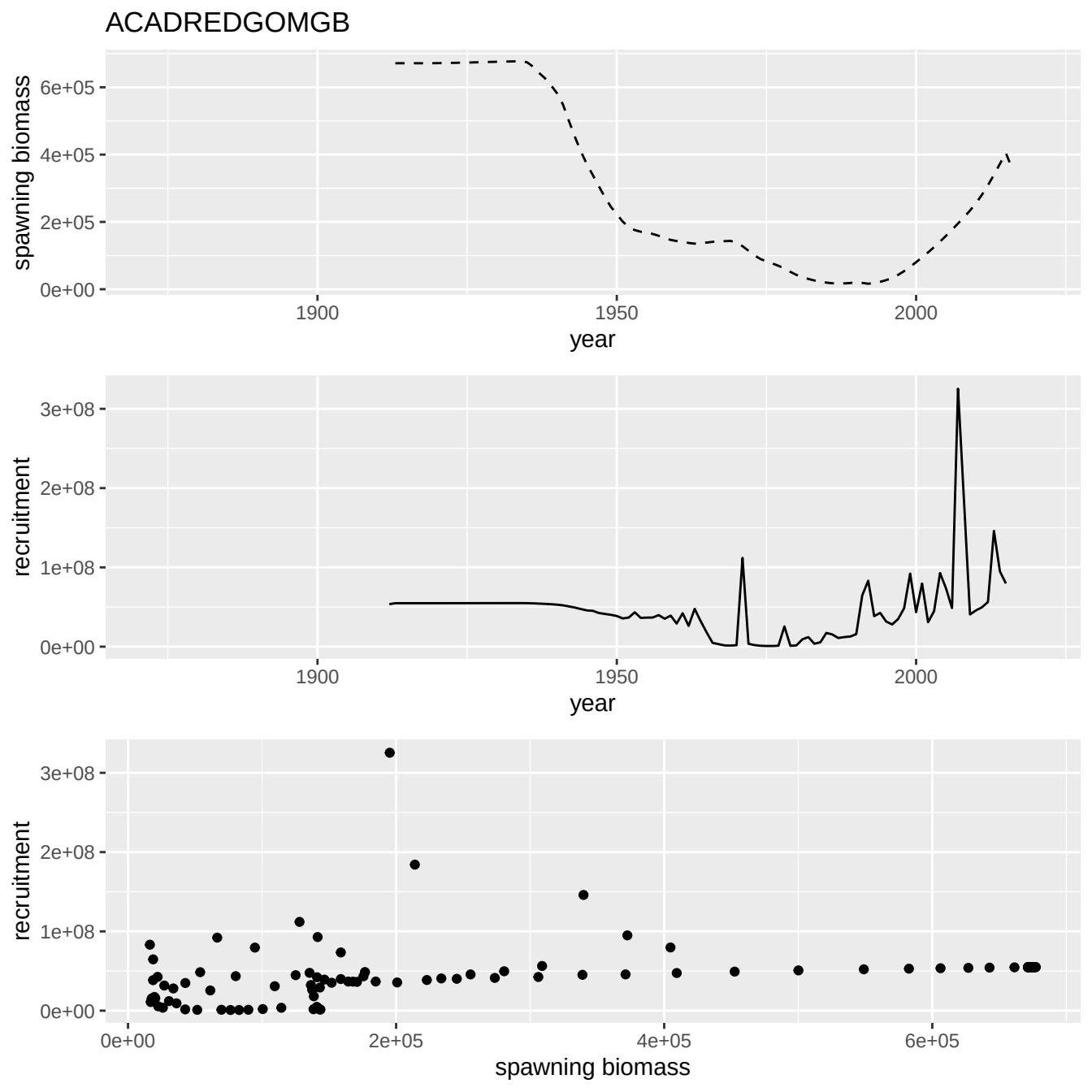
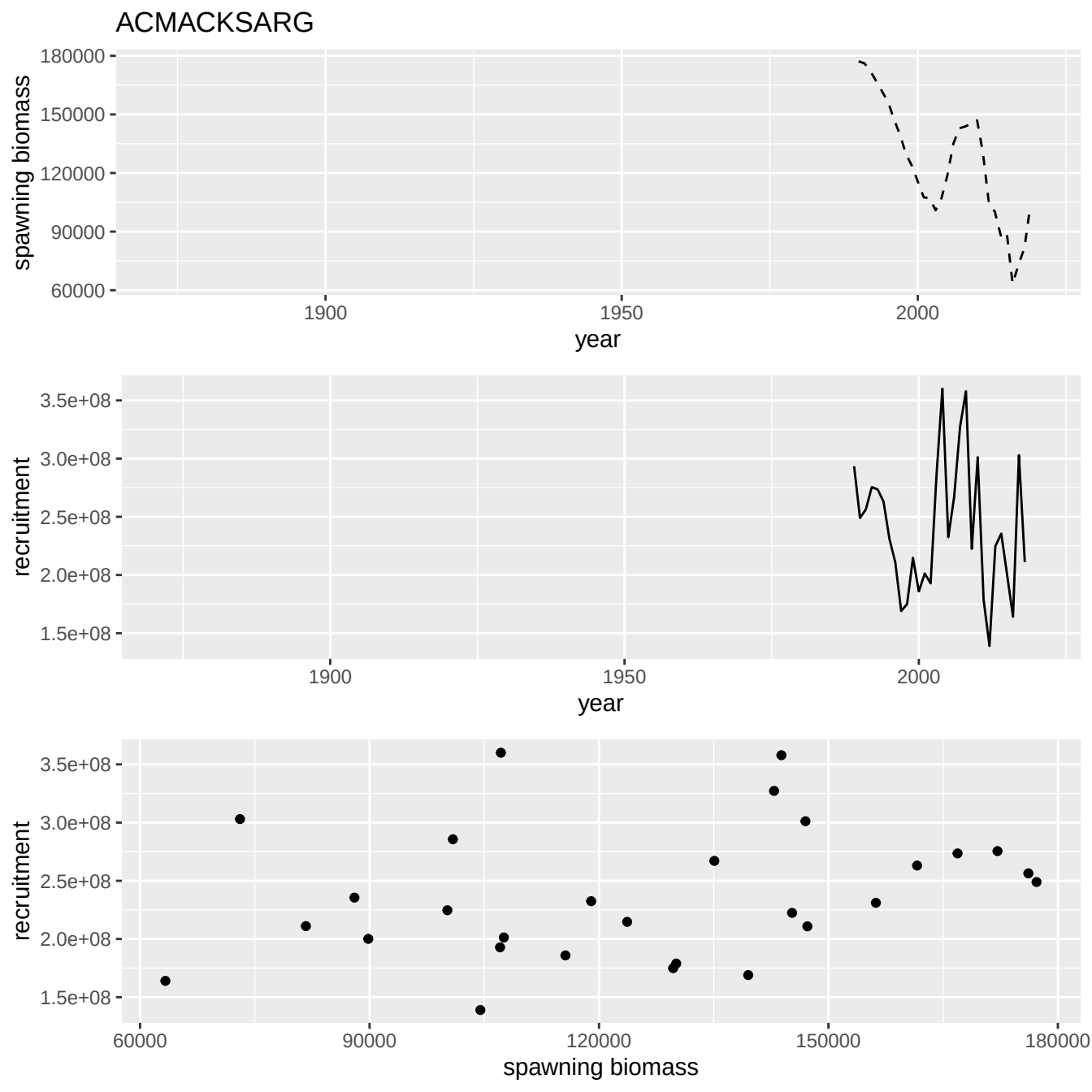
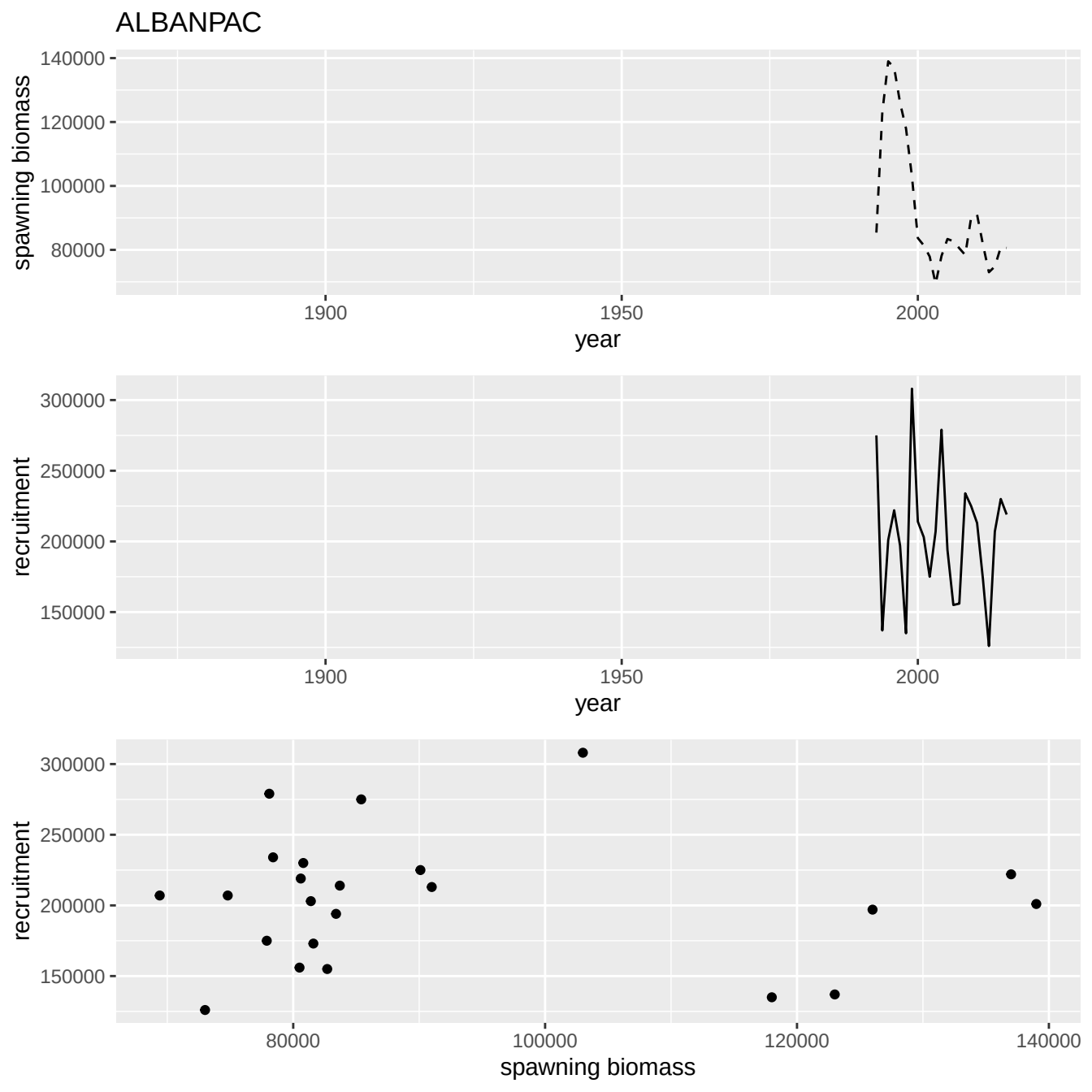
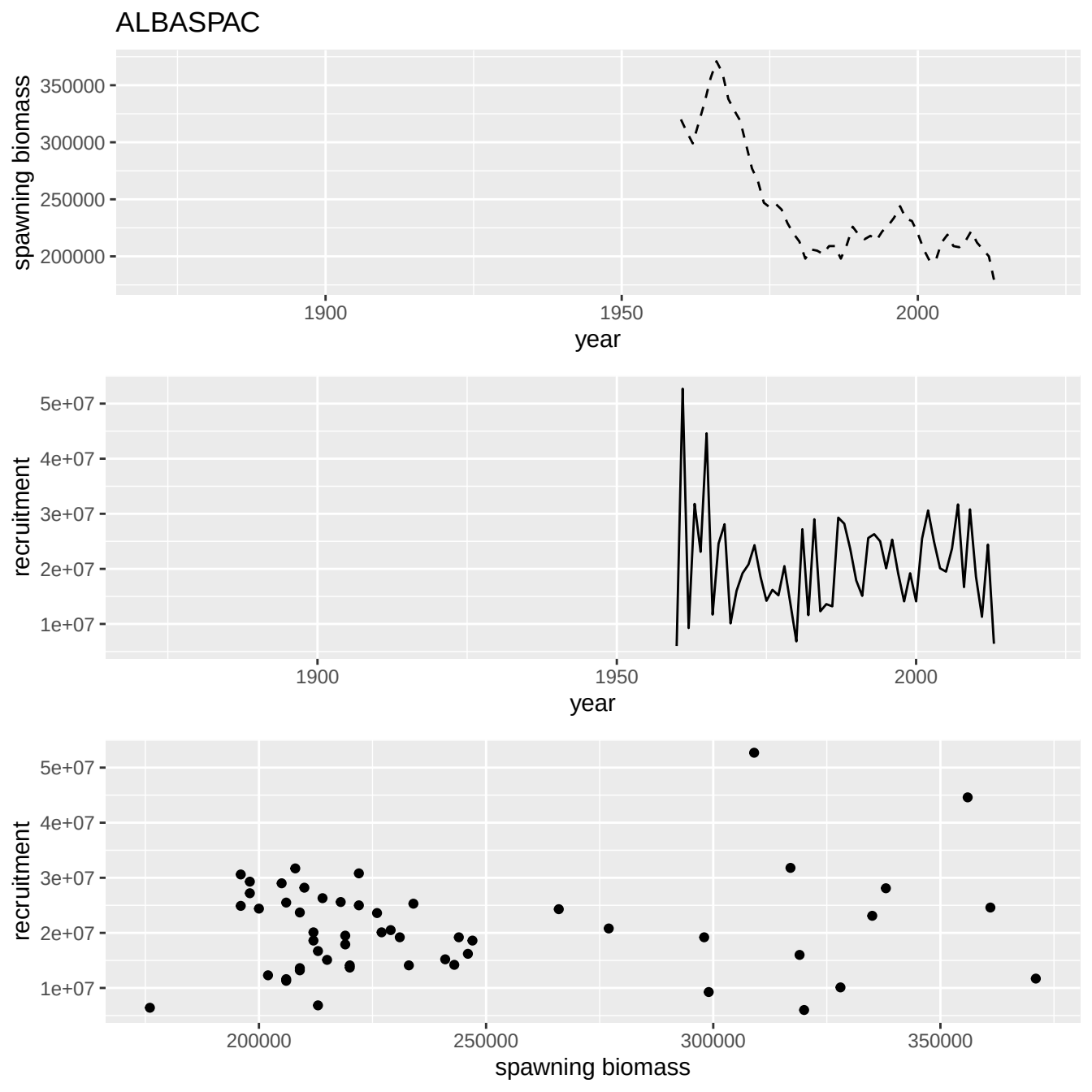
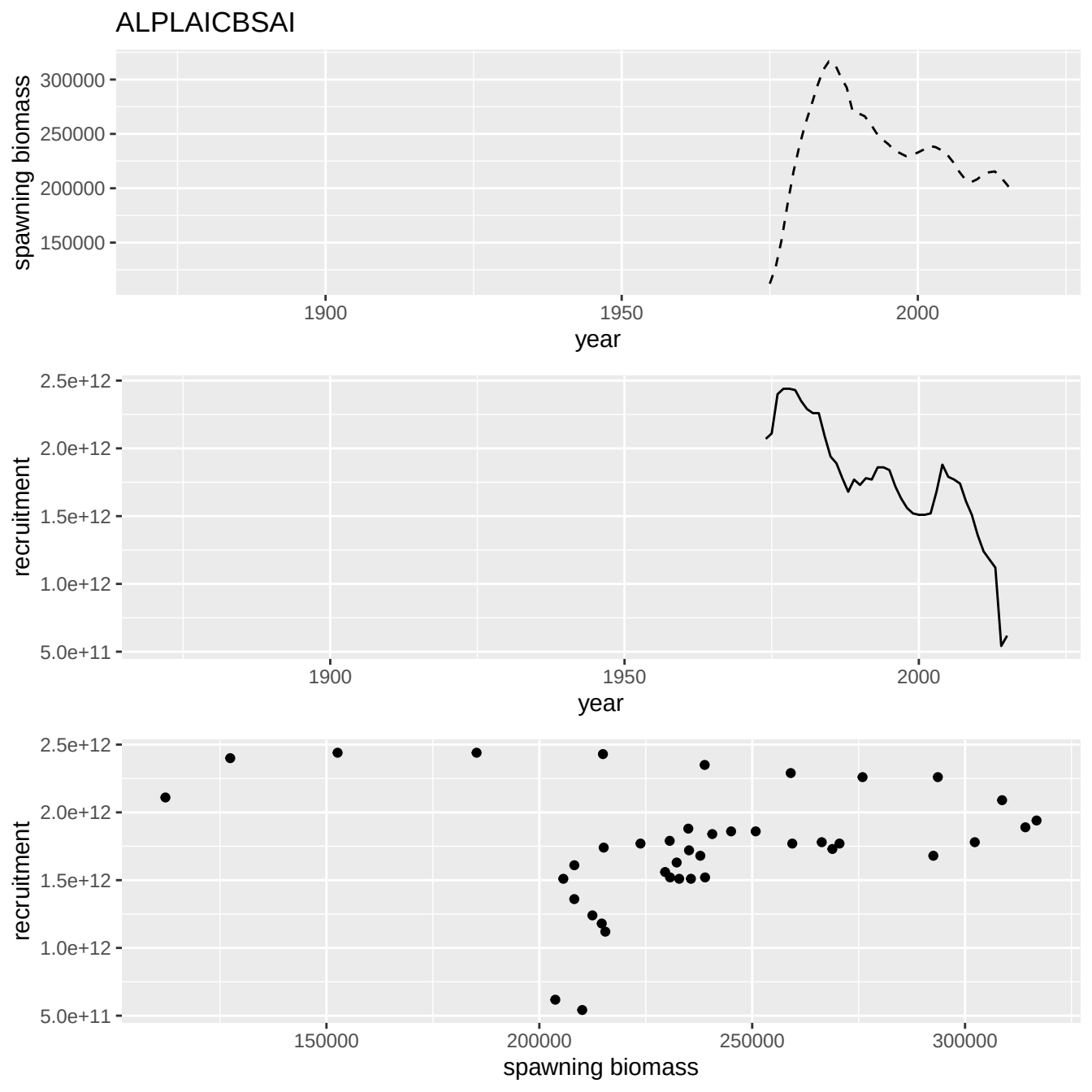
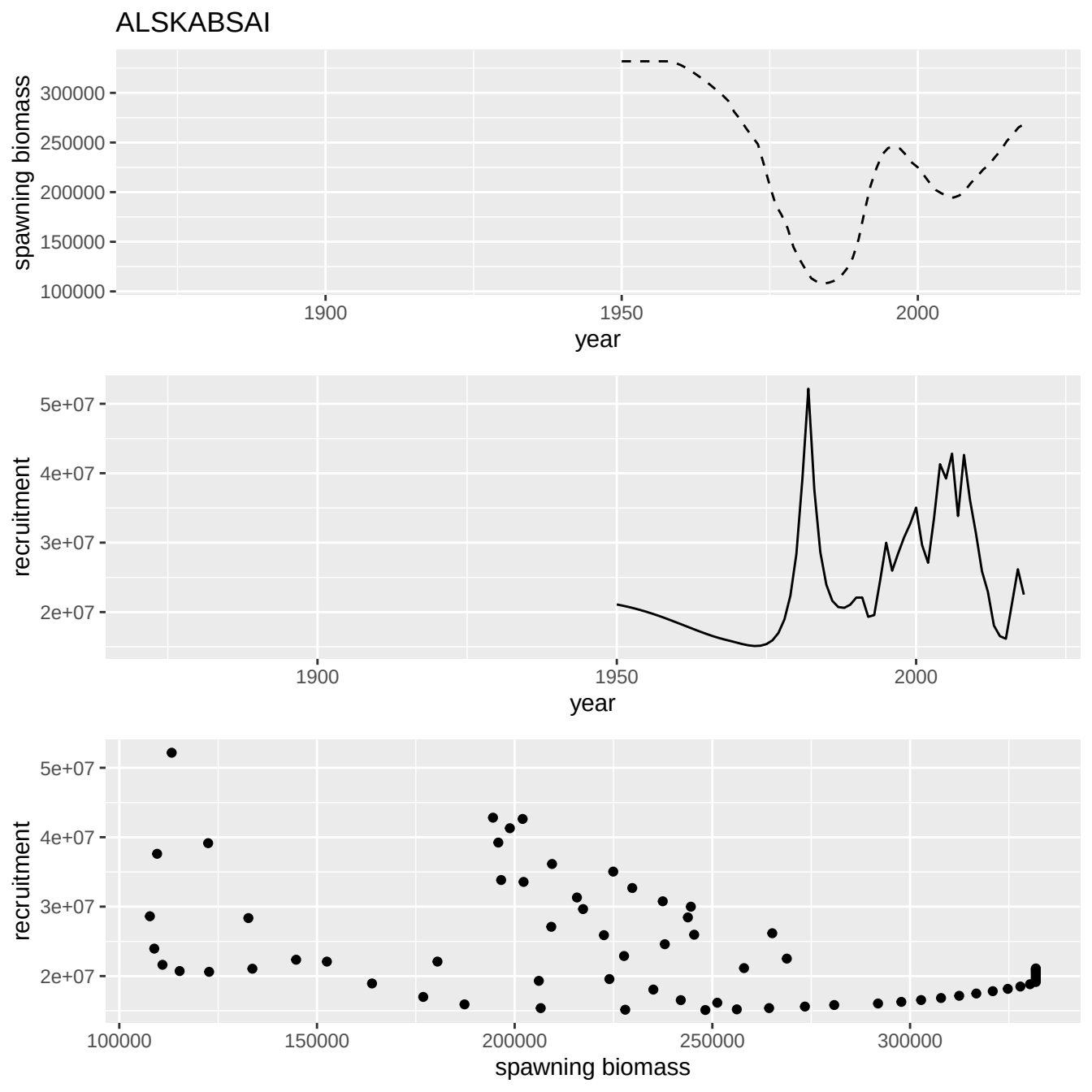

ACADREDGOMGB
spawning biomass
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
0e+00
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
0e+00
0e+00
2e+05
4e+05
6e+05
spawning biomass

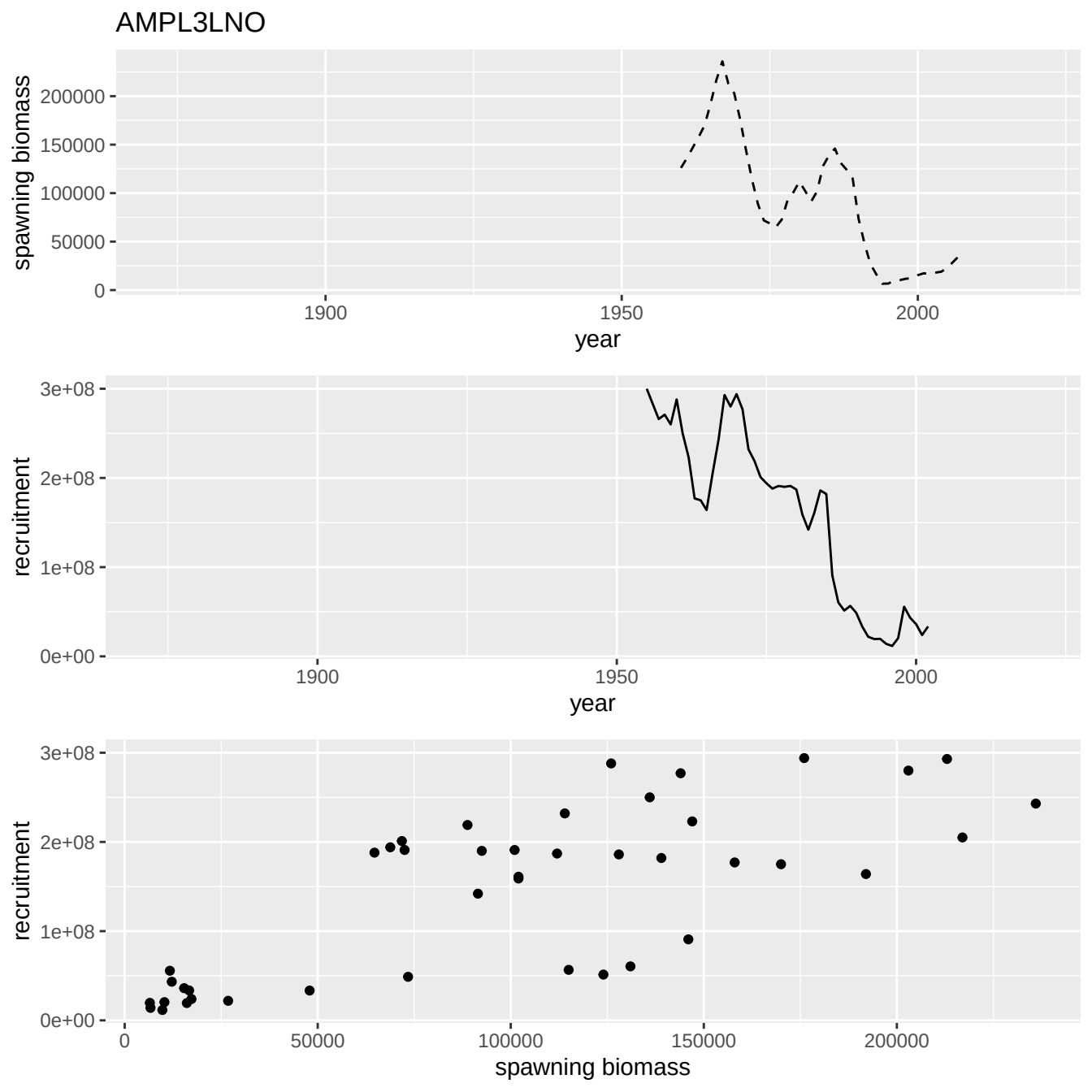

ACMACKSARG
spawning biomass
180000
150000
120000
90000
60000
1900
1950
2000
year
recruitment
3.5e+08
3.0e+08
2.5e+08
2.0e+08
1.5e+08
1900
1950
2000
year
recruitment
3.5e+08
3.0e+08
2.5e+08
2.0e+08
1.5e+08
60000
90000
120000
150000
180000
spawning biomass

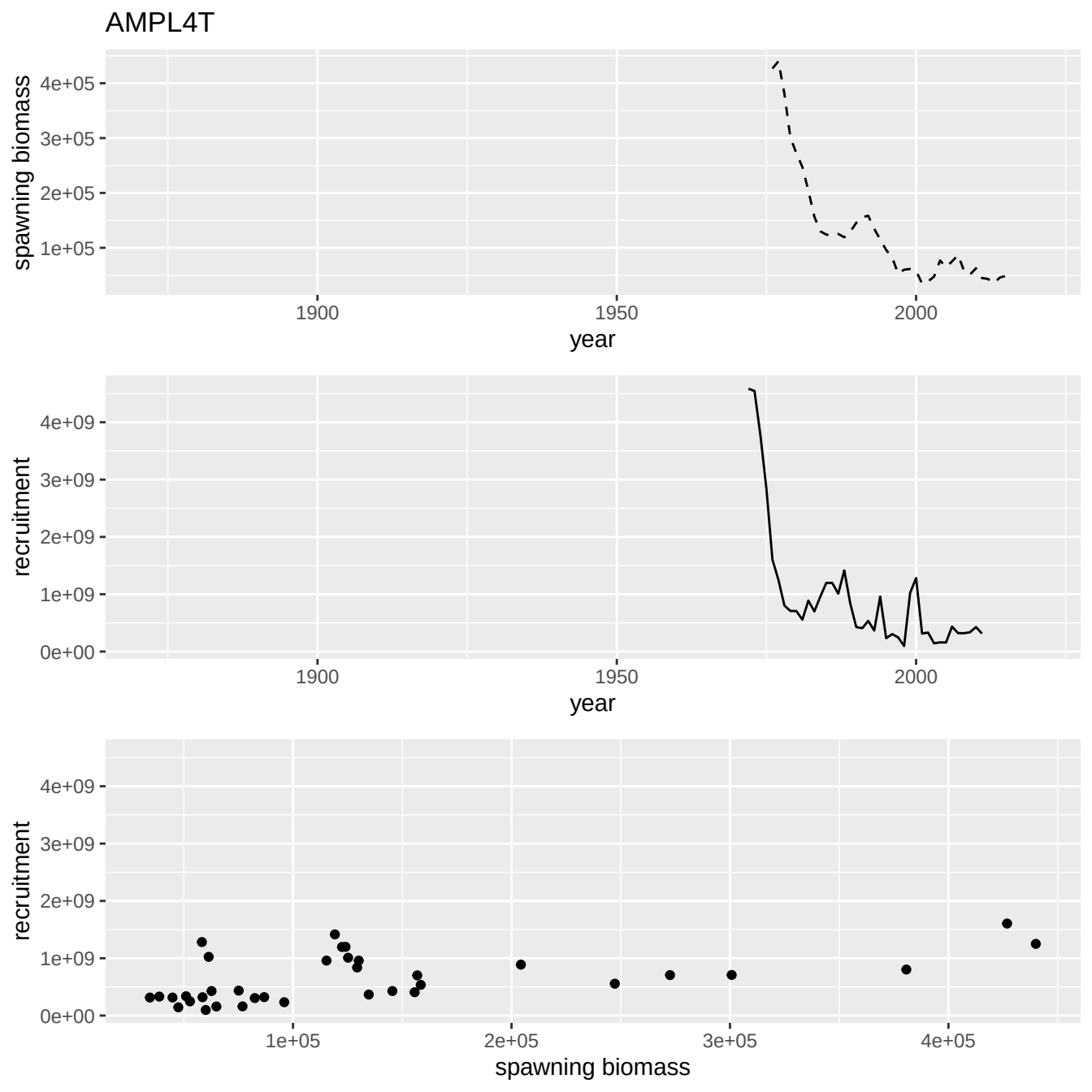

ALBANPAC
spawning biomass
140000
120000
100000
80000
1900
1950
2000
year
recruitment
300000
250000
200000
150000
1900
1950
2000
year
recruitment
300000
250000
200000
150000
80000
100000
120000
140000
spawning biomass

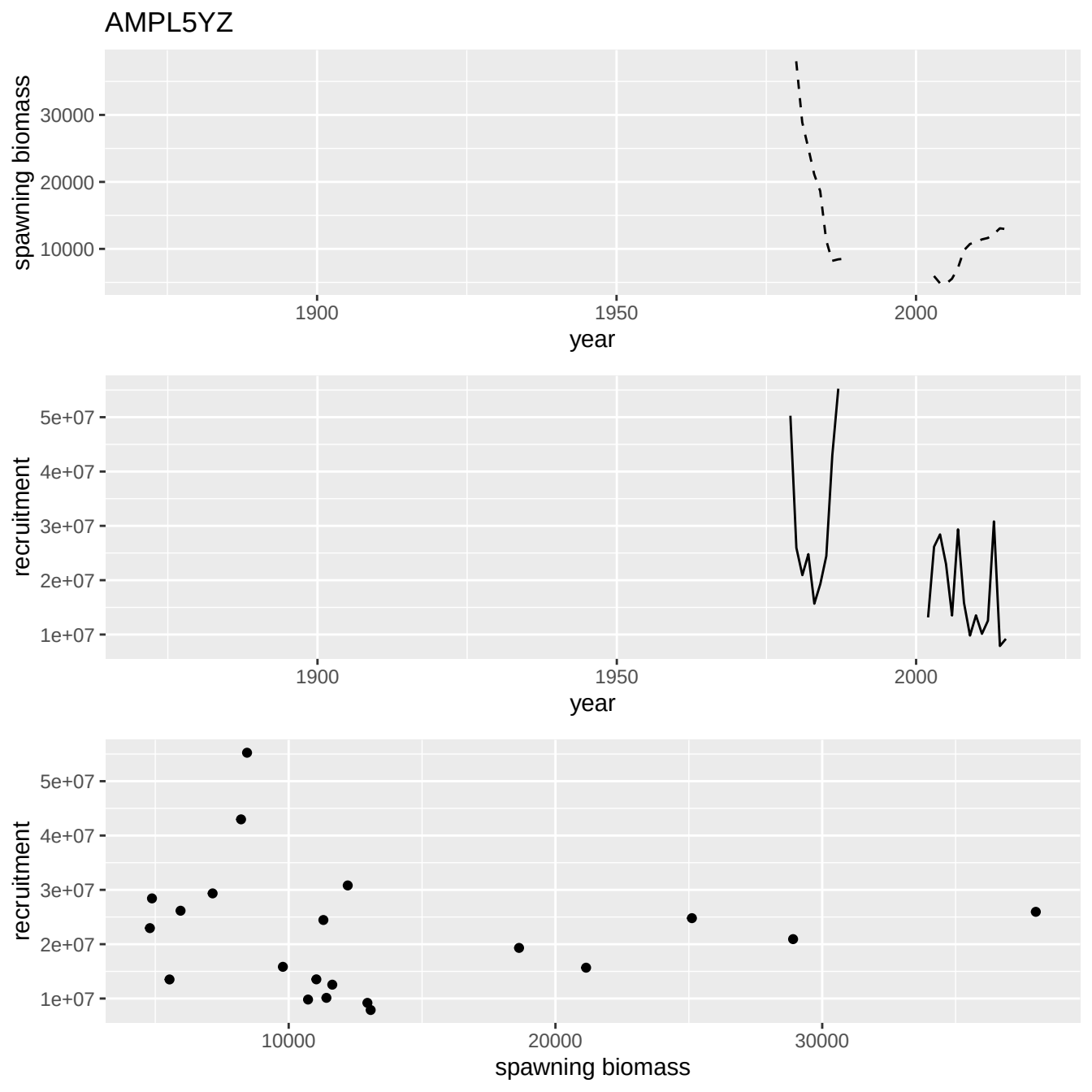

ALBASPAC
spawning biomass
350000
300000
250000
200000
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
200000
250000
300000
350000
spawning biomass

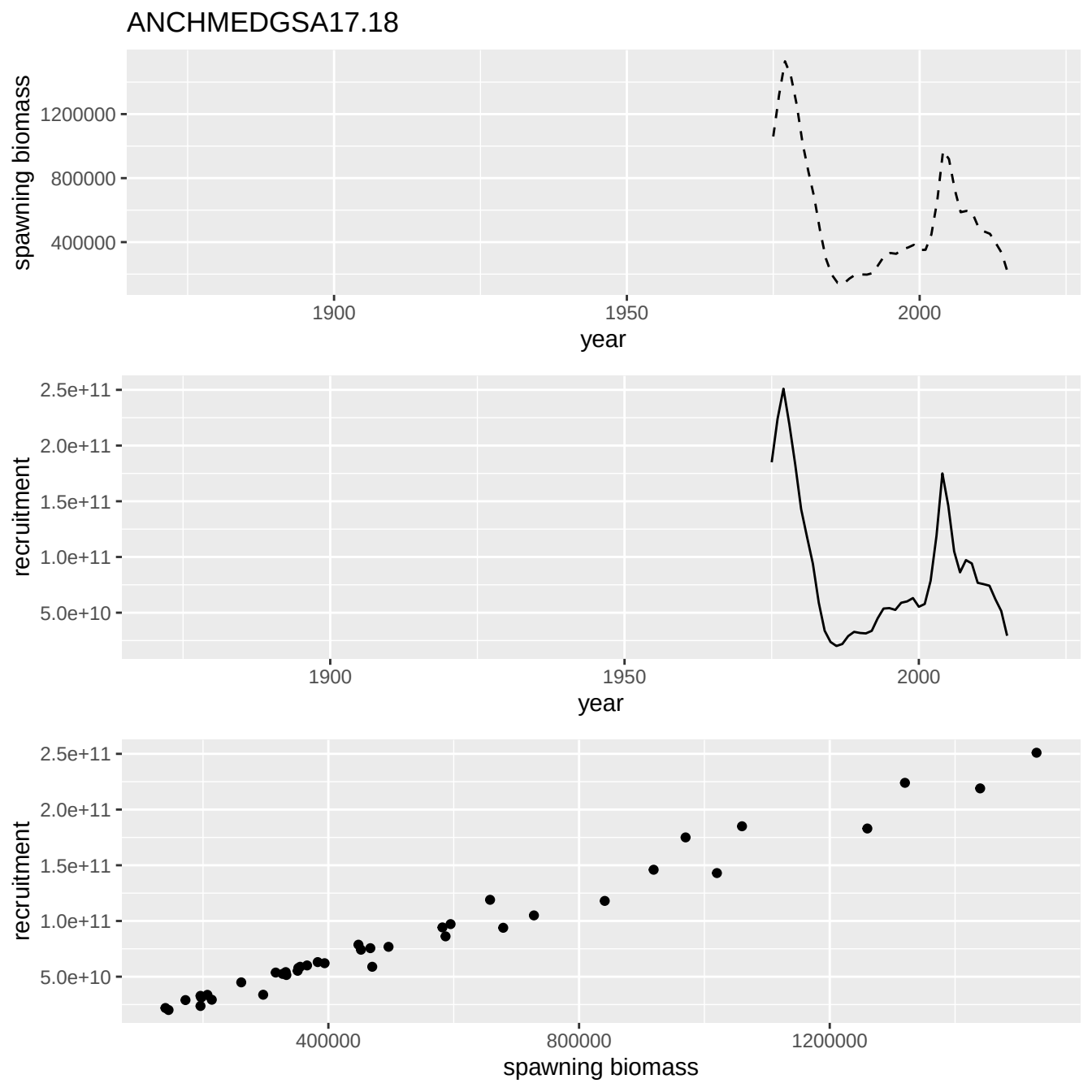

ALPLAICBSAI
spawning biomass
300000
250000
200000
150000
1900
1950
2000
year
recruitment
2.5e+12
2.0e+12
1.5e+12
1.0e+12
5.0e+11
1900
1950
2000
year
recruitment
2.5e+12
2.0e+12
1.5e+12
1.0e+12
5.0e+11
150000
200000
250000
300000
spawning biomass

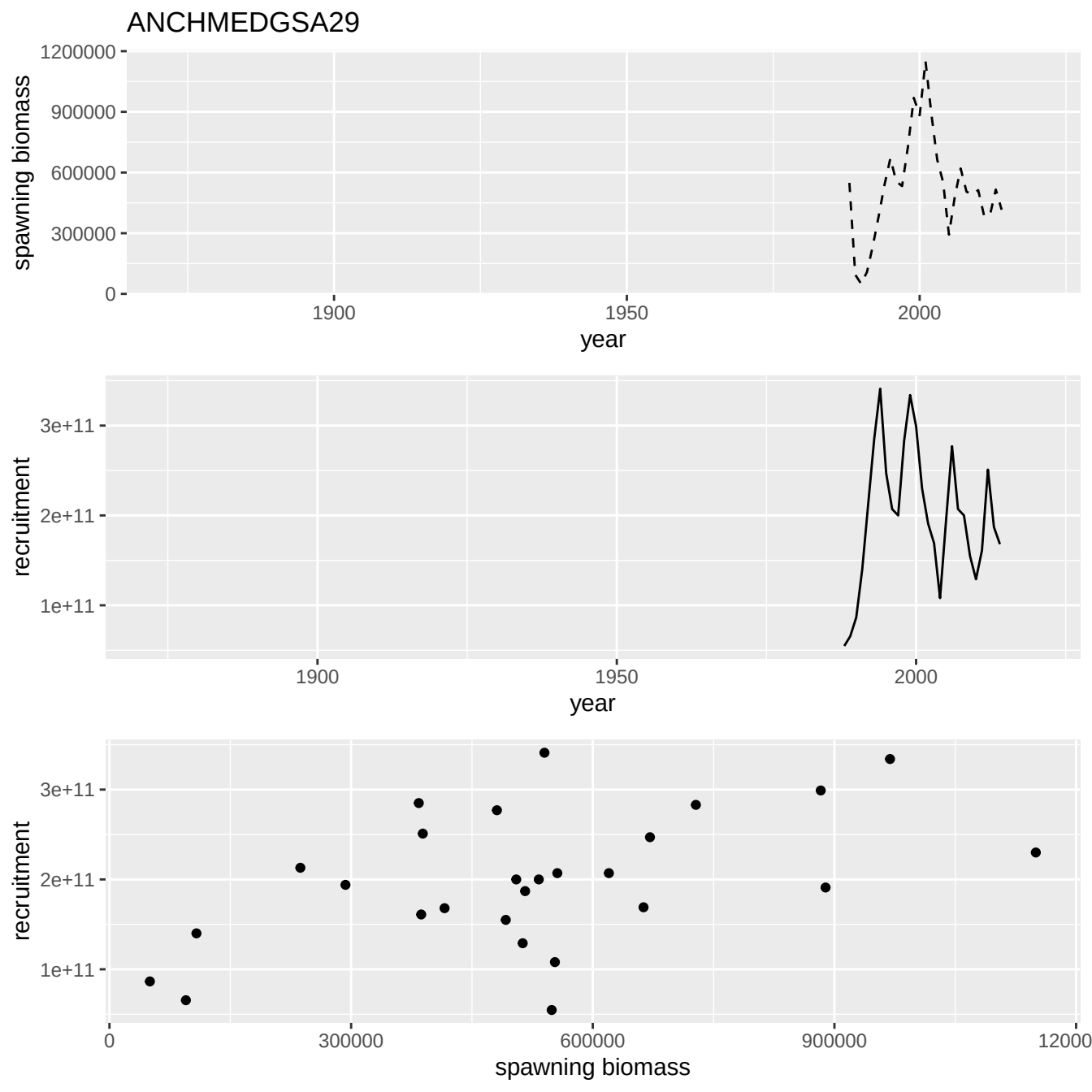

ALSKABSAI
spawning biomass
300000
250000
200000
150000
100000
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
100000
150000
200000
250000
300000
spawning biomass

