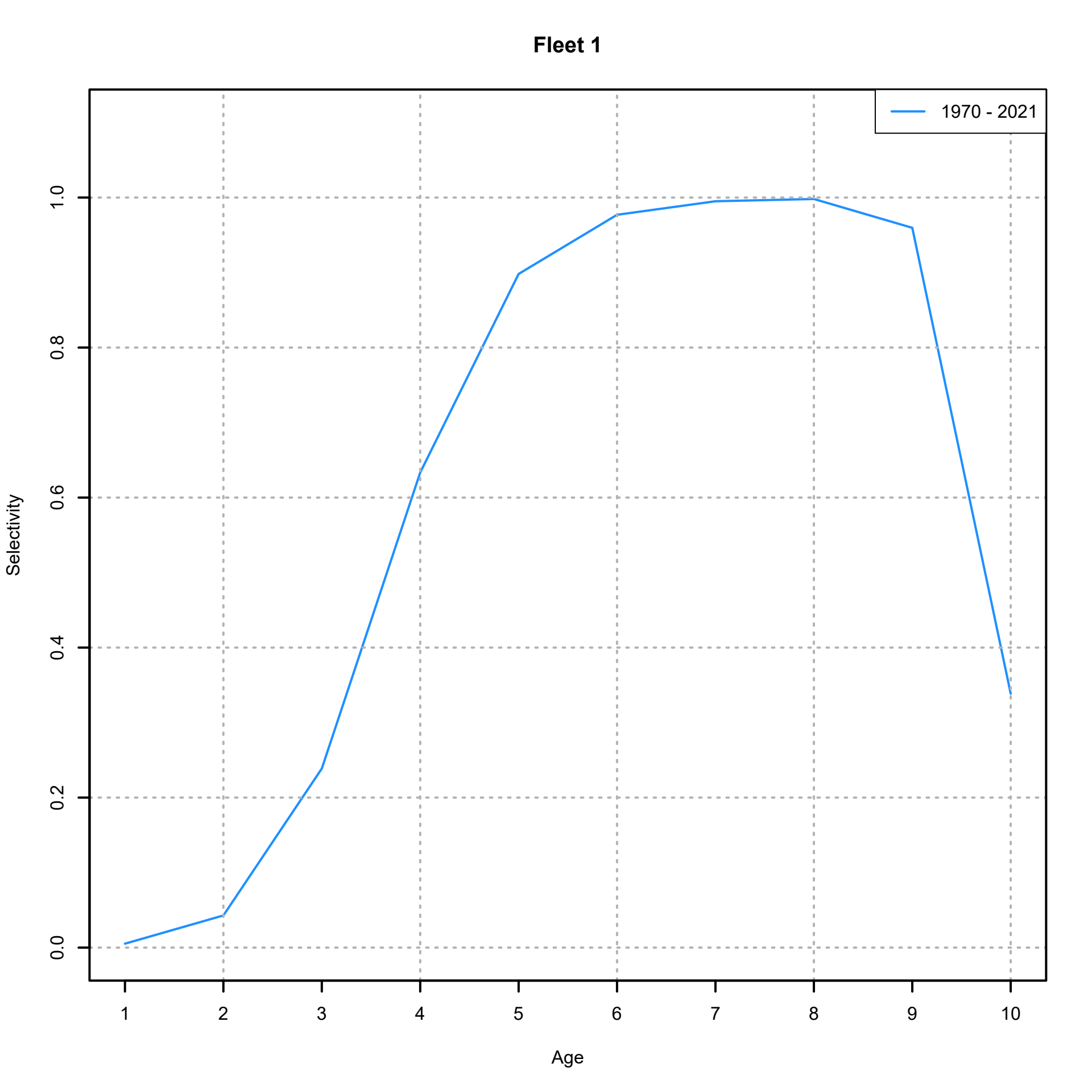
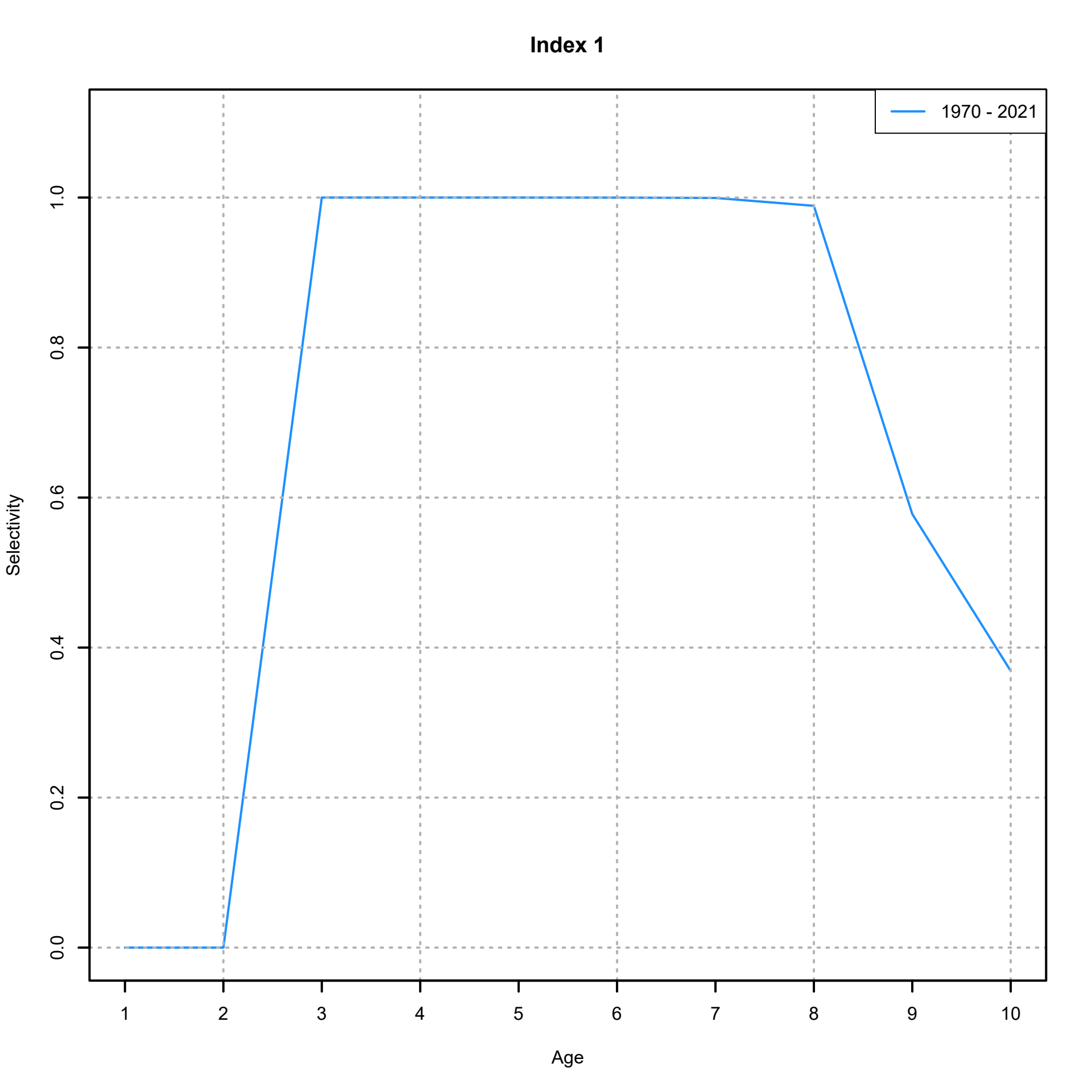
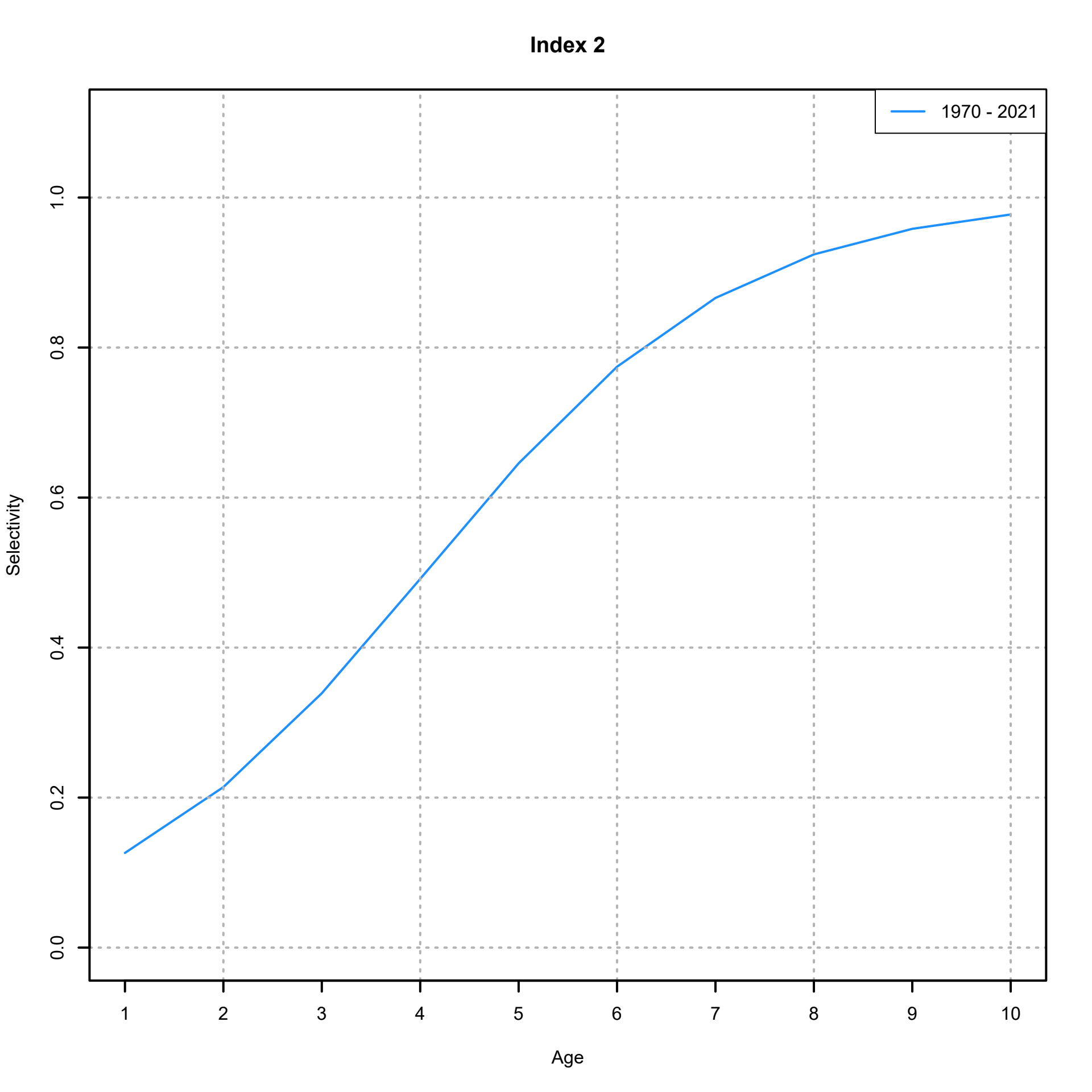
