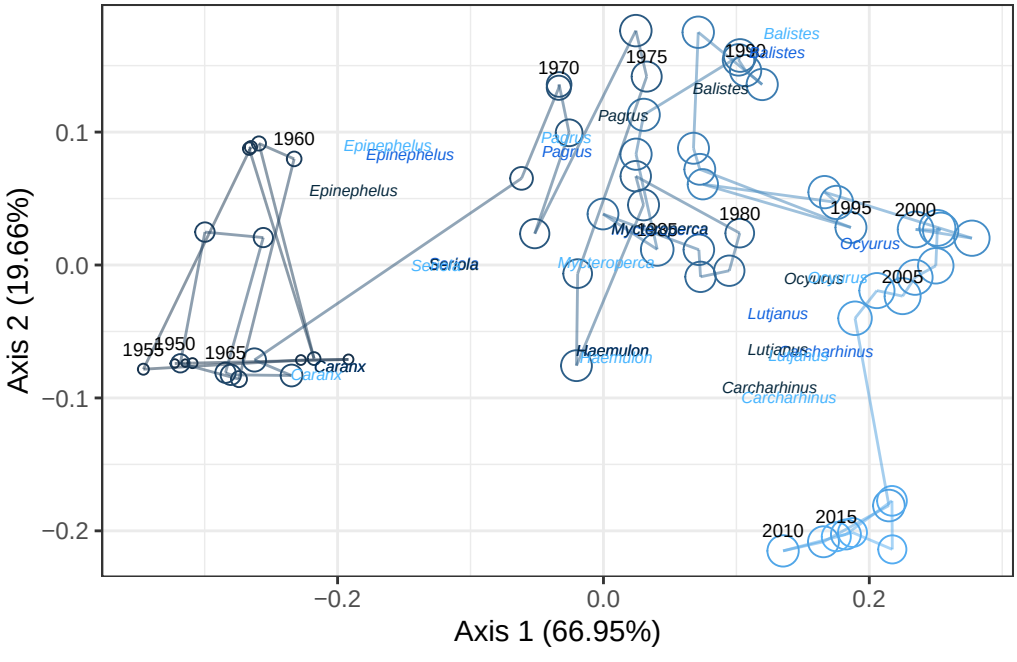
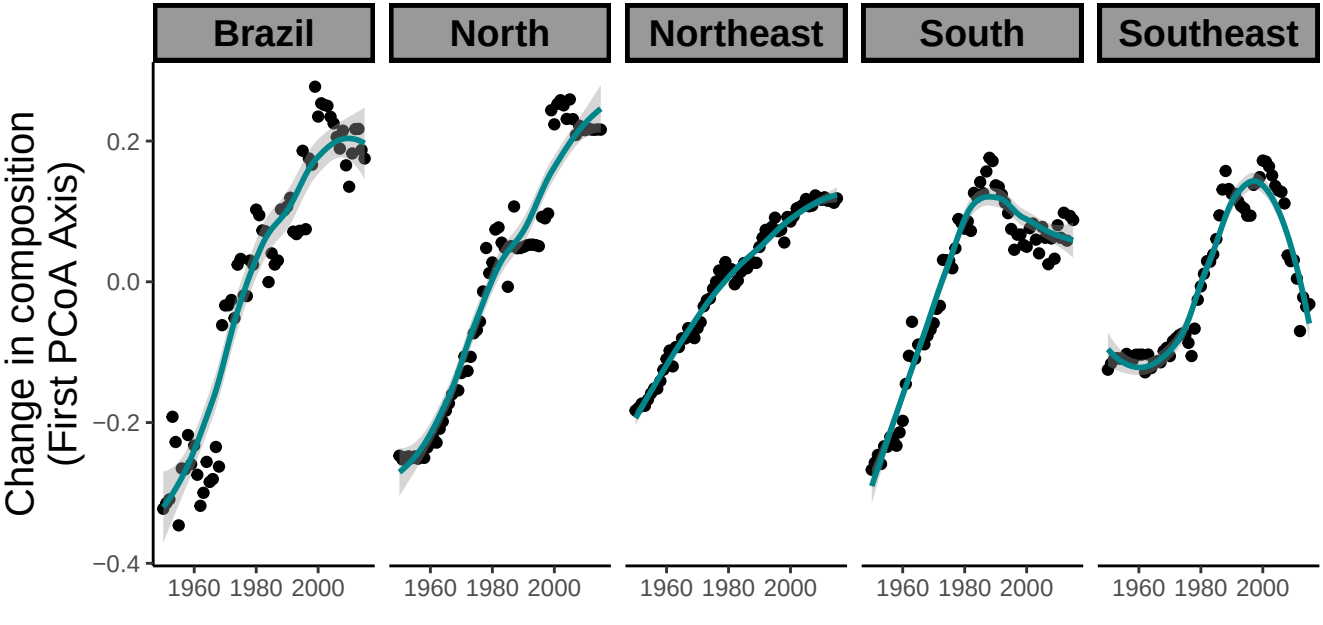

Axis 2 (19.66%)
Axis 1 (66.95%)
0.1
0.0
−0.1
−0.2
−0.2
0.0
0.2
1955
1950
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
Epinephelus
Epinephelus
Epinephelus
Pagrus
Pagrus
Pagrus
Balistes
Balistes
Balistes
Mycteroperca
Mycteroperca
Mycteroperca
Seriola
Seriola
Haemulon
Haemulon
Haemulon
Caranx
Caranx
Caranx
Ocyurus
Ocyurus
Ocyurus
Lutjanus
Lutjanus
Lutjanus
Carcharhinus
Carcharhinus
Carcharhinus


Brazil
North
Northeast
South
Southeast
Change in composition
(First PCoA Axis)
0.2
0.0
−0.2
−0.4
1960 1980 2000