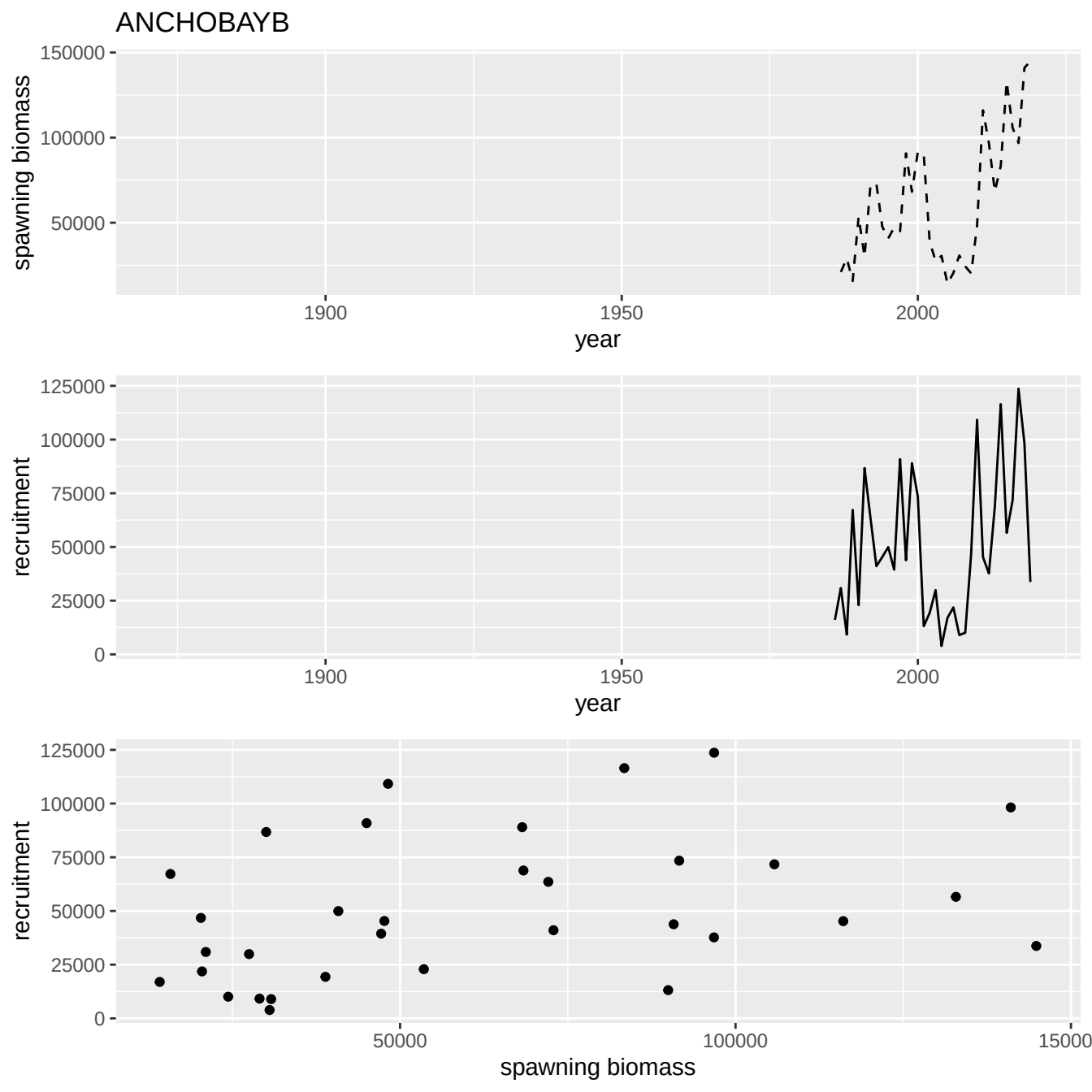

AMPL3LNO
spawning biomass
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
0e+00
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
0e+00
0
50000
100000
150000
200000
spawning biomass

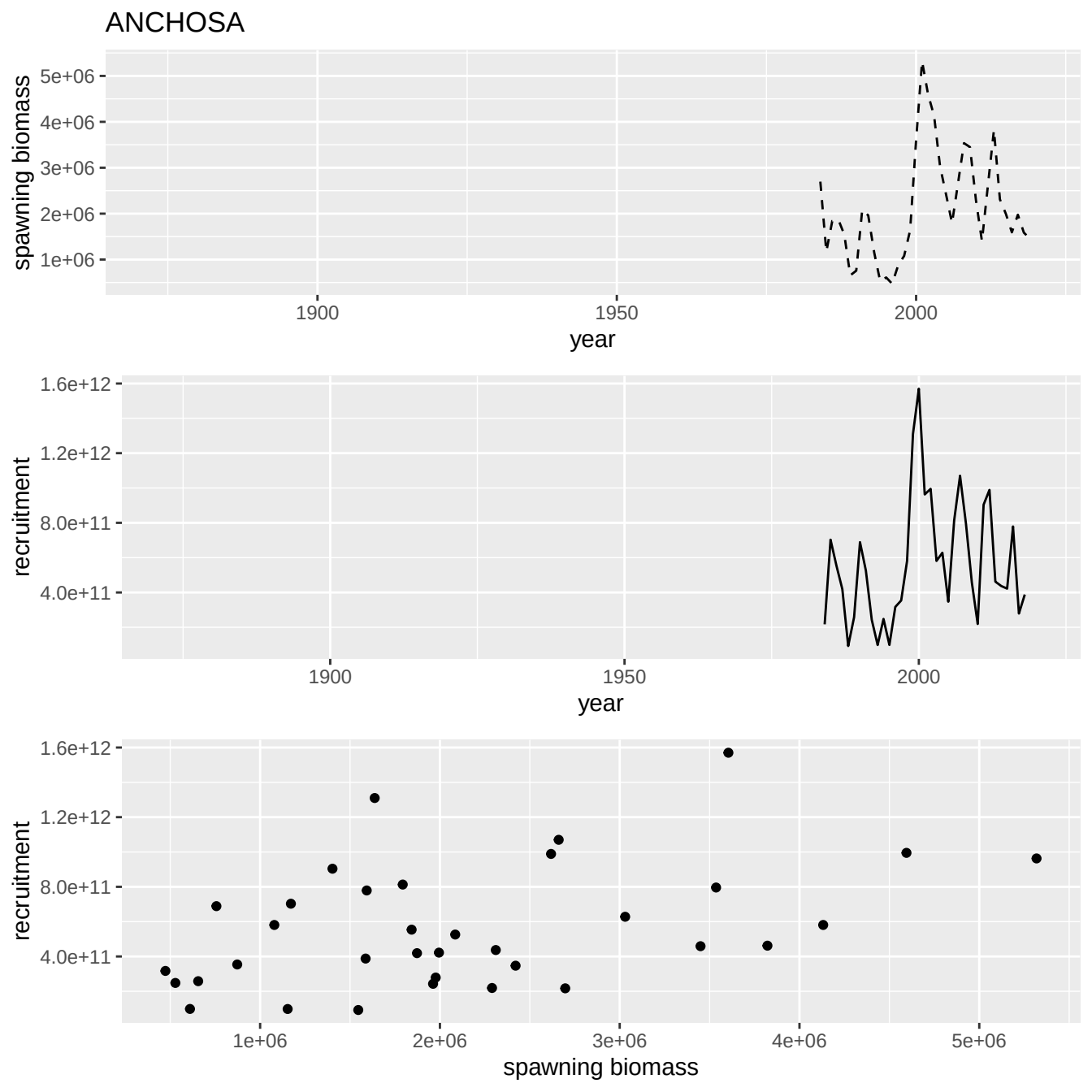

AMPL4T
spawning biomass
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
1e+09
0e+00
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
1e+09
0e+00
1e+05
2e+05
3e+05
4e+05
spawning biomass

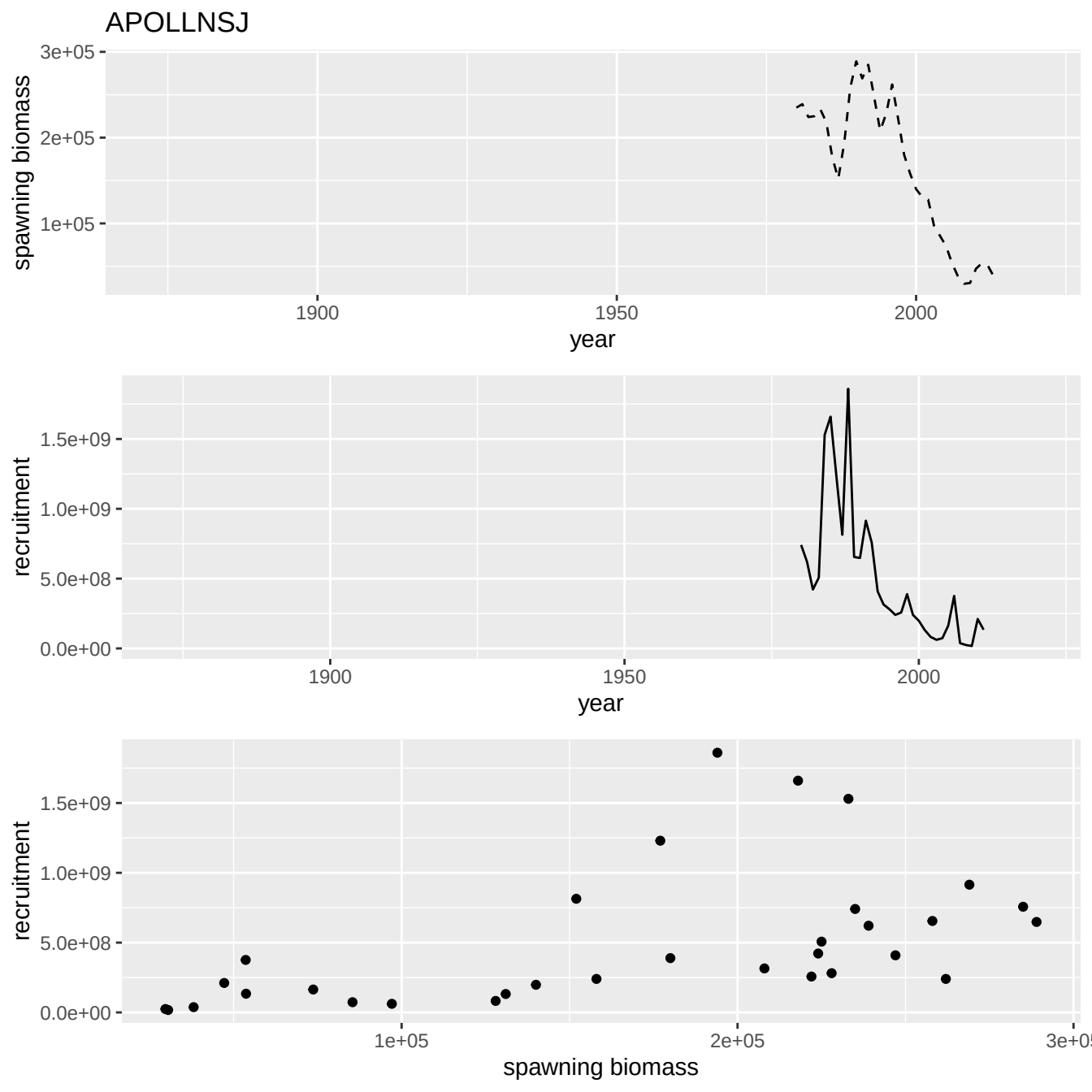

AMPL5YZ
spawning biomass
30000
20000
10000
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
10000
20000
30000
spawning biomass

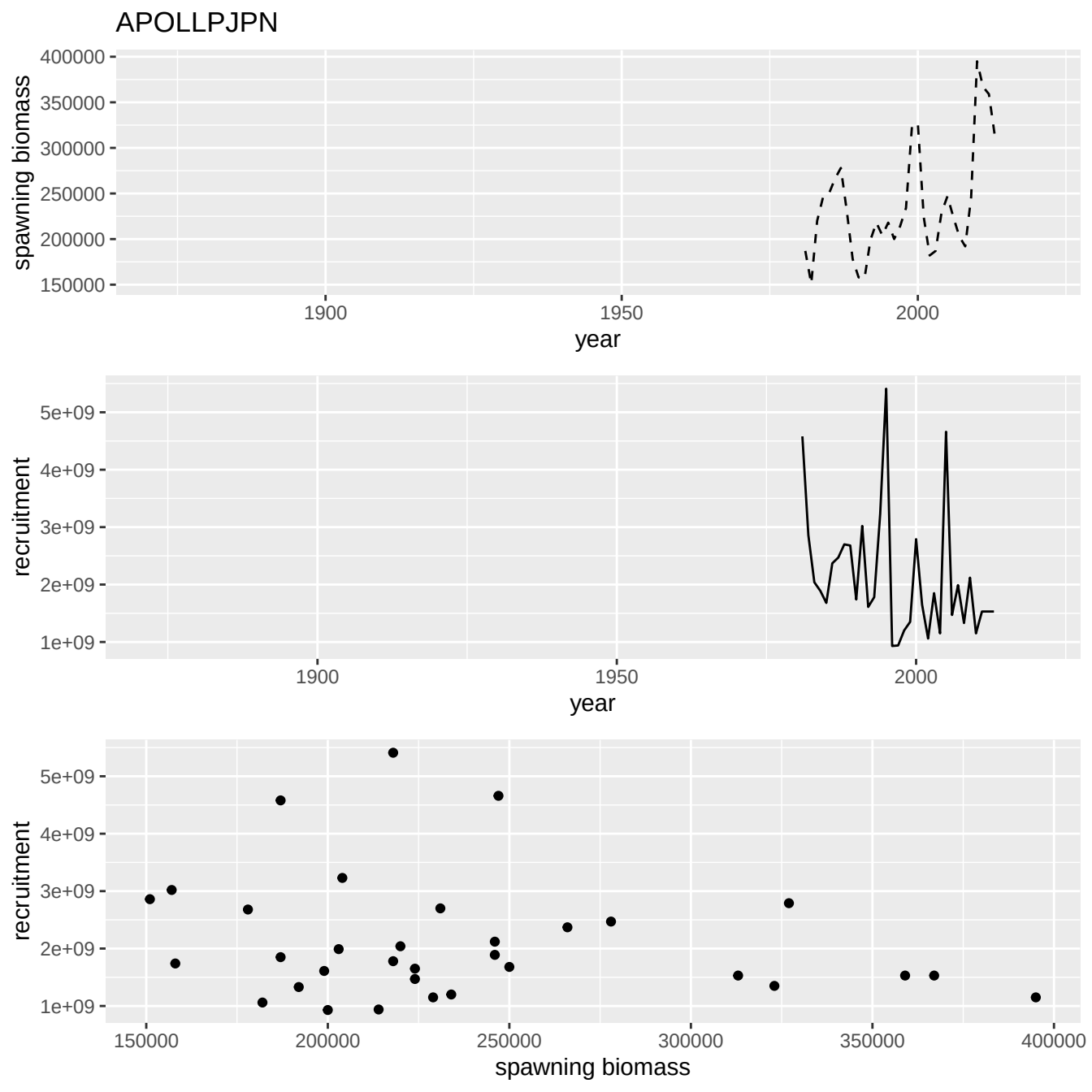

ANCHMEDGSA17.18
spawning biomass
1200000
800000
400000
1900
1950
2000
year
recruitment
2.5e+11
2.0e+11
1.5e+11
1.0e+11
5.0e+10
1900
1950
2000
year
recruitment
2.5e+11
2.0e+11
1.5e+11
1.0e+11
5.0e+10
400000
800000
1200000
spawning biomass

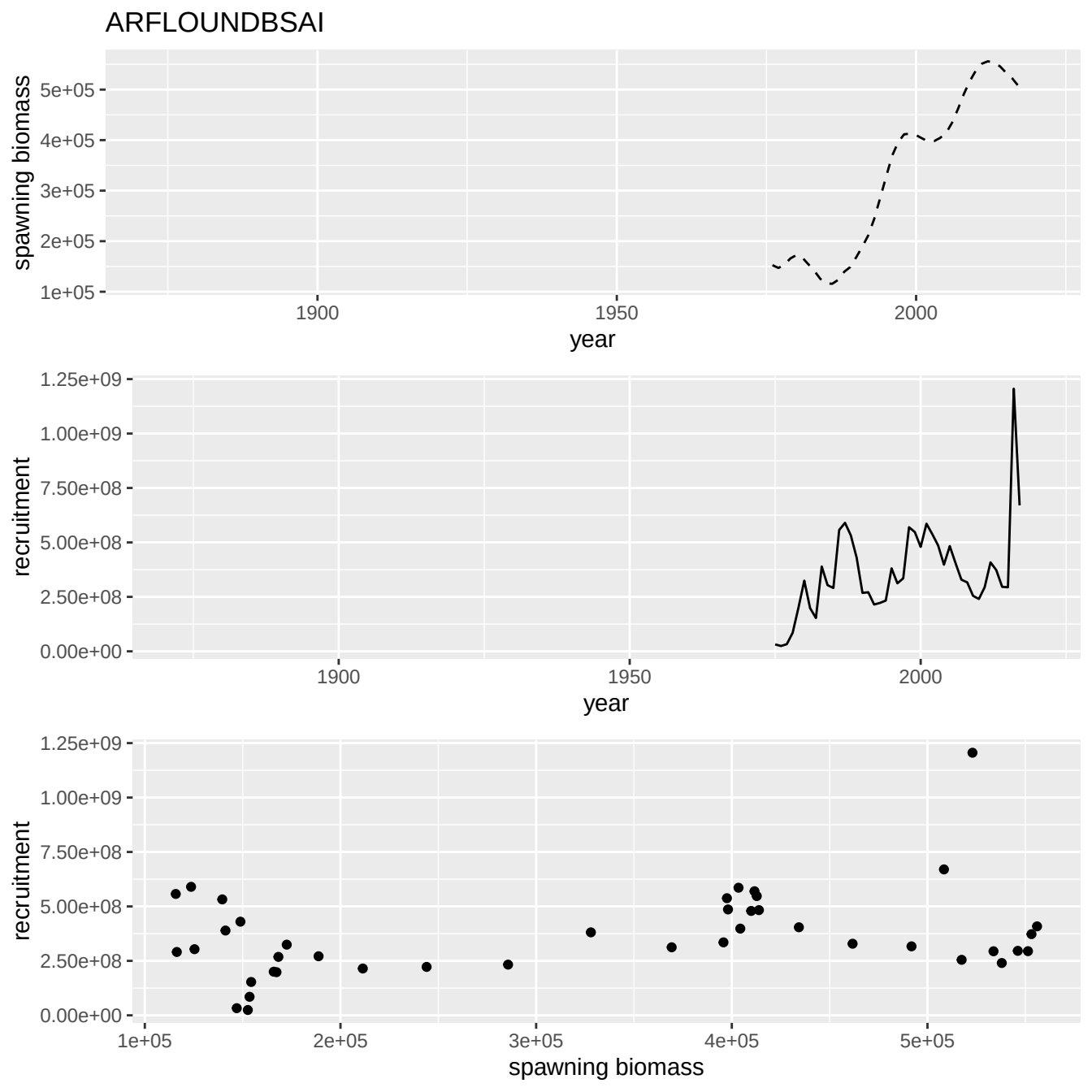

ANCHMEDGSA29
spawning biomass
1200000
900000
600000
300000
0
1900
1950
2000
year
recruitment
3e+11
2e+11
1e+11
1900
1950
2000
year
recruitment
3e+11
2e+11
1e+11
0
300000
600000
900000
12000
spawning biomass

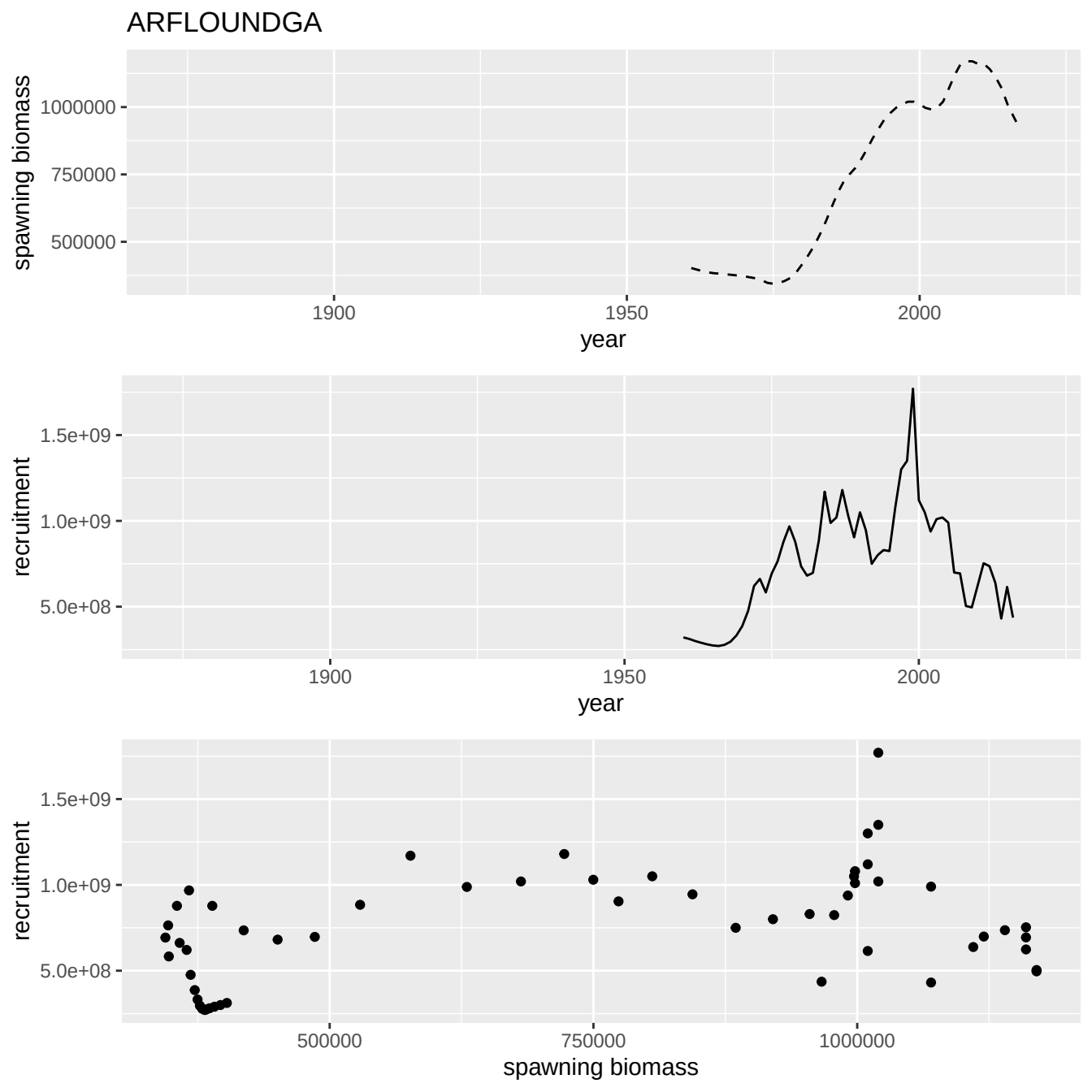

ANCHOBAYB
spawning biomass
150000
100000
50000
1900
1950
2000
year
recruitment
125000
100000
75000
50000
25000
0
1900
1950
2000
year
recruitment
125000
100000
75000
50000
25000
0
50000
100000
150000
spawning biomass

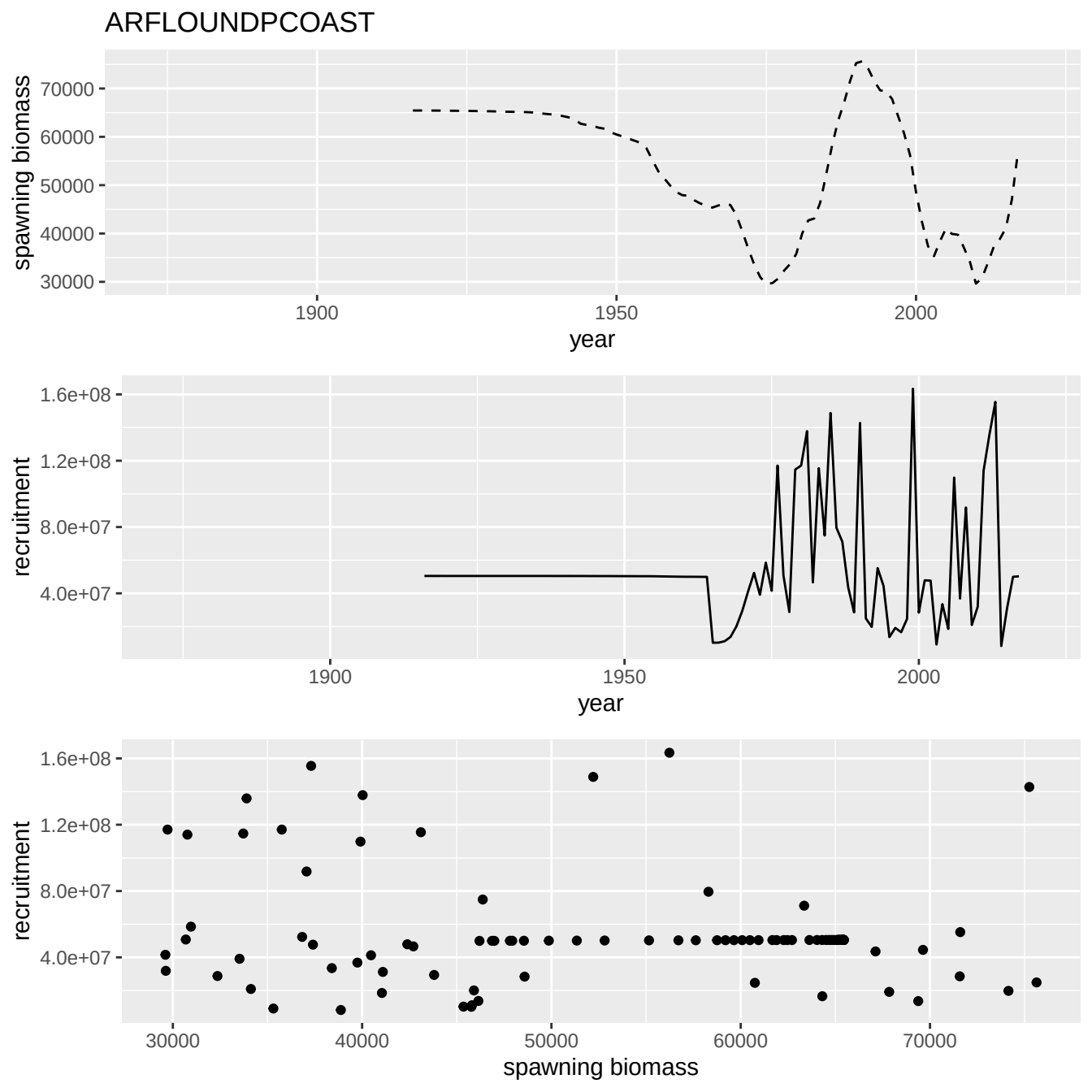

ANCHOSA
spawning biomass
5e+06
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
1.6e+12
1.2e+12
8.0e+11
4.0e+11
1900
1950
2000
year
recruitment
1.6e+12
1.2e+12
8.0e+11
4.0e+11
1e+06
2e+06
3e+06
4e+06
5e+06
spawning biomass

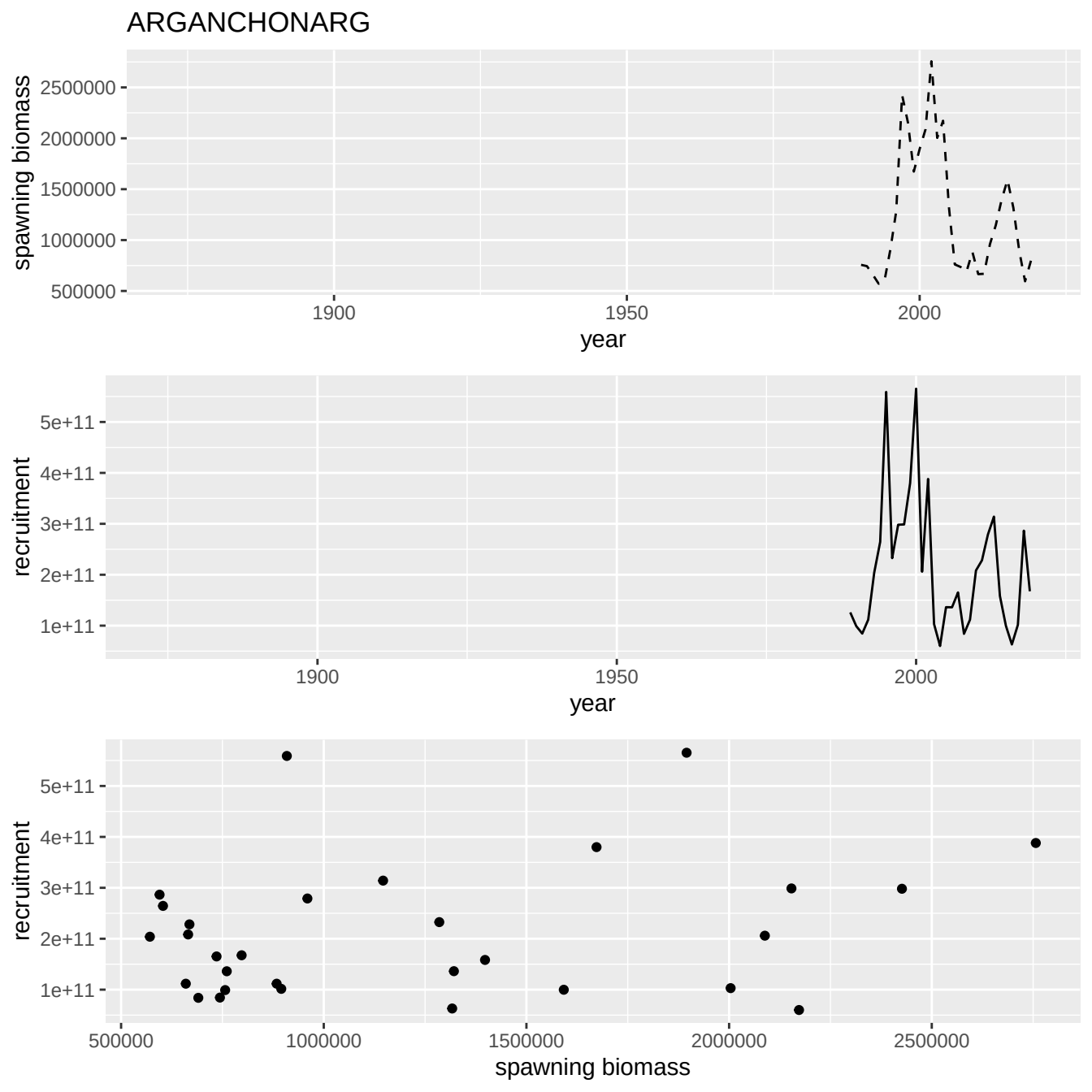

APOLLNSJ
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1e+05
2e+05
3e+05
spawning biomass

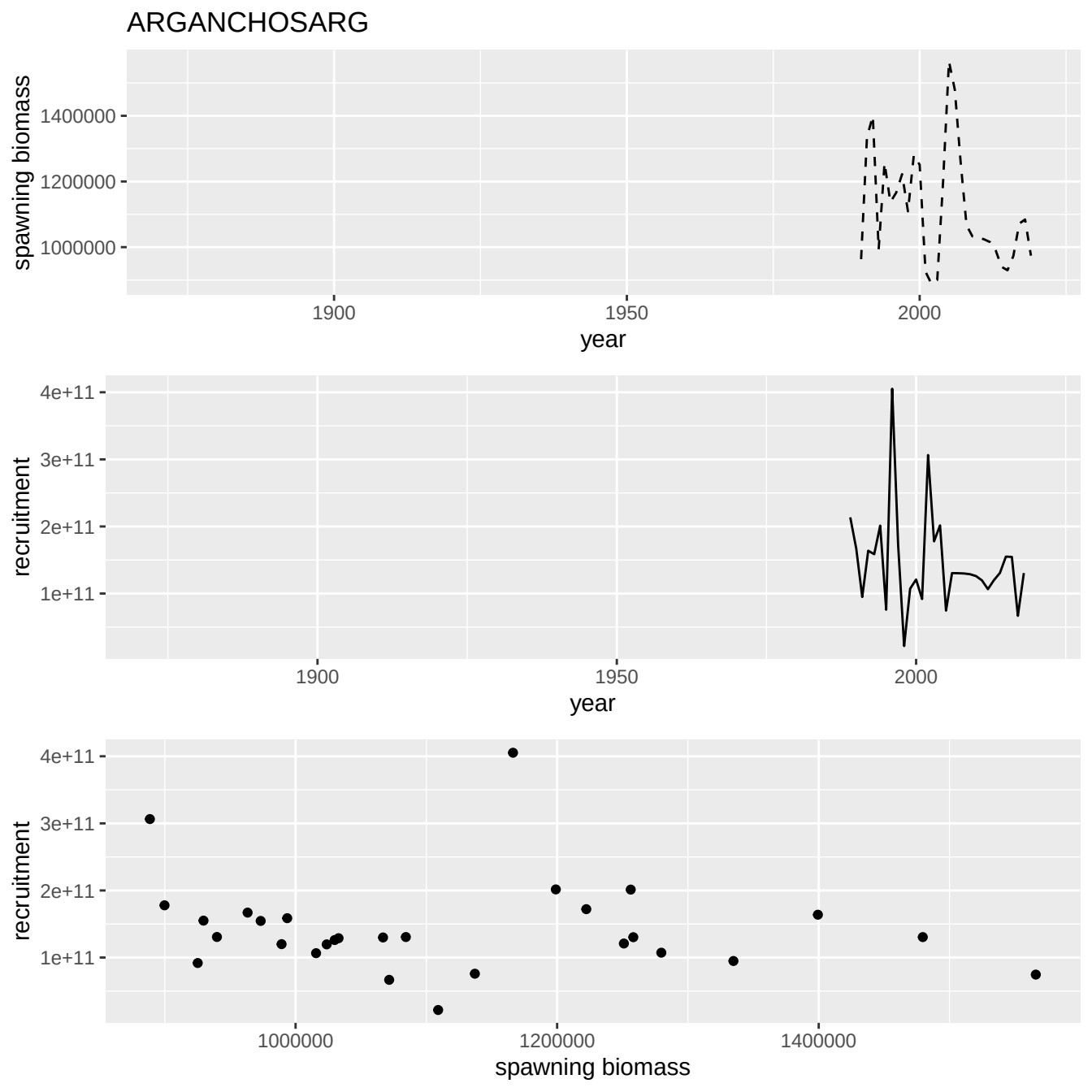

APOLLPJPN
spawning biomass
400000
350000
300000
250000
200000
150000
1900
1950
2000
year
recruitment
5e+09
4e+09
3e+09
2e+09
1e+09
1900
1950
2000
year
recruitment
5e+09
4e+09
3e+09
2e+09
1e+09
150000
200000
250000
300000
350000
400000
spawning biomass

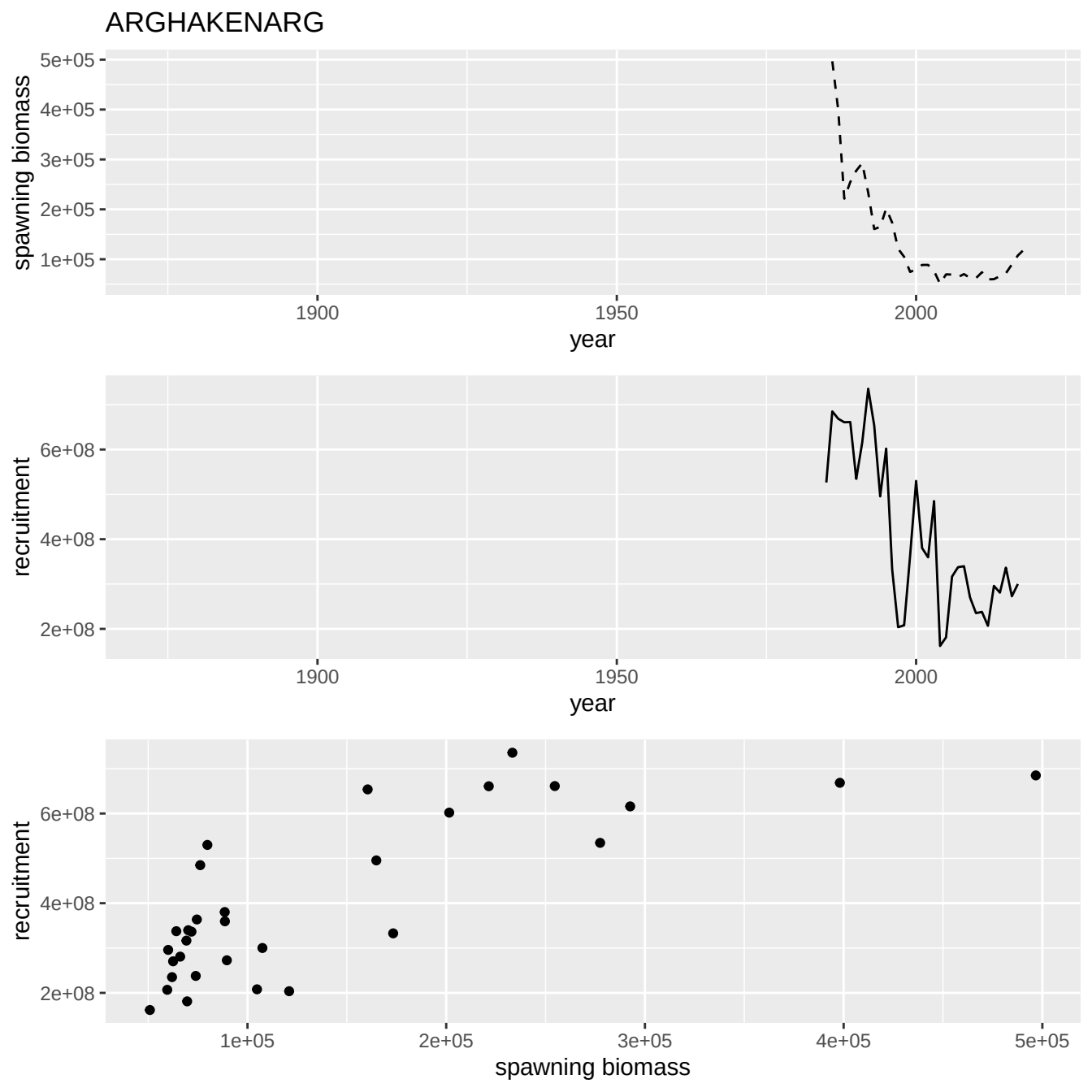

ARFLOUNDBSAI
spawning biomass
5e+05
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
1.25e+09
1.00e+09
7.50e+08
5.00e+08
2.50e+08
0.00e+00
1900
1950
2000
year
recruitment
1.25e+09
1.00e+09
7.50e+08
5.00e+08
2.50e+08
0.00e+00
1e+05
2e+05
3e+05
4e+05
5e+05
spawning biomass

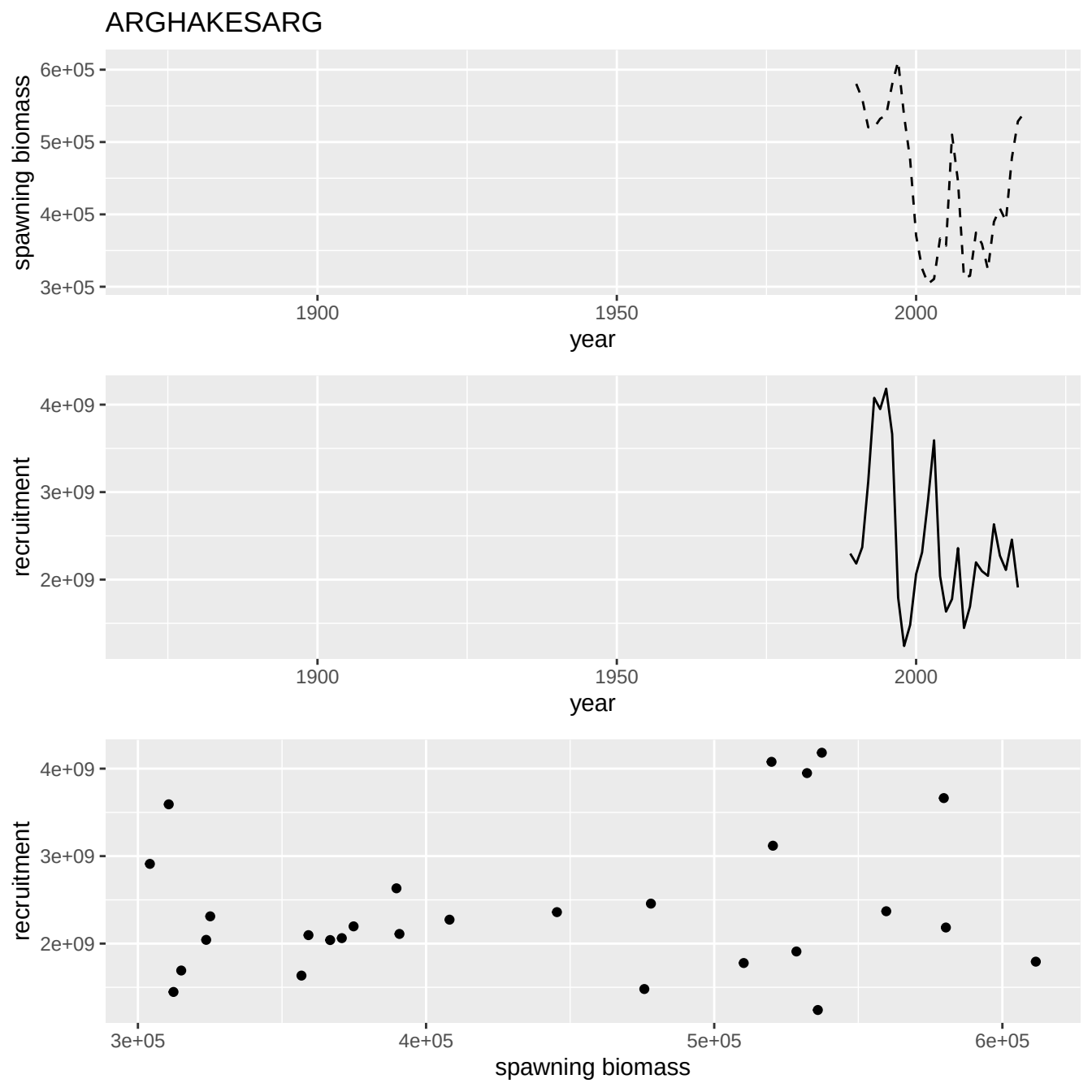

ARFLOUNDGA
spawning biomass
1000000
750000
500000
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
500000
750000
1000000
spawning biomass