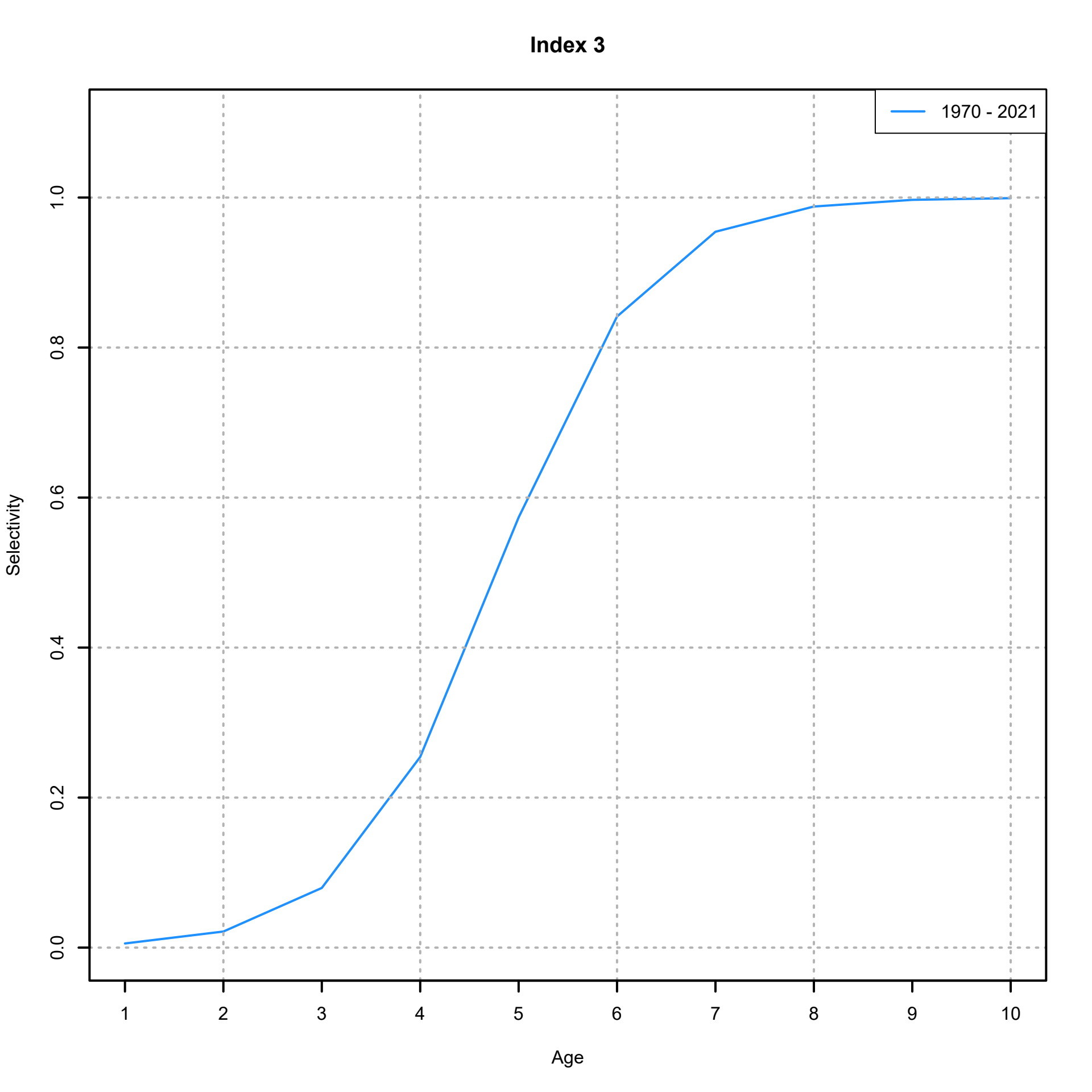
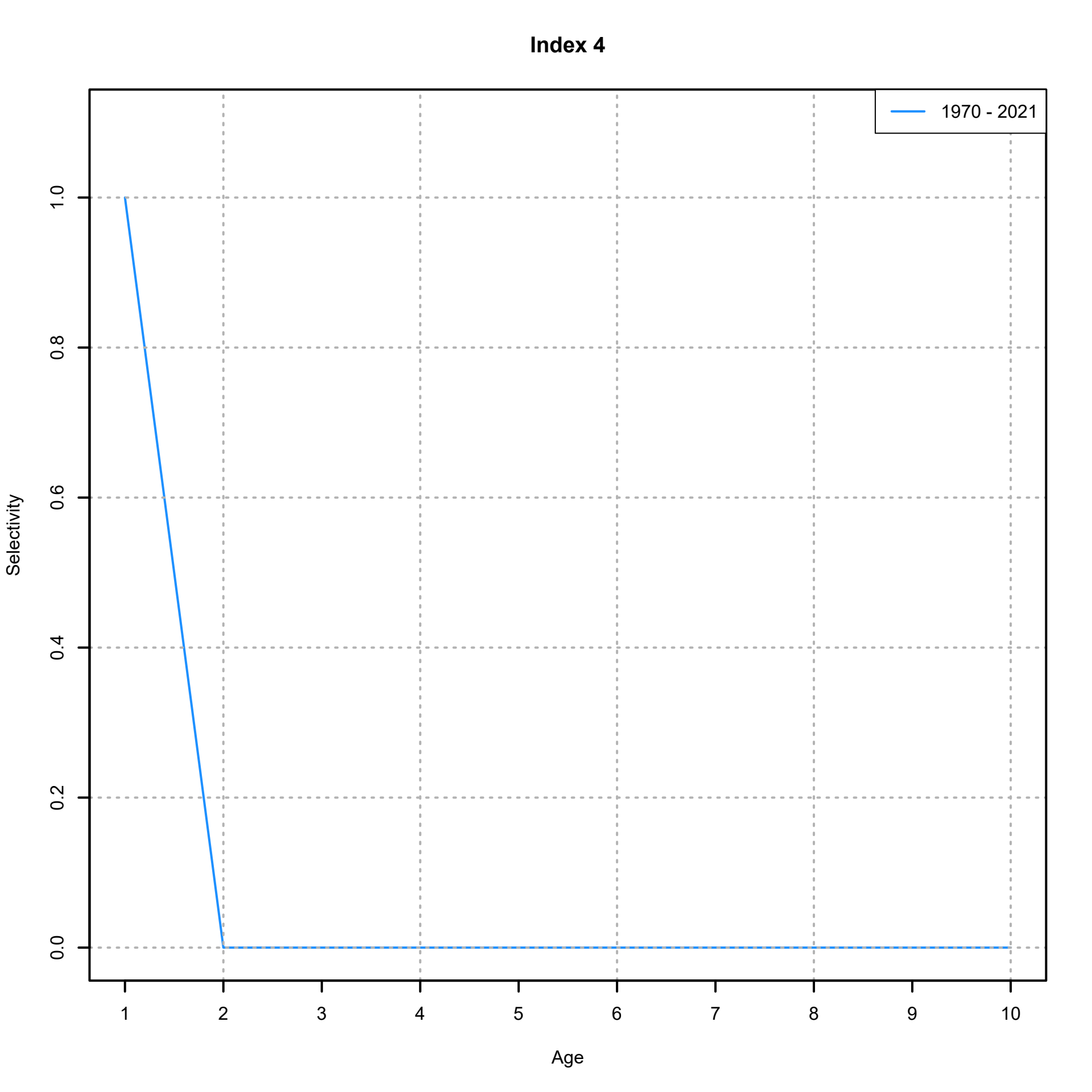
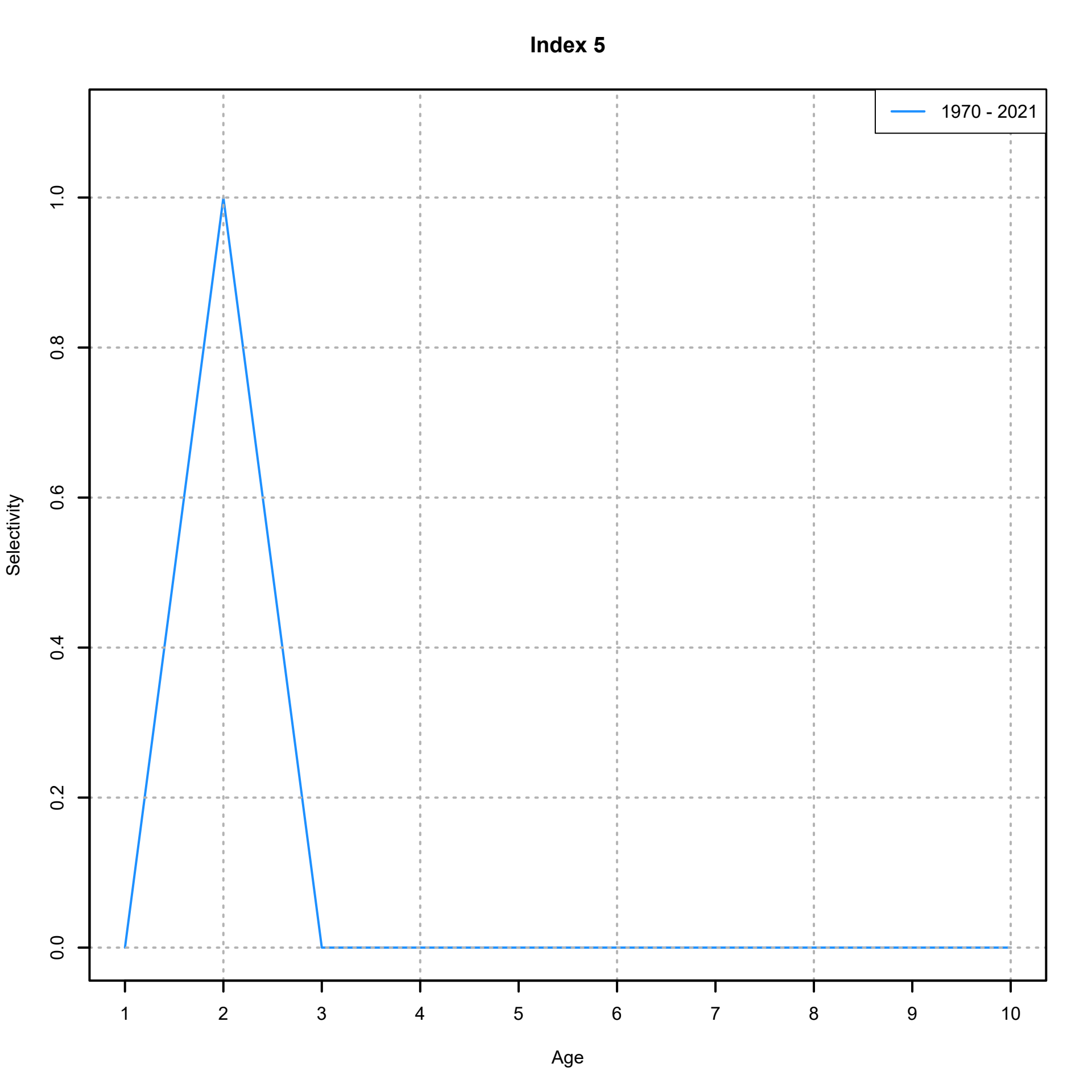

