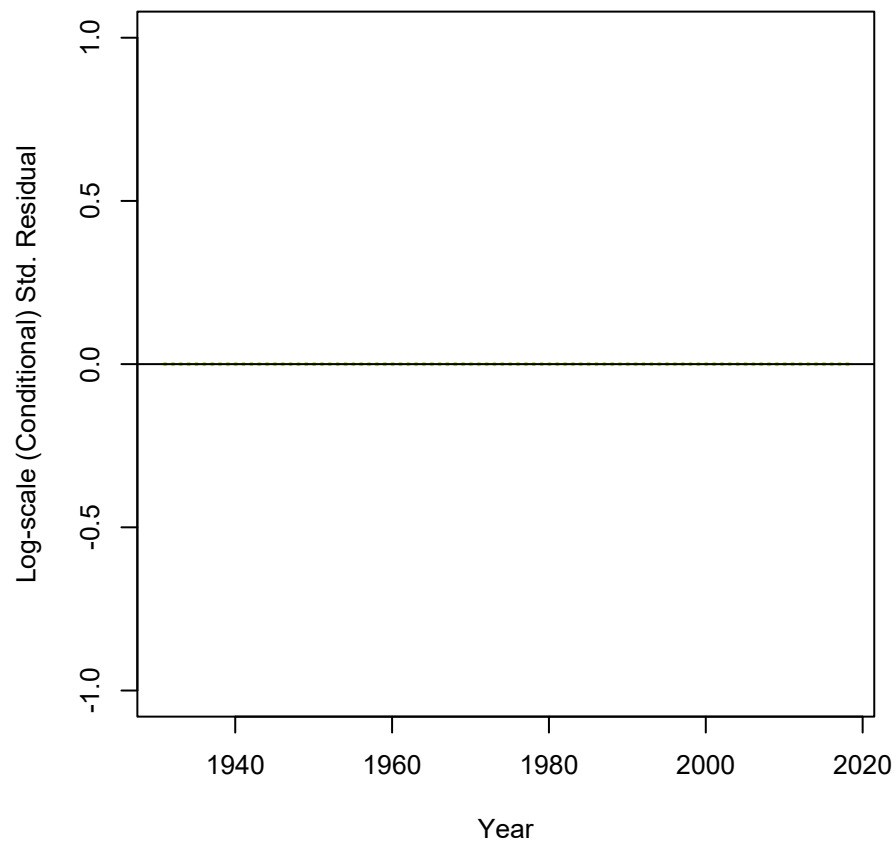
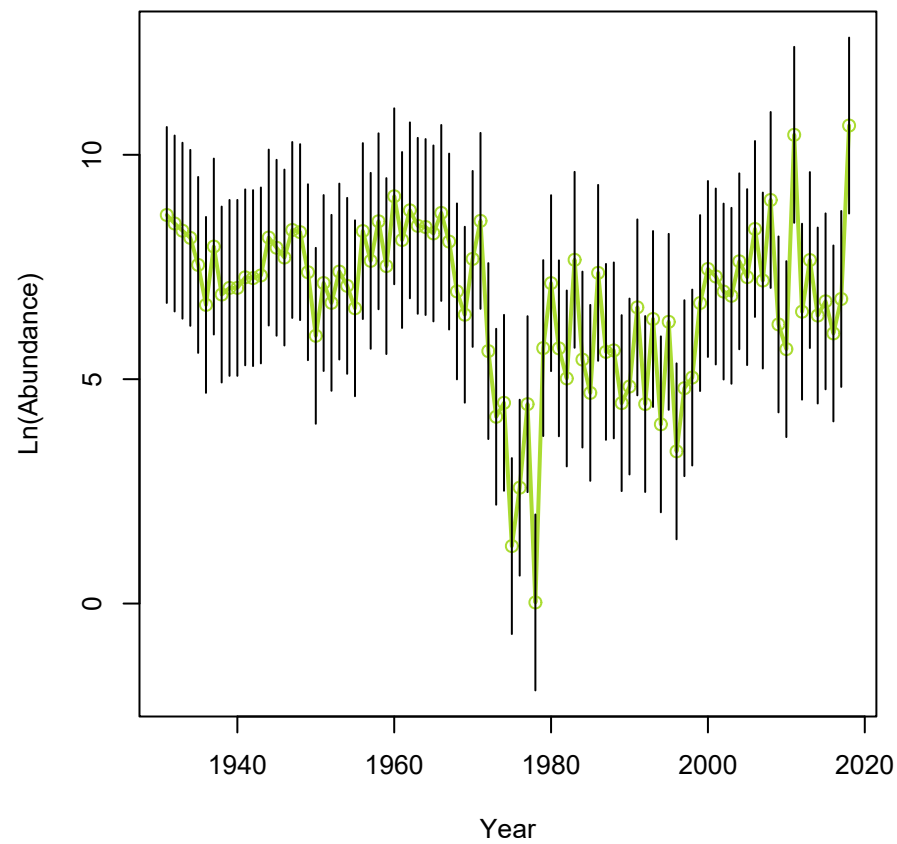
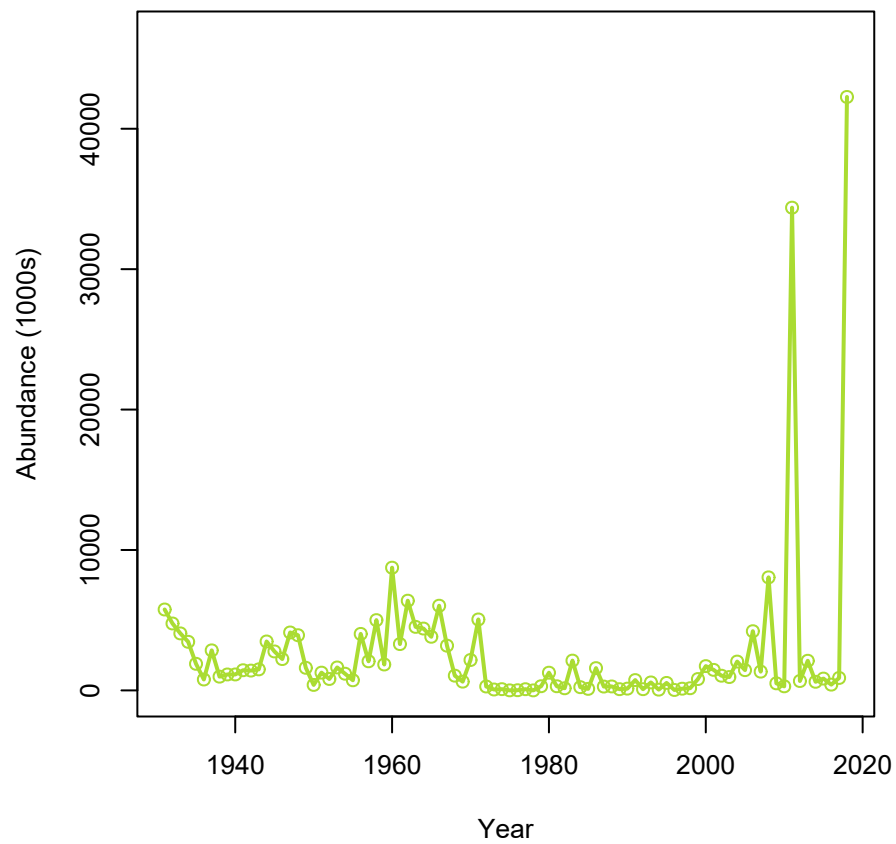




# Conditional Expected and Posterior Estimates of Age 7 Abundance



# Conditional Expected and Posterior Estimates of Age 8 Abundance



# Conditional Expected and Posterior Estimates of Age 9 Abundance