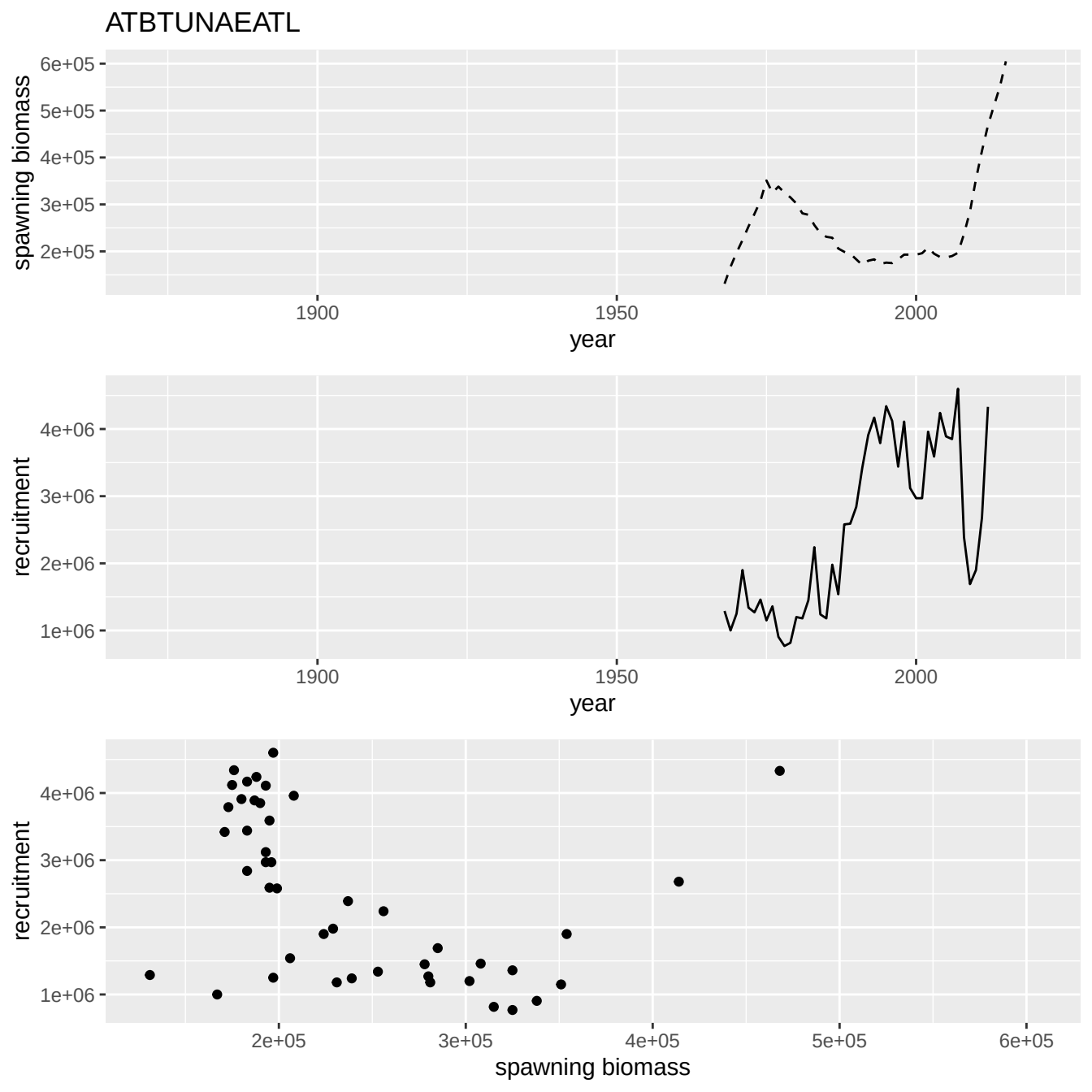

ARFLOUNDPCOAST
spawning biomass
70000
60000
50000
40000
30000
1900
1950
2000
year
recruitment
1.6e+08
1.2e+08
8.0e+07
4.0e+07
1900
1950
2000
year
recruitment
1.6e+08
1.2e+08
8.0e+07
4.0e+07
30000
40000
50000
60000
70000
spawning biomass

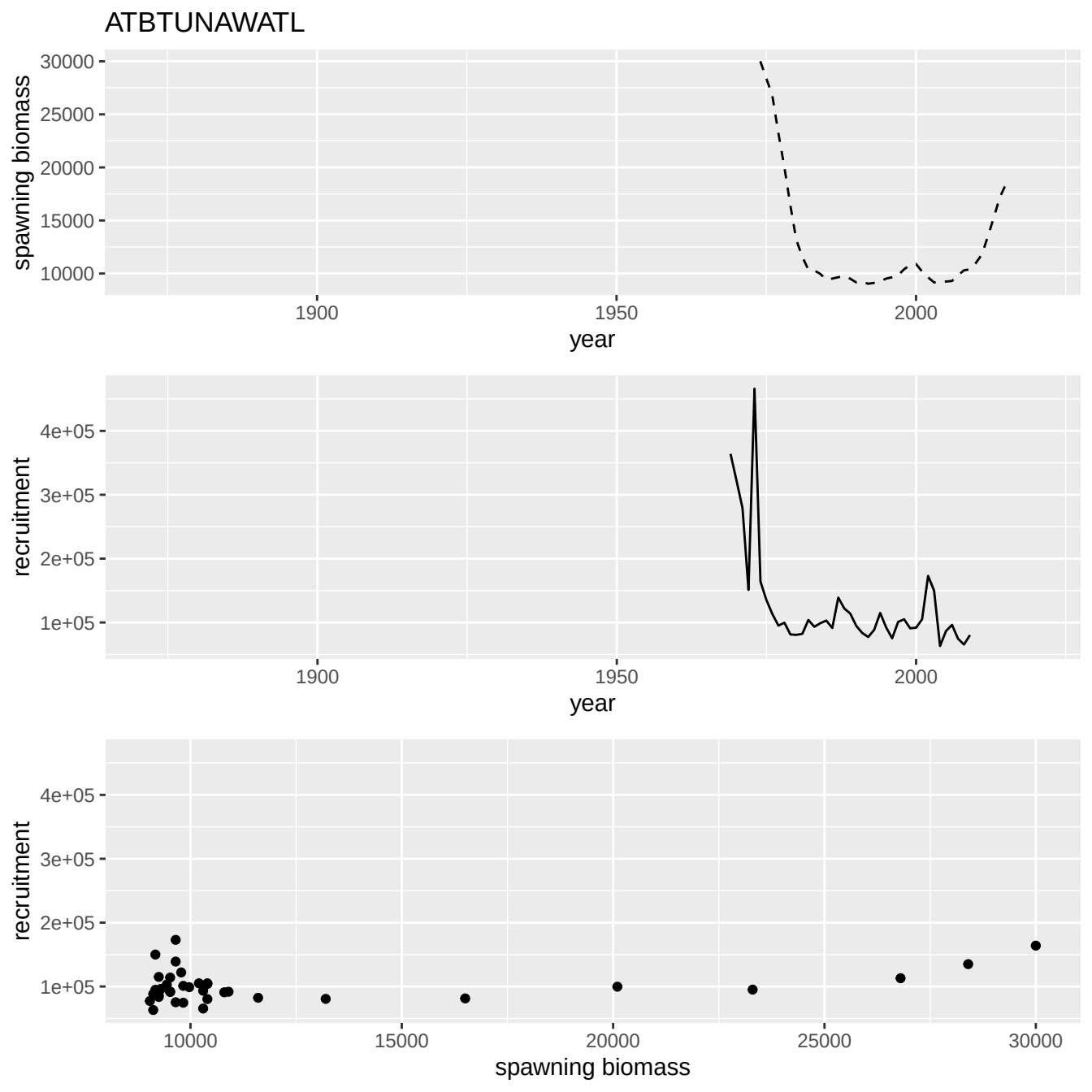

ARGANCHONARG
spawning biomass
2500000
2000000
1500000
1000000
500000
1900
1950
2000
year
recruitment
5e+11
4e+11
3e+11
2e+11
1e+11
1900
1950
2000
year
recruitment
5e+11
4e+11
3e+11
2e+11
1e+11
500000
1000000
1500000
2000000
2500000
spawning biomass


ARGANCHOSARG
spawning biomass
1400000
1200000
1000000
1900
1950
2000
year
recruitment
4e+11
3e+11
2e+11
1e+11
1900
1950
2000
year
recruitment
4e+11
3e+11
2e+11
1e+11
1000000
1200000
1400000
spawning biomass

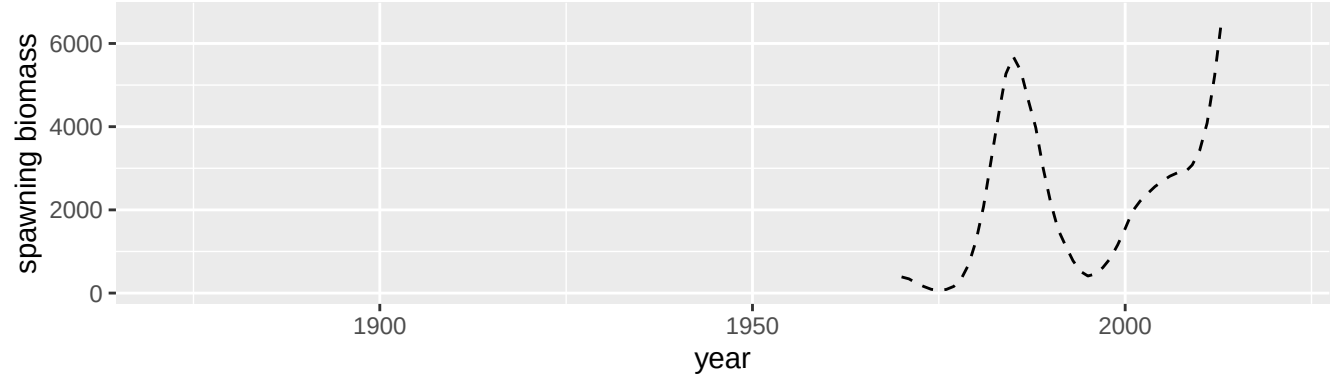

ARGHAKENARG
spawning biomass
5e+05
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
6e+08
4e+08
2e+08
1900
1950
2000
year
recruitment
6e+08
4e+08
2e+08
1e+05
2e+05
3e+05
4e+05
5e+05
spawning biomass

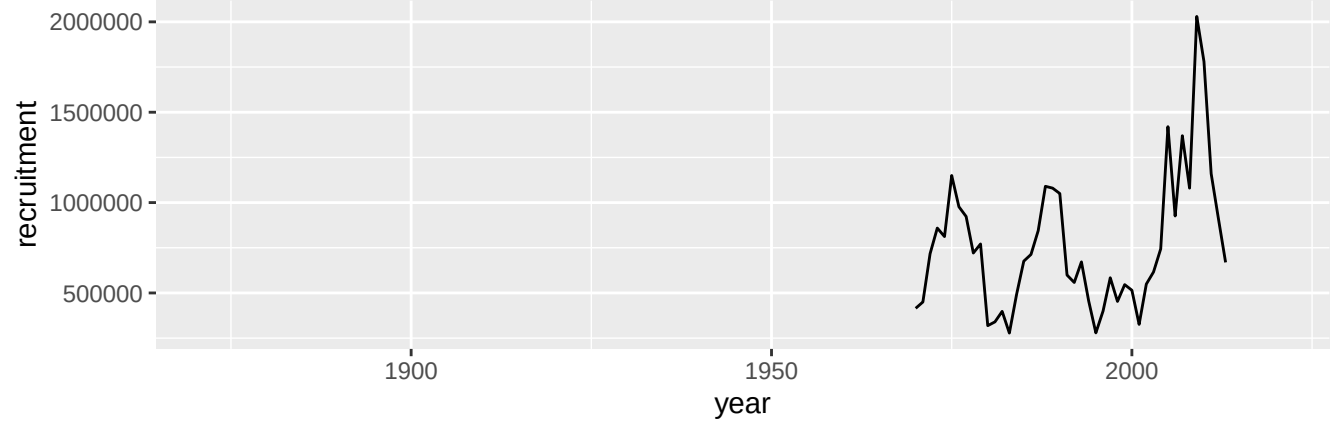

ARGHAKESARG
spawning biomass
6e+05
5e+05
4e+05
3e+05
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
3e+05
4e+05
5e+05
6e+05
spawning biomass

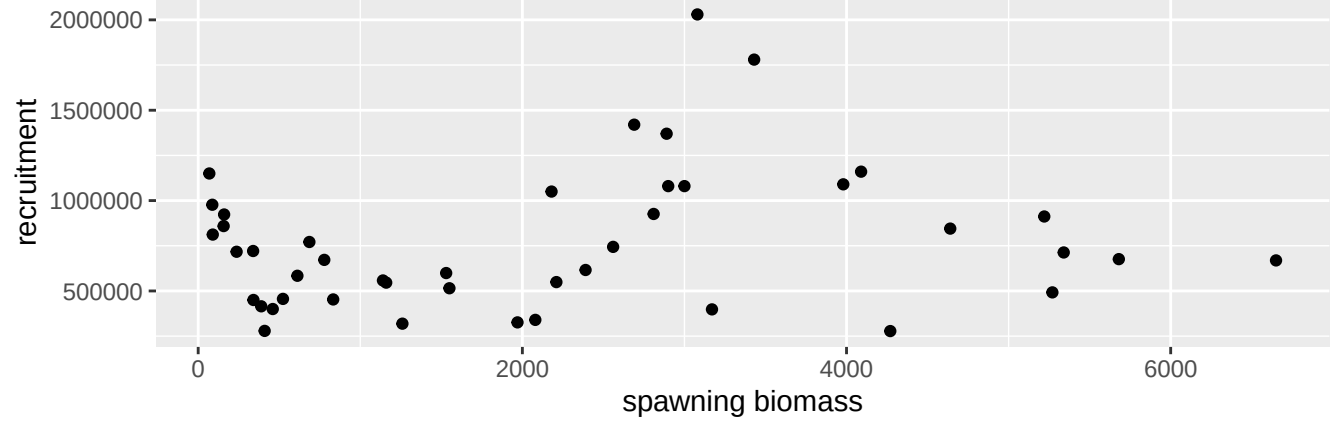

ATBTUNAEATL
spawning biomass
6e+05
5e+05
4e+05
3e+05
2e+05
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
2e+05
3e+05
4e+05
5e+05
6e+05
spawning biomass

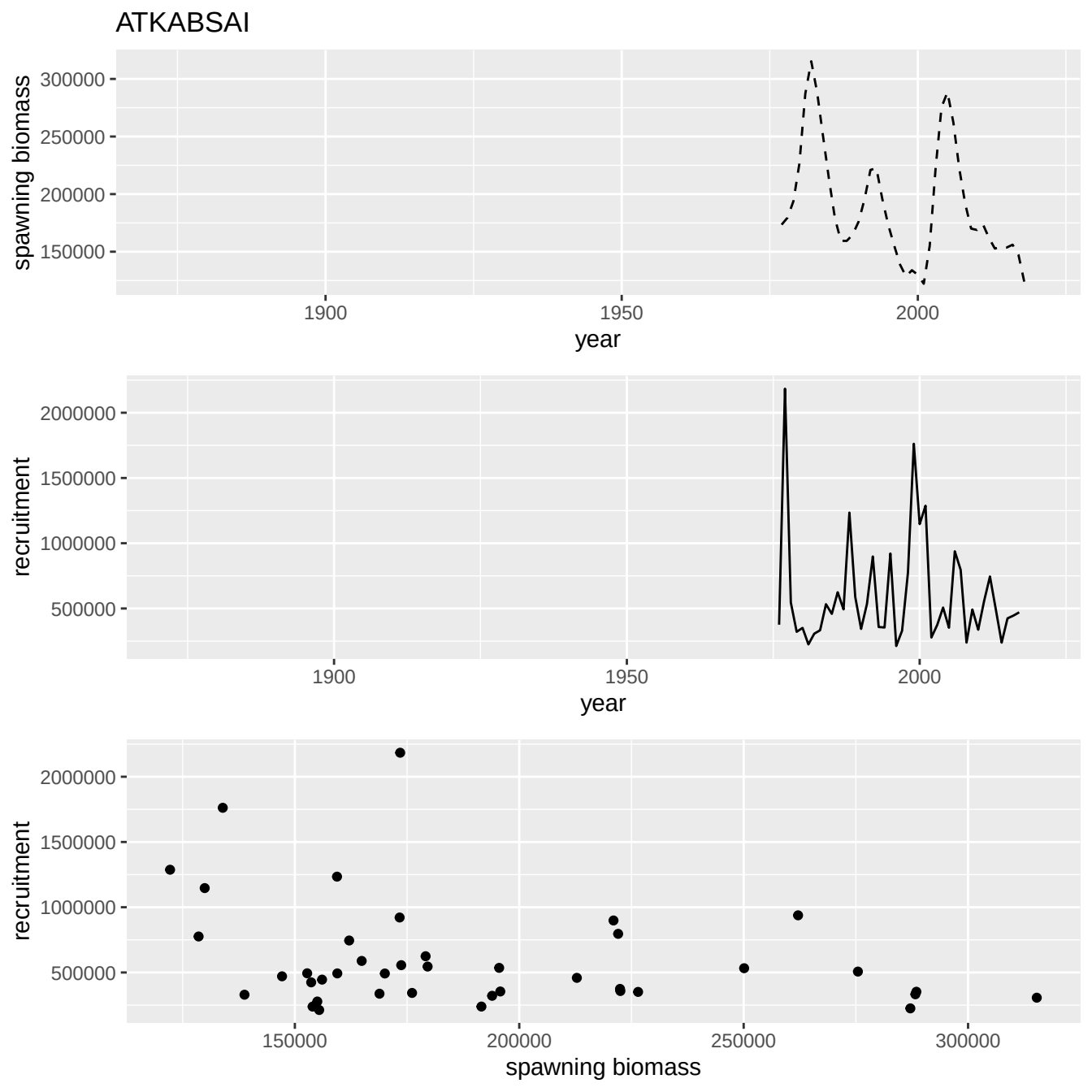

ATBTUNAWATL
spawning biomass
30000
25000
20000
15000
10000
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
10000
15000
20000
25000
30000
spawning biomass

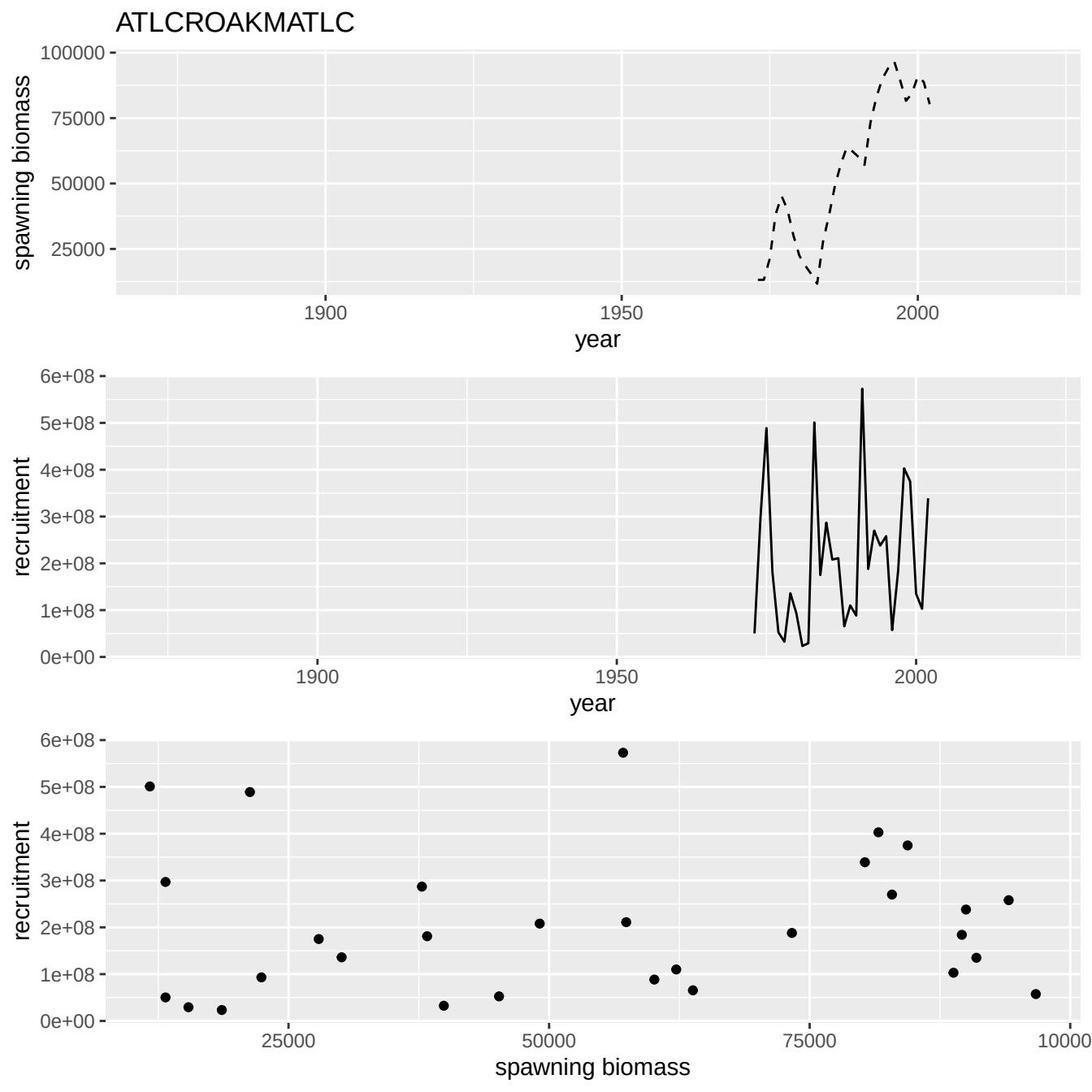
ATHAL3NOPs4VWX5Zc

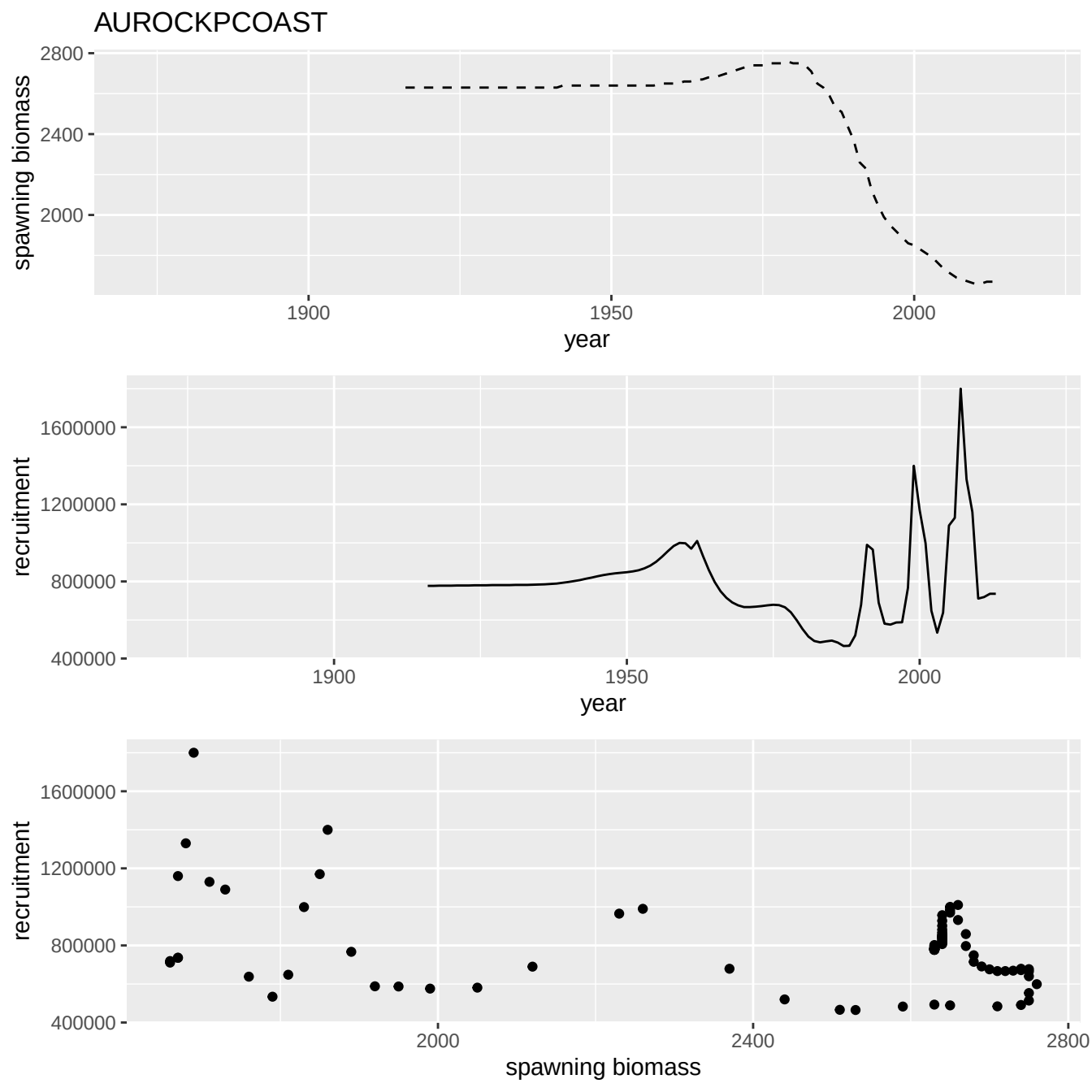


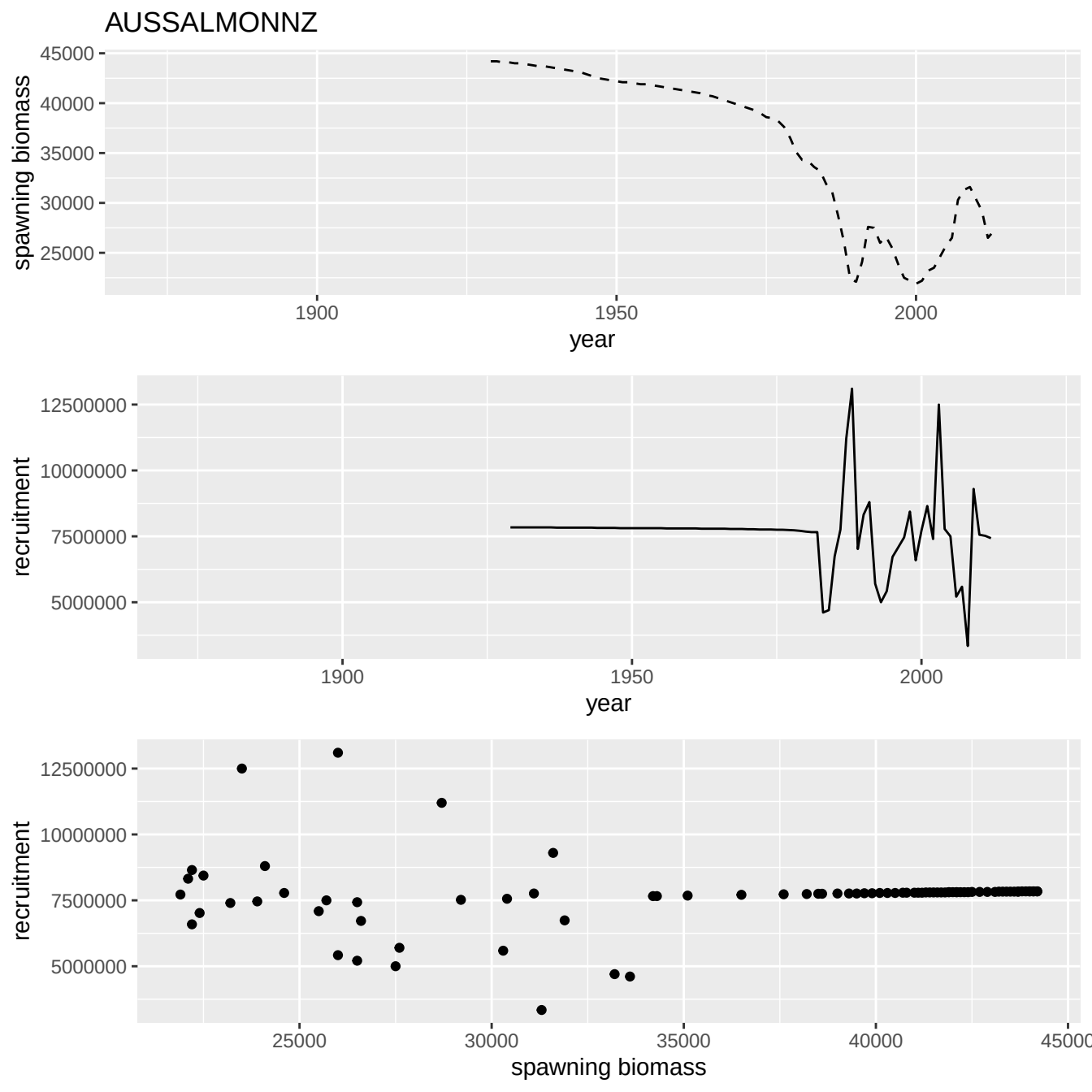


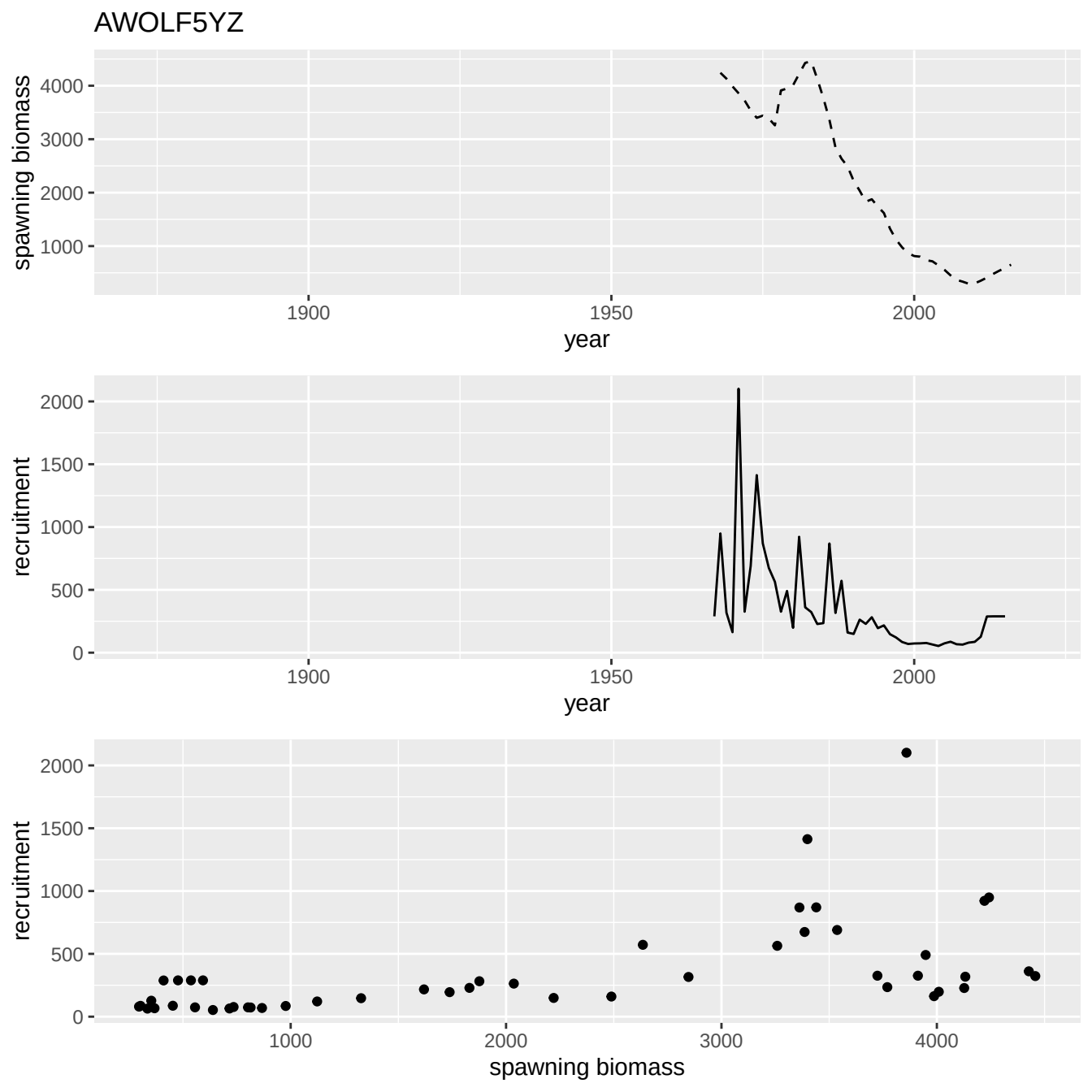


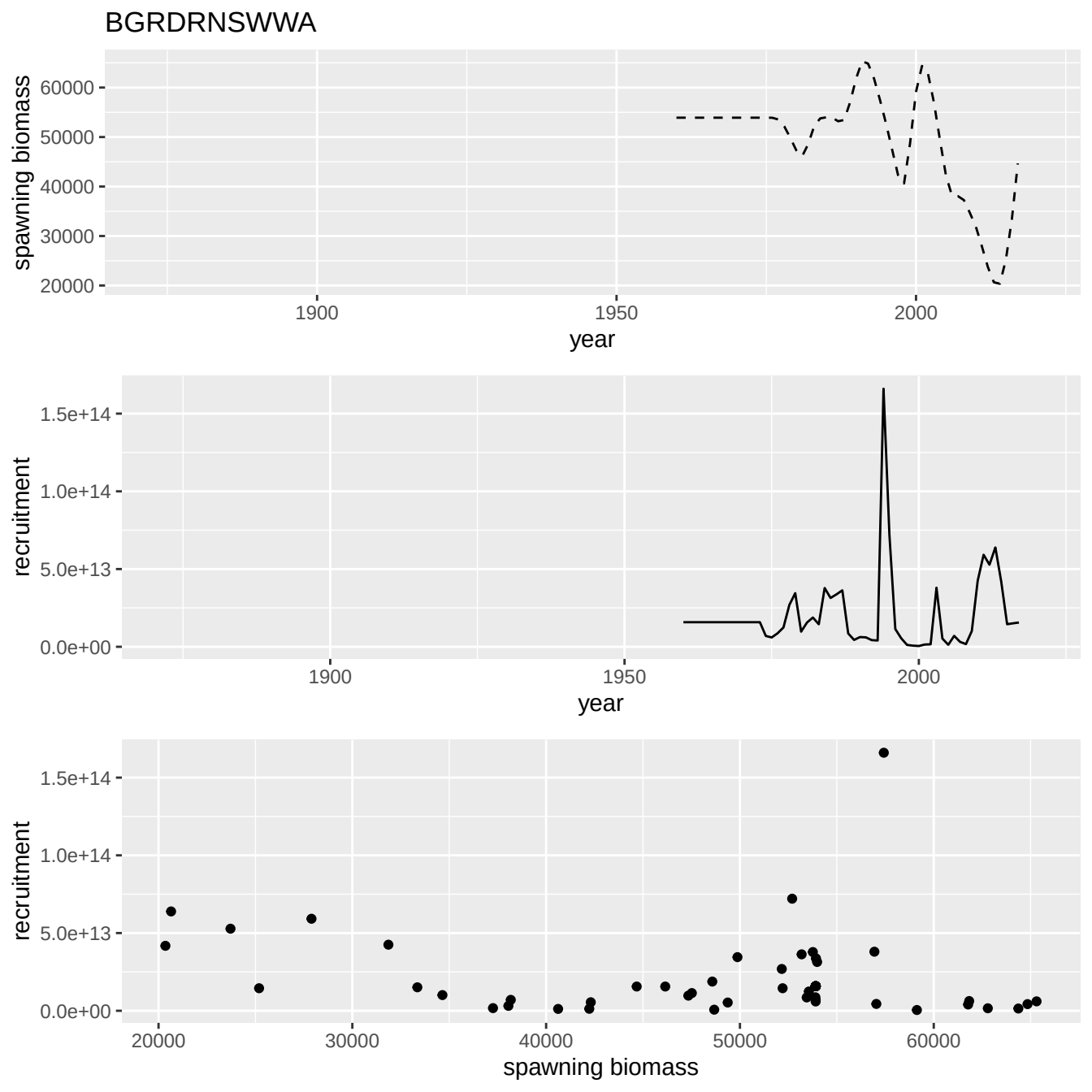

ATKABSAI
spawning biomass
300000
250000
200000
150000
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
150000
200000
250000
300000
spawning biomass

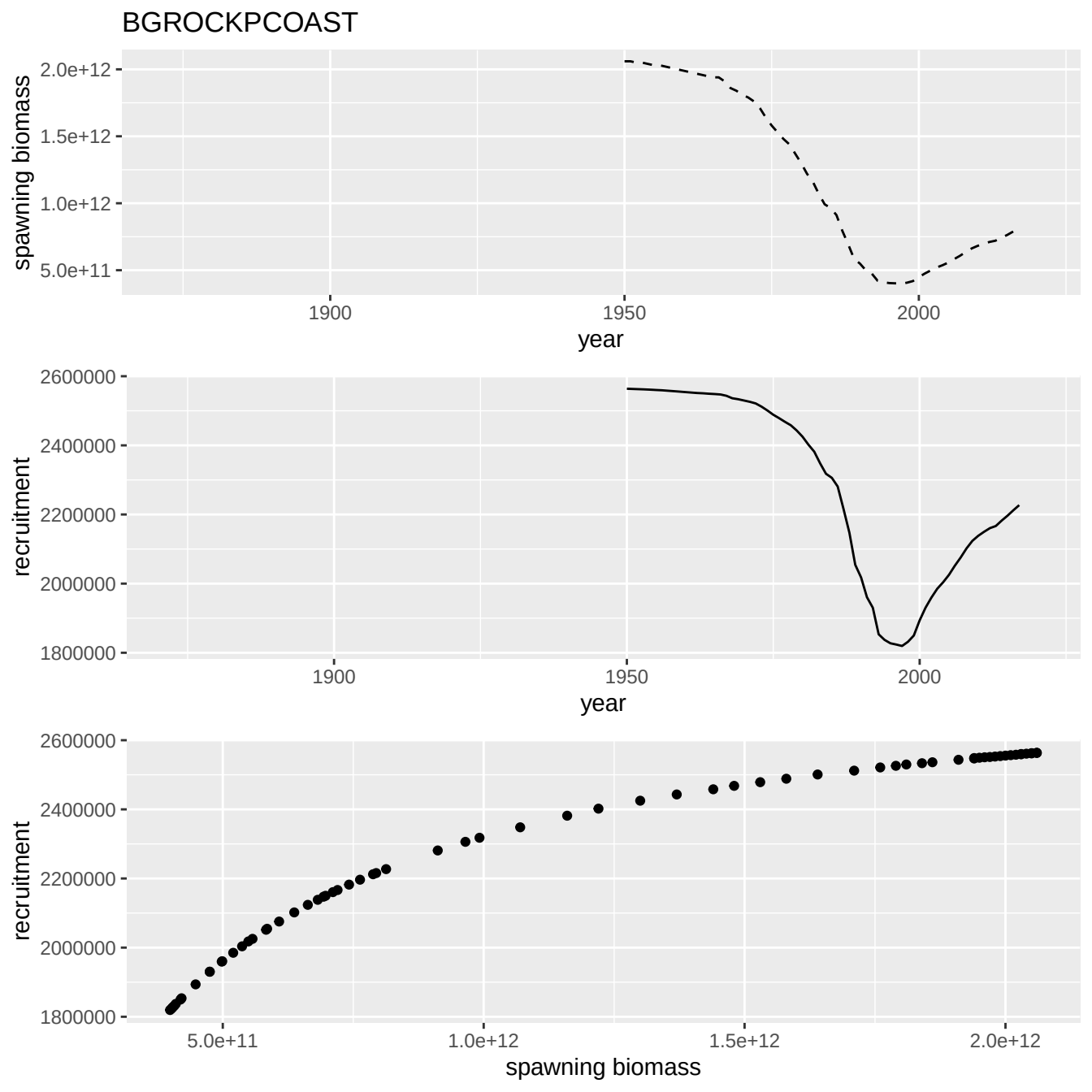

ATLCROAKMATLC
spawning biomass
100000
75000
50000
25000
1900
1950
2000
year
recruitment
6e+08
5e+08
4e+08
3e+08
2e+08
1e+08
0e+00
1900
1950
2000
year
recruitment
6e+08
5e+08
4e+08
3e+08
2e+08
1e+08
0e+00
25000
50000
75000
10000
spawning biomass