Fleet 1
1970 - 2021
Selectivity
0.0
0.2
0.4
0.6
0.8
1.0
1
2
3
4
5
6
7
8
9
10
Age

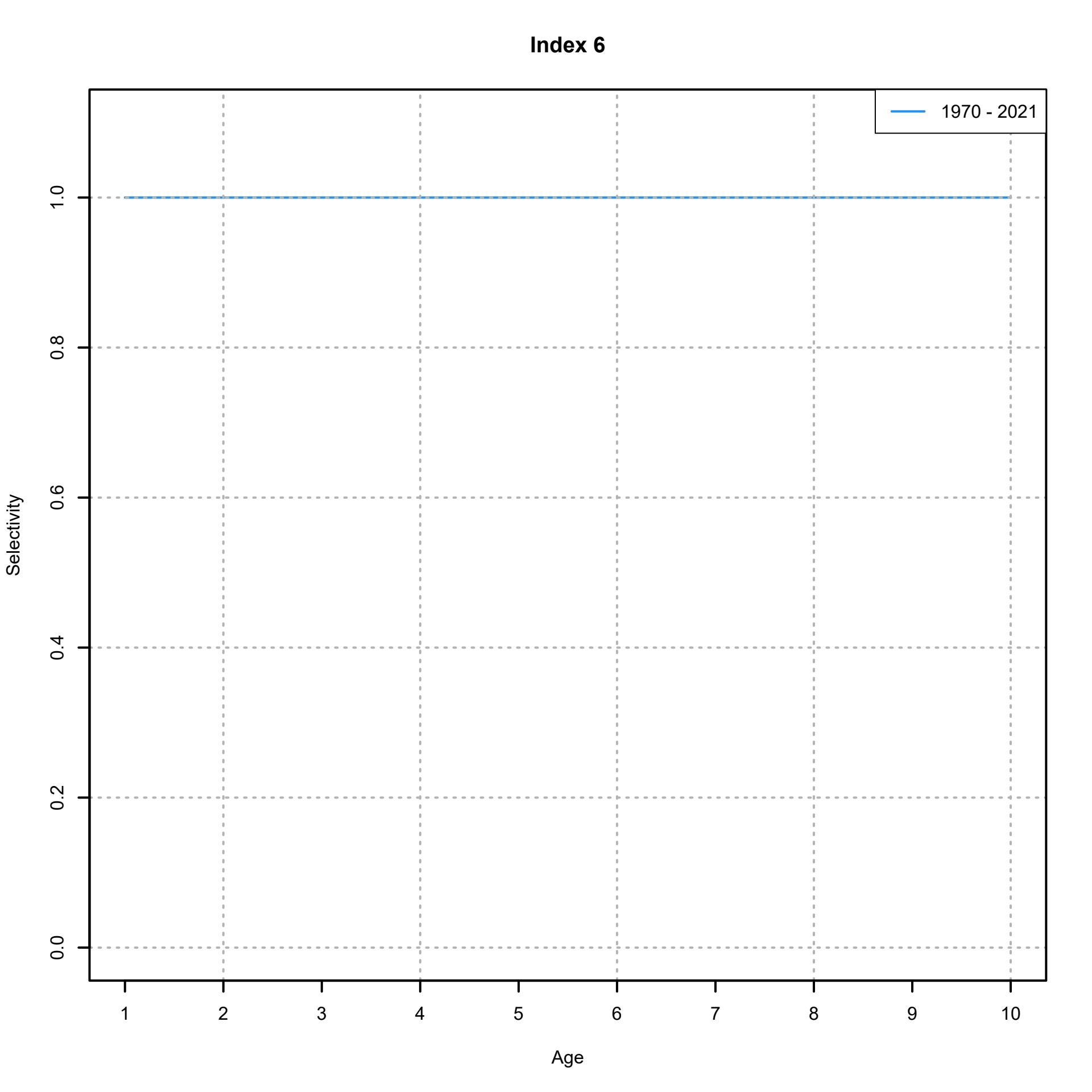

Index 1
1970 - 2021
Selectivity
0.0
0.2
0.4
0.6
0.8
1.0
1
2
3
4
5
6
7
8
9
10
Age

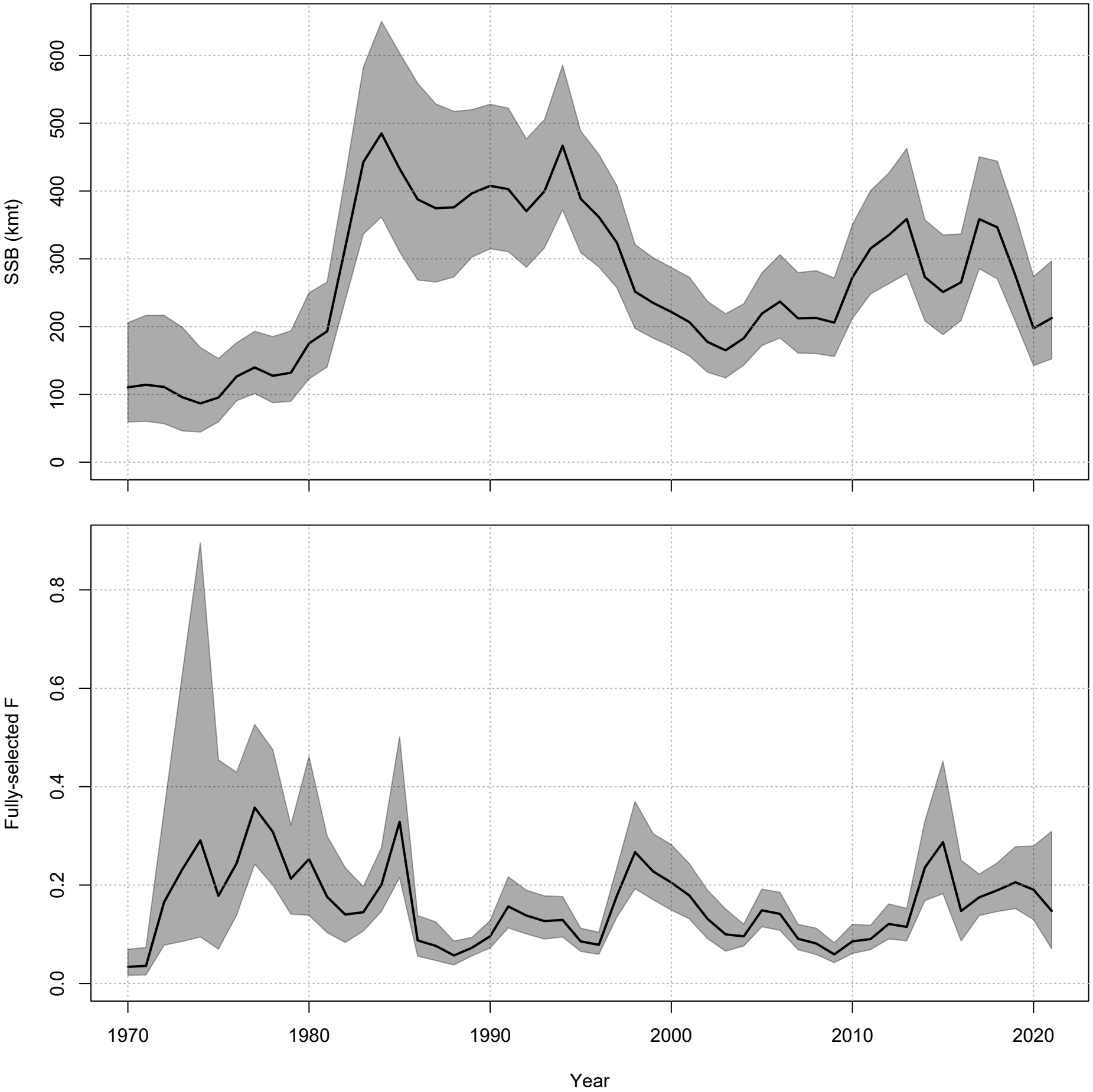

Index 2
1970 - 2021
Selectivity
0.0
0.2
0.4
0.6
0.8
1.0
1
2
3
4
5
6
7
8
9
10
Age

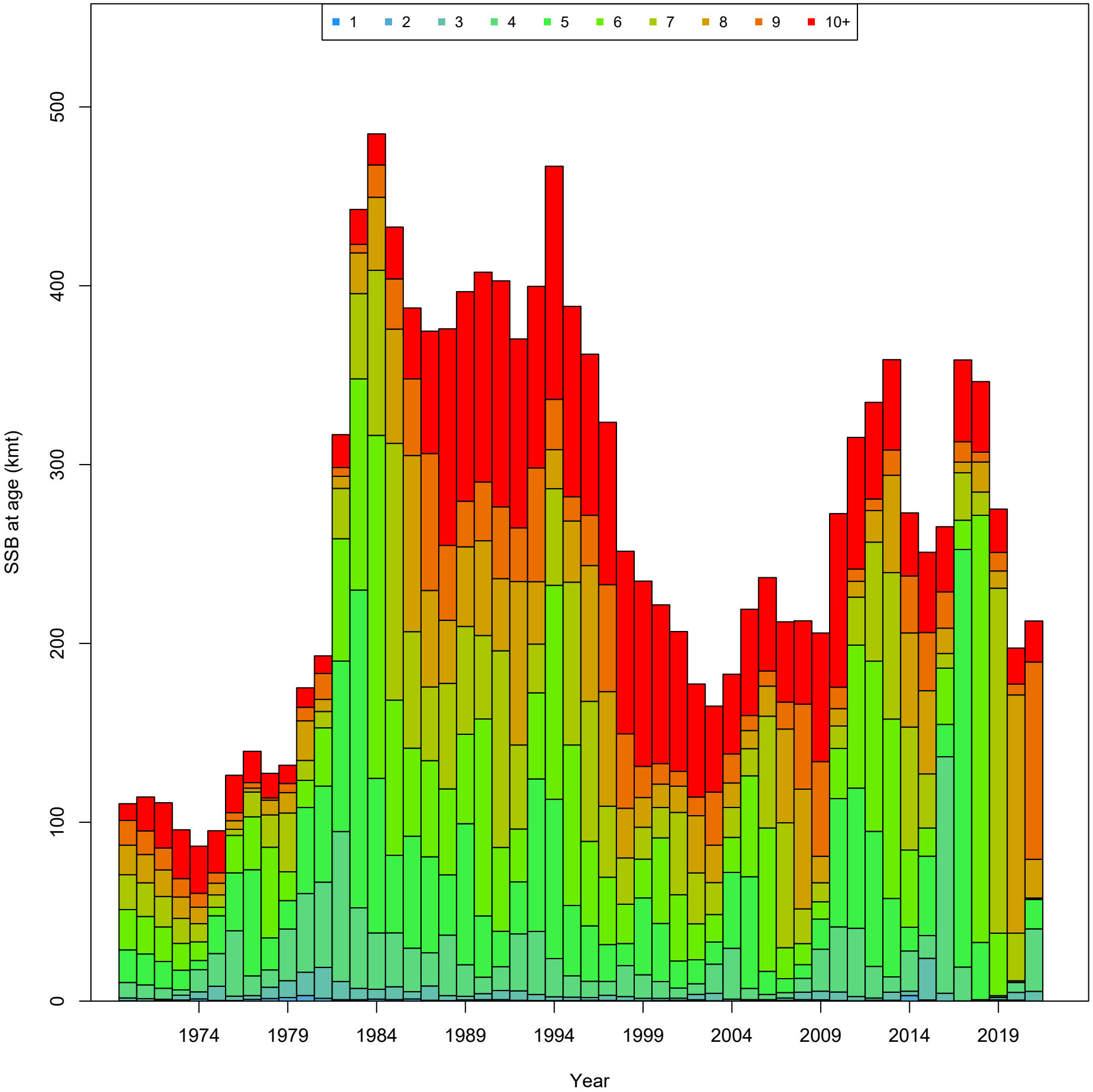

Index 3
1970 - 2021
Selectivity
0.0
0.2
0.4
0.6
0.8
1.0
1
2
3
4
5
6
7
8
9
10
Age

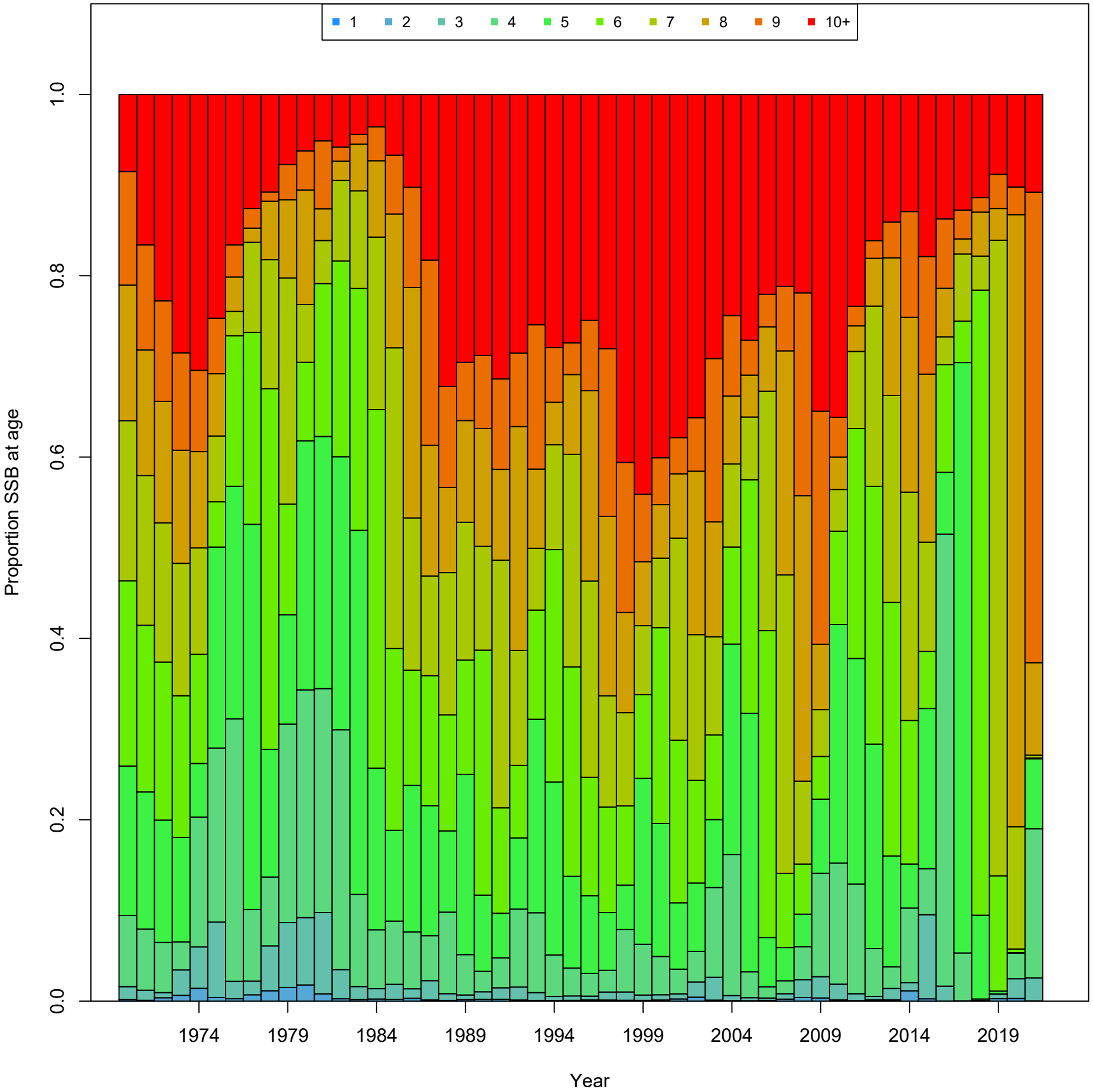

Index 4
1970 - 2021
Selectivity