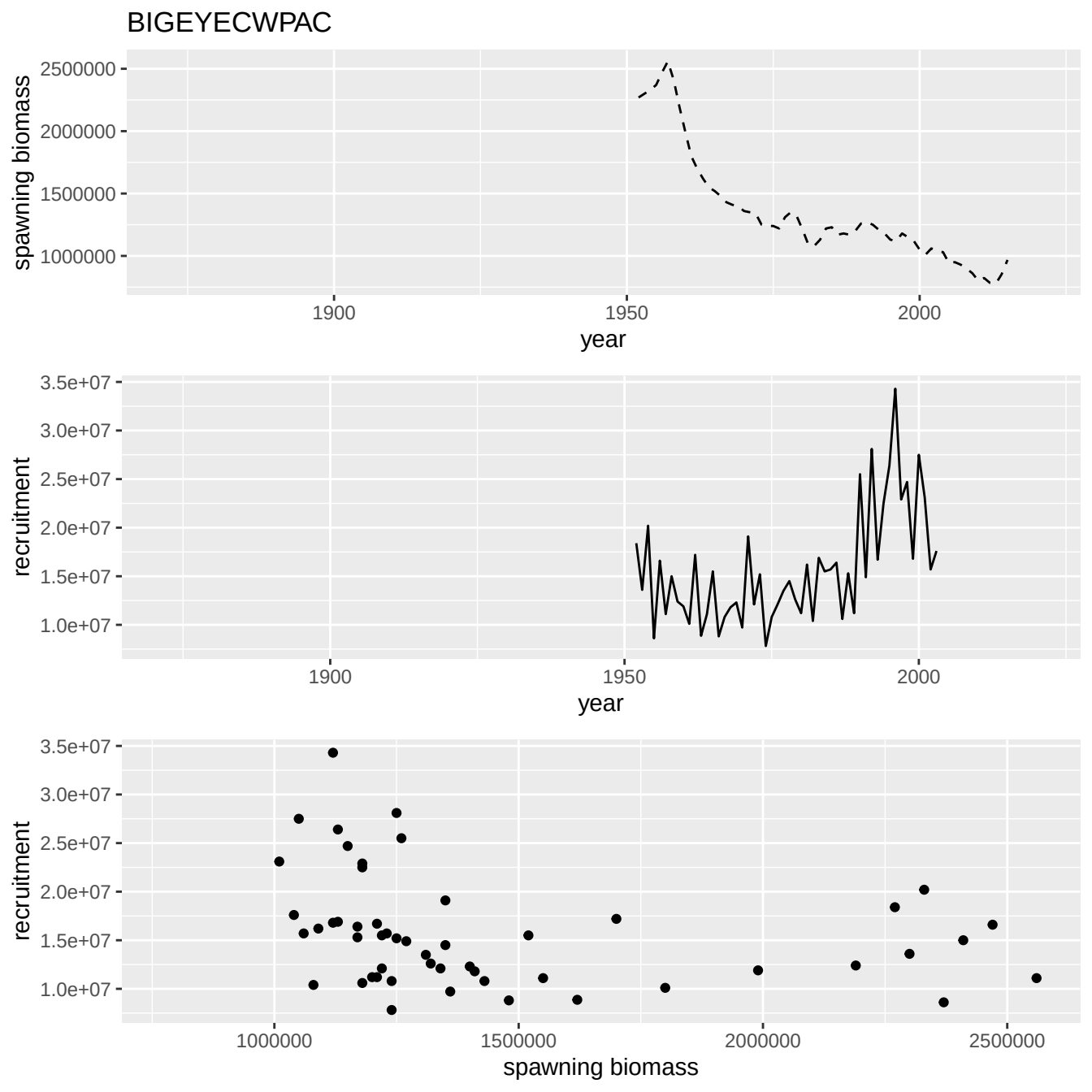

AUROCKPCOAST
spawning biomass
2800
2400
2000
1900
1950
2000
year
recruitment
1600000
1200000
800000
400000
1900
1950
2000
year
recruitment
1600000
1200000
800000
400000
2000
2400
2800
spawning biomass

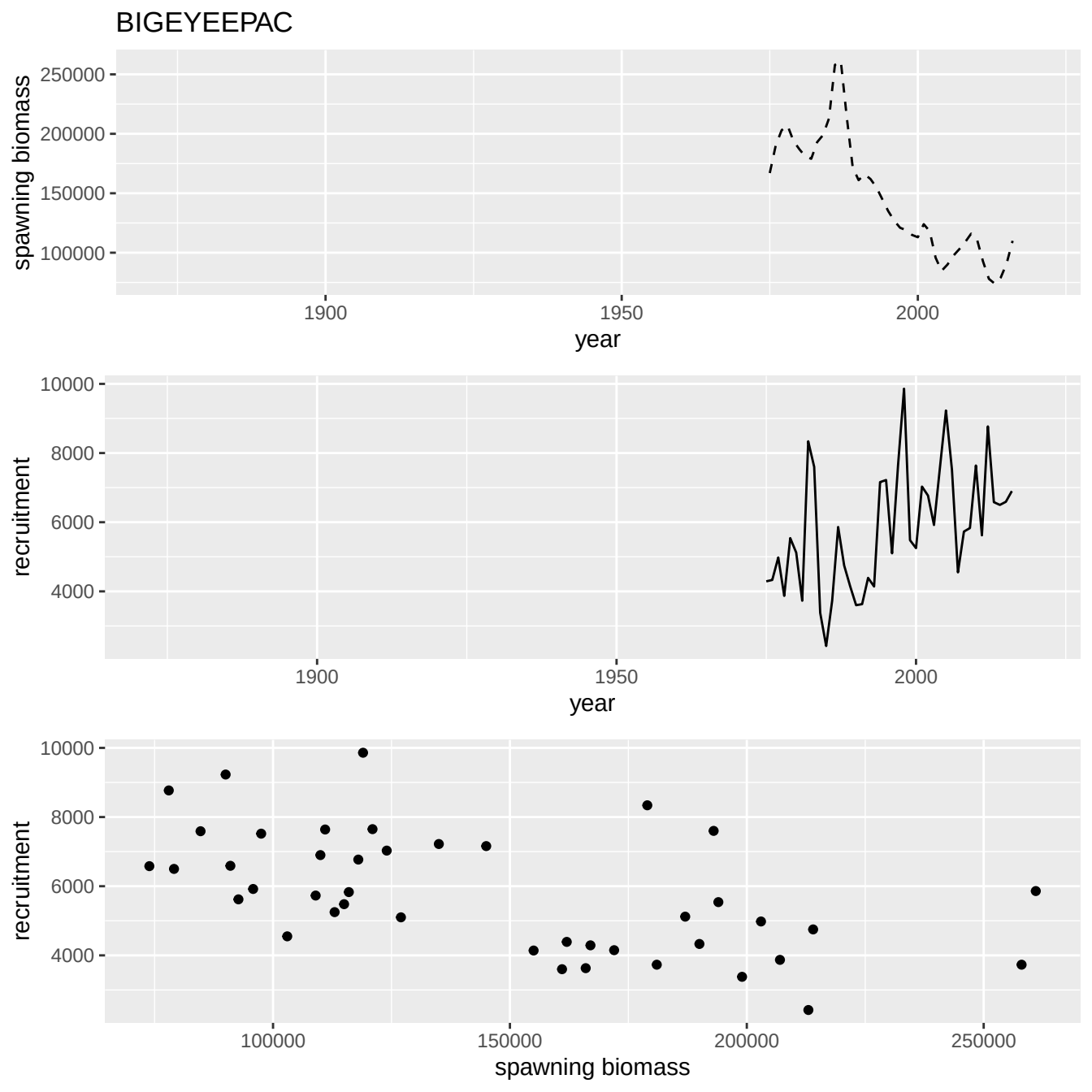

AUSSALMONNZ
spawning biomass
45000
40000
35000
30000
25000
1900
1950
2000
year
recruitment
12500000
10000000
7500000
5000000
1900
1950
2000
year
recruitment
12500000
10000000
7500000
5000000
25000
30000
35000
40000
45000
spawning biomass

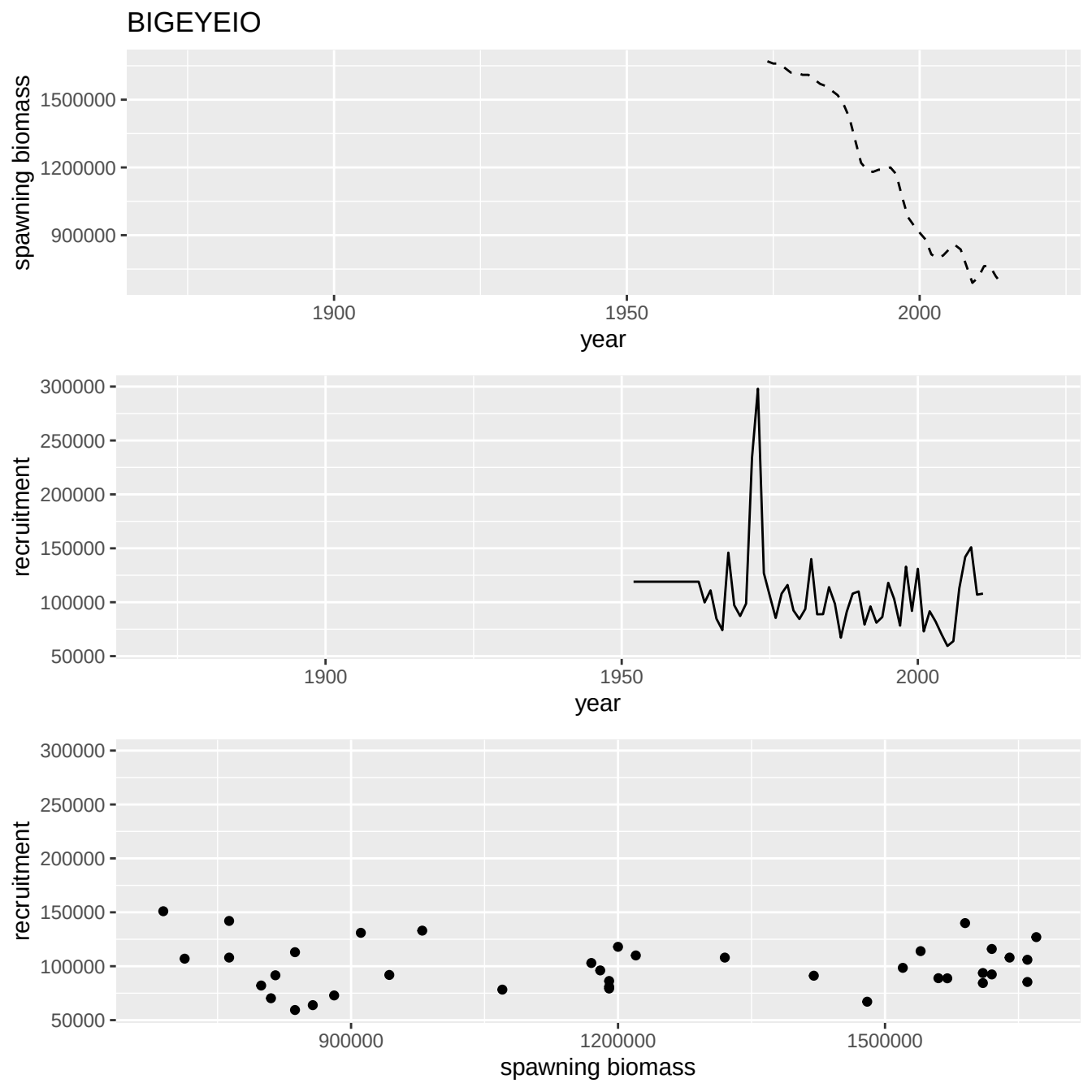

AWOLF5YZ
spawning biomass
4000
3000
2000
1000
1900
1950
2000
year
recruitment
2000
1500
1000
500
0
1900
1950
2000
year
recruitment
2000
1500
1000
500
0
1000
2000
3000
4000
spawning biomass

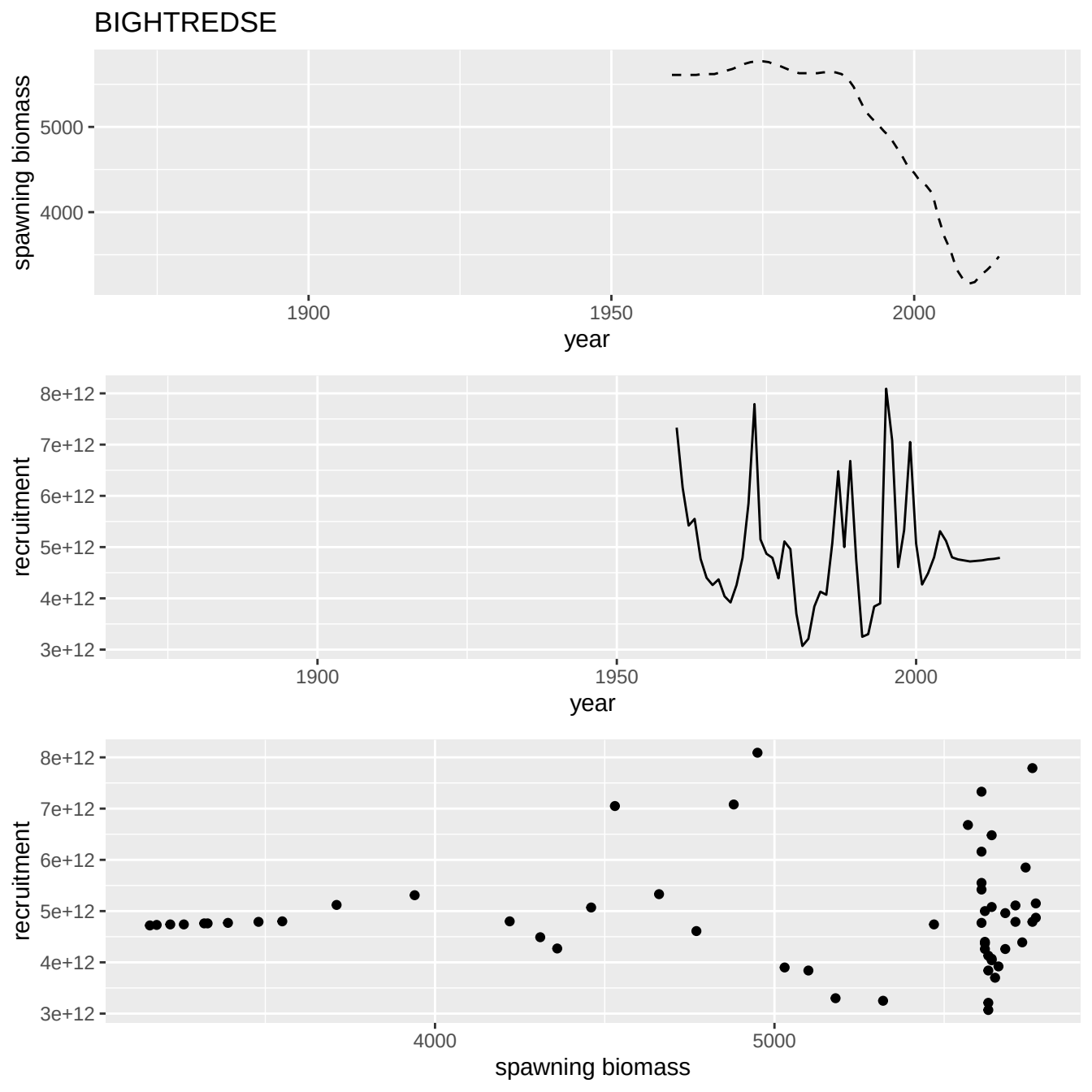

BGRDRNSWWA
spawning biomass
60000
50000
40000
30000
20000
1900
1950
2000
year
recruitment
1.5e+14
1.0e+14
5.0e+13
0.0e+00
1900
1950
2000
year
recruitment
1.5e+14
1.0e+14
5.0e+13
0.0e+00
20000
30000
40000
50000
60000
spawning biomass

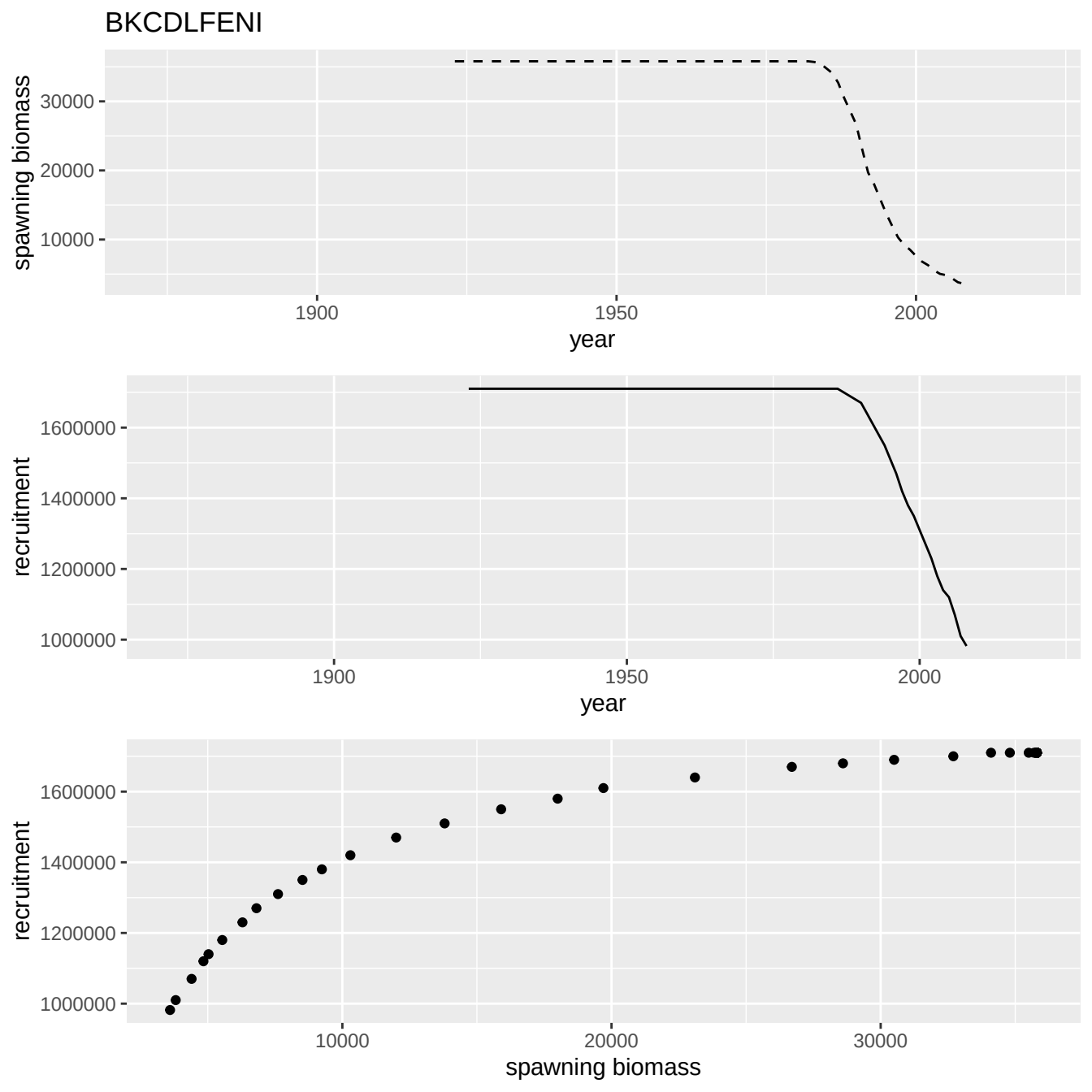

BGROCKPCOAST
spawning biomass
2.0e+12
1.5e+12
1.0e+12
5.0e+11
1900
1950
2000
year
recruitment
2600000
2400000
2200000
2000000
1800000
1900
1950
2000
year
recruitment
2600000
2400000
2200000
2000000
1800000
5.0e+11
1.0e+12
1.5e+12
2.0e+12
spawning biomass

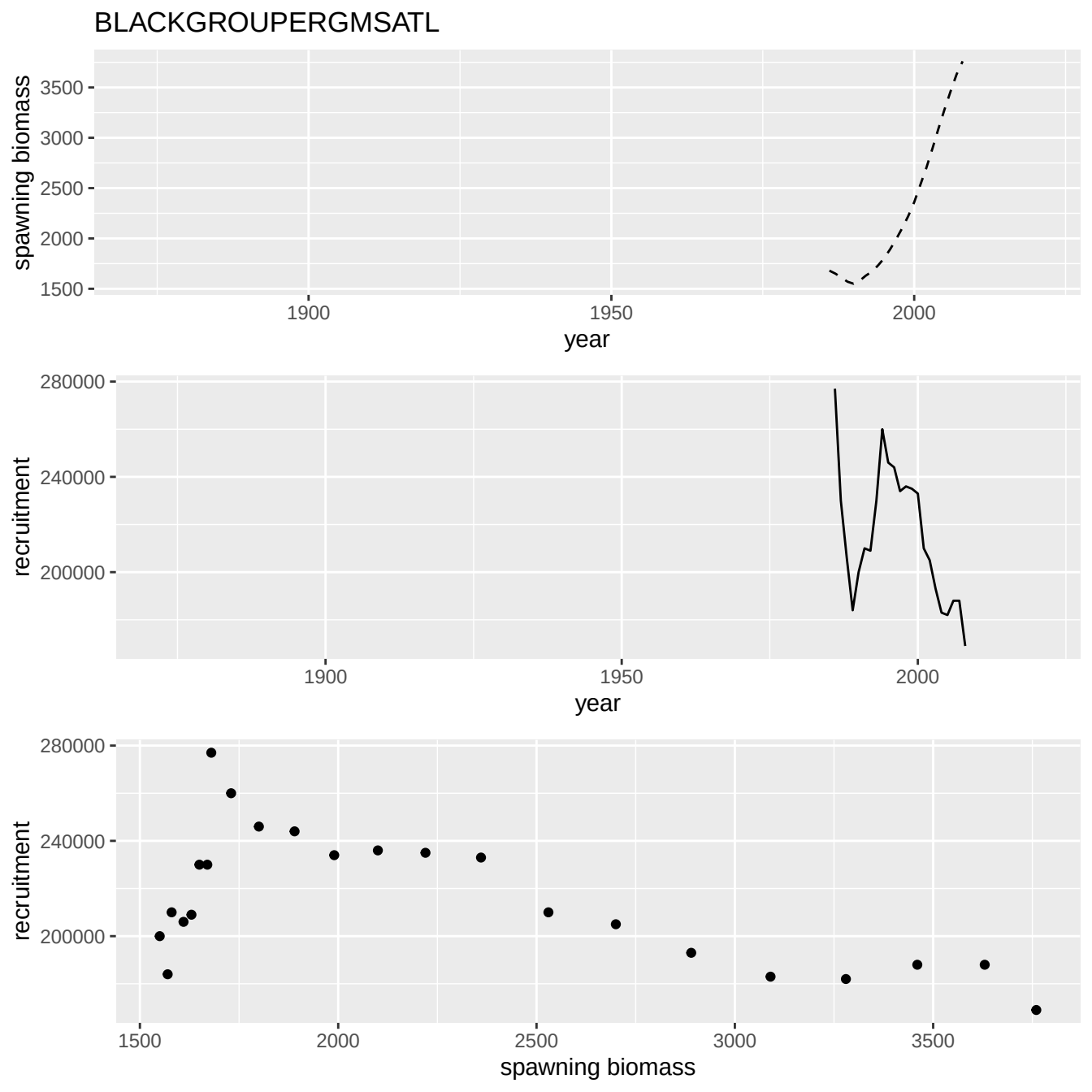

BIGEYECWPAC
spawning biomass
2500000
2000000
1500000
1000000
1900
1950
2000
year
recruitment
3.5e+07
3.0e+07
2.5e+07
2.0e+07
1.5e+07
1.0e+07
1900
1950
2000
year
recruitment
3.5e+07
3.0e+07
2.5e+07
2.0e+07
1.5e+07
1.0e+07
1000000
1500000
2000000
2500000
spawning biomass

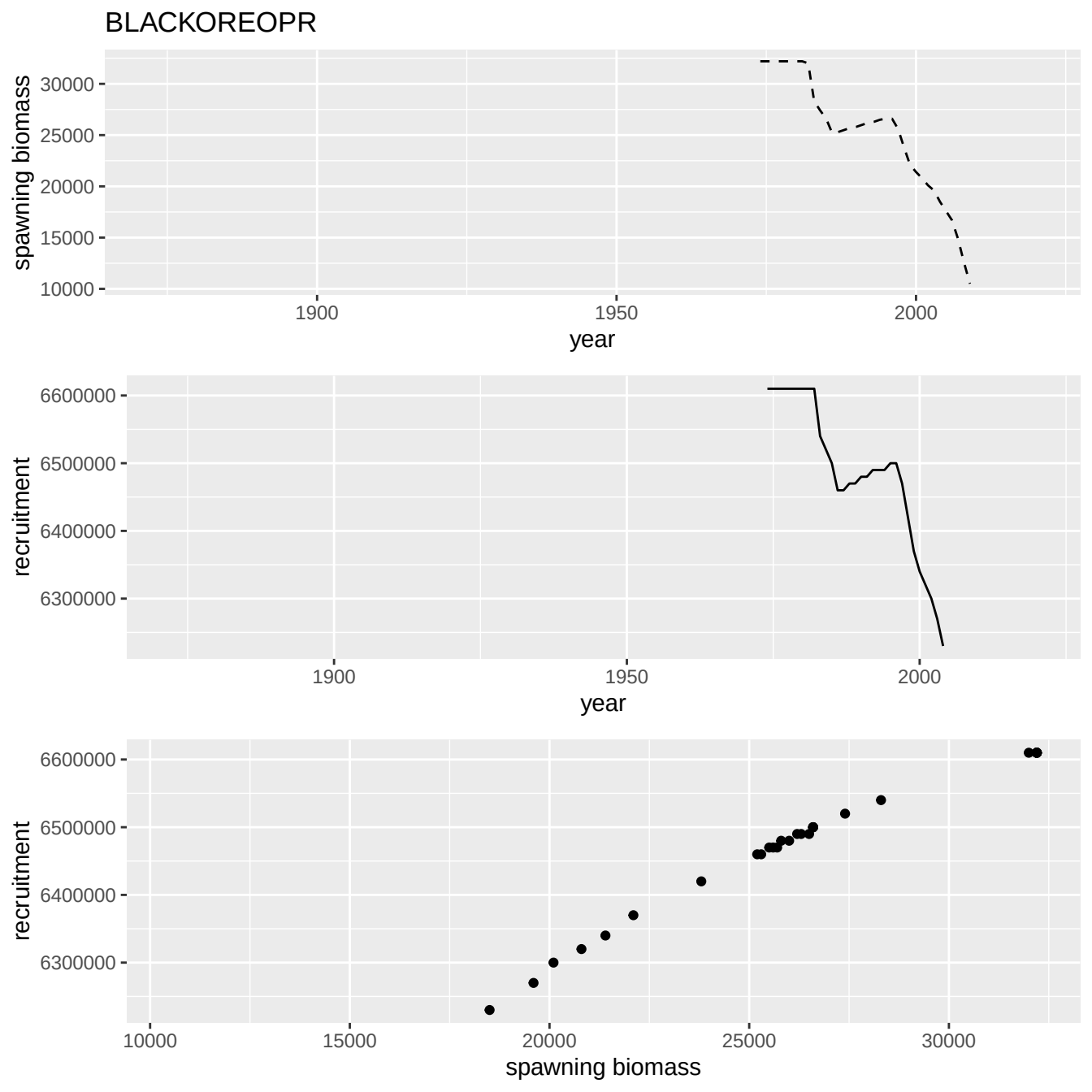

BIGEYEEPAC
spawning biomass
250000
200000
150000
100000
1900
1950
2000
year
recruitment
10000
8000
6000
4000
1900
1950
2000
year
recruitment
10000
8000
6000
4000
100000
150000
200000
250000
spawning biomass

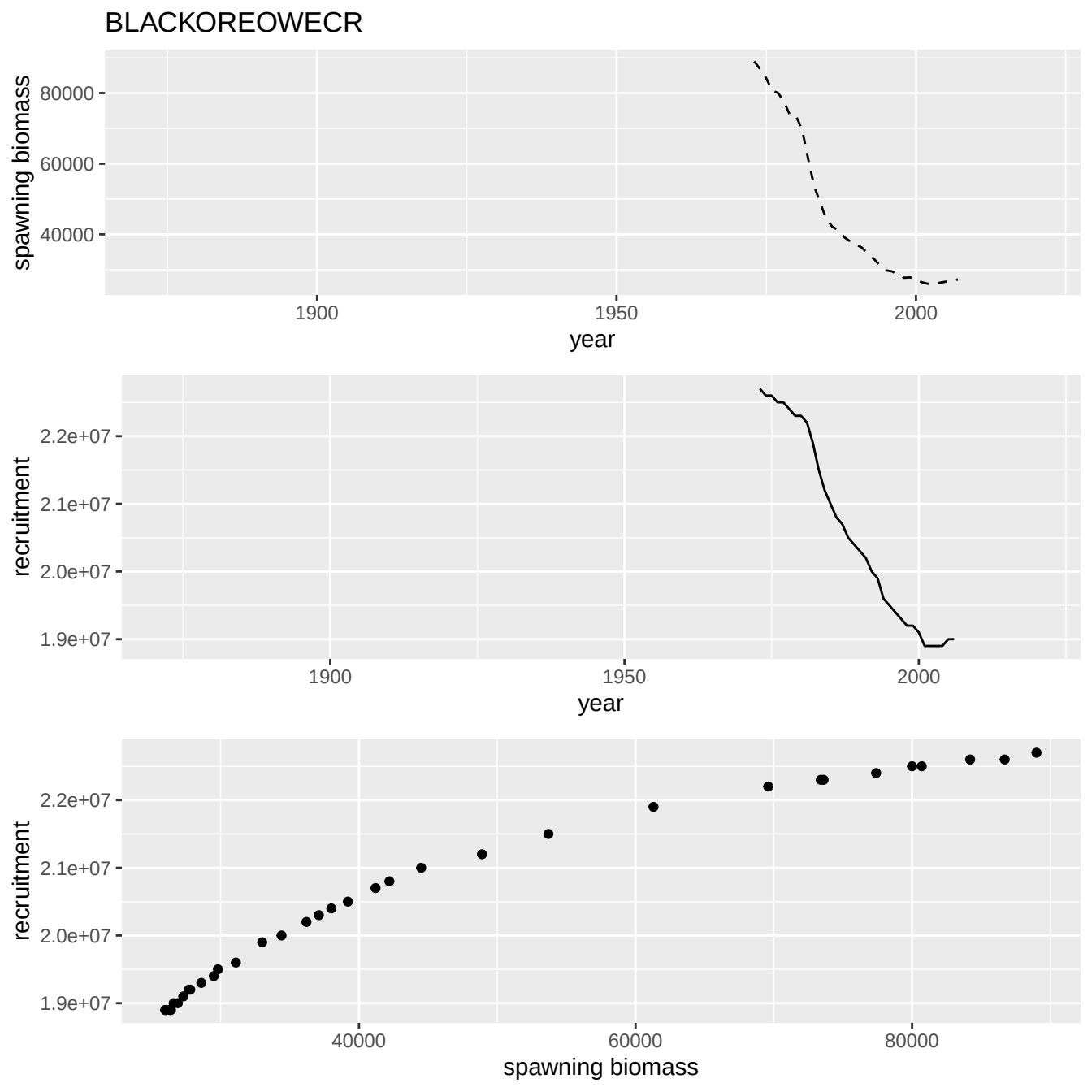

BIGEYEIO
spawning biomass
1500000
1200000
900000
1900
1950
2000
year
recruitment
300000
250000
200000
150000
100000
50000
1900
1950
2000
year
recruitment
300000
250000
200000
150000
100000
50000
900000
1200000
1500000
spawning biomass

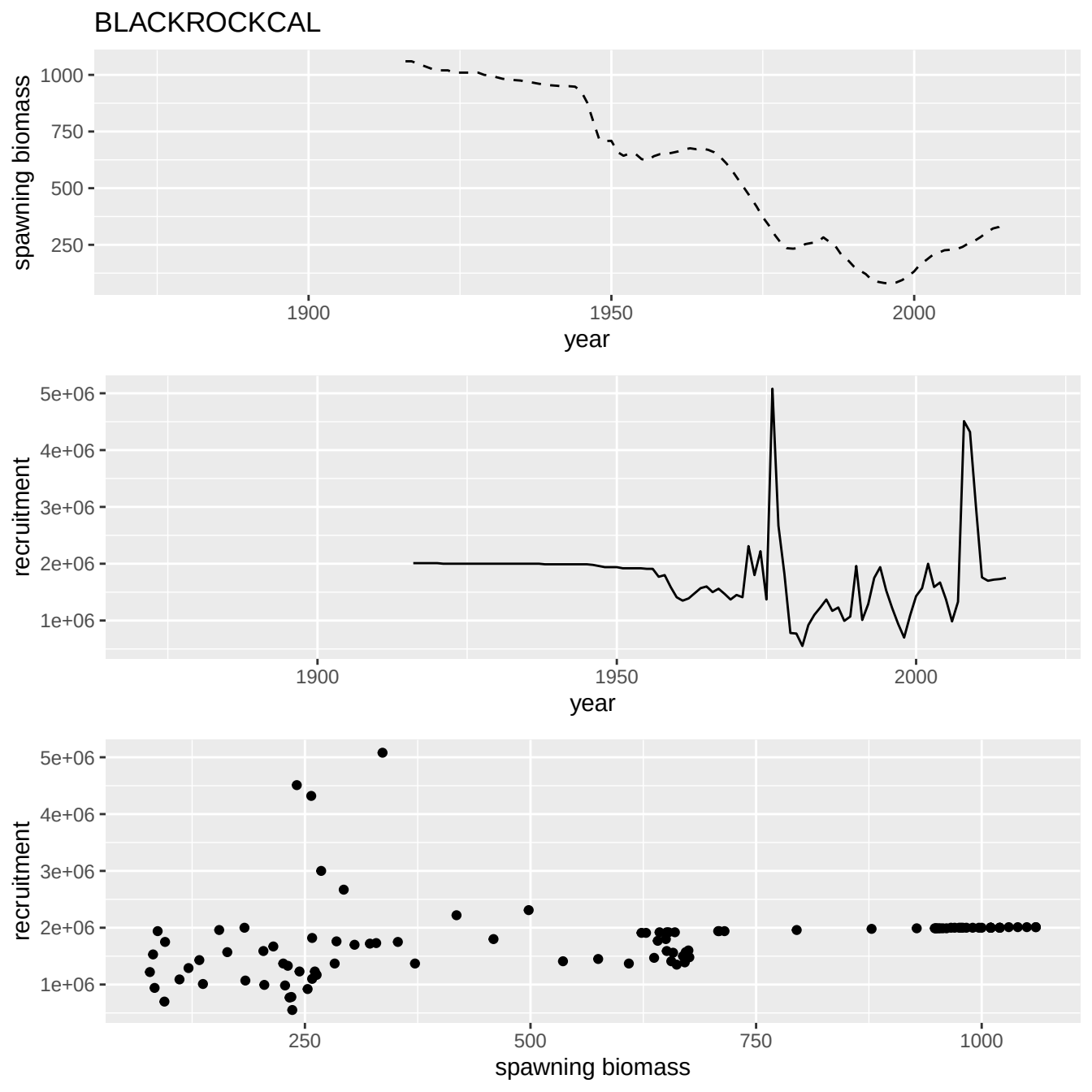

BIGHTREDSE
spawning biomass
5000
4000
1900
1950
2000
year
recruitment
8e+12
7e+12
6e+12
5e+12
4e+12
3e+12
1900
1950
2000
year
recruitment
8e+12
7e+12
6e+12
5e+12
4e+12
3e+12
4000
5000
spawning biomass

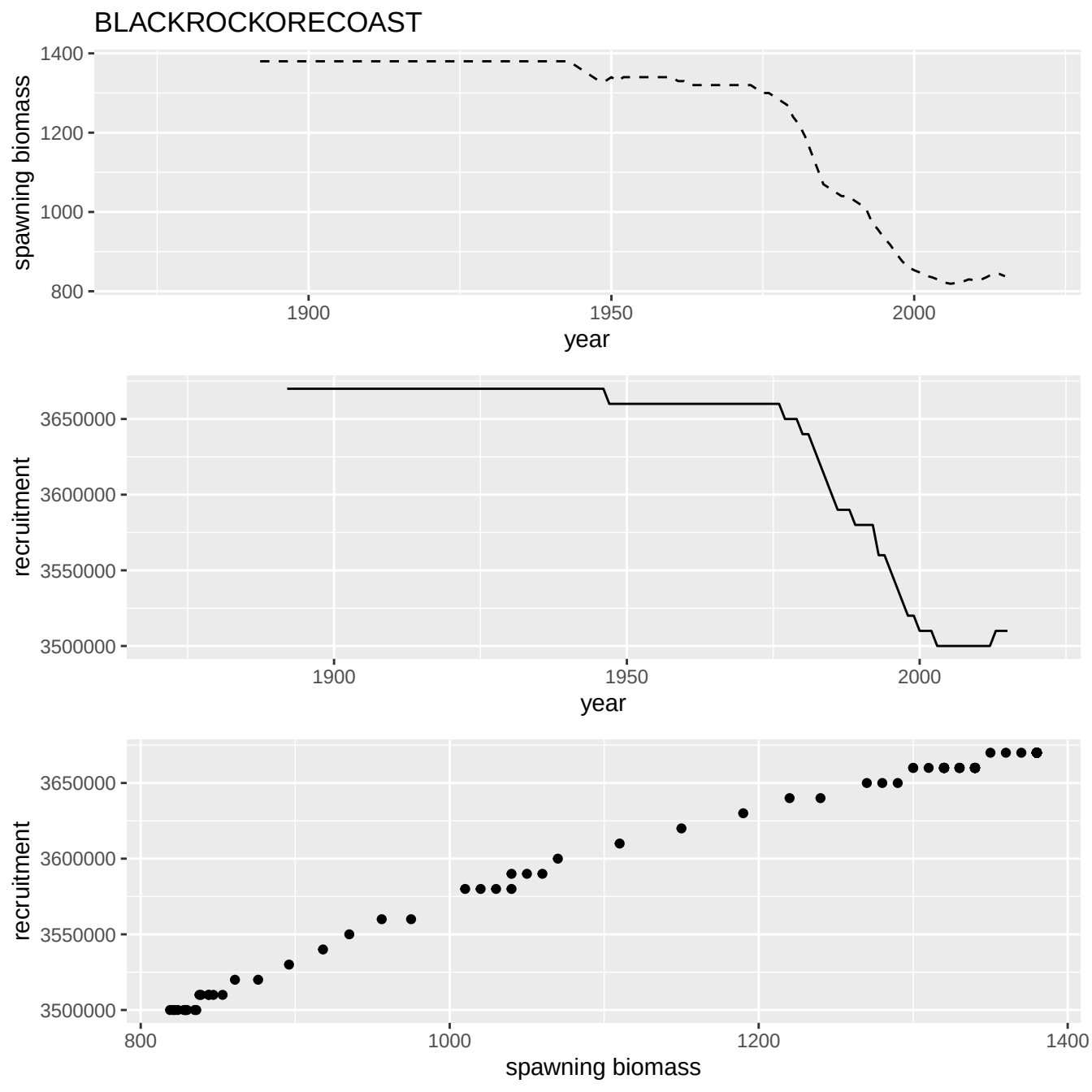

BKCDLFENI
spawning biomass
30000
20000
10000
1900
1950
2000
year
recruitment
1600000
1400000
1200000
1000000
1900
1950
2000
year
recruitment
1600000
1400000
1200000
1000000
10000
20000
30000
spawning biomass

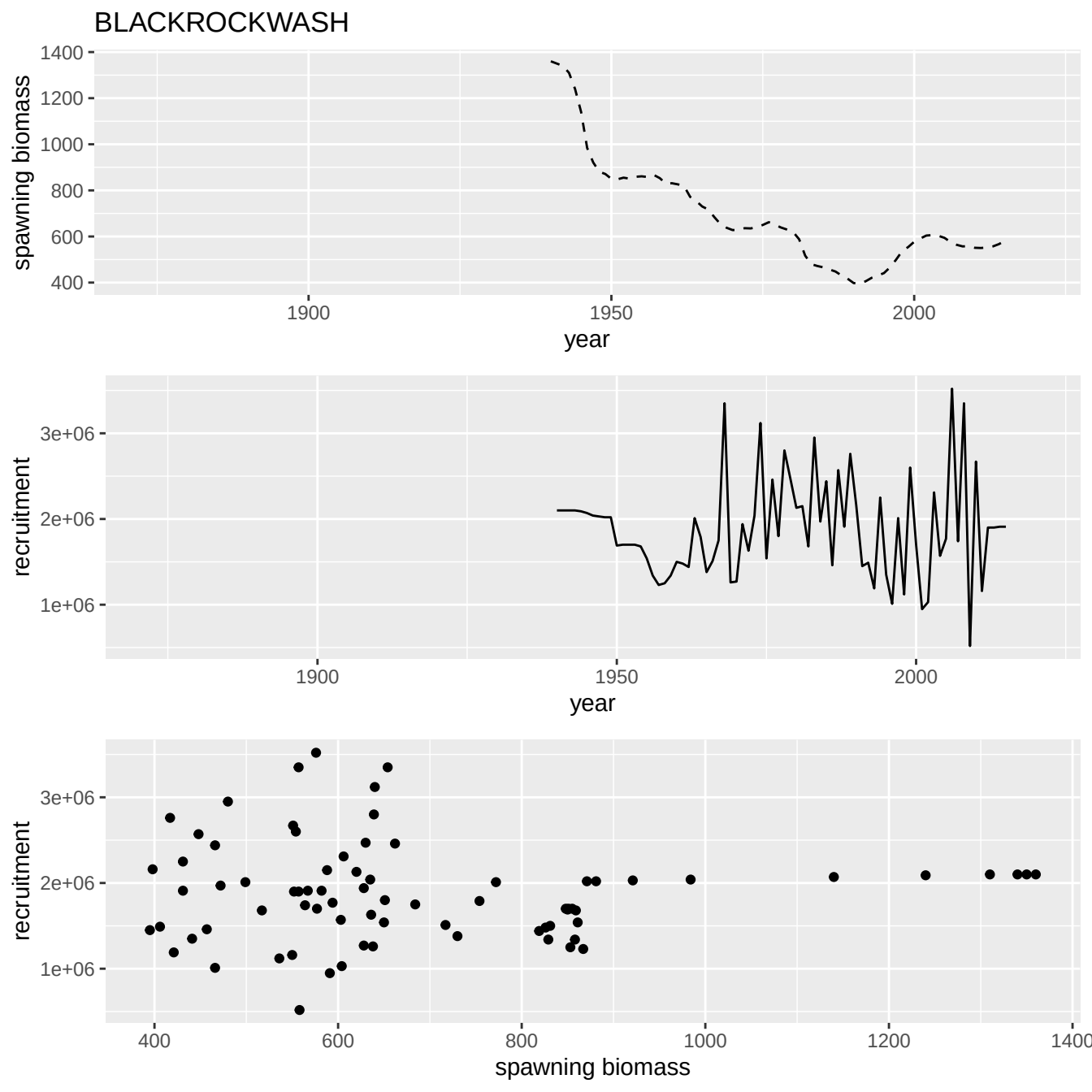

BLACKGROUPERGMSATL
spawning biomass
3500
3000
2500
2000
1500
1900
1950
2000
year
recruitment
280000
240000
200000
1900
1950
2000
year
recruitment
280000
240000
200000
1500
2000
2500
3000
3500
spawning biomass

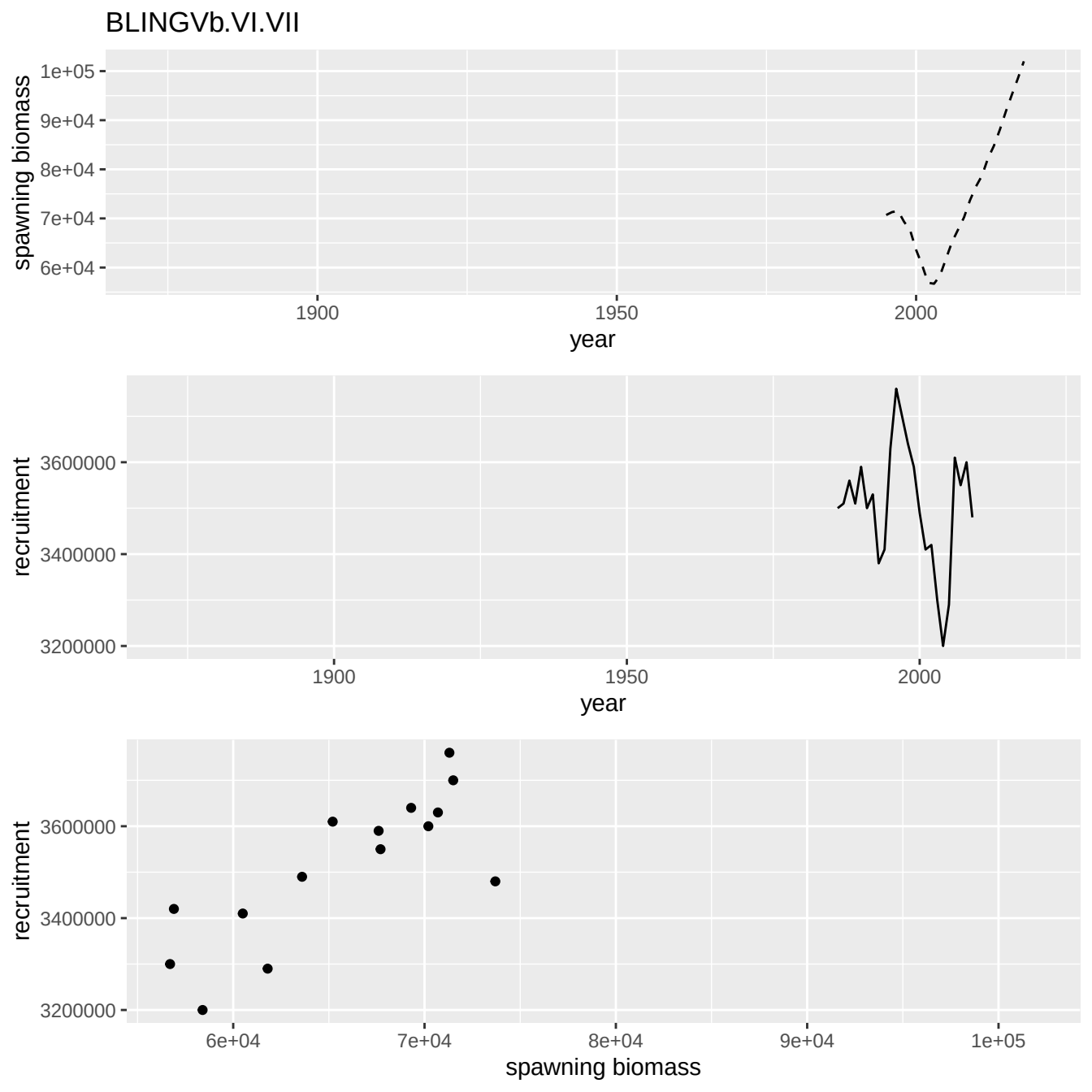

BLACKOREOPR
spawning biomass
30000
25000
20000
15000
10000
1900
1950
2000
year
recruitment
6600000
6500000
6400000
6300000
1900
1950
2000
year
recruitment
6600000
6500000
6400000
6300000
10000
15000
20000
25000
30000
spawning biomass

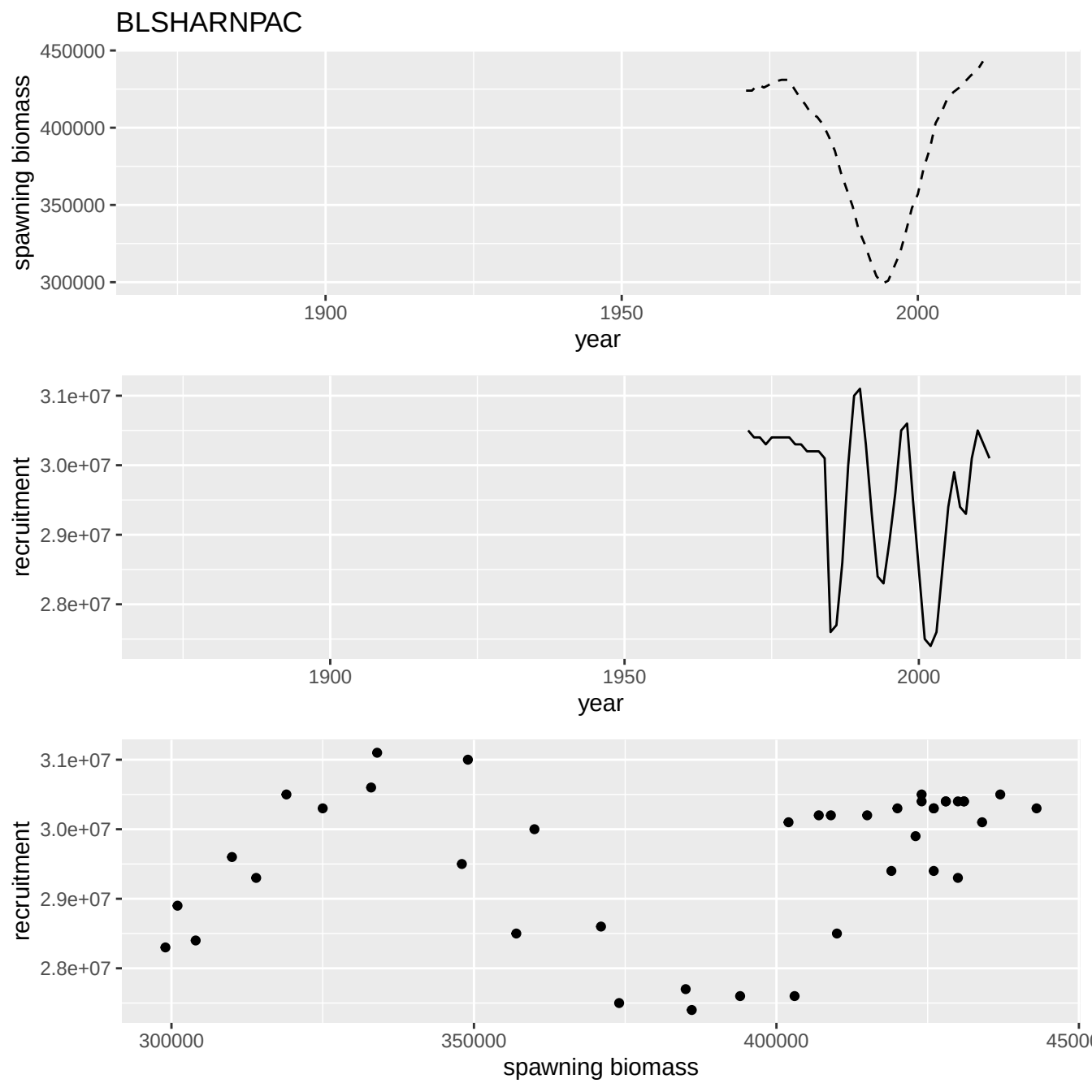

BLACKOREOWECR
spawning biomass
80000
60000
40000
1900
1950
2000
year
recruitment
2.2e+07
2.1e+07
2.0e+07
1.9e+07
1900
1950
2000
year
recruitment
2.2e+07
2.1e+07
2.0e+07
1.9e+07
40000
60000
80000
spawning biomass

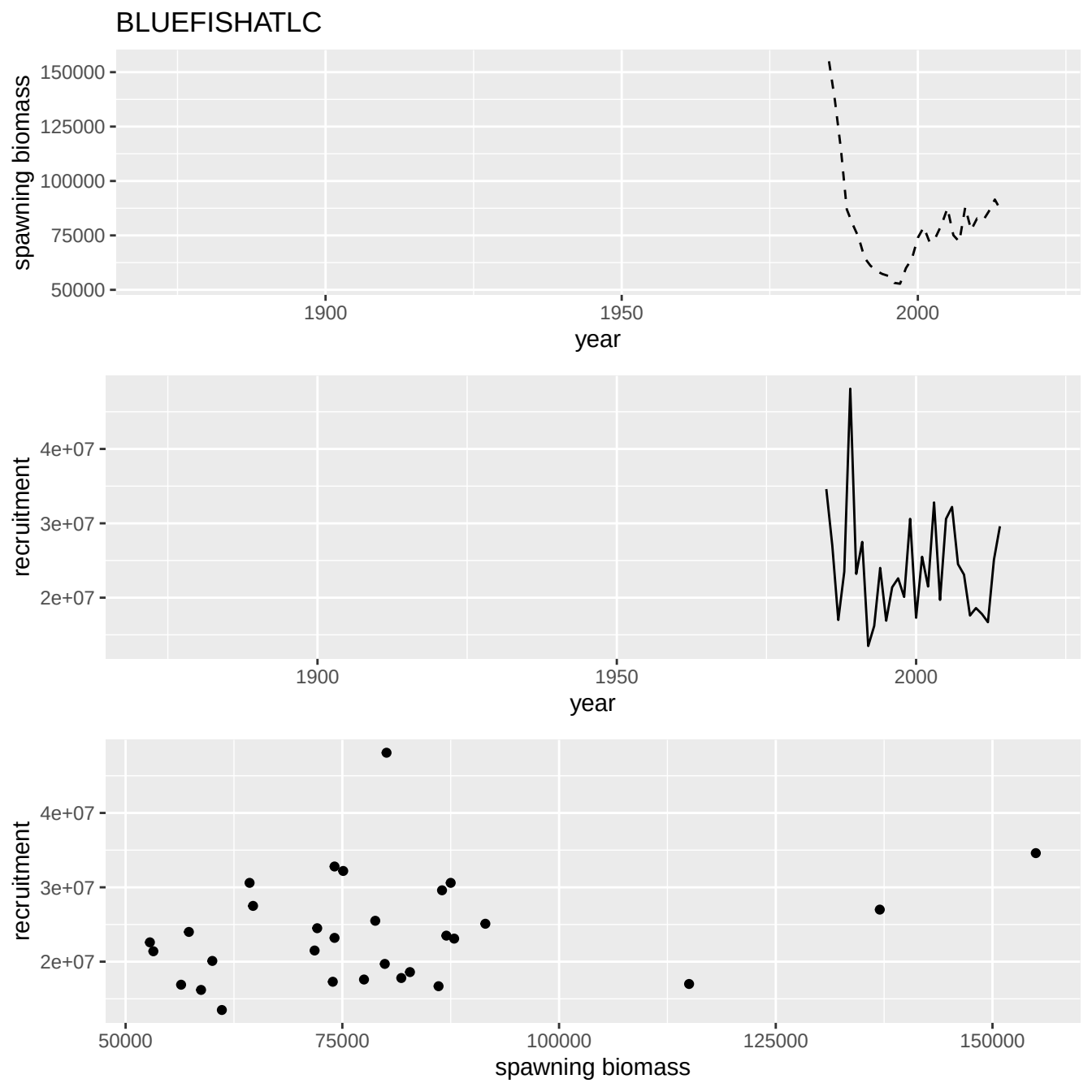

BLACKROCKCAL
spawning biomass
1000
750
500
250
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
250
500
750
1000
spawning biomass

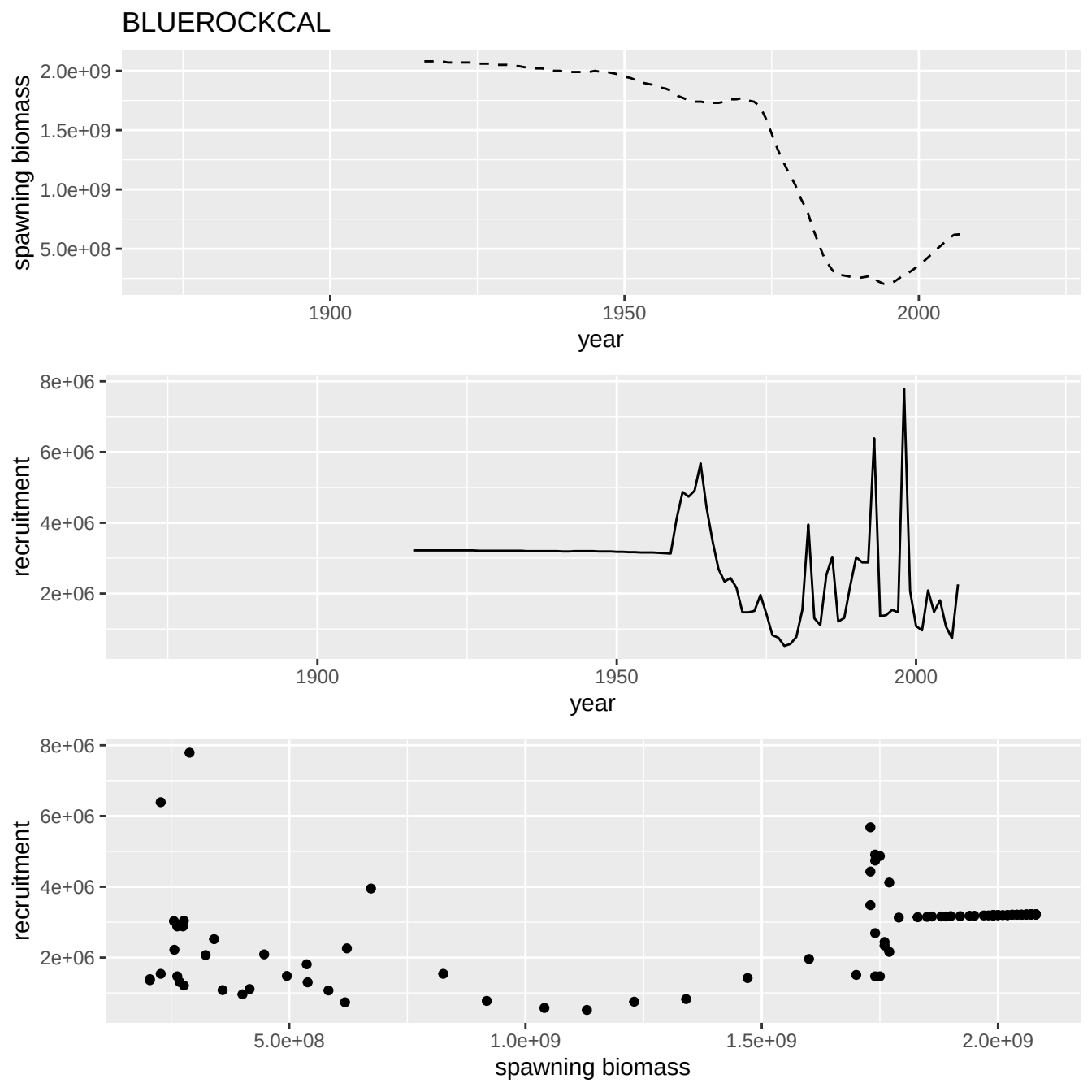

BLACKROCKORECOAST
spawning biomass
1400
1200
1000
800
1900
1950
2000
year
recruitment
3650000
3600000
3550000
3500000
1900
1950
2000
year
recruitment
3650000
3600000
3550000
3500000
800
1000
1200
1400
spawning biomass

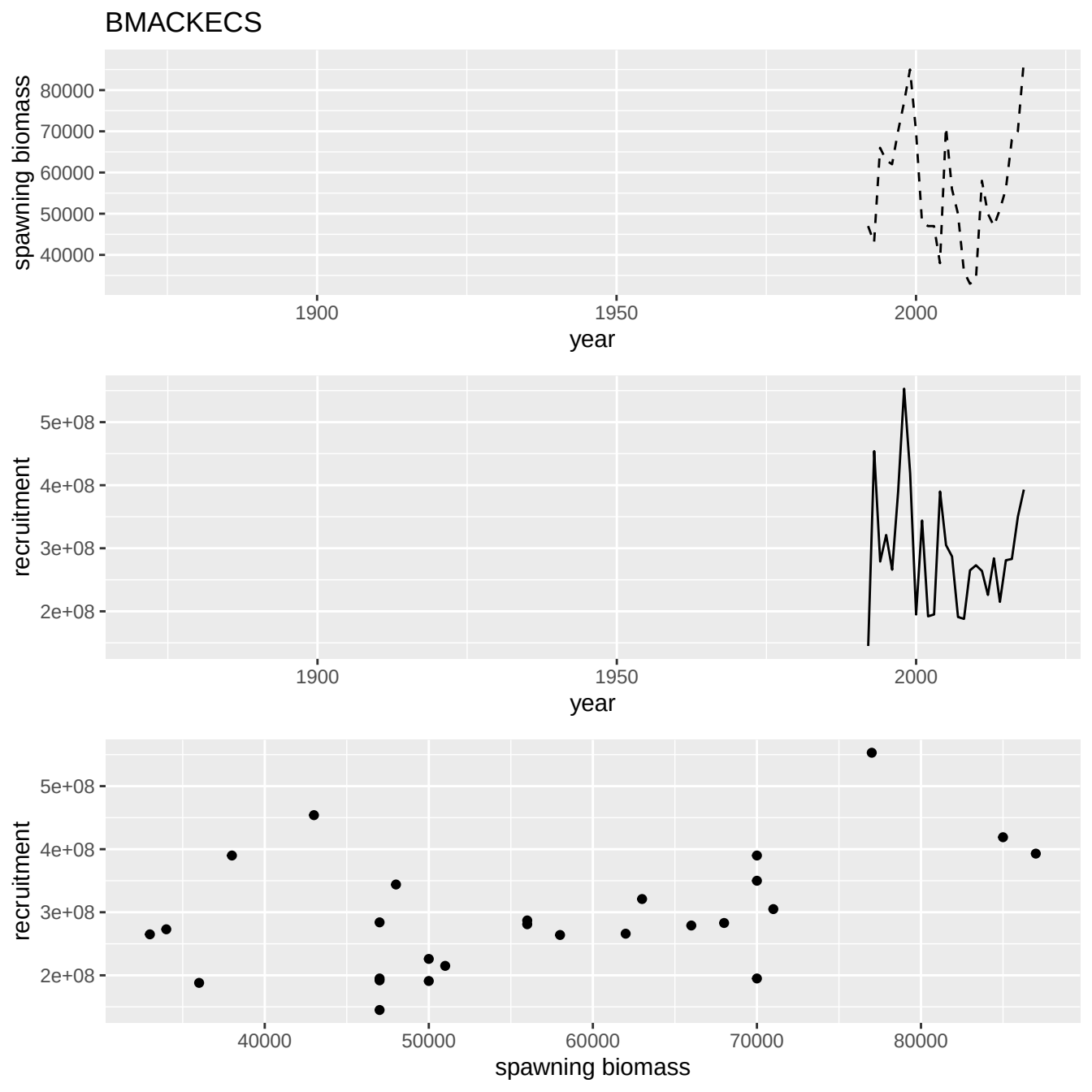

BLACKROCKWASH
spawning biomass
1400
1200
1000
800
600
400
1900
1950
2000
year
recruitment
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
3e+06
2e+06
1e+06
400
600
800
1000
1200
1400
spawning biomass

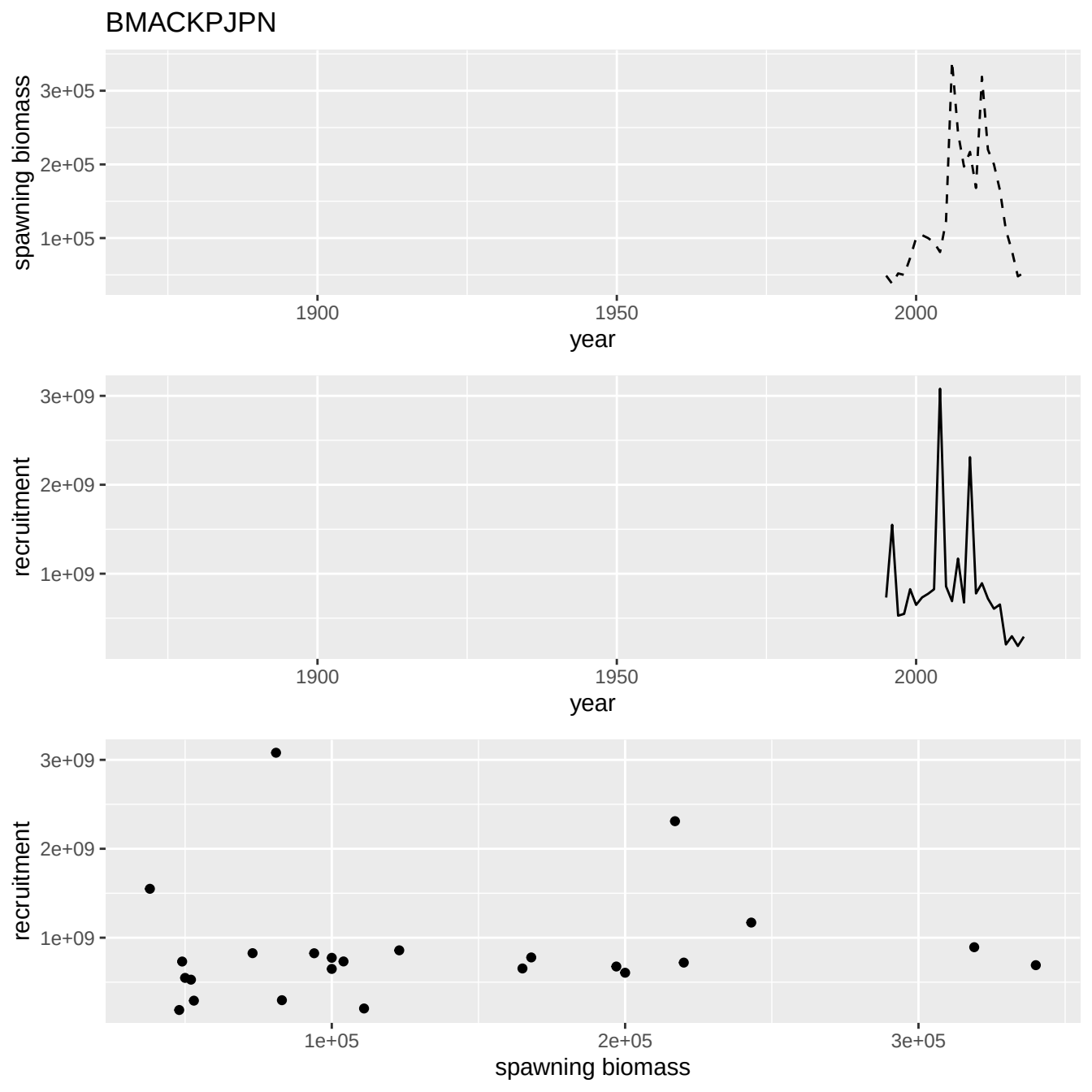

BLINGVb.VI.VII
spawning biomass
1e+05
9e+04
8e+04
7e+04
6e+04
1900
1950
2000
year
recruitment
3600000
3400000
3200000
1900
1950
2000
year
recruitment
3600000
3400000
3200000
6e+04
7e+04
8e+04
9e+04
1e+05
spawning biomass

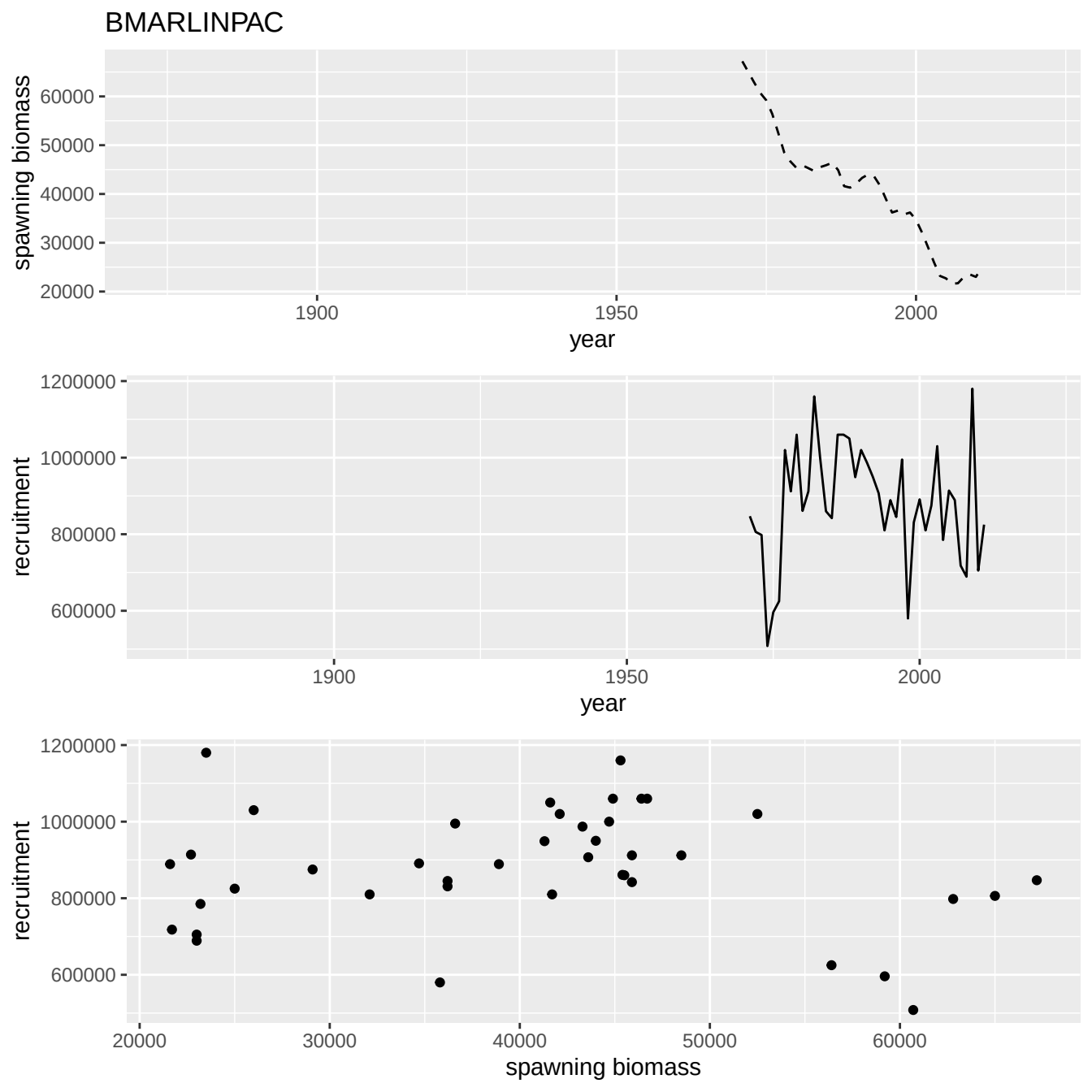

BLSHARNPAC
spawning biomass
450000
400000
350000
300000
1900
1950
2000
year
recruitment
3.1e+07
3.0e+07
2.9e+07
2.8e+07
1900
1950
2000
year
recruitment
3.1e+07
3.0e+07
2.9e+07
2.8e+07
300000
350000
400000
spawning biomass

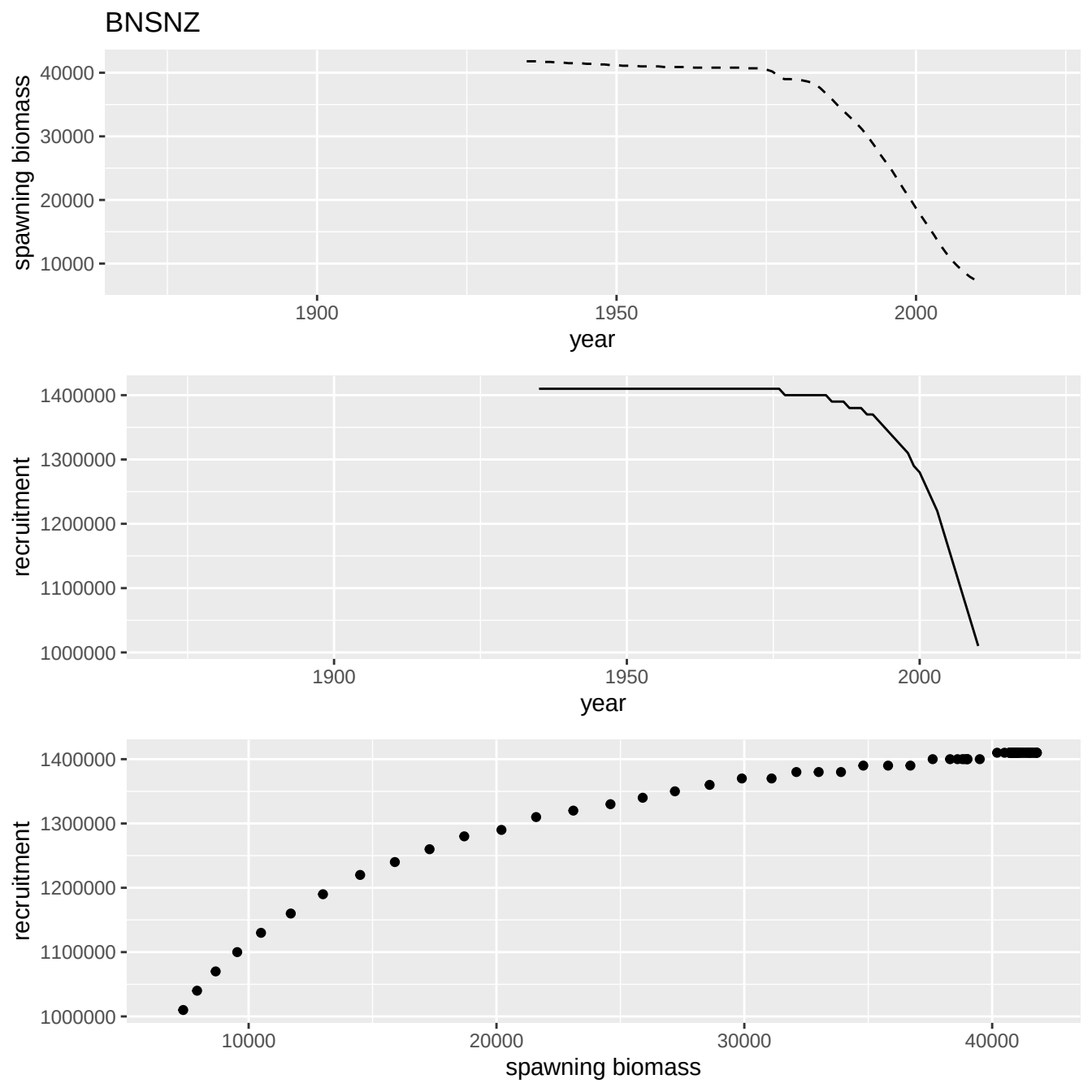

BLUEFISHATLC
spawning biomass
150000
125000
100000
75000
50000
1900
1950
2000
year
recruitment
4e+07
3e+07
2e+07
1900
1950
2000
year
recruitment
4e+07
3e+07
2e+07
50000
75000
100000
125000
150000
spawning biomass

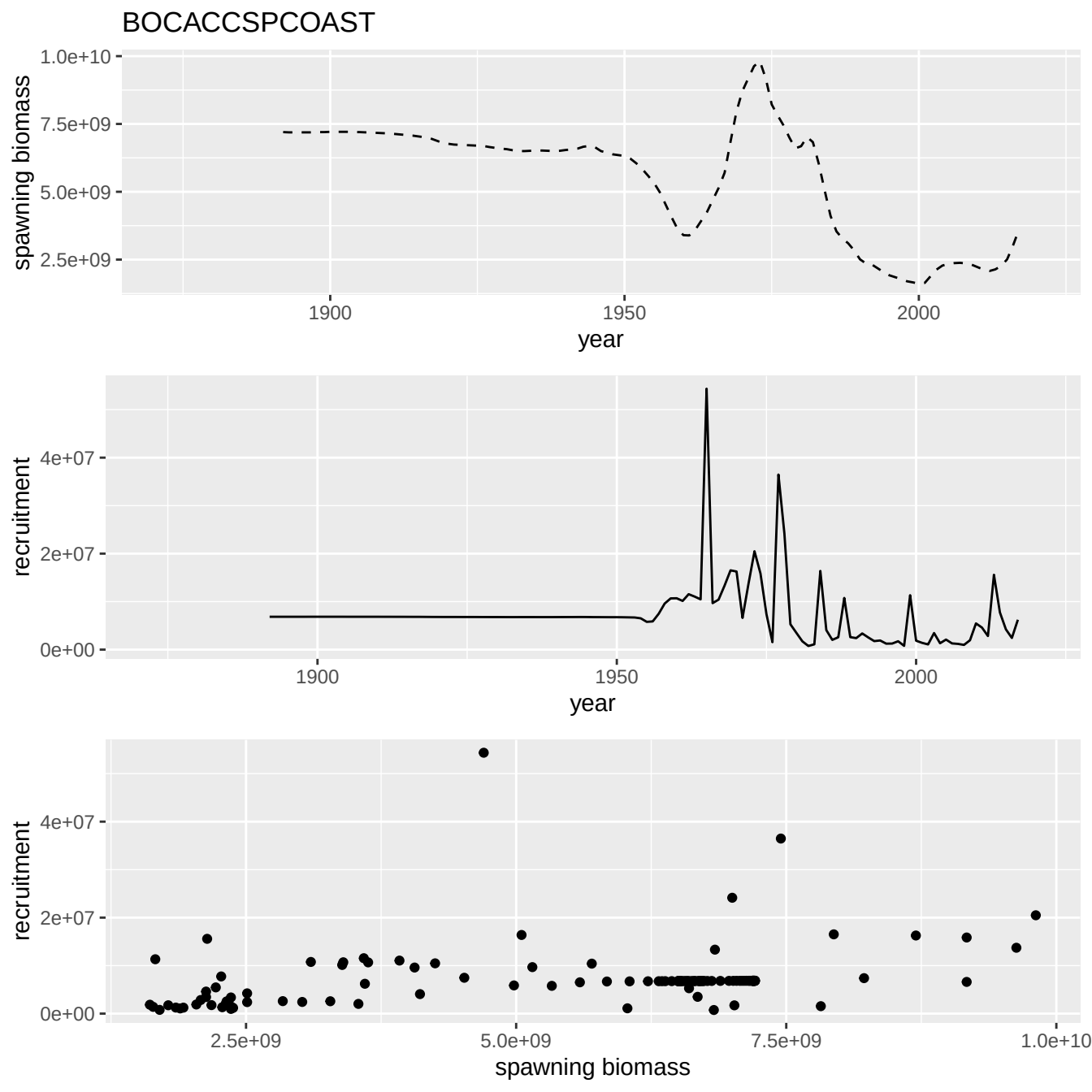

BLUEROCKCAL
spawning biomass
2.0e+09
1.5e+09
1.0e+09
5.0e+08
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
5.0e+08
1.0e+09
1.5e+09
2.0e+09
spawning biomass

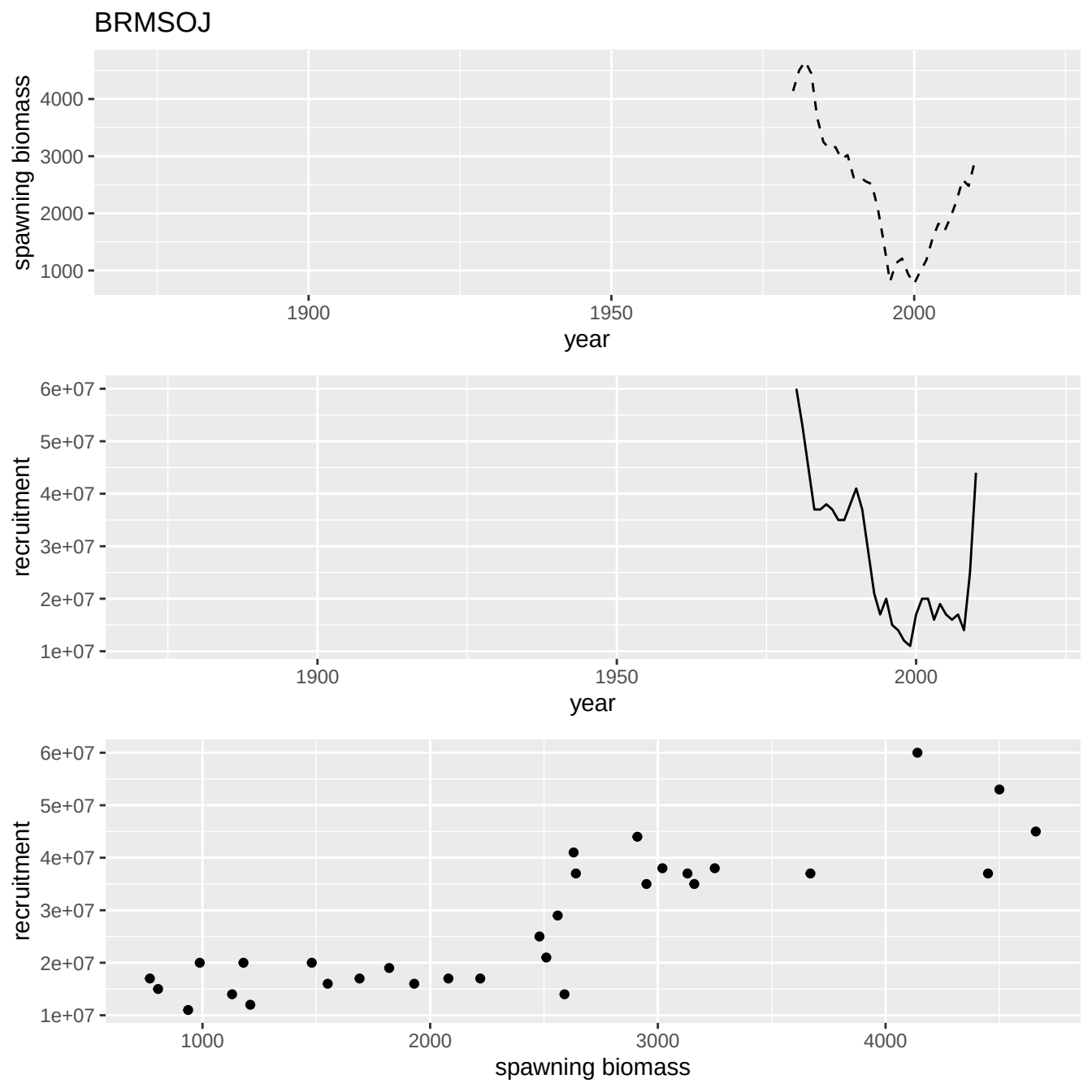

BMACKECS
spawning biomass
80000
70000
60000
50000
40000
1900
1950
2000
year
recruitment
5e+08
4e+08
3e+08
2e+08
1900
1950
2000
year
recruitment
5e+08
4e+08
3e+08
2e+08
40000
50000
60000
70000
80000
spawning biomass