0.0
0.2
0.4
0.6
0.8
1.0
1
2
3
4
5
6
7
8
9
10
Age

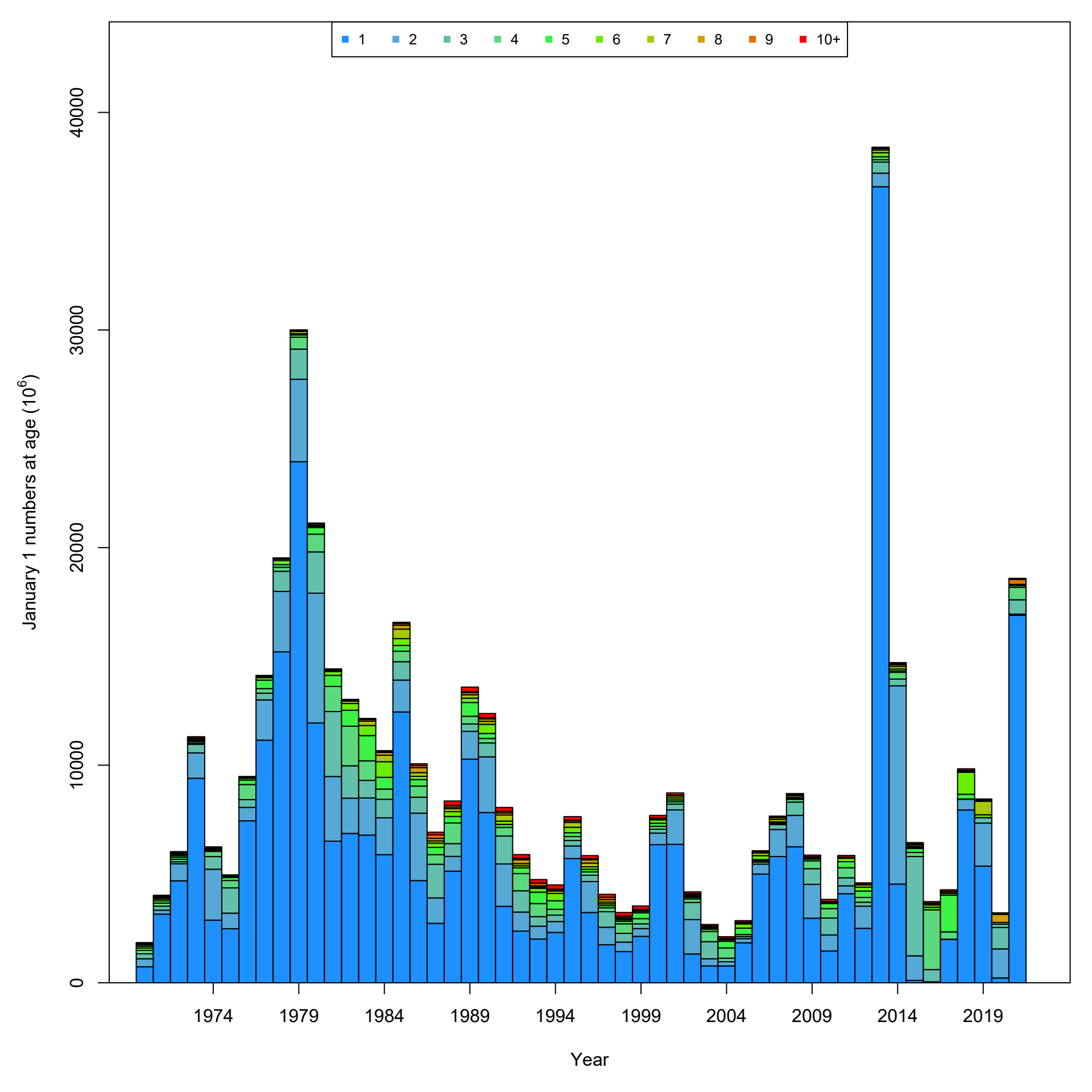

Index 5
1970 - 2021
Selectivity
0.0
0.2
0.4
0.6
0.8
1.0
1
2
3
4
5
6
7
8
9
10
Age

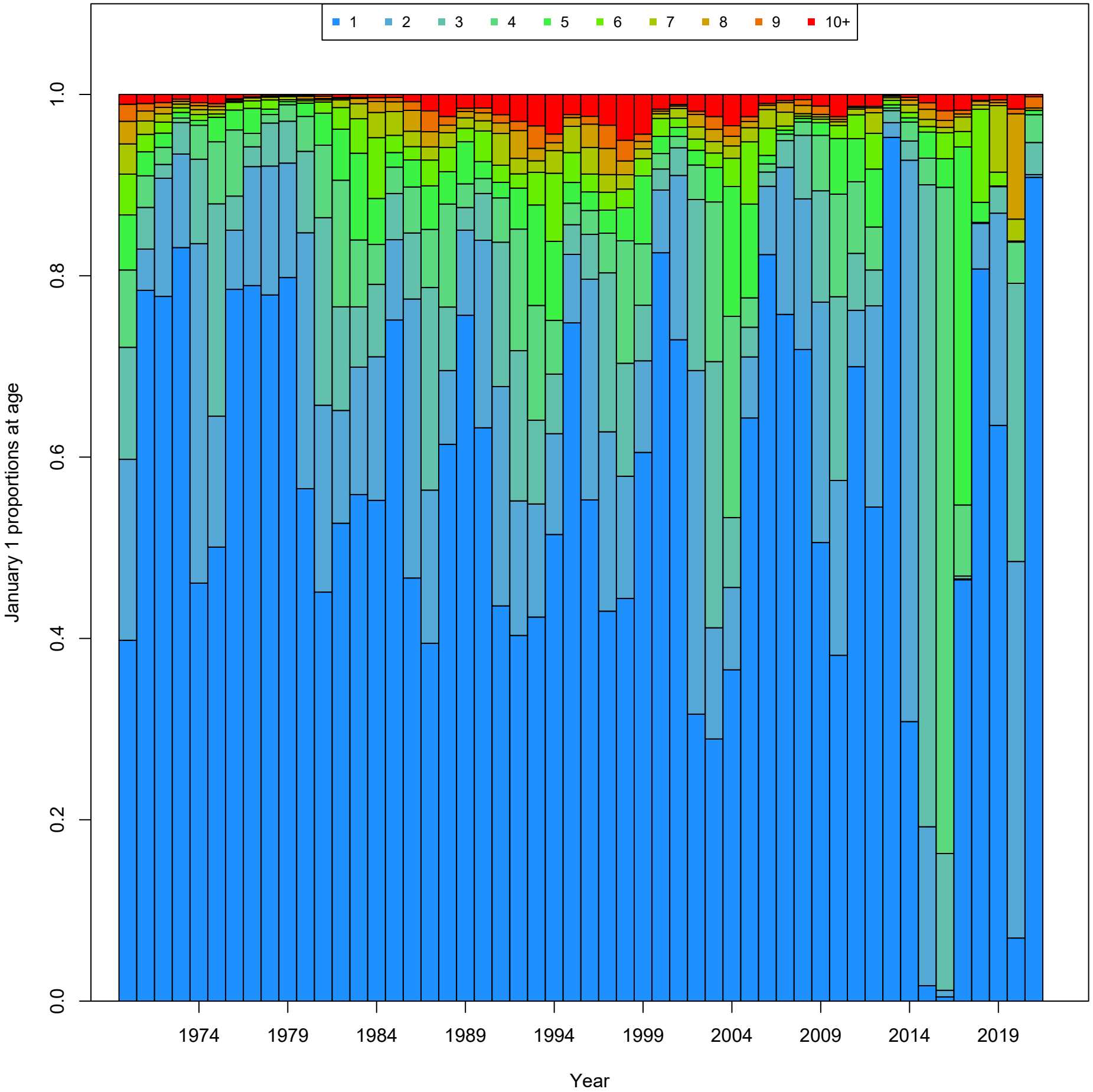

Index 6
1970 - 2021
Selectivity
0.0
0.2
0.4
0.6
0.8
1.0
1
2
3
4
5
6
7
8
9
10
Age

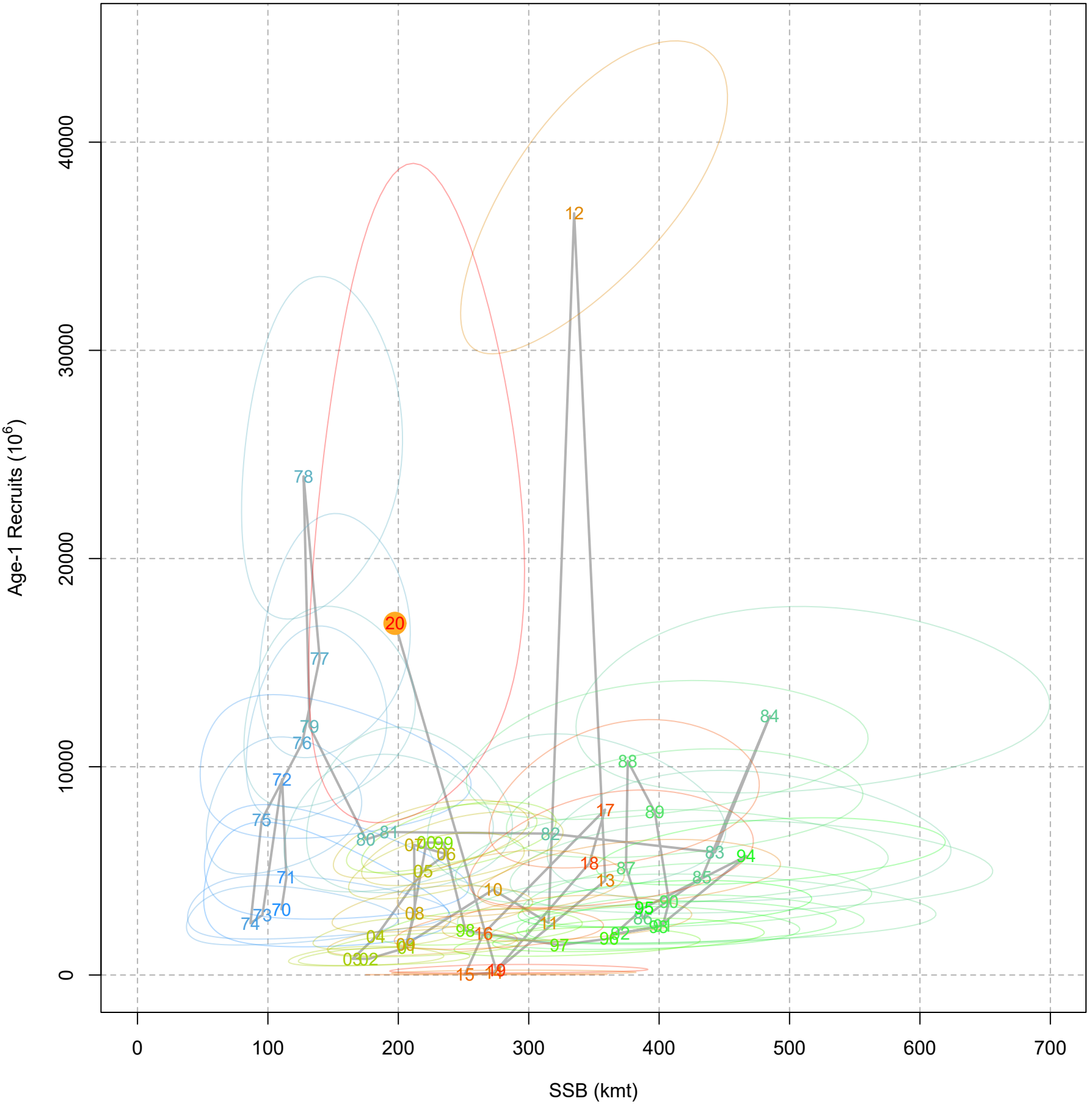

SSB (kmt)
0
100
200
300
400
500
600
Fully-selected F
0.0
0.2
0.4
0.6
0.8
1970
1980
1990
2000
2010
2020
Year


1
2
3
4
5
6
7
8
9
10+
SSB at age (kmt)
0
100
200
300
400
500
1974
1979
1984
1989
1994
1999
2004
2009
2014
2019
Year

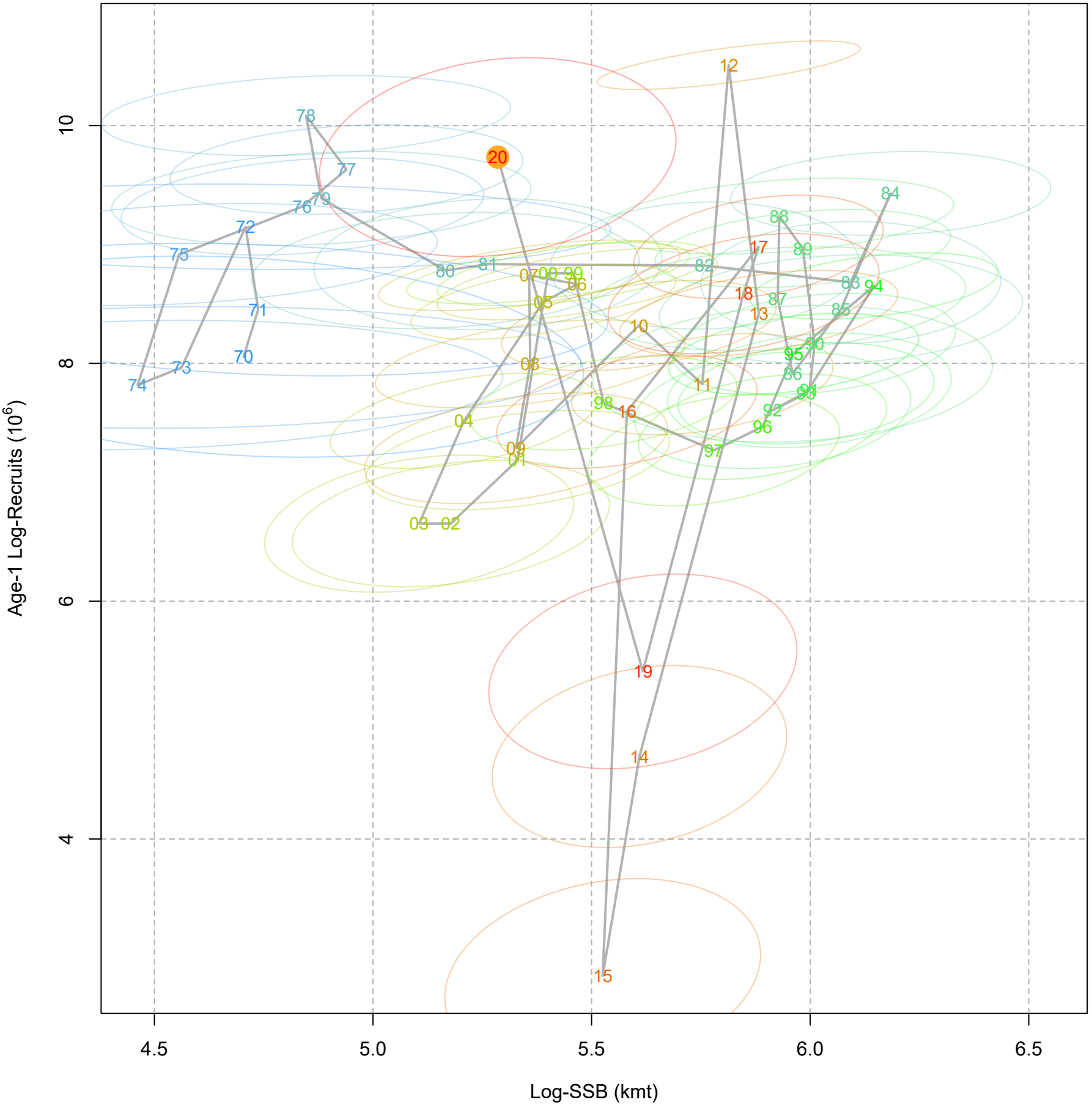

1
2
3
4
5
6
7
8
9
10+
Proportion SSB at age
0.0
0.2
0.4
0.6
0.8
1.0
1974
1979
1984
1989
1994
1999
2004
2009
2014
2019
Year


1
2
3
4
5
6
7
8
9
10+
40000
30000
20000
10000
0
January 1 numbers at age (10^6)
1974
1979
1984
1989
1994
1999
2004
2009
2014
2019
Year

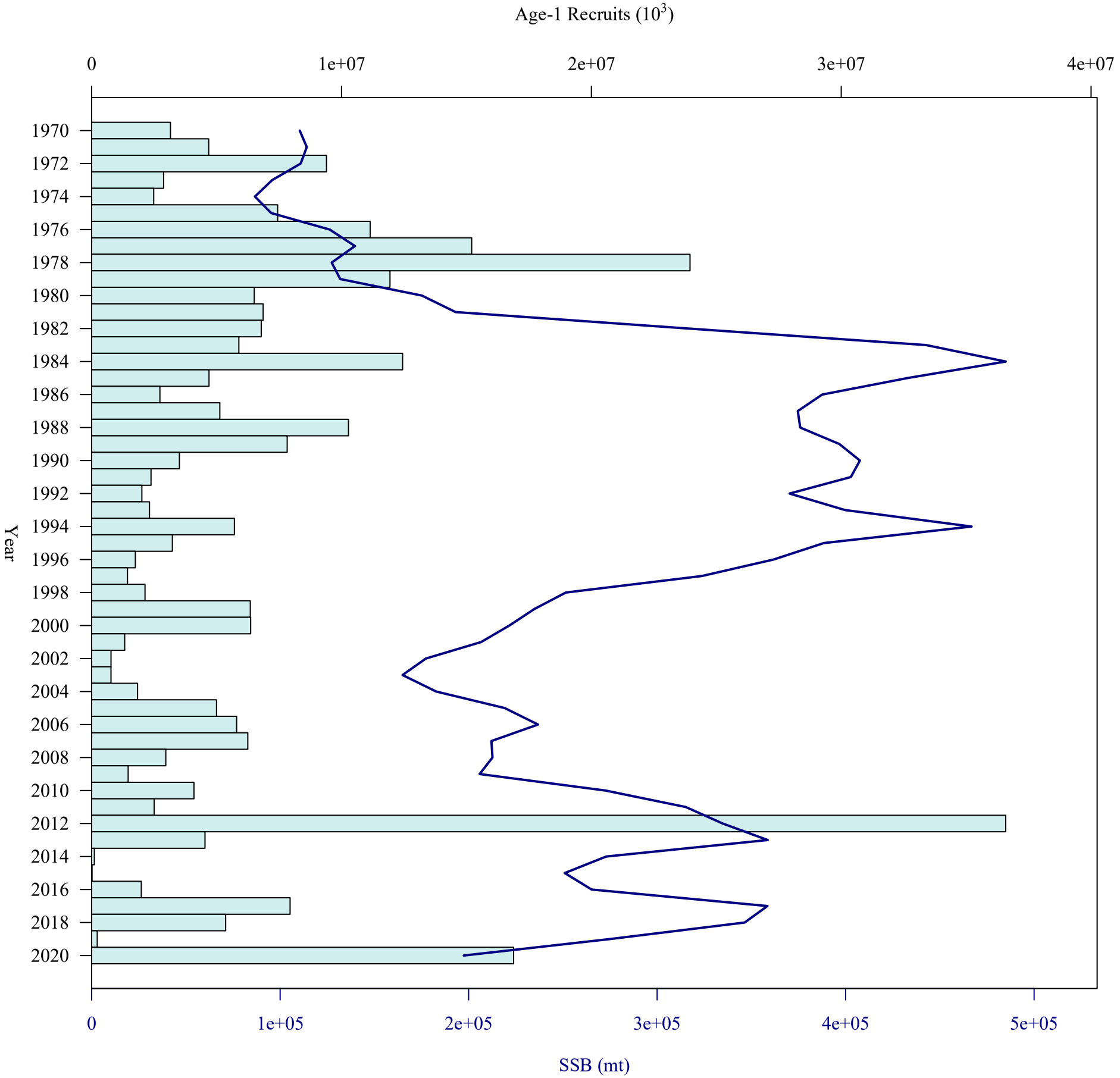

1
2
3
4
5
6
7
8
9
10+
January 1 proportions at age
0.0
0.2
0.4
0.6
0.8
1.0
1974
1979
1984
1989
1994
1999
2004
2009
2014
2019
Year