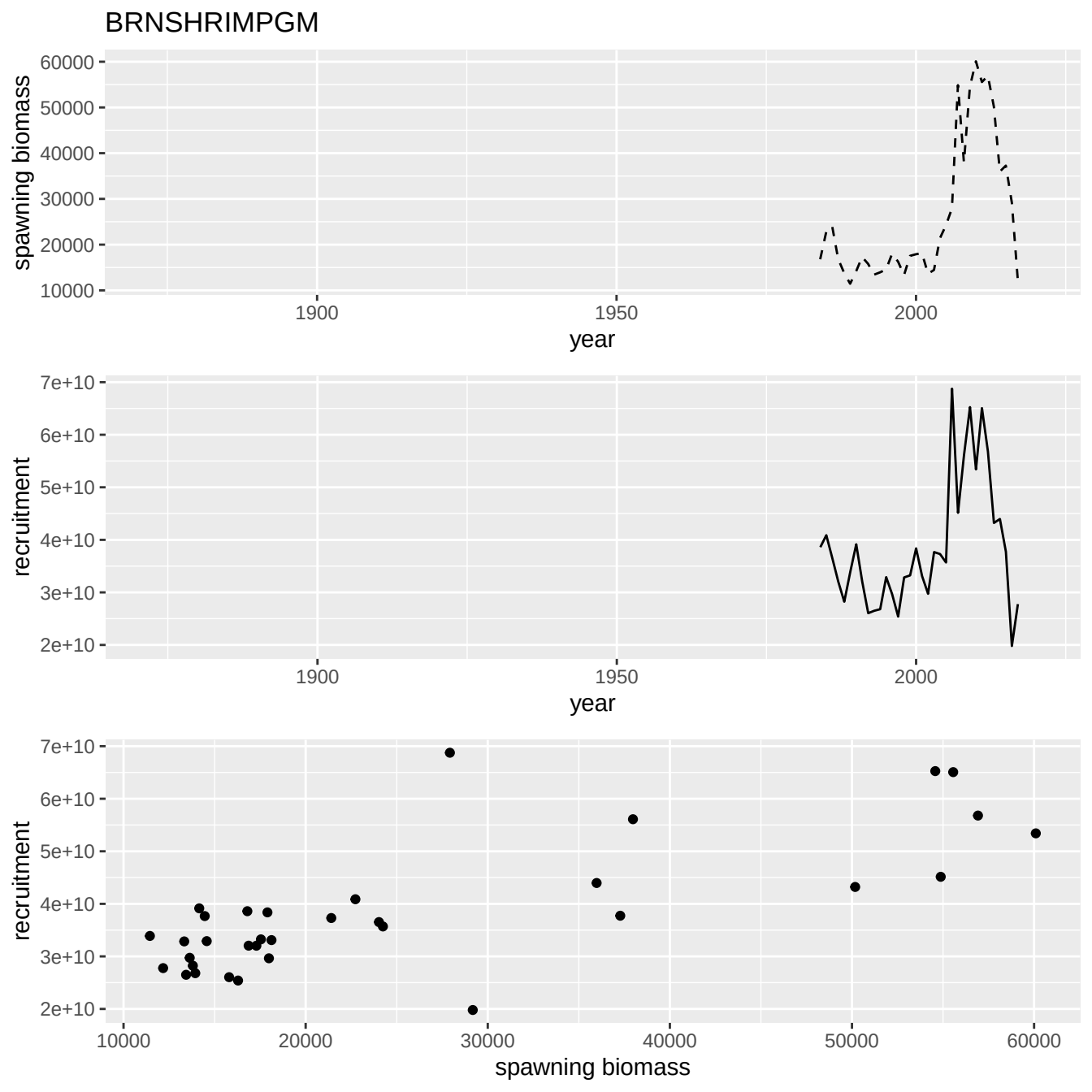

BMACKPJPN
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
3e+09
2e+09
1e+09
1900
1950
2000
year
recruitment
3e+09
2e+09
1e+09
1e+05
2e+05
3e+05
spawning biomass

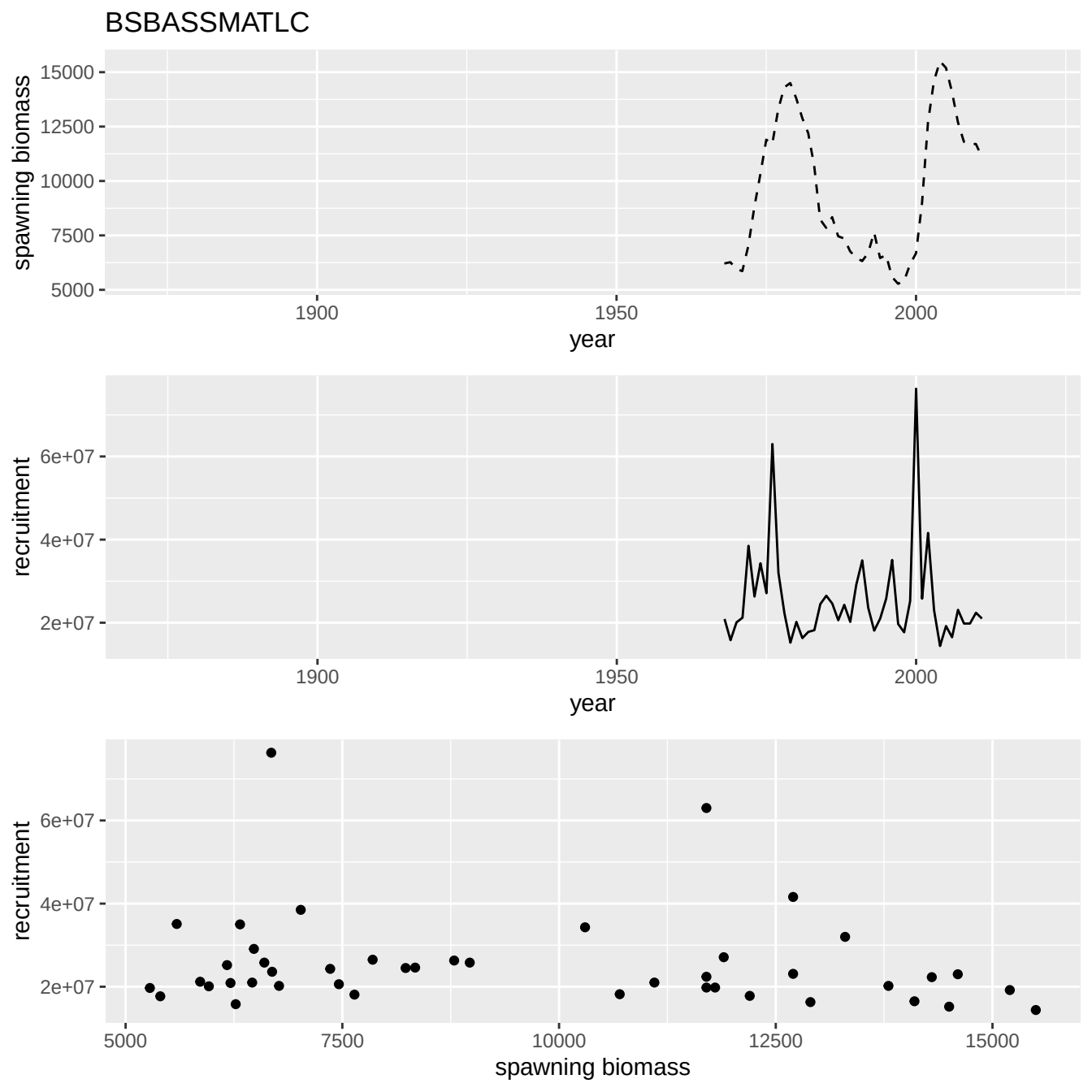

BMARLINPAC
spawning biomass
60000
50000
40000
30000
20000
1900
1950
2000
year
recruitment
1200000
1000000
800000
600000
1900
1950
2000
year
recruitment
1200000
1000000
800000
600000
20000
30000
40000
50000
60000
spawning biomass

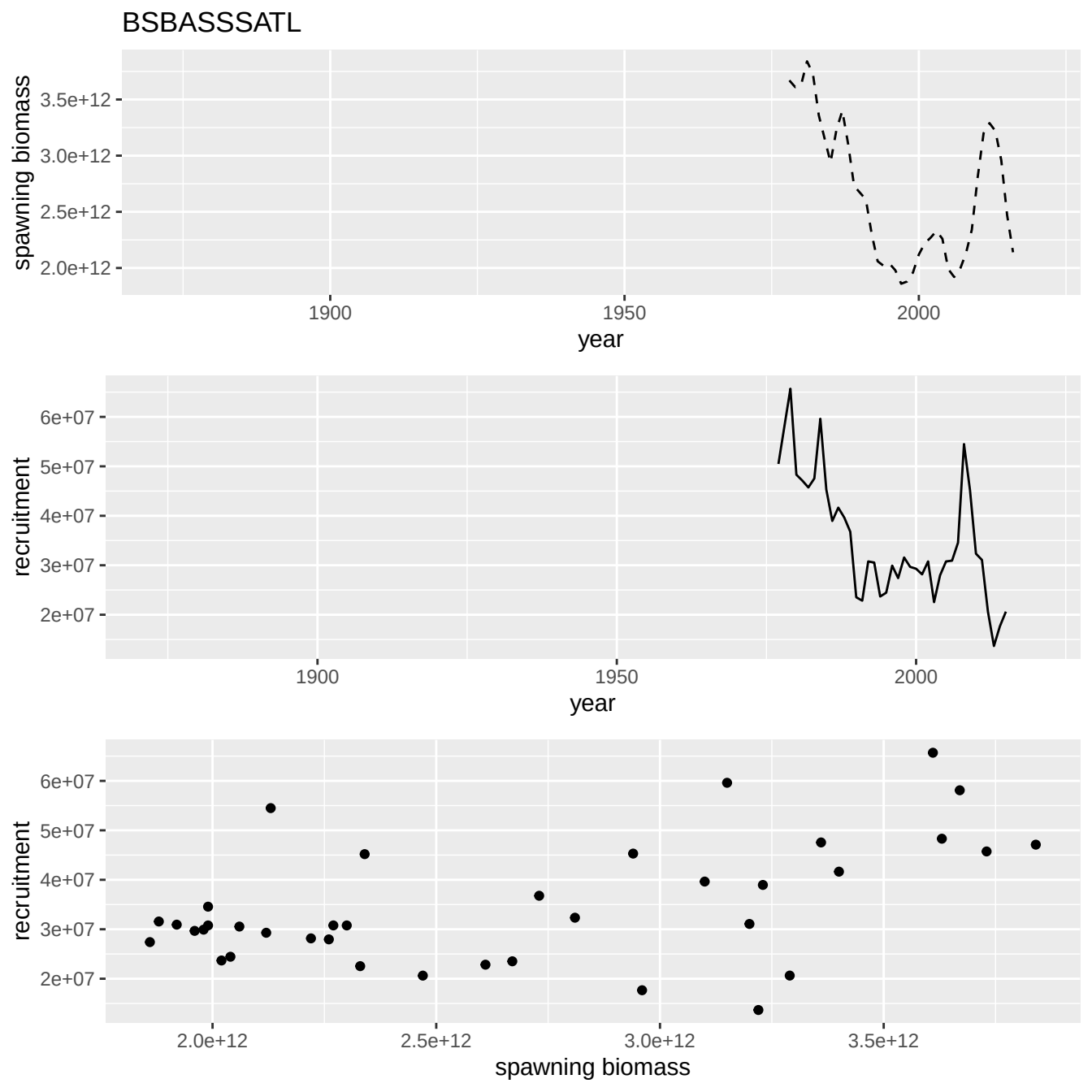

BNSNZ
spawning biomass
40000
30000
20000
10000
1900
1950
2000
year
recruitment
1400000
1300000
1200000
1100000
1000000
1900
1950
2000
year
recruitment
1400000
1300000
1200000
1100000
1000000
10000
20000
30000
40000
spawning biomass

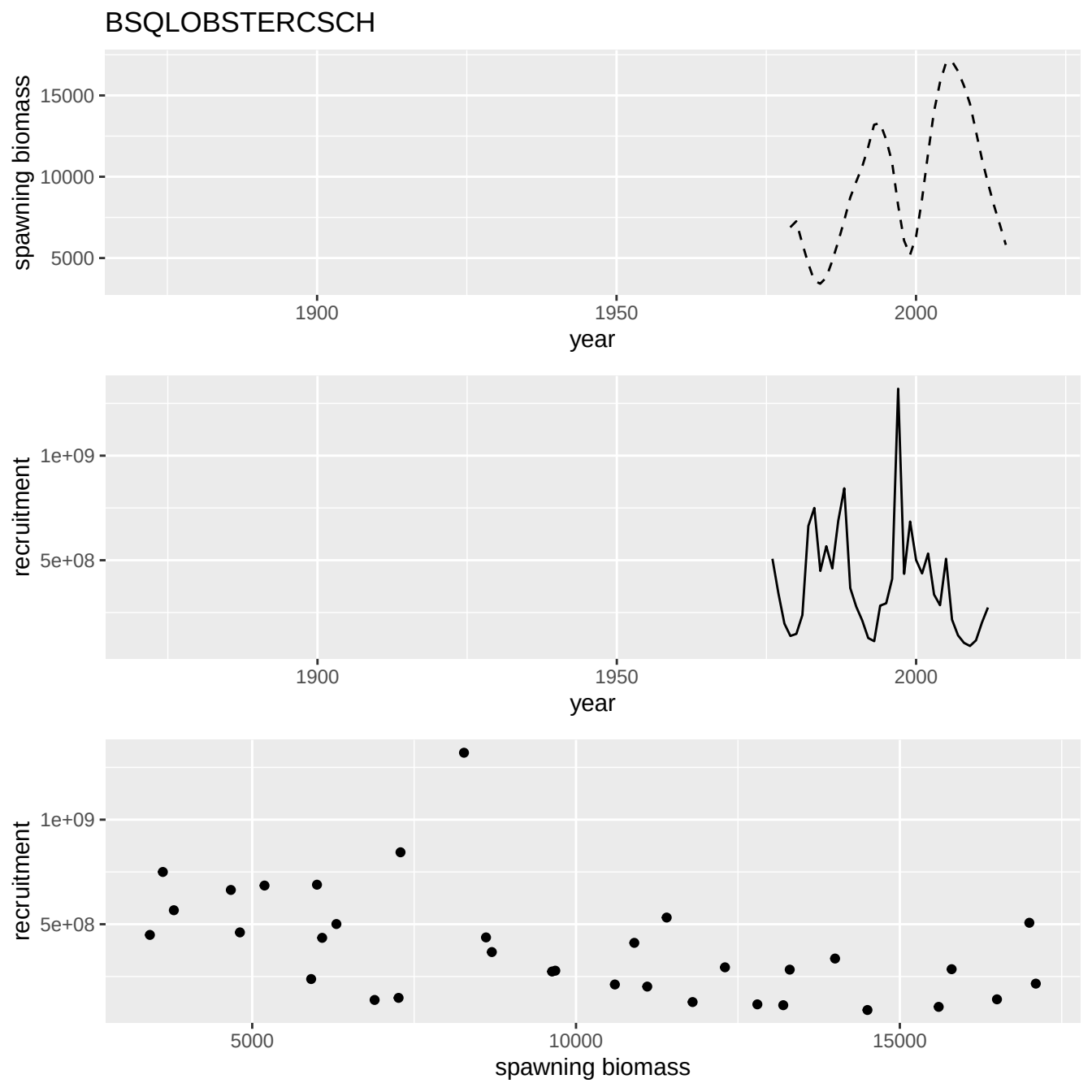

BOCACCSPCOAST
spawning biomass
1.0e+10
7.5e+09
5.0e+09
2.5e+09
1900
1950
2000
year
recruitment
4e+07
2e+07
0e+00
1900
1950
2000
year
recruitment
4e+07
2e+07
0e+00
2.5e+09
5.0e+09
7.5e+09
1.0e+10
spawning biomass

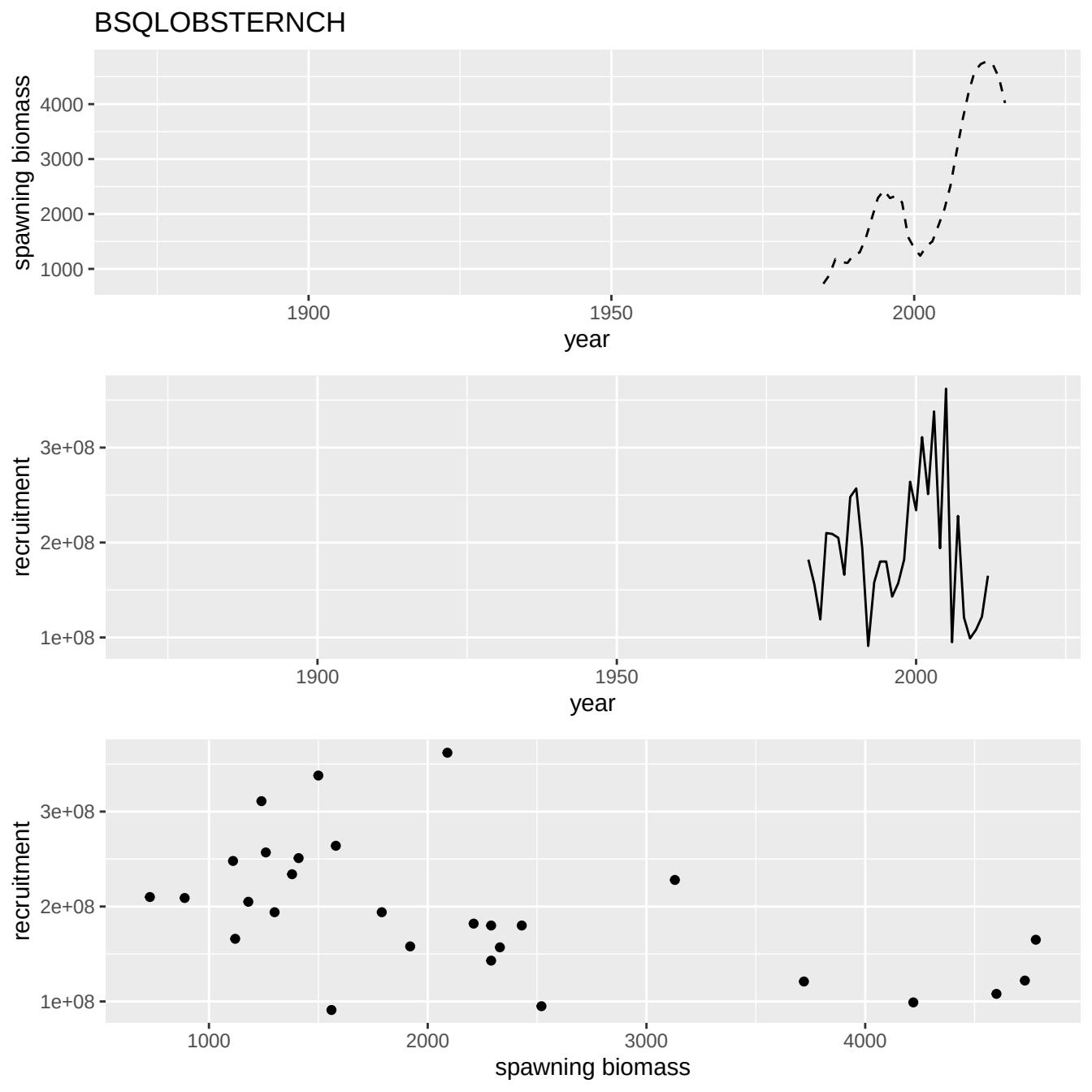

BRMSOJ
spawning biomass
4000
3000
2000
1000
1900
1950
2000
year
recruitment
6e+07
5e+07
4e+07
3e+07
2e+07
1e+07
1900
1950
2000
year
recruitment
6e+07
5e+07
4e+07
3e+07
2e+07
1e+07
1000
2000
3000
4000
spawning biomass

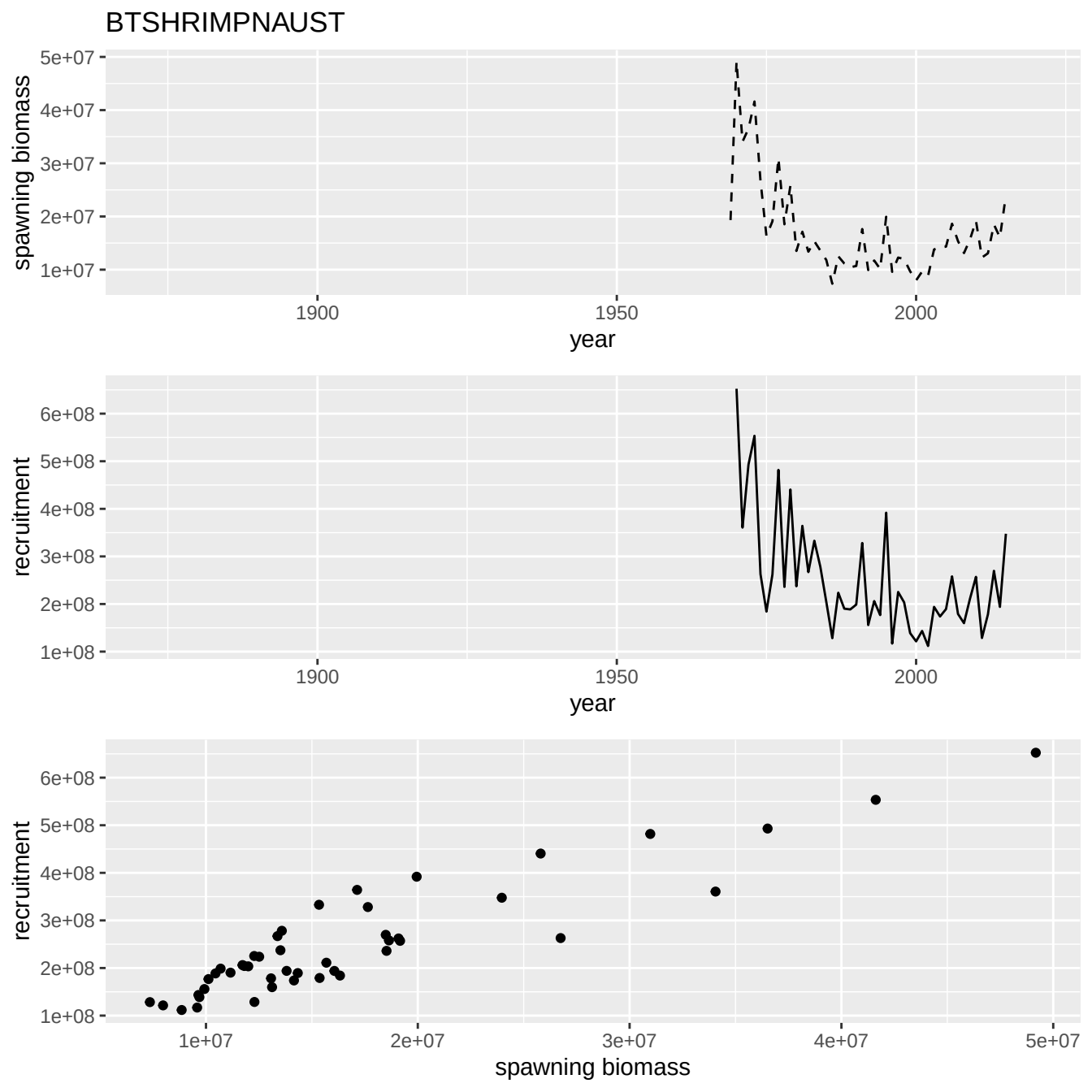

BRNSHRIMPGM
spawning biomass
60000
50000
40000
30000
20000
10000
1900
1950
2000
year
recruitment
7e+10
6e+10
5e+10
4e+10
3e+10
2e+10
1900
1950
2000
year
recruitment
7e+10
6e+10
5e+10
4e+10
3e+10
2e+10
10000
20000
30000
40000
50000
60000
spawning biomass

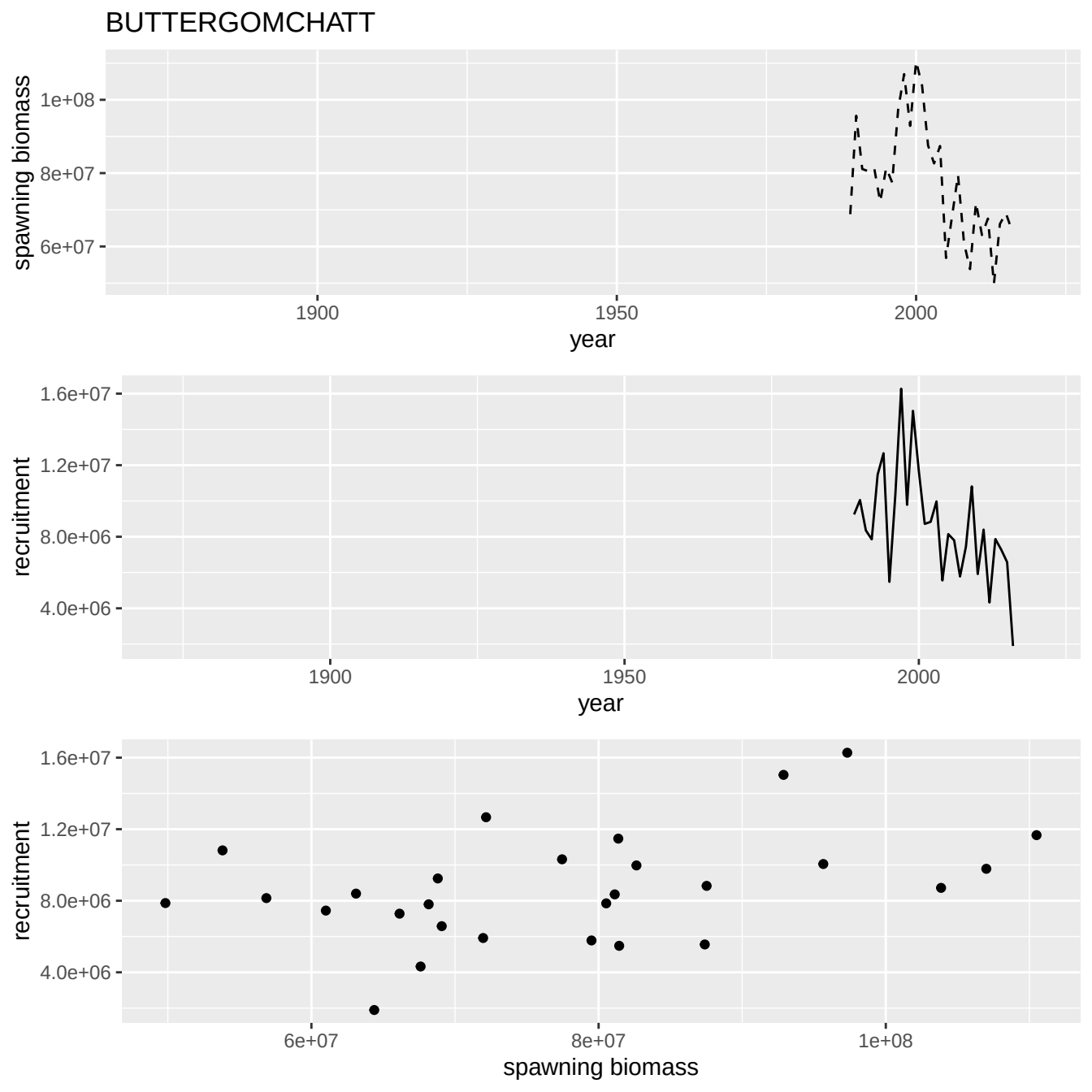

BSBASSMATLC
spawning biomass
15000
12500
10000
7500
5000
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
5000
7500
10000
12500
15000
spawning biomass

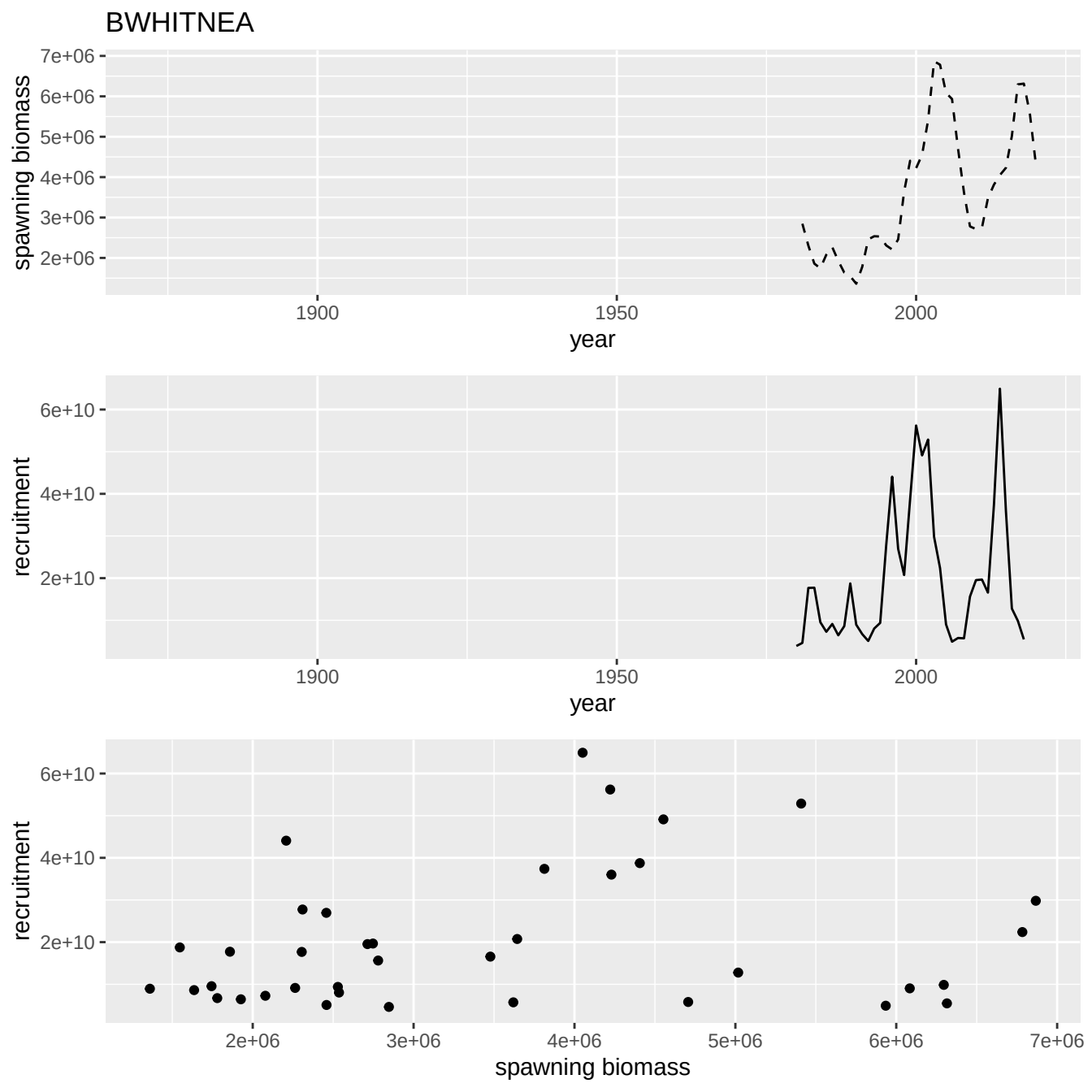

BSBASSSATL
spawning biomass
3.5e+12
3.0e+12
2.5e+12
2.0e+12
1900
1950
2000
year
recruitment
6e+07
5e+07
4e+07
3e+07
2e+07
1900
1950
2000
year
recruitment
6e+07
5e+07
4e+07
3e+07
2e+07
2.0e+12
2.5e+12
3.0e+12
3.5e+12
spawning biomass

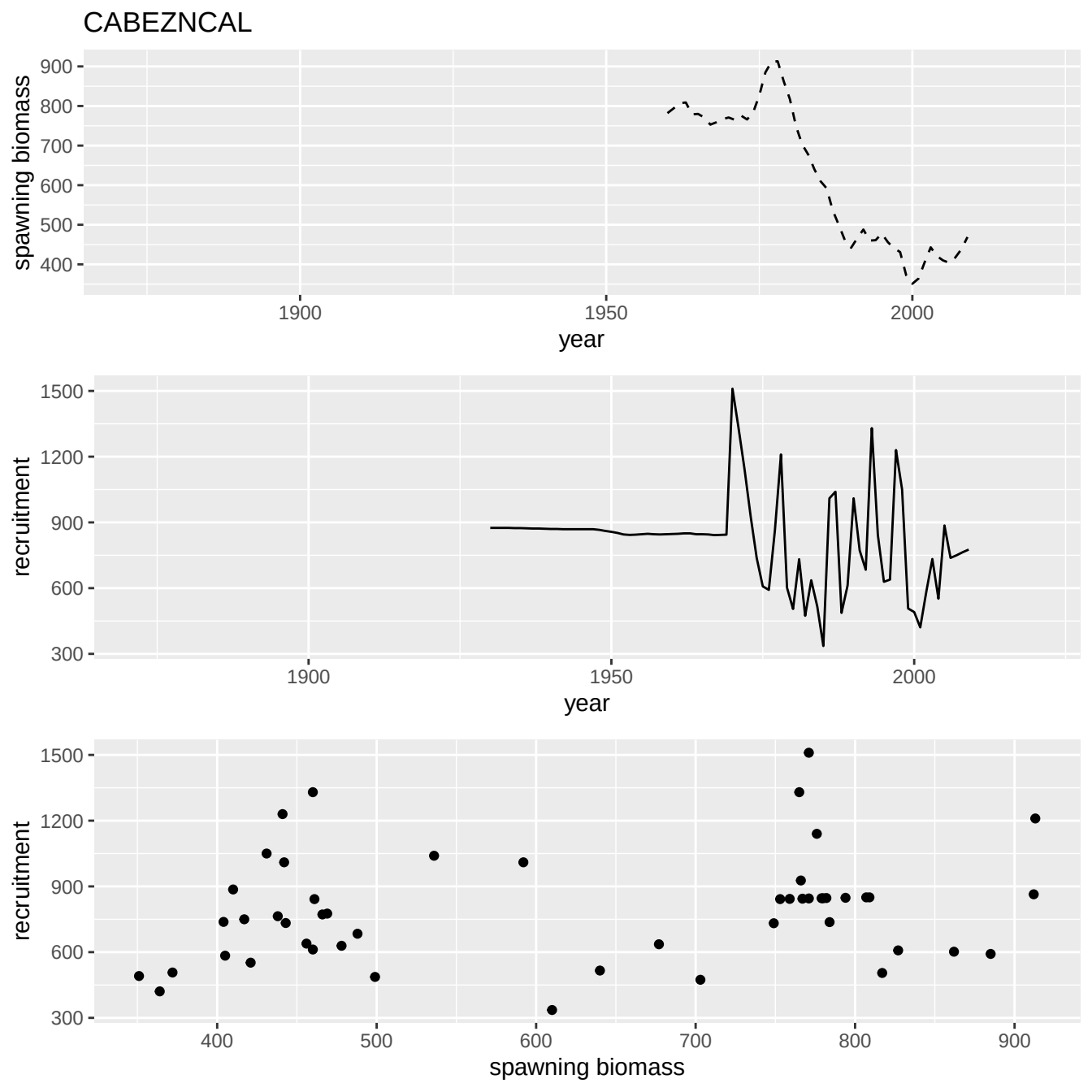

BSQLOBSTERCSCH
spawning biomass
15000
10000
5000
1900
1950
2000
year
recruitment
1e+09
5e+08
1900
1950
2000
year
recruitment
1e+09
5e+08
5000
10000
15000
spawning biomass

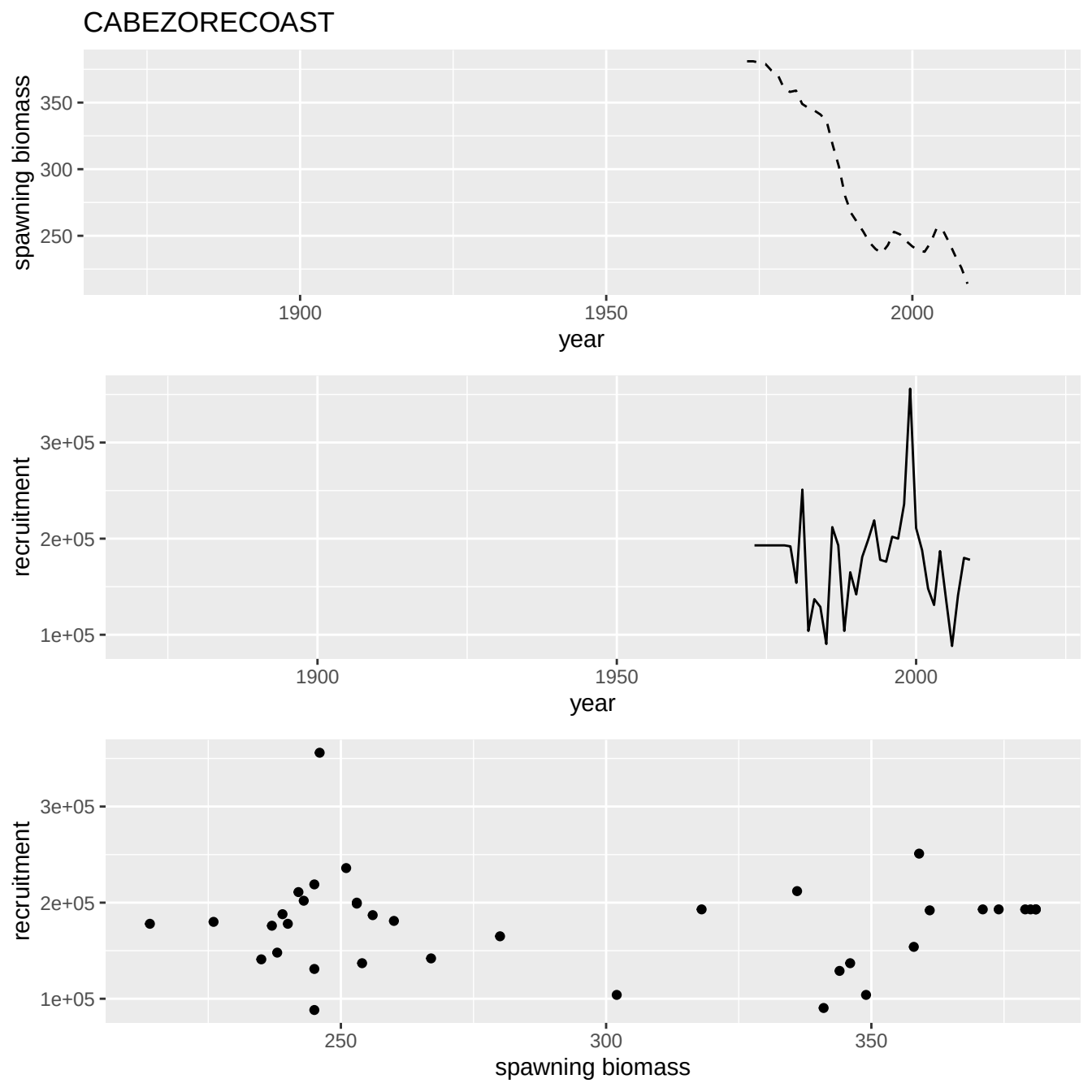

BSQLOBSTERNCH
spawning biomass
4000
3000
2000
1000
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
1000
2000
3000
4000
spawning biomass

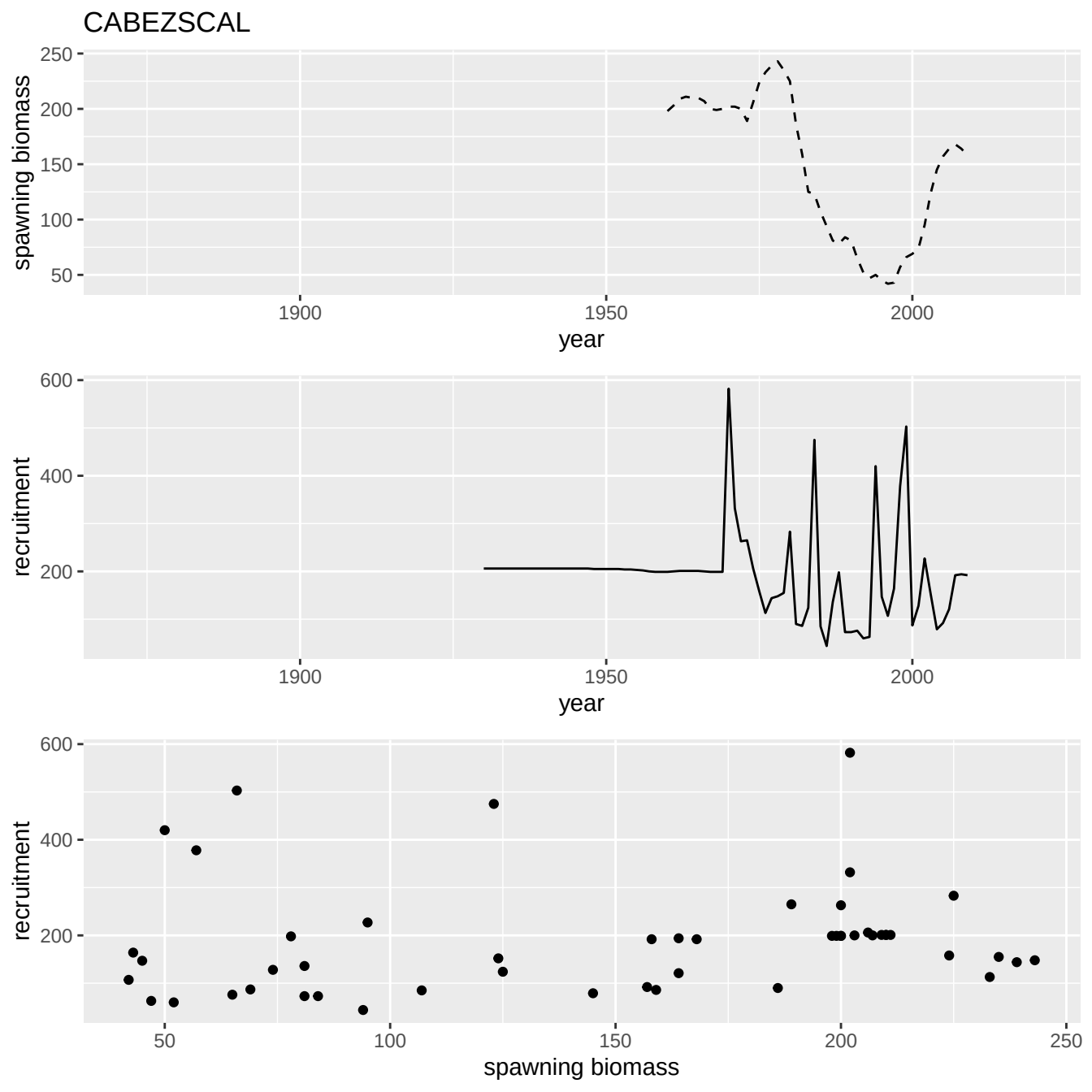

BTSHRIMPNAUST
spawning biomass
5e+07
4e+07
3e+07
2e+07
1e+07
1900
1950
2000
year
recruitment
6e+08
5e+08
4e+08
3e+08
2e+08
1e+08
1900
1950
2000
year
recruitment
6e+08
5e+08
4e+08
3e+08
2e+08
1e+08
1e+07
2e+07
3e+07
4e+07
5e+07
spawning biomass