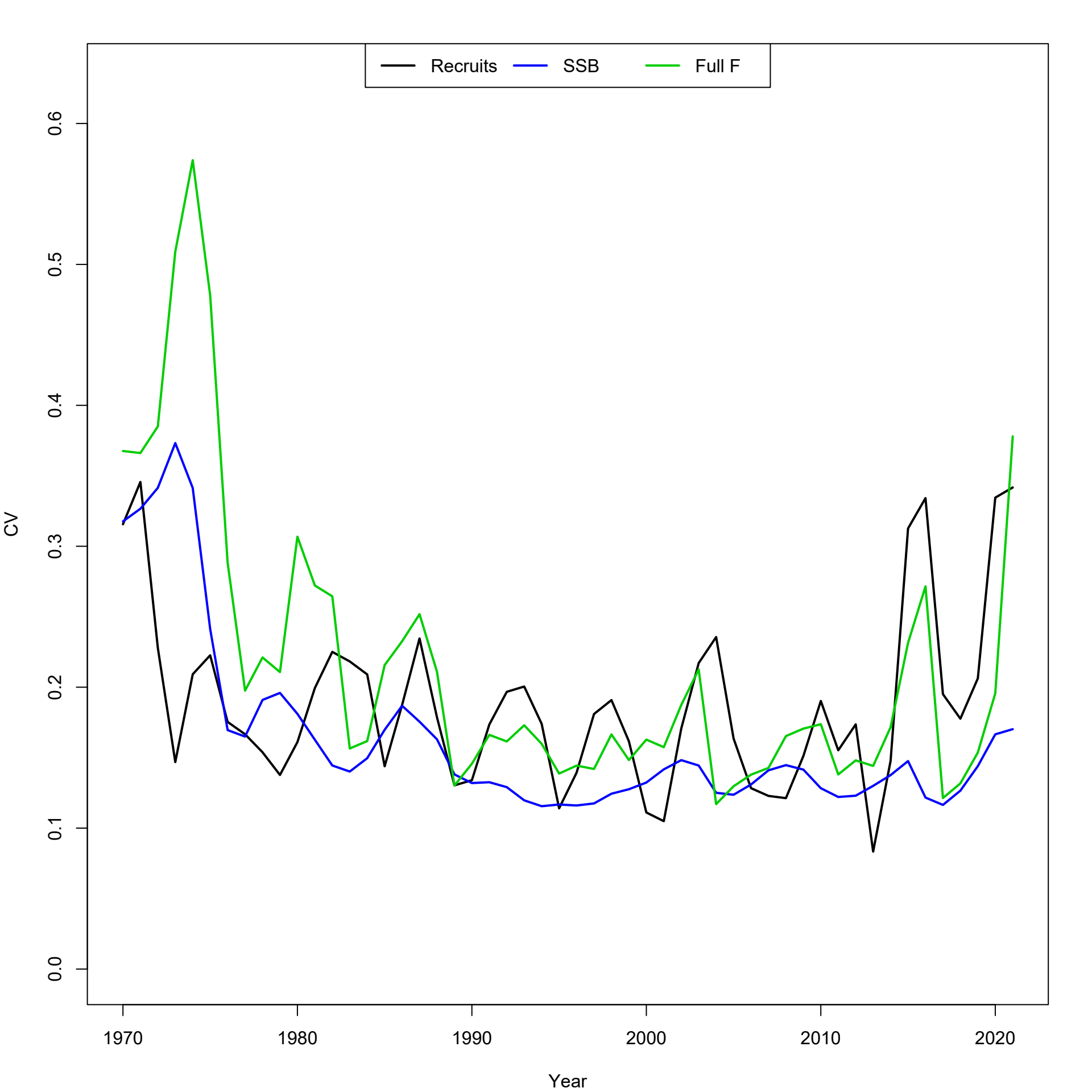


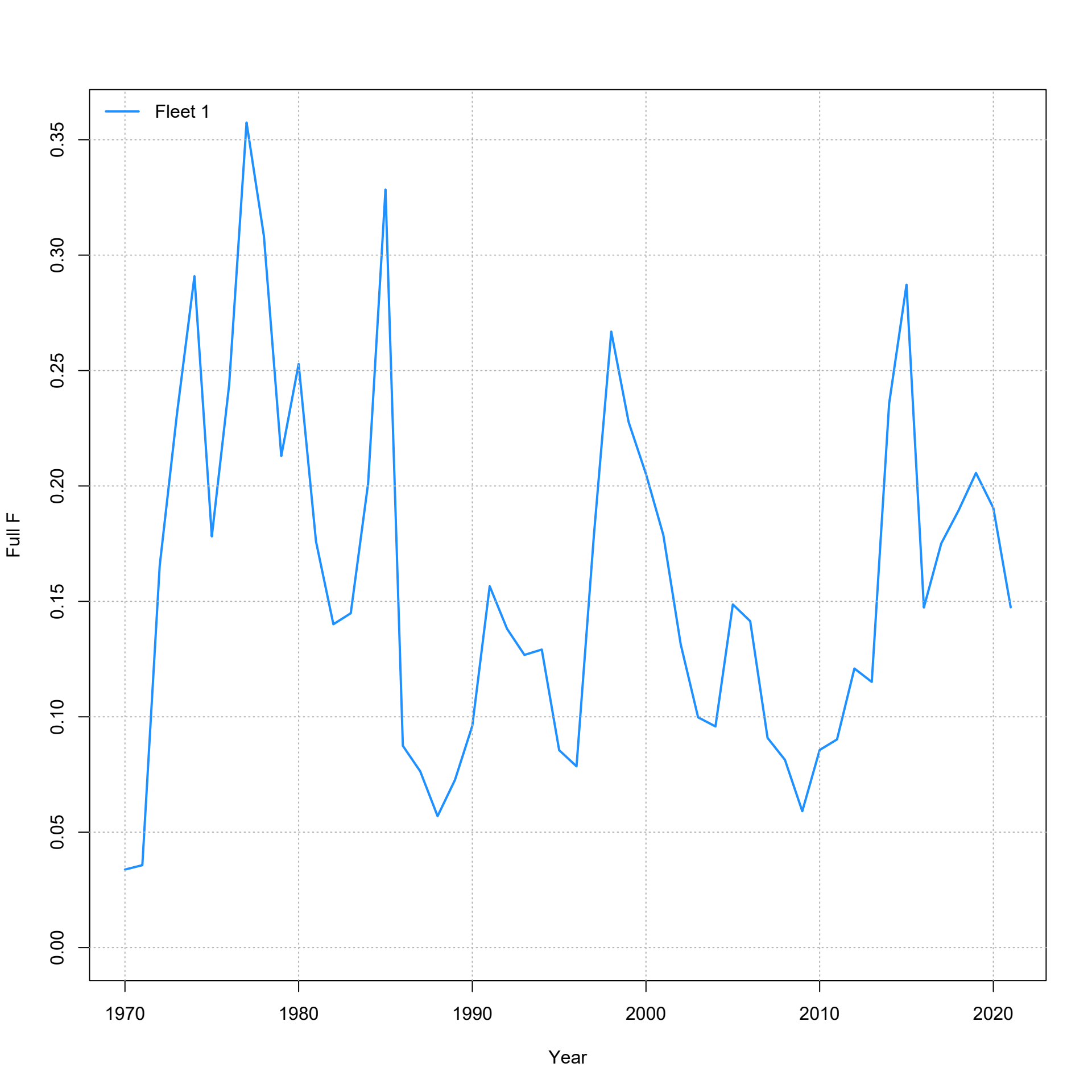
Age-1 Recruits (10^6)
SSB (kmt)
0
10000
20000
30000
40000
0
100
200
300
400
500
600
700