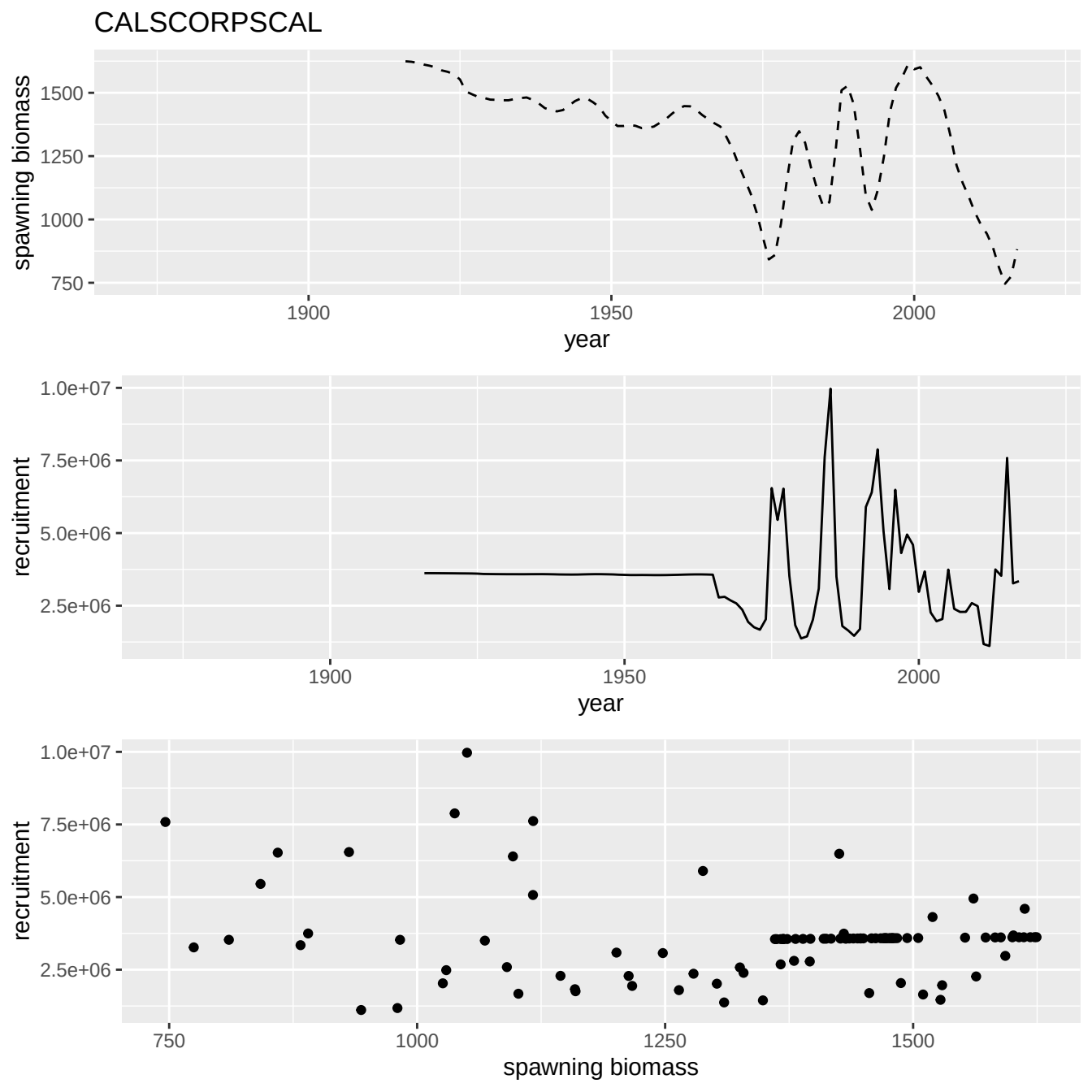

BUTTERGOMCHATT
spawning biomass
1e+08
8e+07
6e+07
1900
1950
2000
year
recruitment
1.6e+07
1.2e+07
8.0e+06
4.0e+06
1900
1950
2000
year
recruitment
1.6e+07
1.2e+07
8.0e+06
4.0e+06
6e+07
8e+07
1e+08
spawning biomass

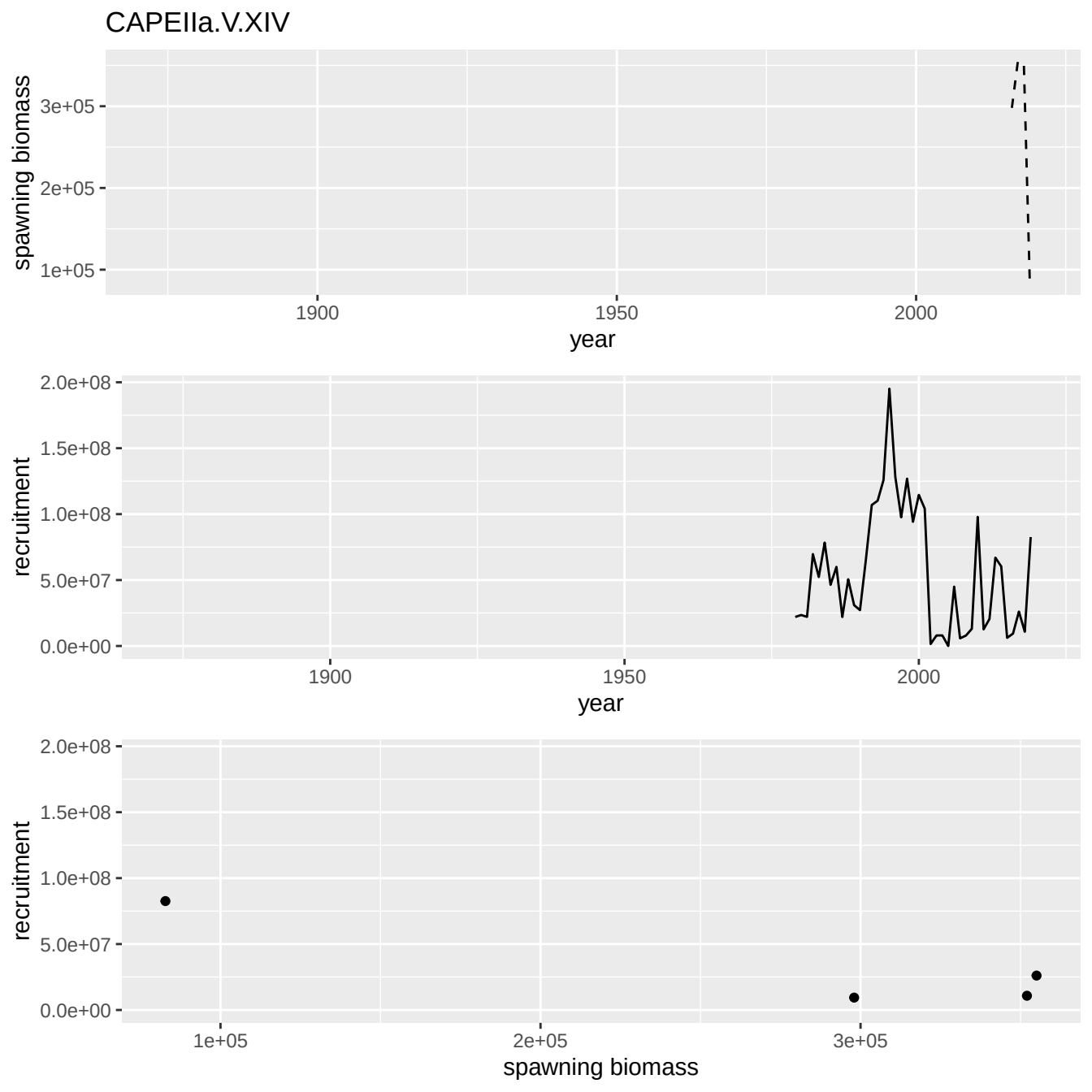

BWHITNEA
spawning biomass
7e+06
6e+06
5e+06
4e+06
3e+06
2e+06
1900
1950
2000
year
recruitment
6e+10
4e+10
2e+10
1900
1950
2000
year
recruitment
6e+10
4e+10
2e+10
2e+06
3e+06
4e+06
5e+06
6e+06
7e+06
spawning biomass

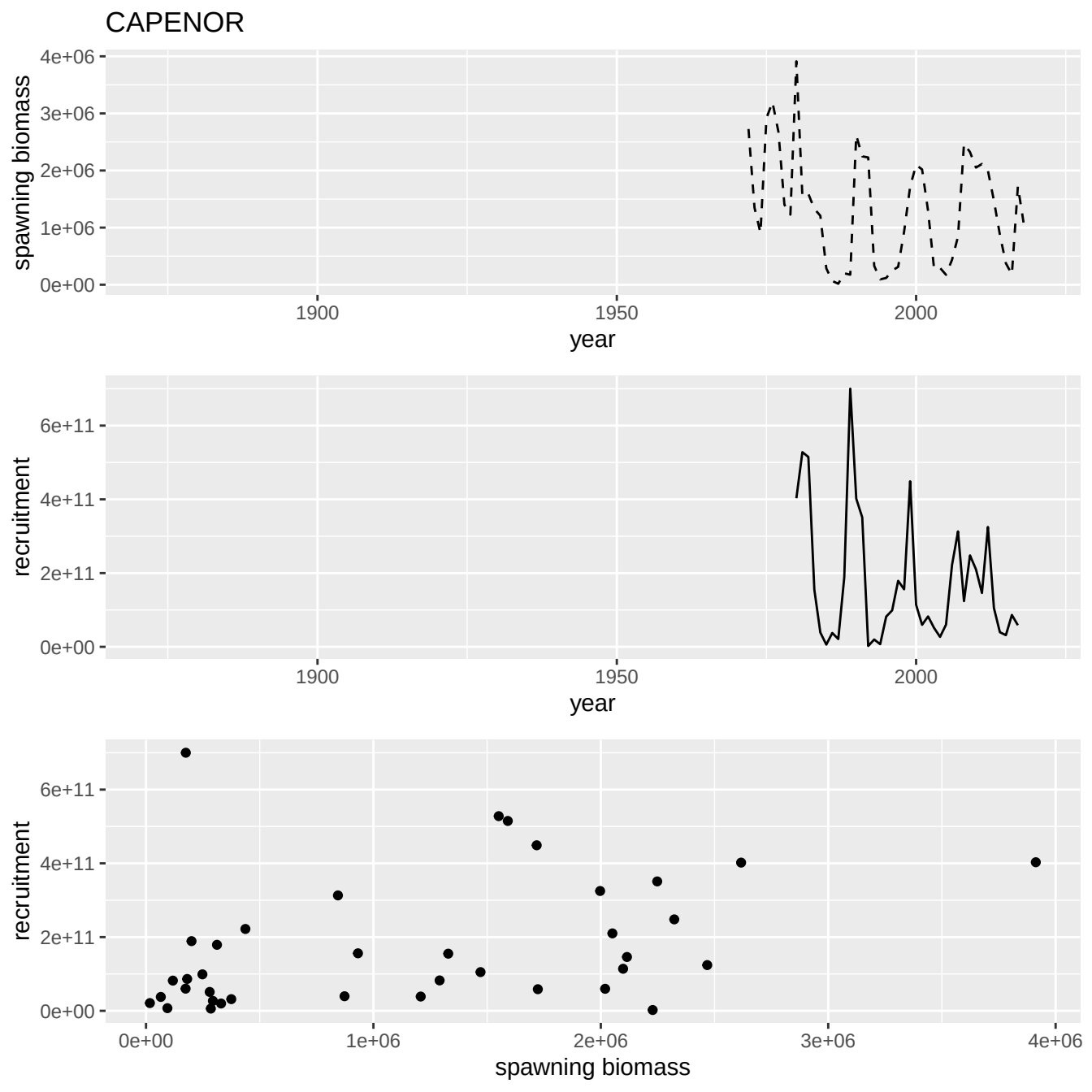

CABEZNCAL
spawning biomass
900
800
700
600
500
400
1900
1950
2000
year
recruitment
1500
1200
900
600
300
1900
1950
2000
year
recruitment
1500
1200
900
600
300
400
500
600
700
800
900
spawning biomass

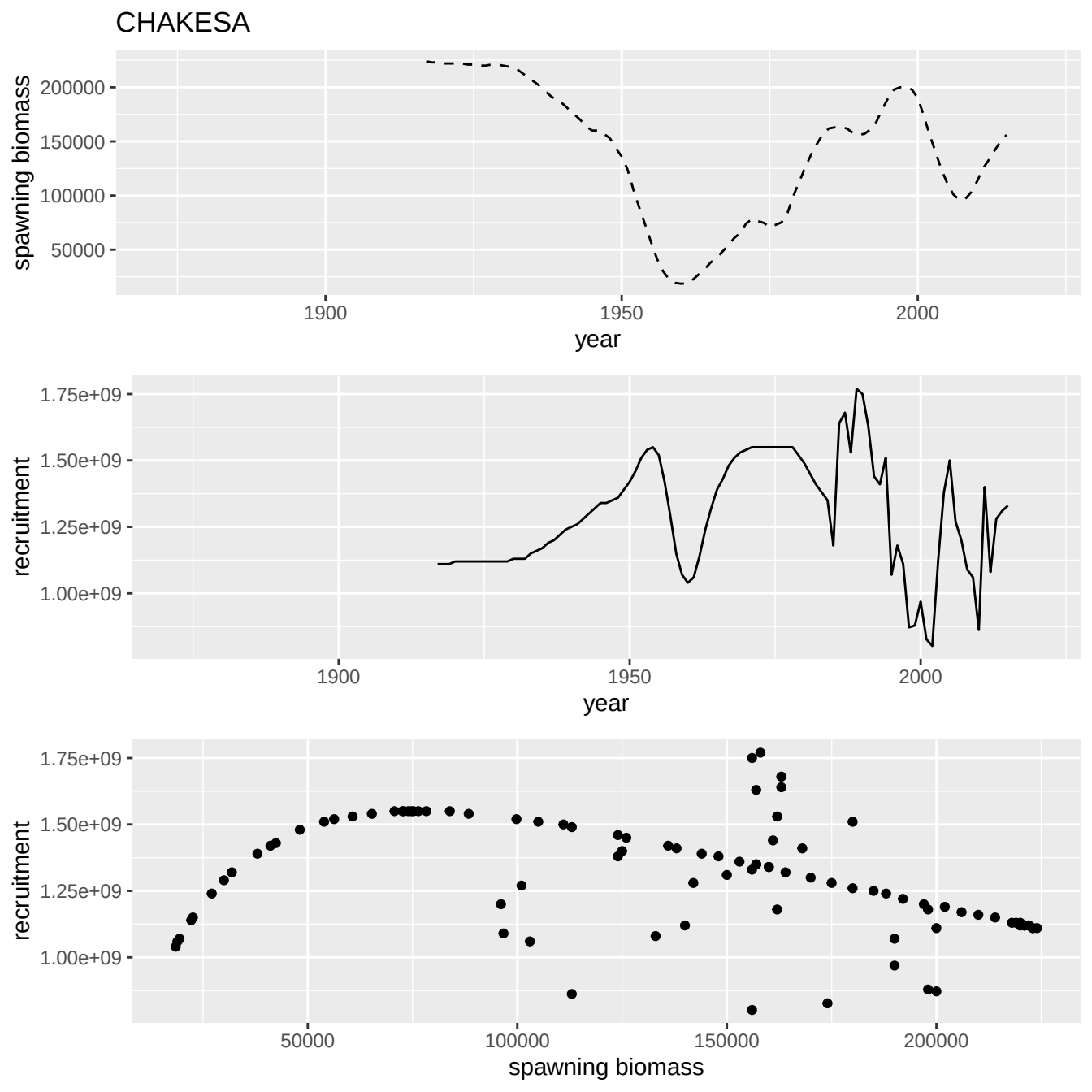

CABEZORECOAST
spawning biomass
350
300
250
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
250
300
350
spawning biomass

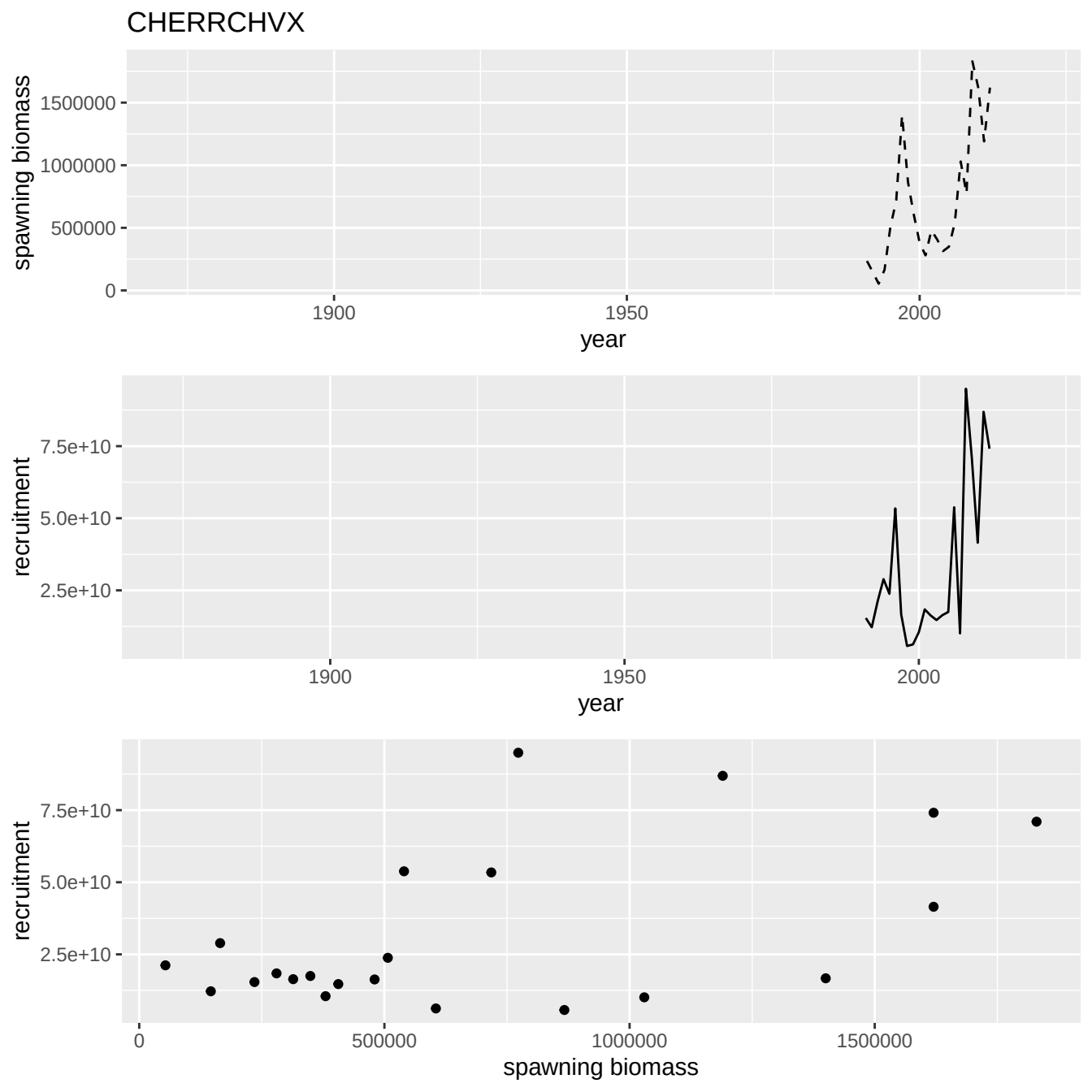

CABEZSCAL
spawning biomass
250
200
150
100
50
1900
1950
2000
year
recruitment
600
400
200
1900
1950
2000
year
recruitment
600
400
200
50
100
150
200
250
spawning biomass

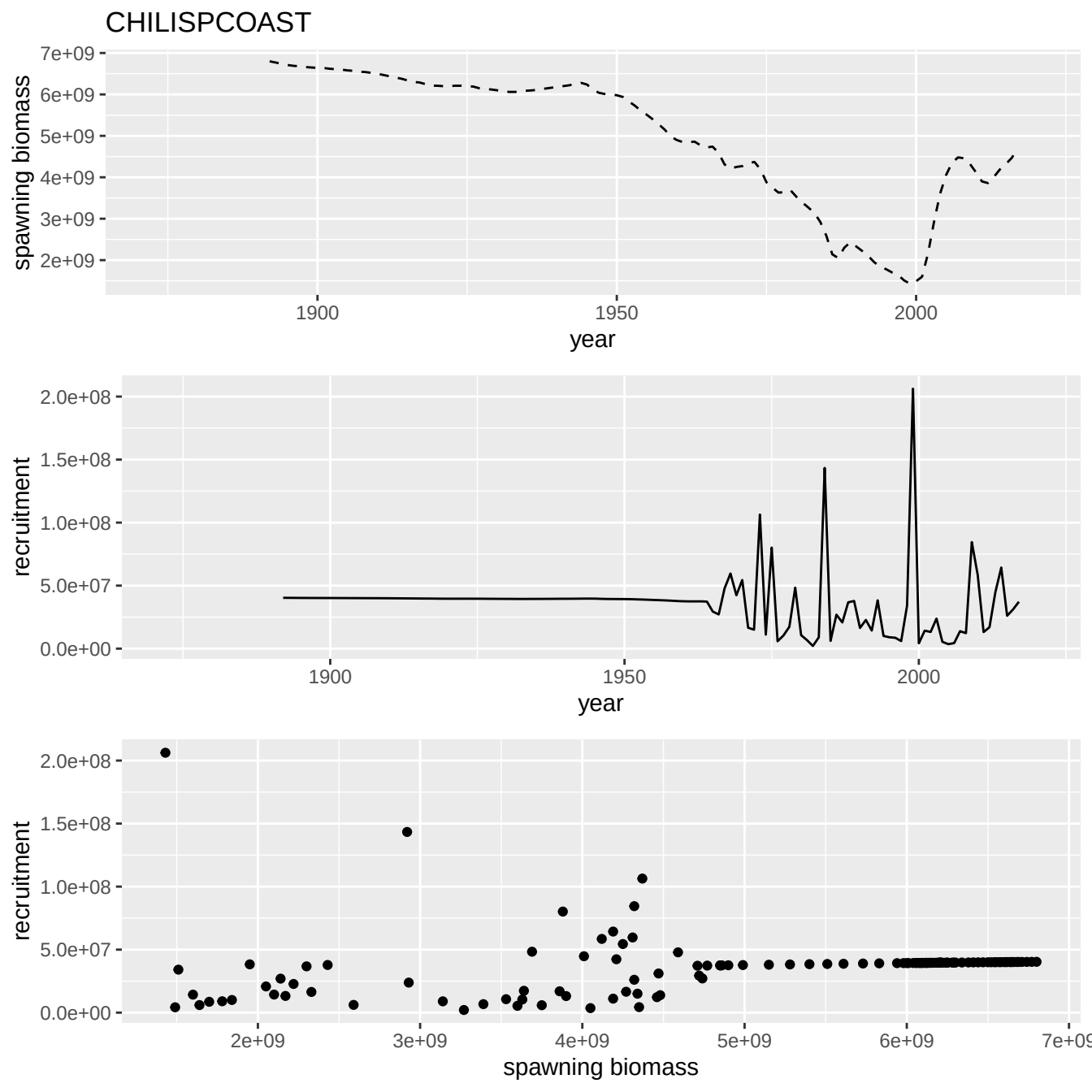

CALSCORPSCAL
spawning biomass
1500
1250
1000
750
1900
1950
2000
year
recruitment
1.0e+07
7.5e+06
5.0e+06
2.5e+06
1900
1950
2000
year
recruitment
1.0e+07
7.5e+06
5.0e+06
2.5e+06
750
1000
1250
1500
spawning biomass

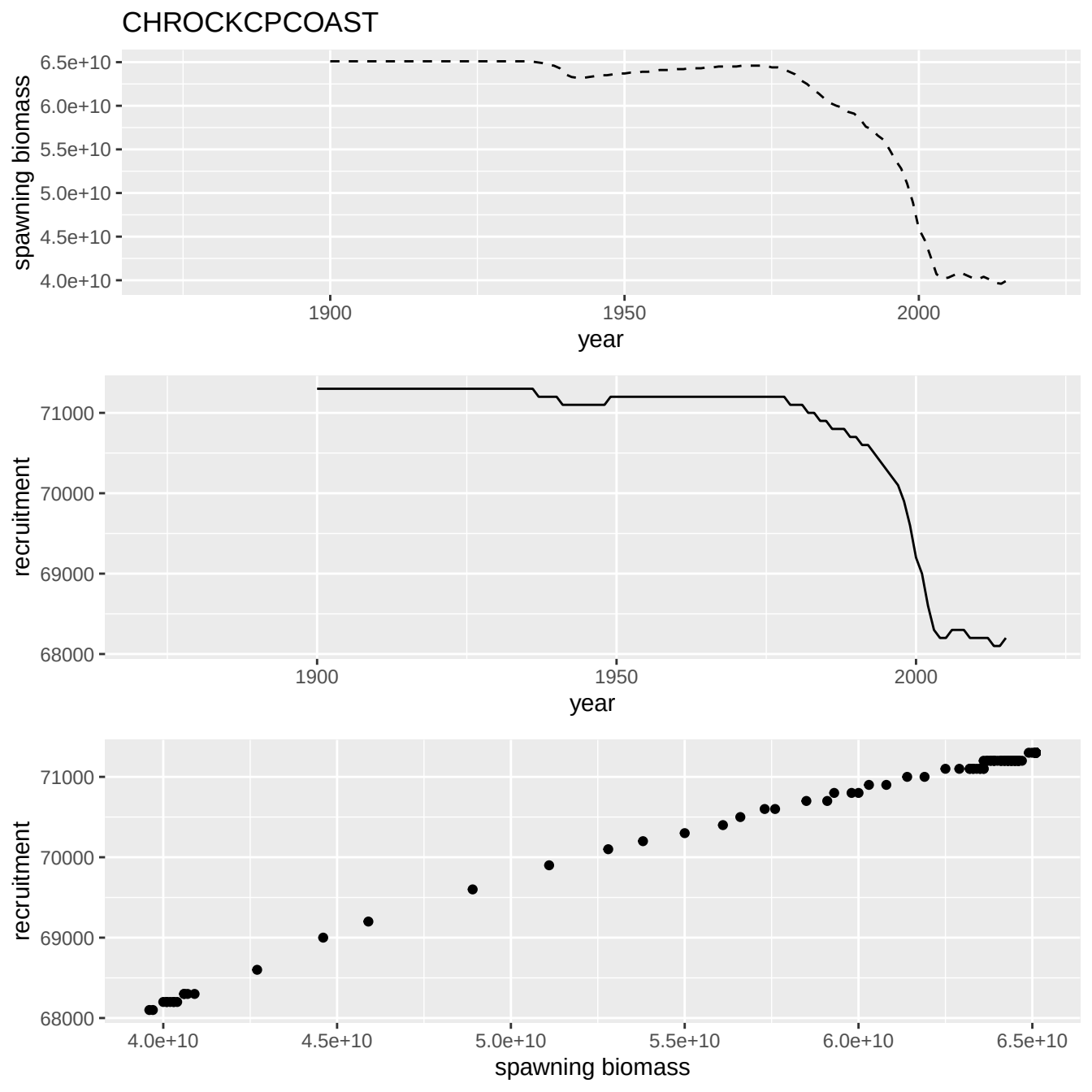

CAPEIIa.V.XIV
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
5.0e+07
0.0e+00
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
5.0e+07
0.0e+00
1e+05
2e+05
3e+05
spawning biomass

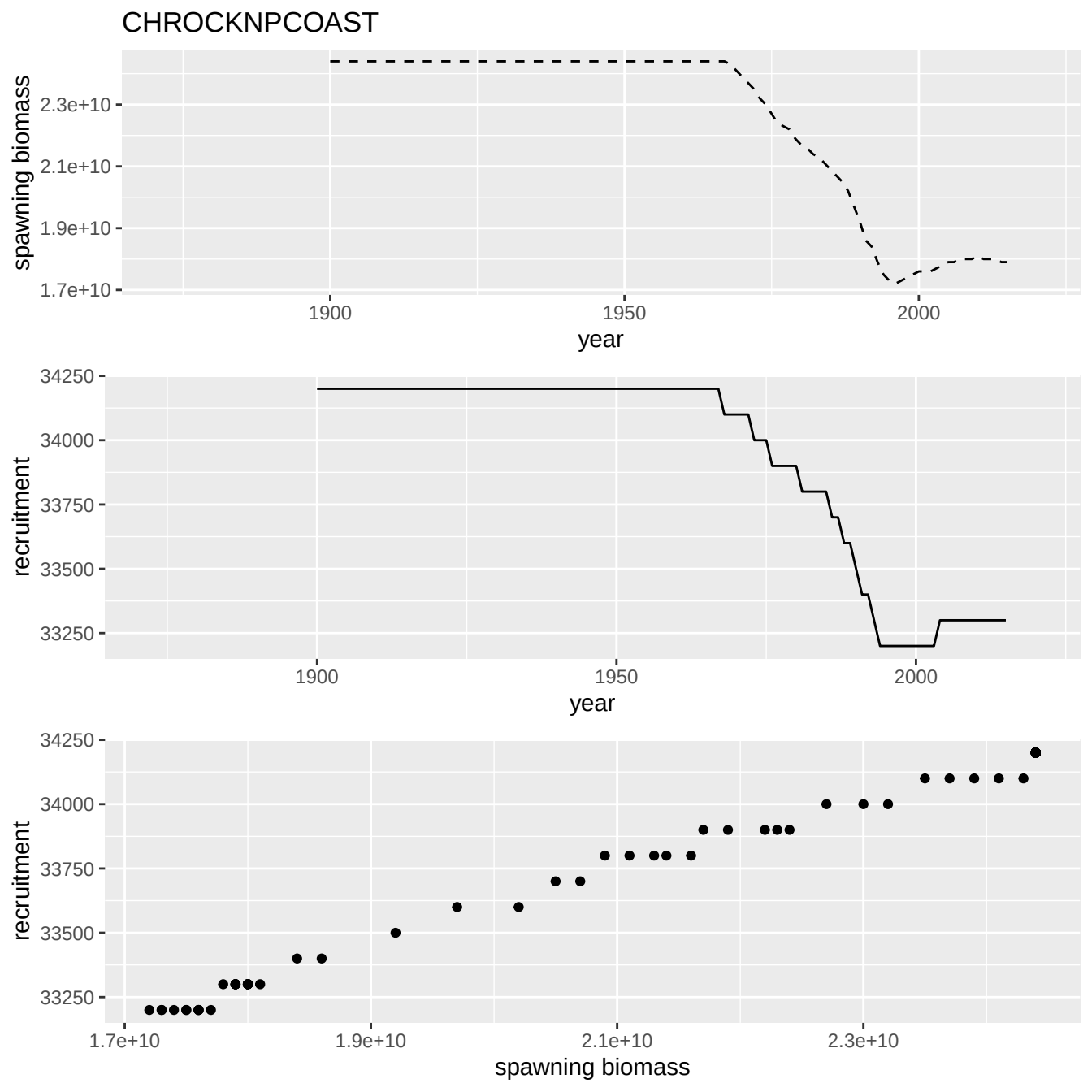

CAPENOR
spawning biomass
4e+06
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
6e+11
4e+11
2e+11
0e+00
1900
1950
2000
year
recruitment
6e+11
4e+11
2e+11
0e+00
0e+00
1e+06
2e+06
3e+06
4e+06
spawning biomass

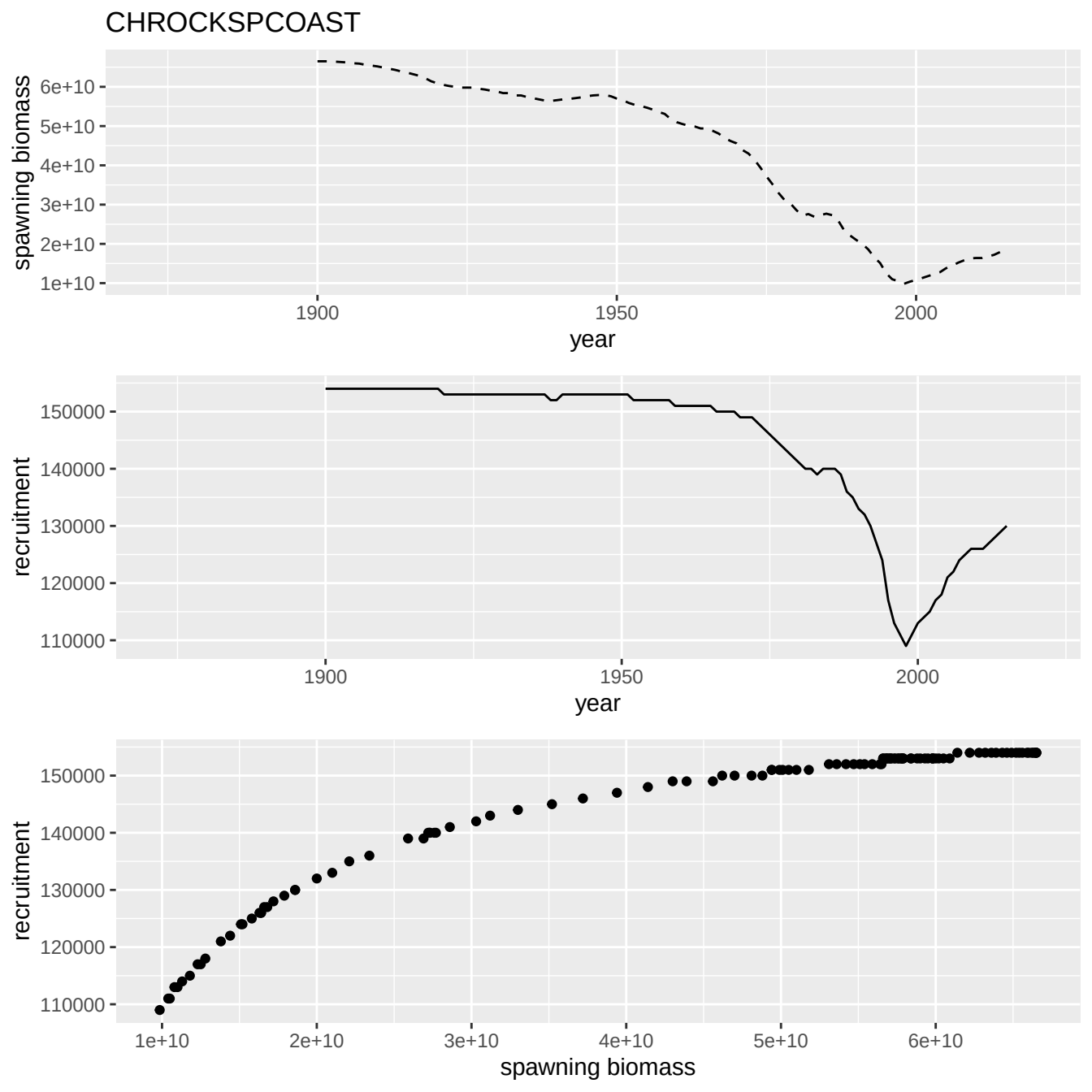

CHAKESA
spawning biomass
200000
150000
100000
50000
1900
1950
2000
year
recruitment
1.75e+09
1.50e+09
1.25e+09
1.00e+09
1900
1950
2000
year
recruitment
1.75e+09
1.50e+09
1.25e+09
1.00e+09
50000
100000
150000
200000
spawning biomass

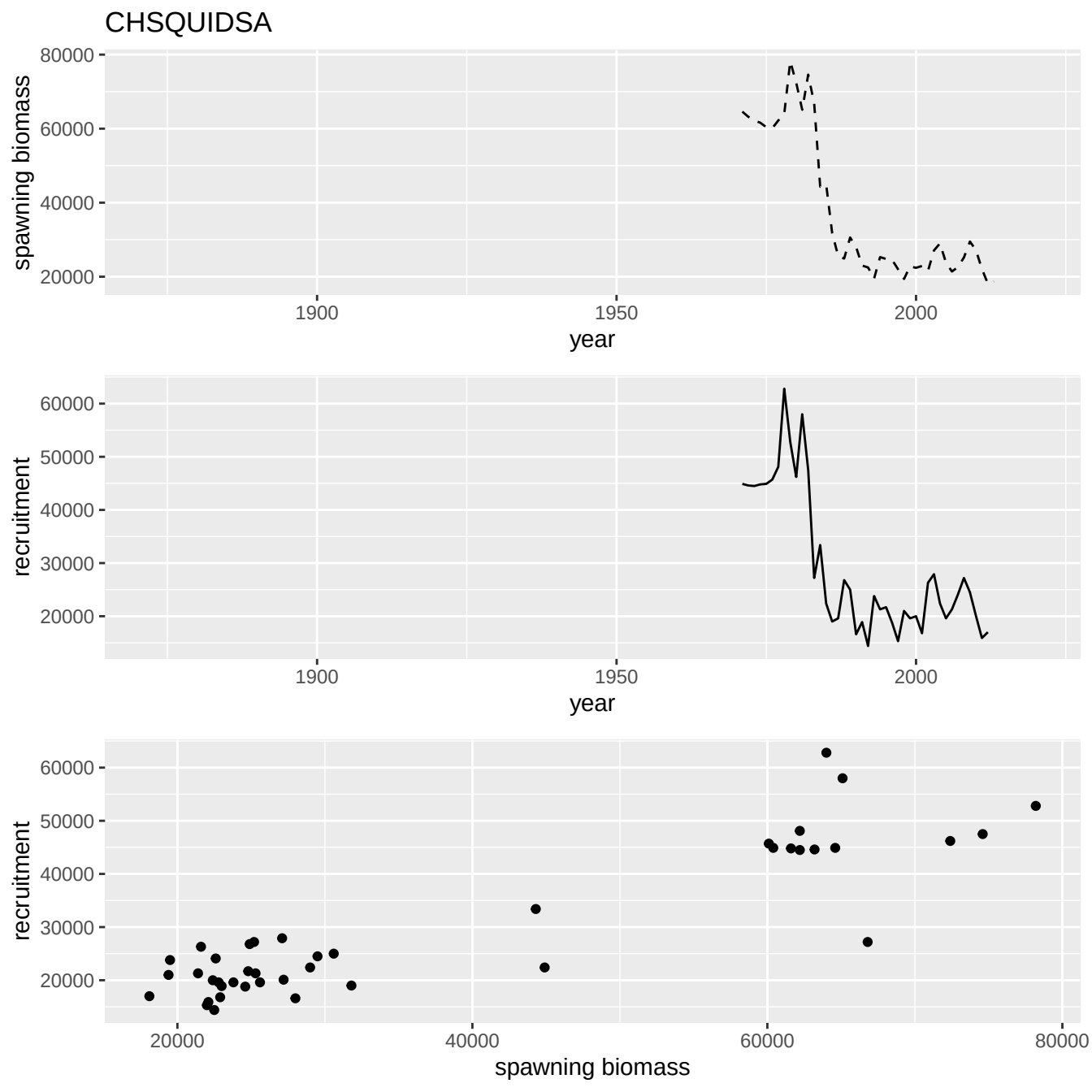

CHERRCHVX
spawning biomass
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
7.5e+10
5.0e+10
2.5e+10
1900
1950
2000
year
recruitment
7.5e+10
5.0e+10
2.5e+10
0
500000
1000000
1500000
spawning biomass