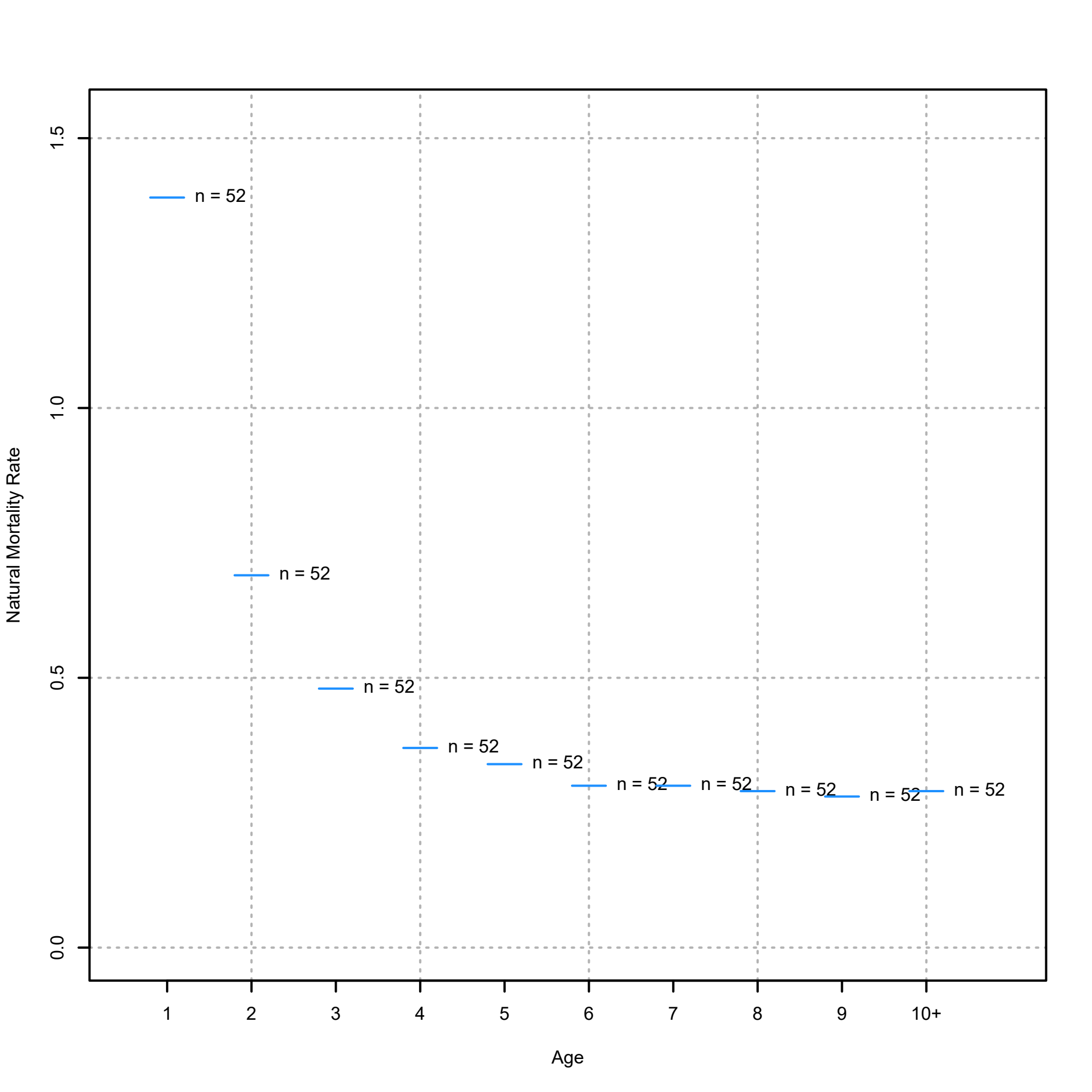


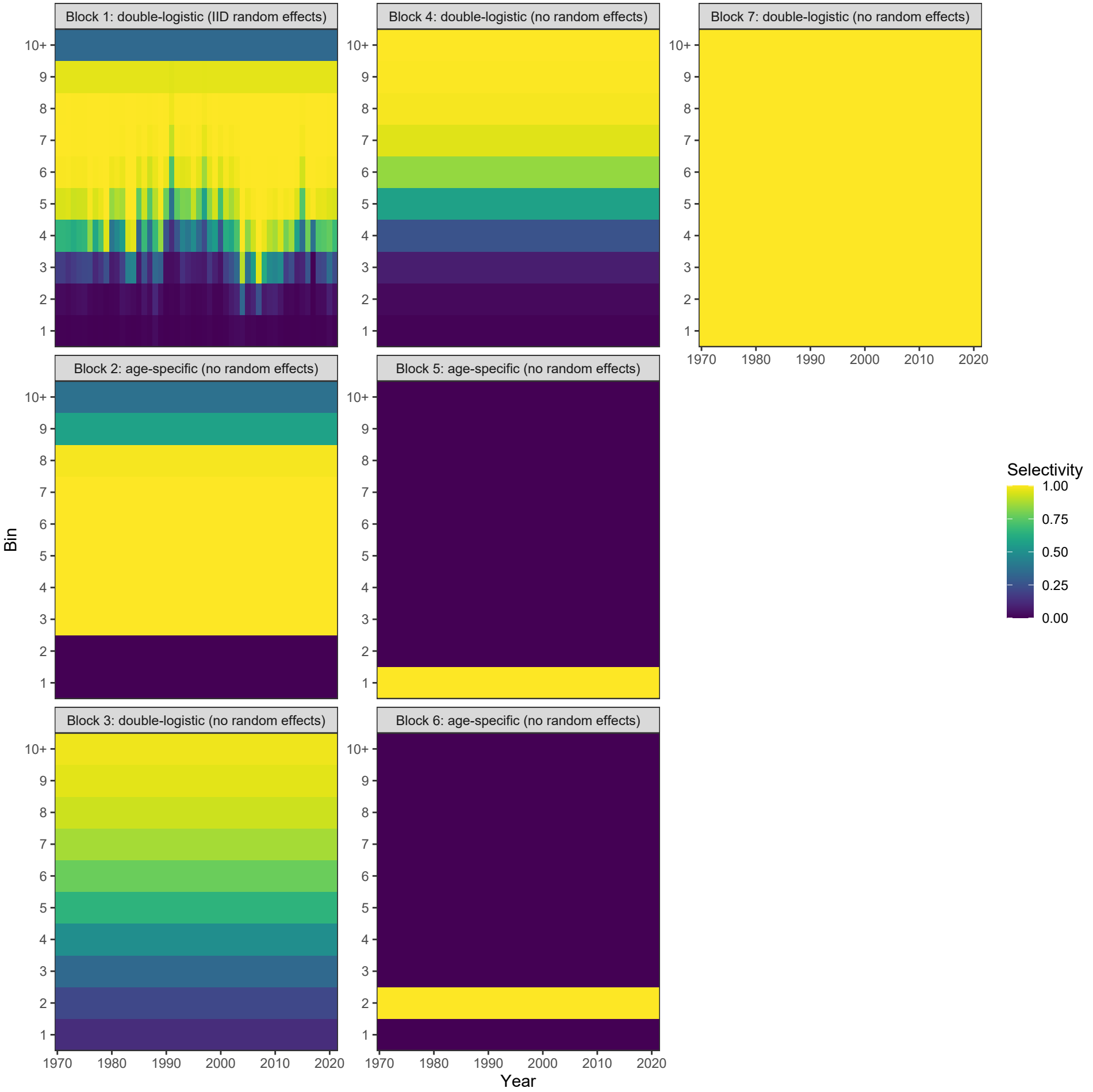
Age-1 Log-Recruits (10^6)
Log-SSB (kmt)
4
6
8
10
4.5
5.0
5.5
6.0
6.5

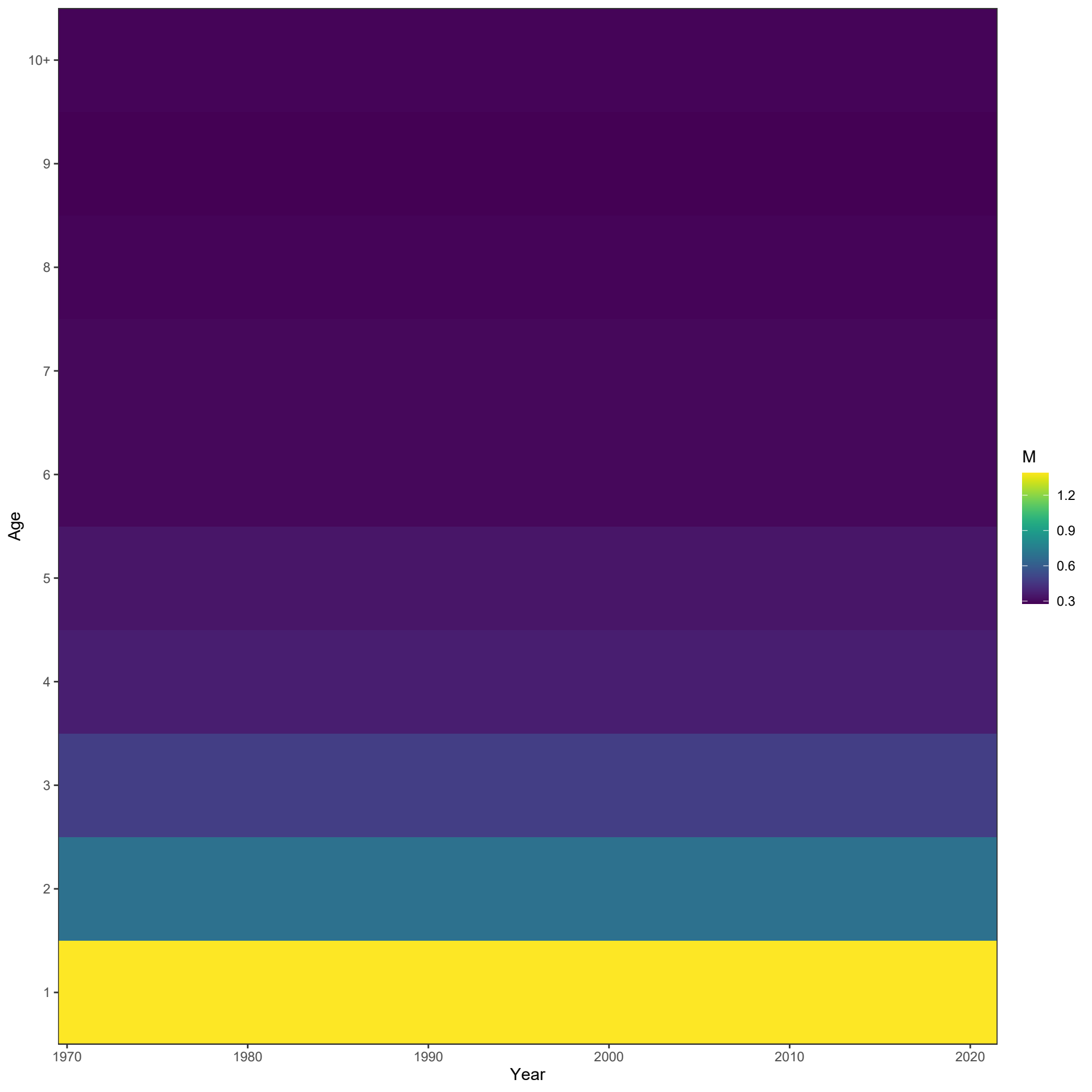

Age-1 Recruits (10^3)
0
1e+07
2e+07
3e+07
4e+07
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
Year
0
1e+05
2e+05
3e+05
4e+05
5e+05
SSB (mt)

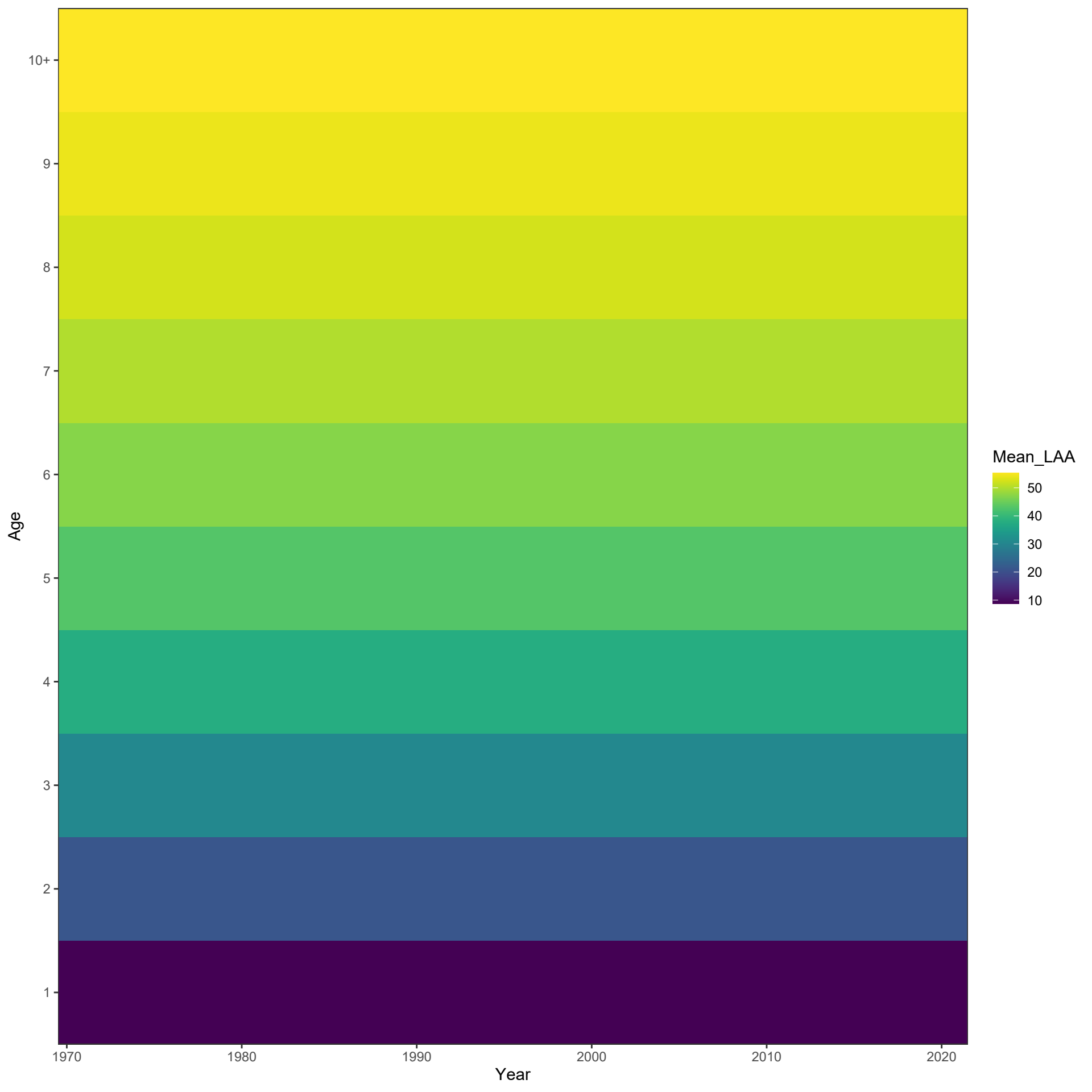

Recruits
SSB
Full F
CV
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1970
1980
1990
2000
2010
2020
Year

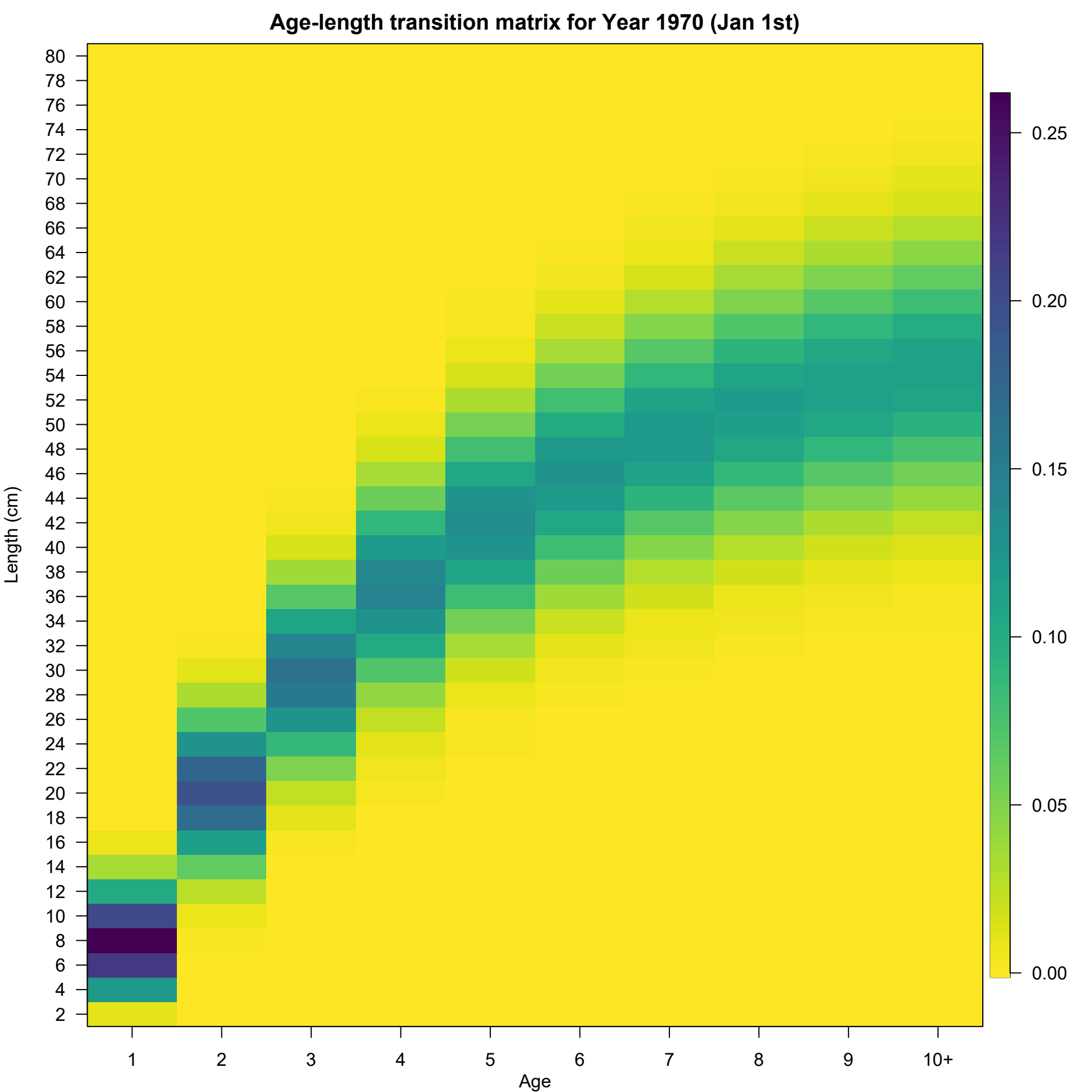

Fleet 1
Full F
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
1970
1980
1990
2000
2010
2020
Year

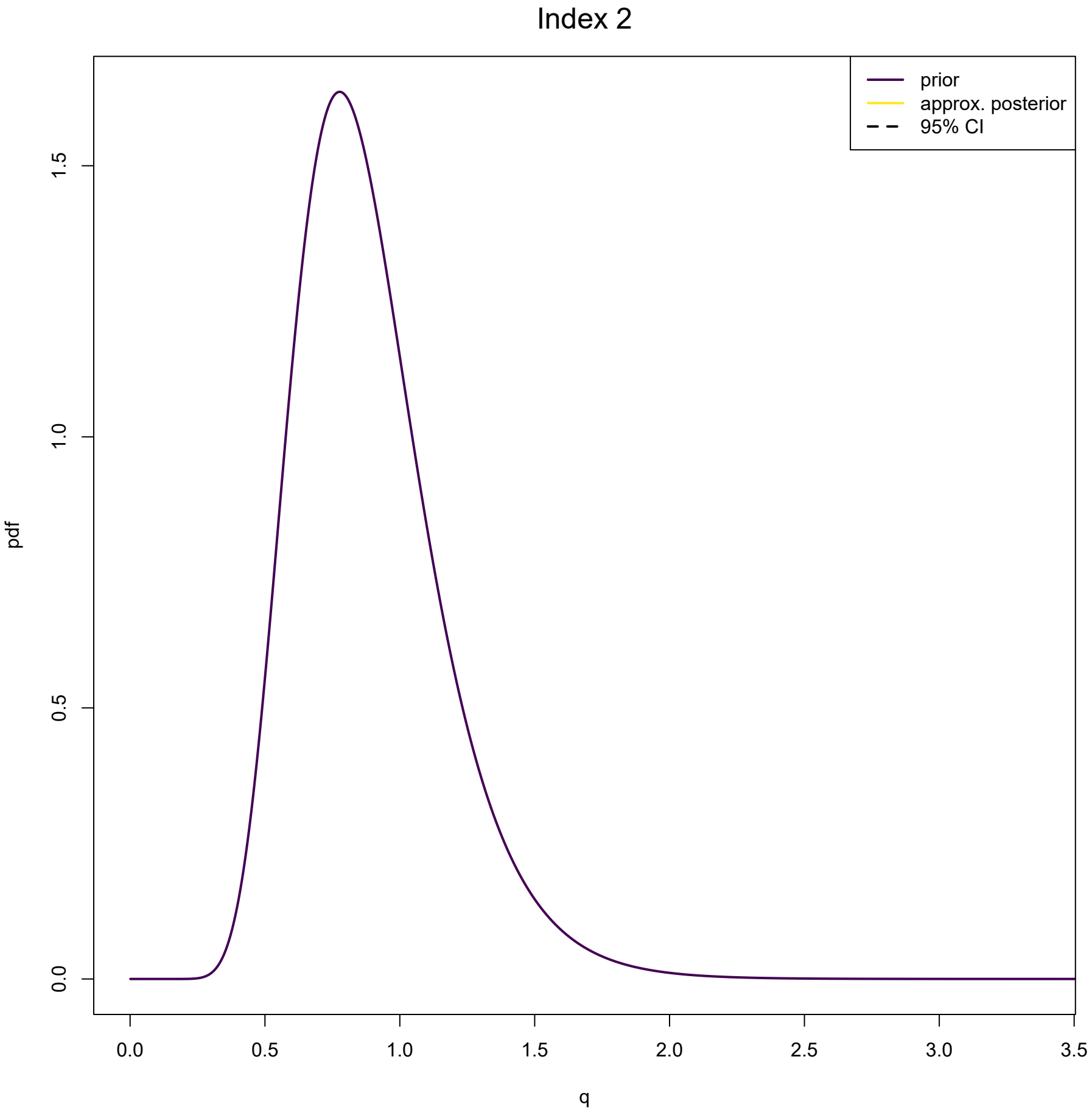

Natural Mortality Rate
0.0
0.5
1.0
1.5
n = 52
n = 52
n = 52
n = 52
n = 52
n = 52
n = 52
n = 52
n = 52
1
2
3
4
5
6
7
8
9
10+
Age

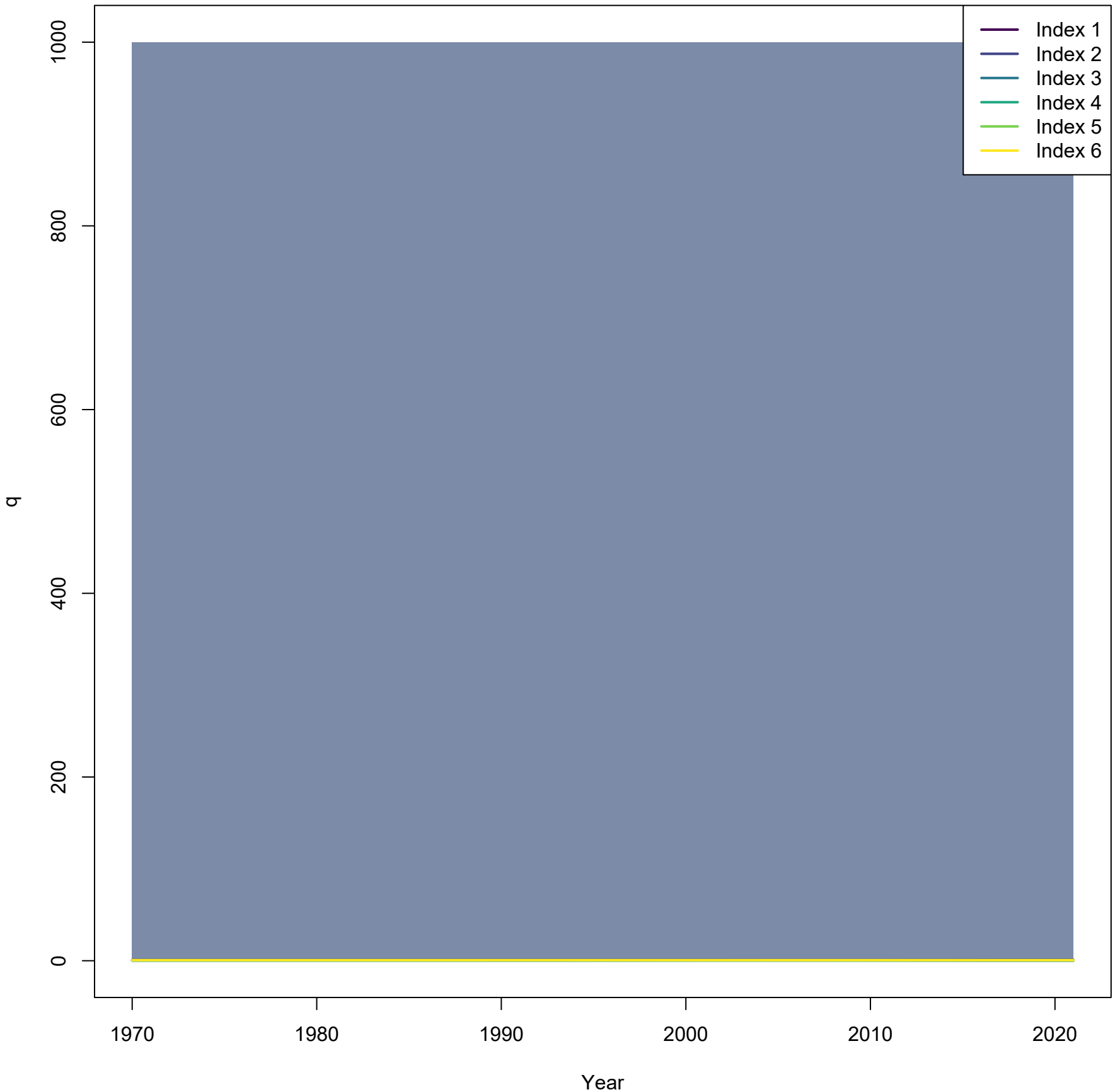

Block 1: double-logistic (IID random effects)
Block 4: double-logistic (no random effects)
Block 7: double-logistic (no random effects)
Block 2: age-specific (no random effects)
Block 5: age-specific (no random effects)
Block 3: double-logistic (no random effects)
Block 6: age-specific (no random effects)
Bin
Year
Selectivity
1.00
0.75
0.50
0.25
0.00


Age
10+
9
8
7
6
5
4
3
2
1
1970
1980
1990
2000
2010
2020
Year
M
1.2
0.9
0.6
0.3


10+
9
8
7
6
5
4
3
2
1
Age
1970
1980
1990
2000
2010
2020
Year
Mean_LAA
50
40
30
20
10


Age-length transition matrix for Year 1970 (Jan 1st)
Length (cm)
80
78
76
74
72
70
68
66
64
62
60
58
56
54
52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
1
2
3
4
5
6
7
8
9
10+
Age
0.25
0.20
0.15
0.10
0.05
0.00


Index 2
prior
approx. posterior
95% CI
pdf
0.0
0.5
1.0
1.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
q


Index 1
Index 2
Index 3
Index 4
Index 5
Index 6
q
0
200
400
600
800
1000
1970
1980
1990
2000
2010
2020
Year