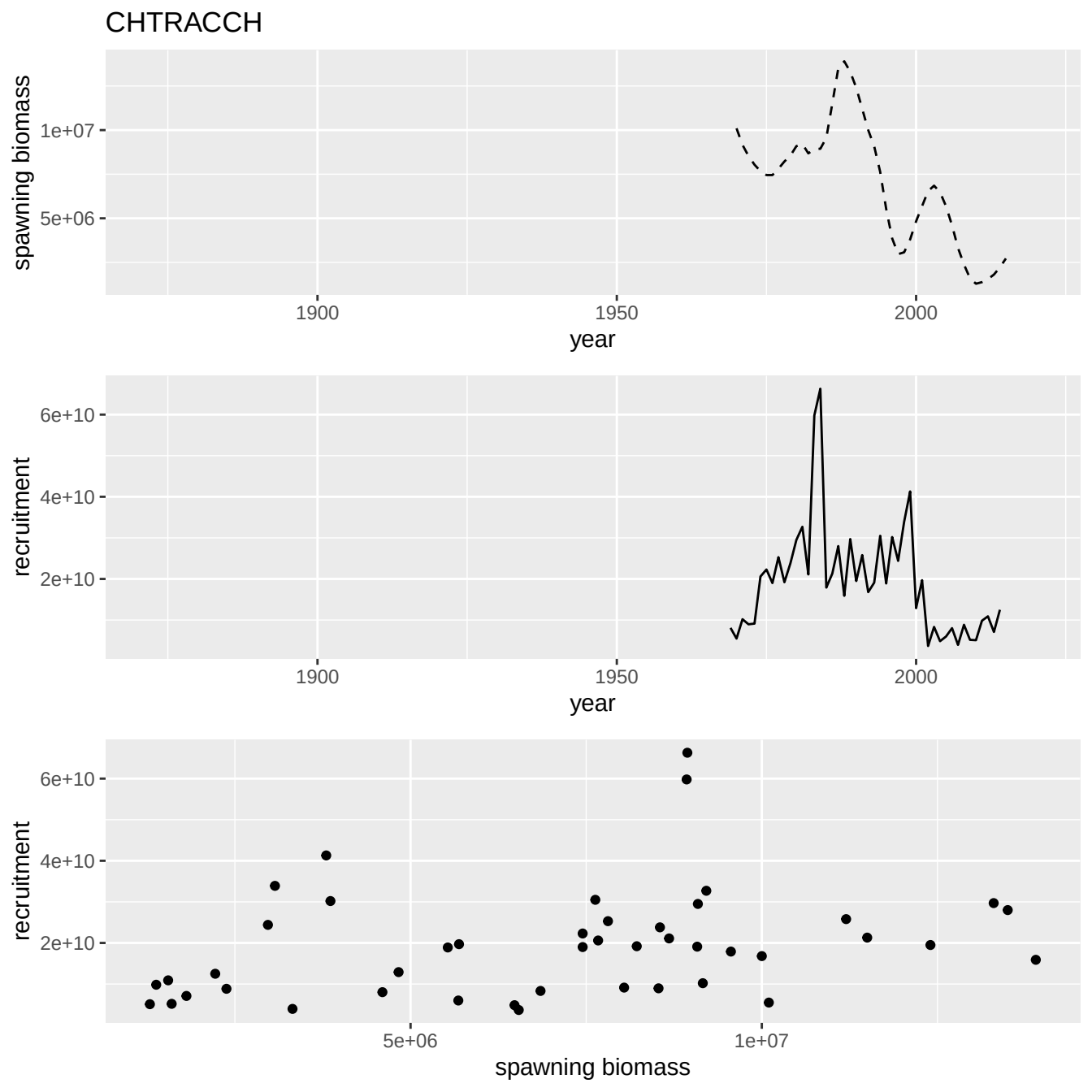

CHILISPCOAST
spawning biomass
7e+09
6e+09
5e+09
4e+09
3e+09
2e+09
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
5.0e+07
0.0e+00
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
5.0e+07
0.0e+00
2e+09
3e+09
4e+09
5e+09
6e+09
7e+09
spawning biomass

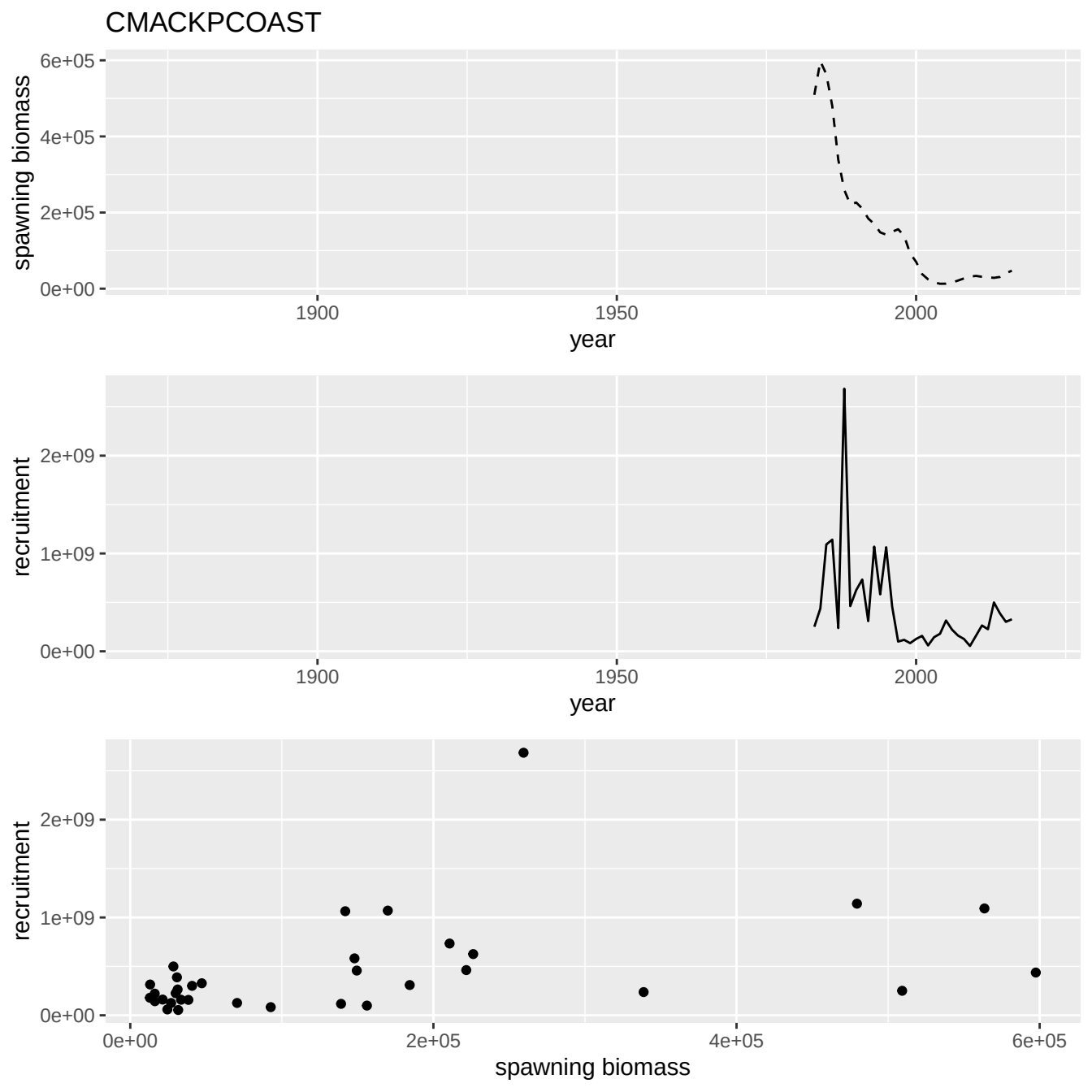

CHROCKCPCOAST
spawning biomass
6.5e+10
6.0e+10
5.5e+10
5.0e+10
4.5e+10
4.0e+10
1900
1950
2000
year
recruitment
71000
70000
69000
68000
1900
1950
2000
year
recruitment
71000
70000
69000
68000
4.0e+10
4.5e+10
5.0e+10
5.5e+10
6.0e+10
6.5e+10
spawning biomass

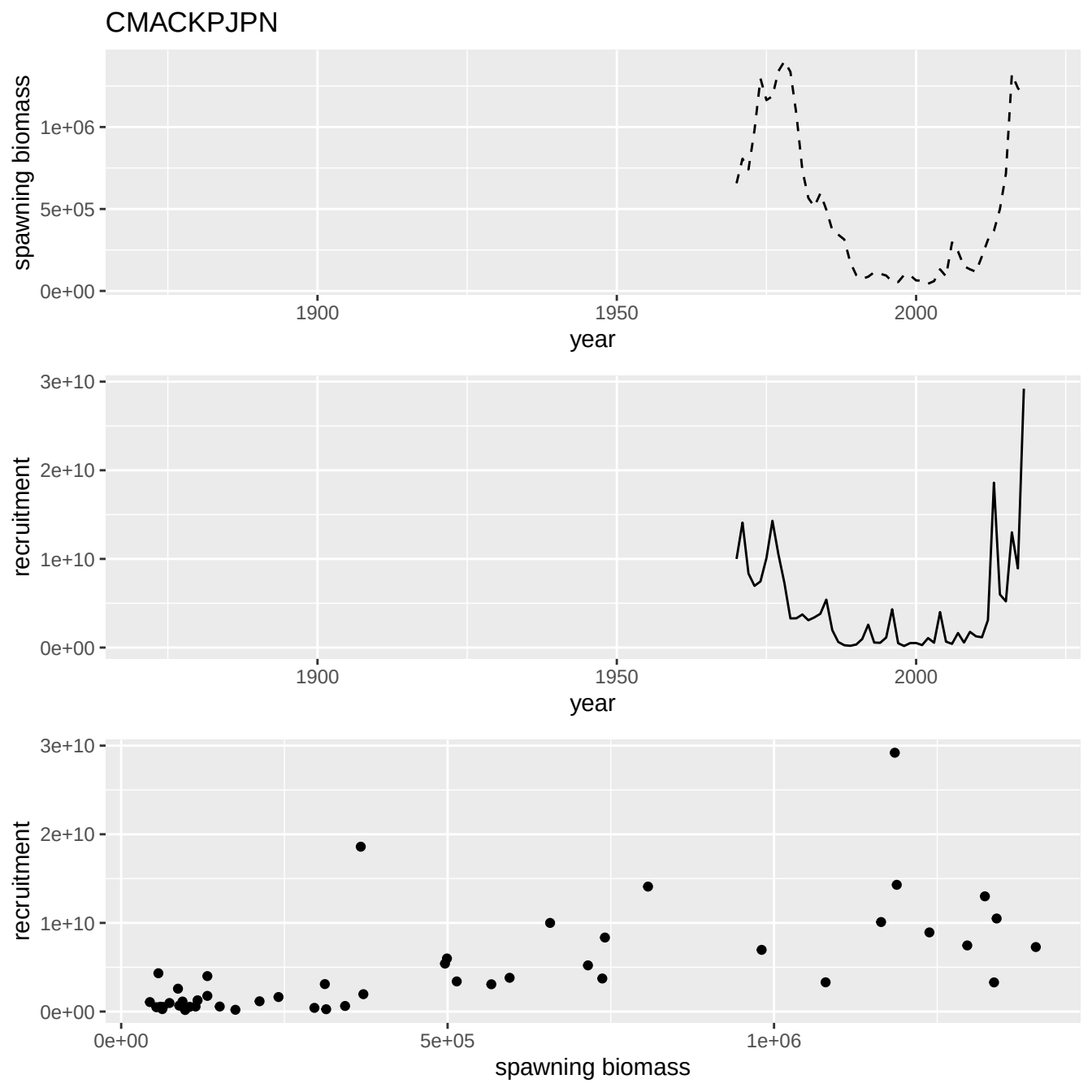

CHROCKNPCOAST
spawning biomass
2.3e+10
2.1e+10
1.9e+10
1.7e+10
1900
1950
2000
year
recruitment
34250
34000
33750
33500
33250
1900
1950
2000
year
recruitment
34250
34000
33750
33500
33250
1.7e+10
1.9e+10
2.1e+10
2.3e+10
spawning biomass

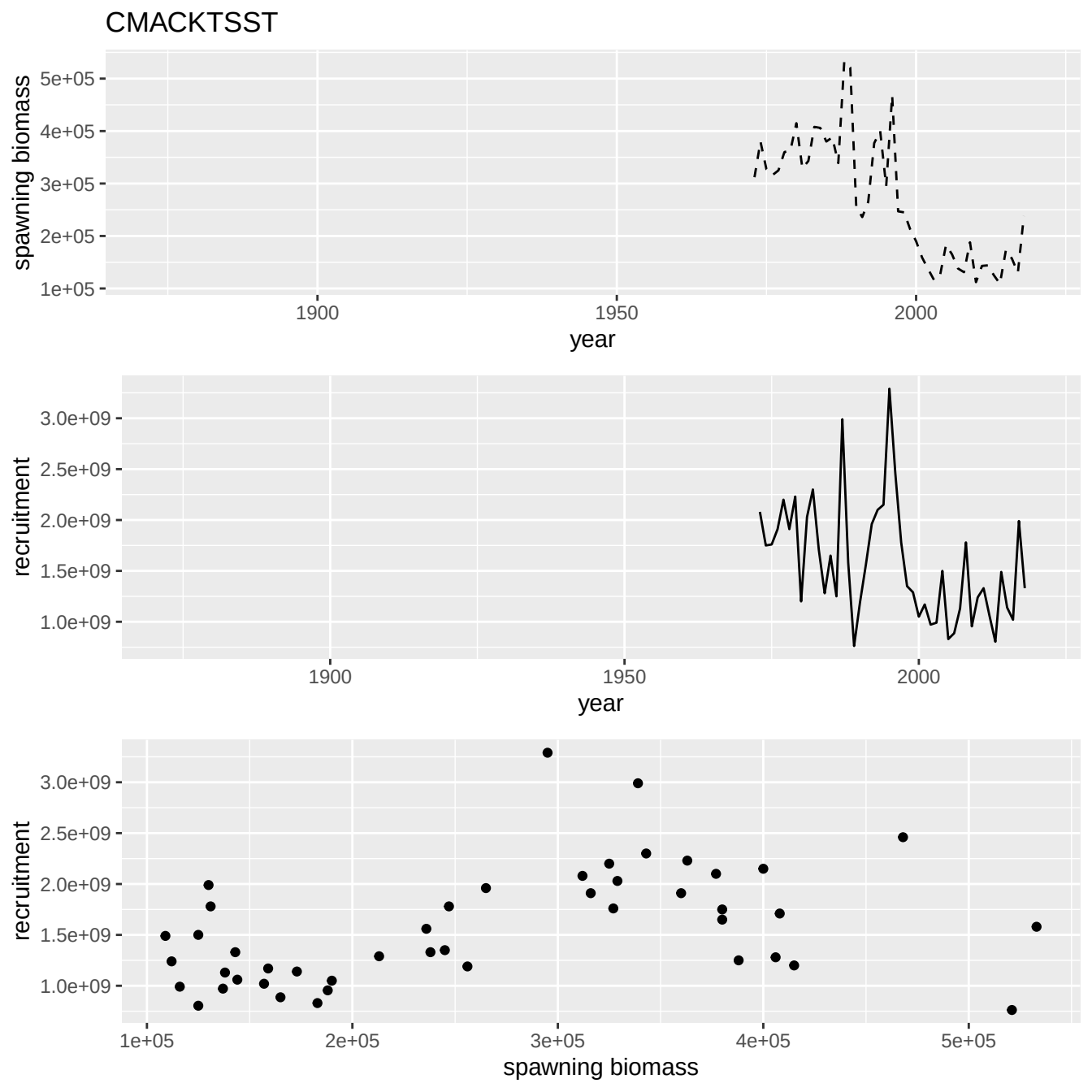

CHROCKSPCOAST
spawning biomass
6e+10
5e+10
4e+10
3e+10
2e+10
1e+10
1900
1950
2000
year
recruitment
150000
140000
130000
120000
110000
1900
1950
2000
year
recruitment
150000
140000
130000
120000
110000
1e+10
2e+10
3e+10
4e+10
5e+10
6e+10
spawning biomass

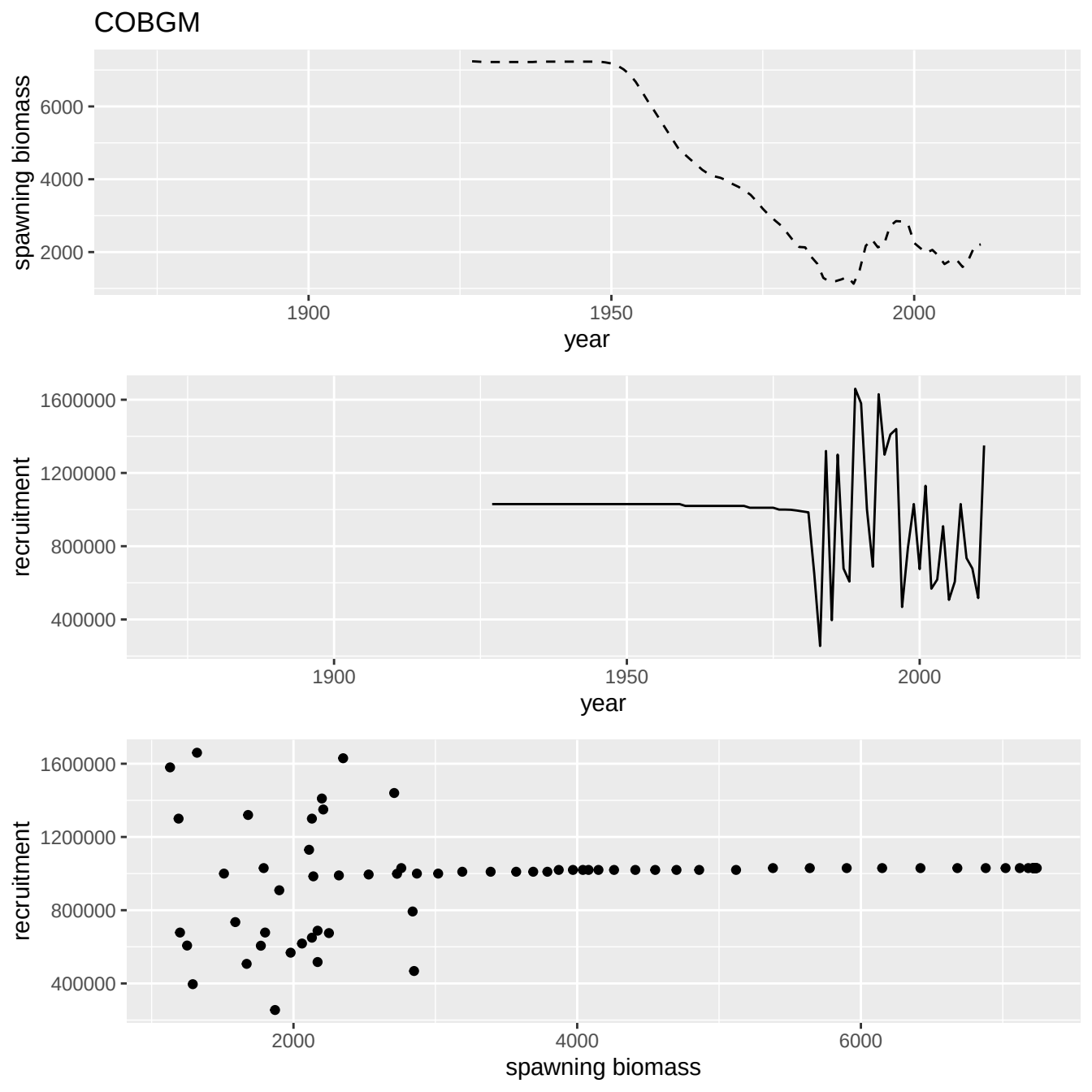

CHSQUIDSA
spawning biomass
80000
60000
40000
20000
1900
1950
2000
year
recruitment
60000
50000
40000
30000
20000
1900
1950
2000
year
recruitment
60000
50000
40000
30000
20000
20000
40000
60000
80000
spawning biomass

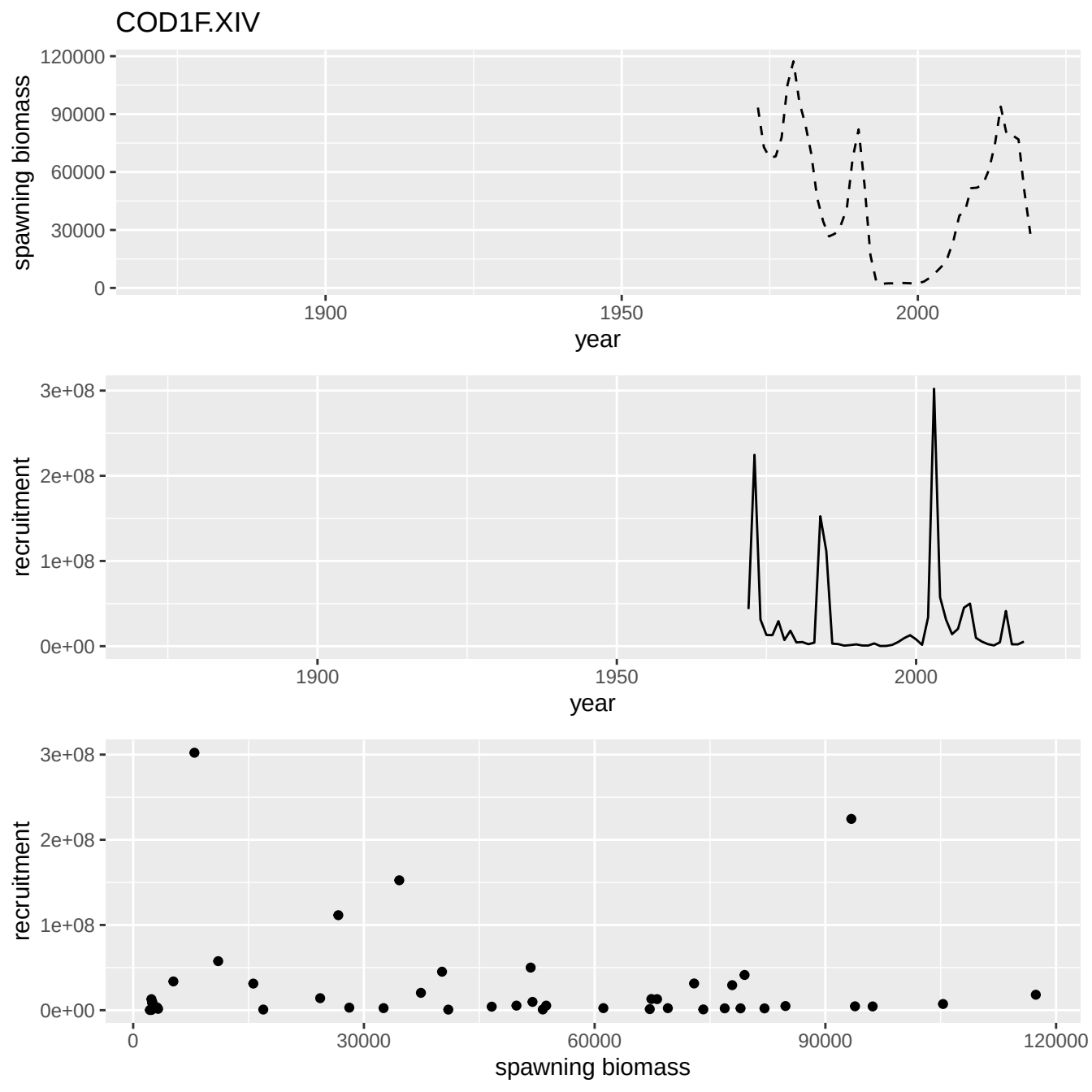

CHTRACCH
spawning biomass
1e+07
5e+06
1900
1950
2000
year
recruitment
6e+10
4e+10
2e+10
1900
1950
2000
year
recruitment
6e+10
4e+10
2e+10
5e+06
1e+07
spawning biomass

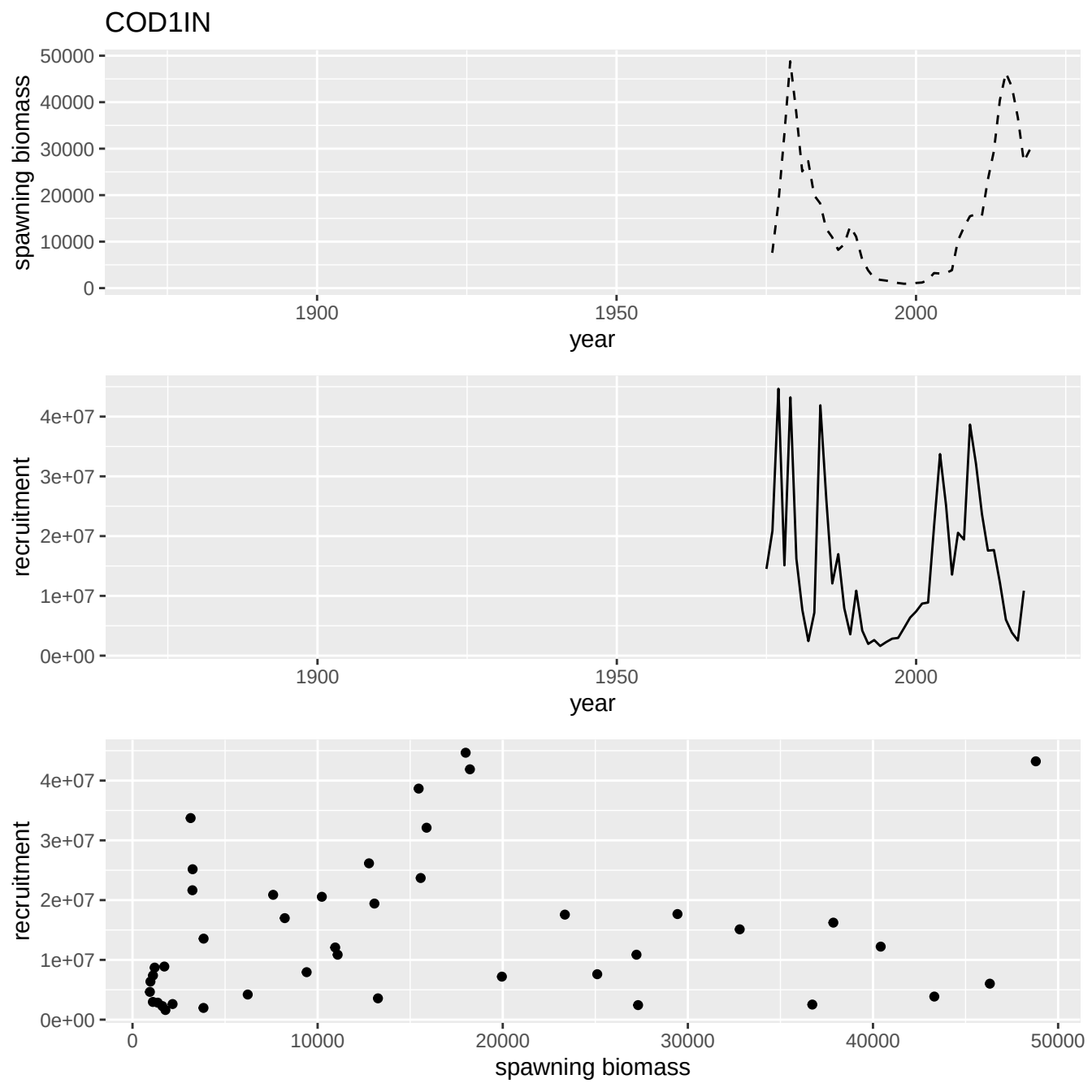

CMACKPCOAST
spawning biomass
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
2e+09
1e+09
0e+00
1900
1950
2000
year
recruitment
2e+09
1e+09
0e+00
0e+00
2e+05
4e+05
6e+05
spawning biomass

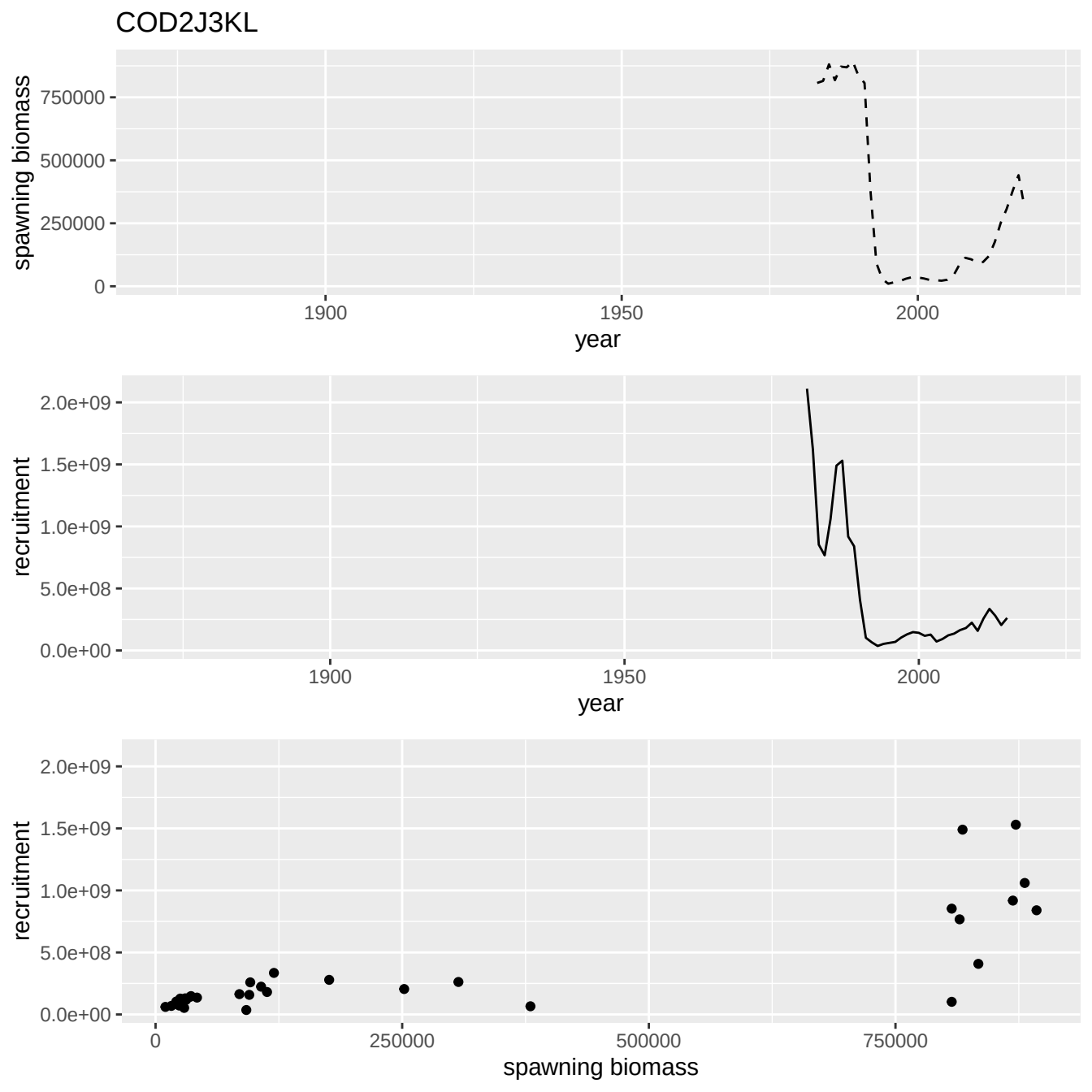

CMACKPJPN
spawning biomass
1e+06
5e+05
0e+00
1900
1950
2000
year
recruitment
3e+10
2e+10
1e+10
0e+00
1900
1950
2000
year
recruitment
3e+10
2e+10
1e+10
0e+00
0e+00
5e+05
1e+06
spawning biomass

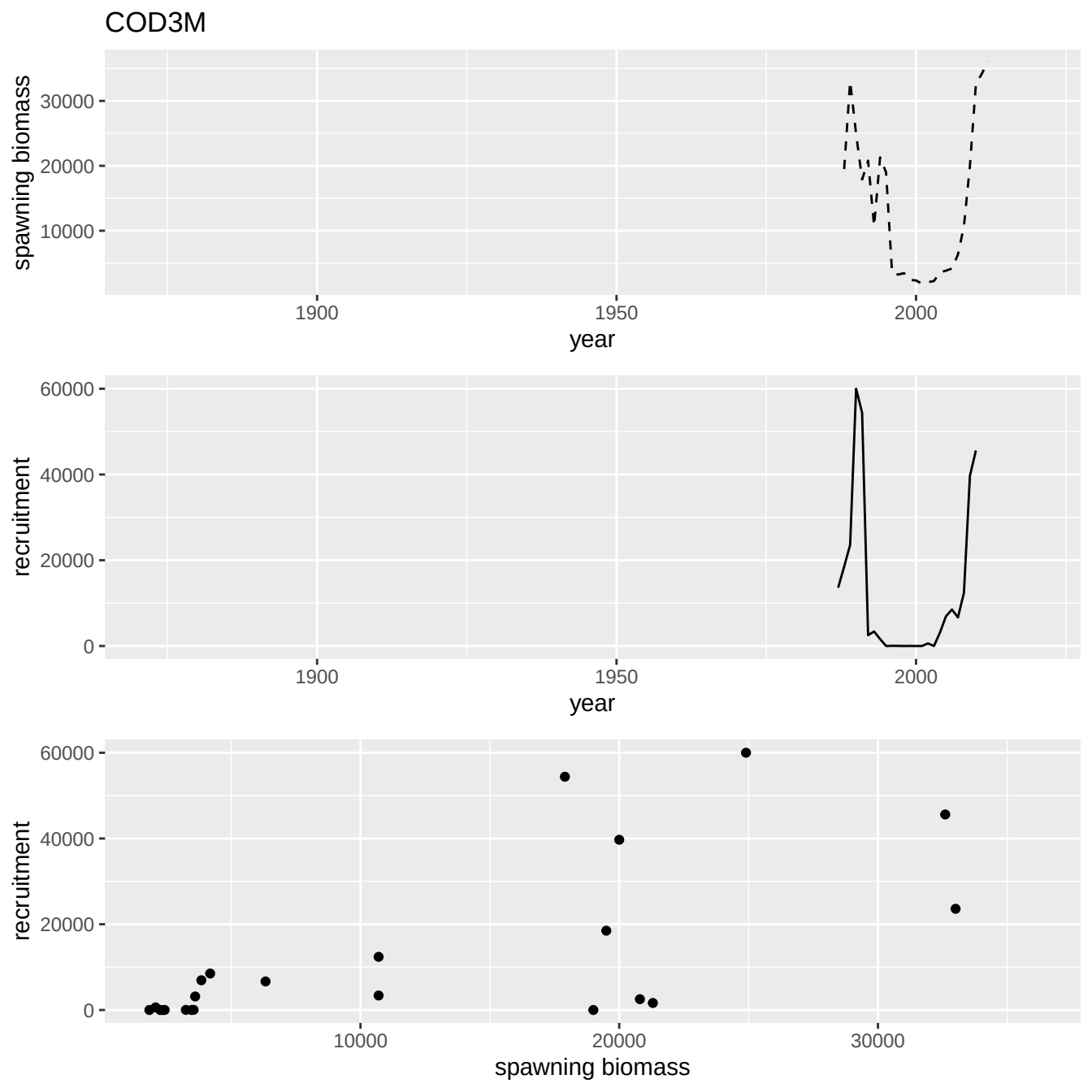

CMACKTSST
spawning biomass
5e+05
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
3.0e+09
2.5e+09
2.0e+09
1.5e+09
1.0e+09
1900
1950
2000
year
recruitment
3.0e+09
2.5e+09
2.0e+09
1.5e+09
1.0e+09
1e+05
2e+05
3e+05
4e+05
5e+05
spawning biomass

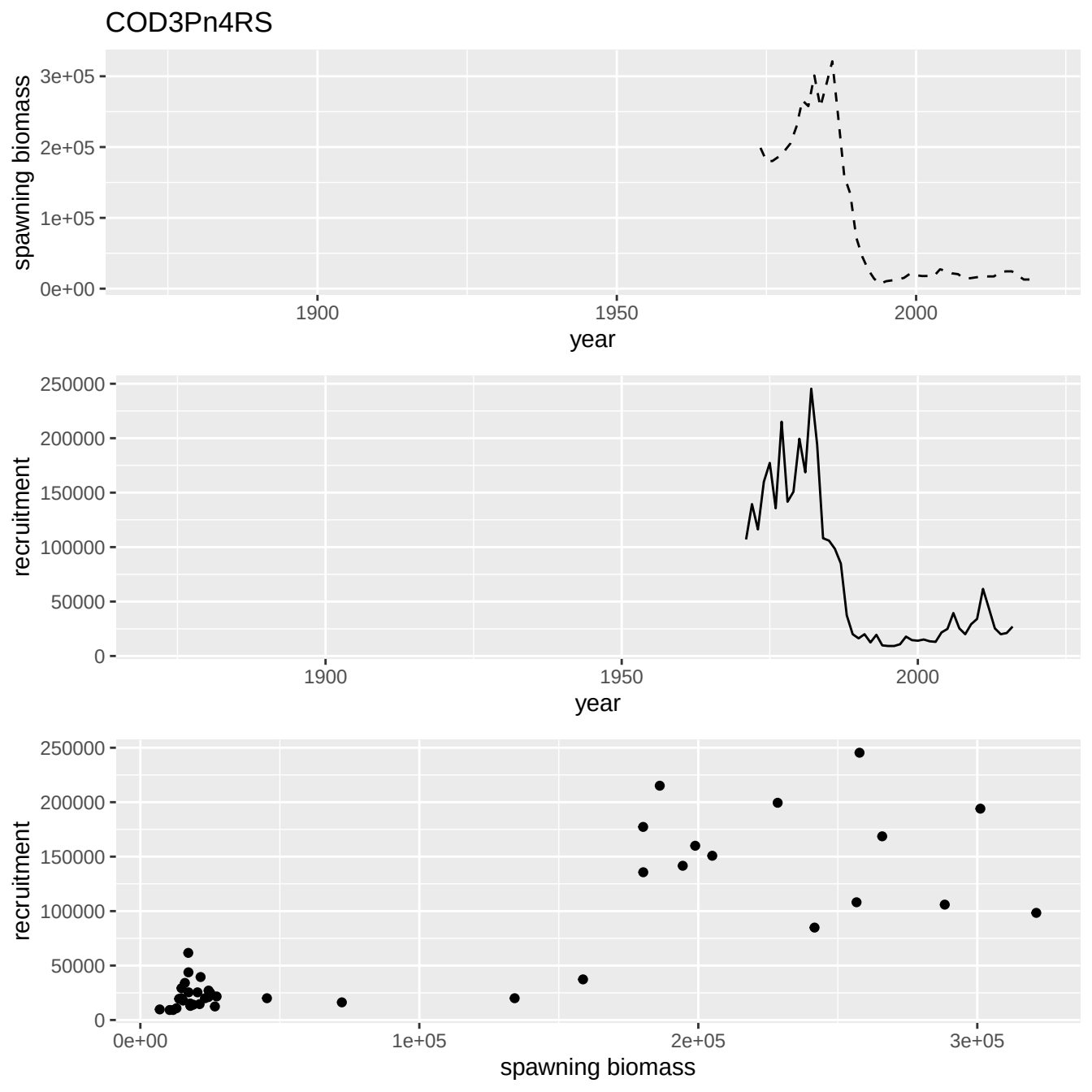

COBGM
spawning biomass
6000
4000
2000
1900
1950
2000
year
recruitment
1600000
1200000
800000
400000
1900
1950
2000
year
recruitment
1600000
1200000
800000
400000
2000
4000
6000
spawning biomass

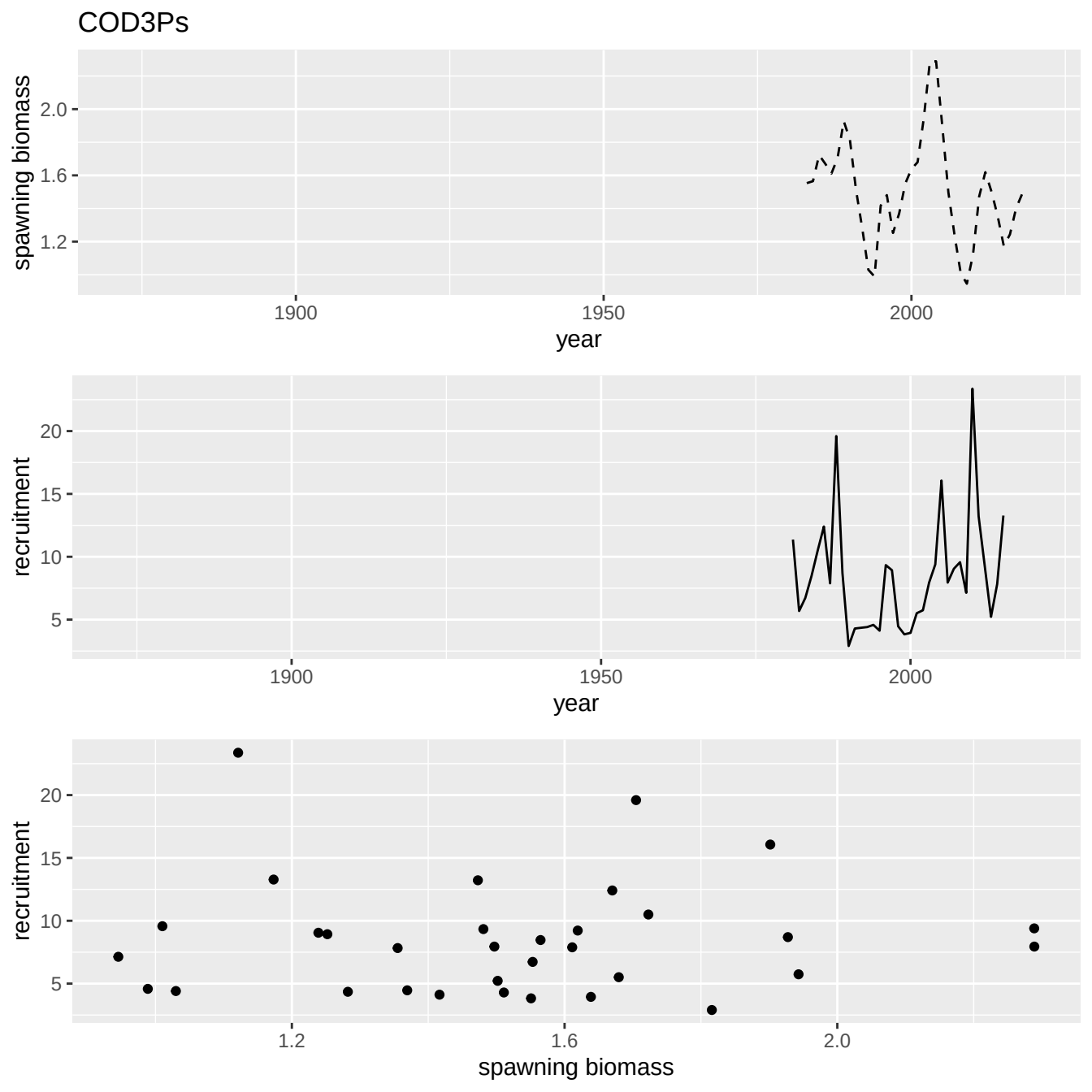

COD1F.XIV
spawning biomass
120000
90000
60000
30000
0
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
0e+00
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
0e+00
0
30000
60000
90000
120000
spawning biomass

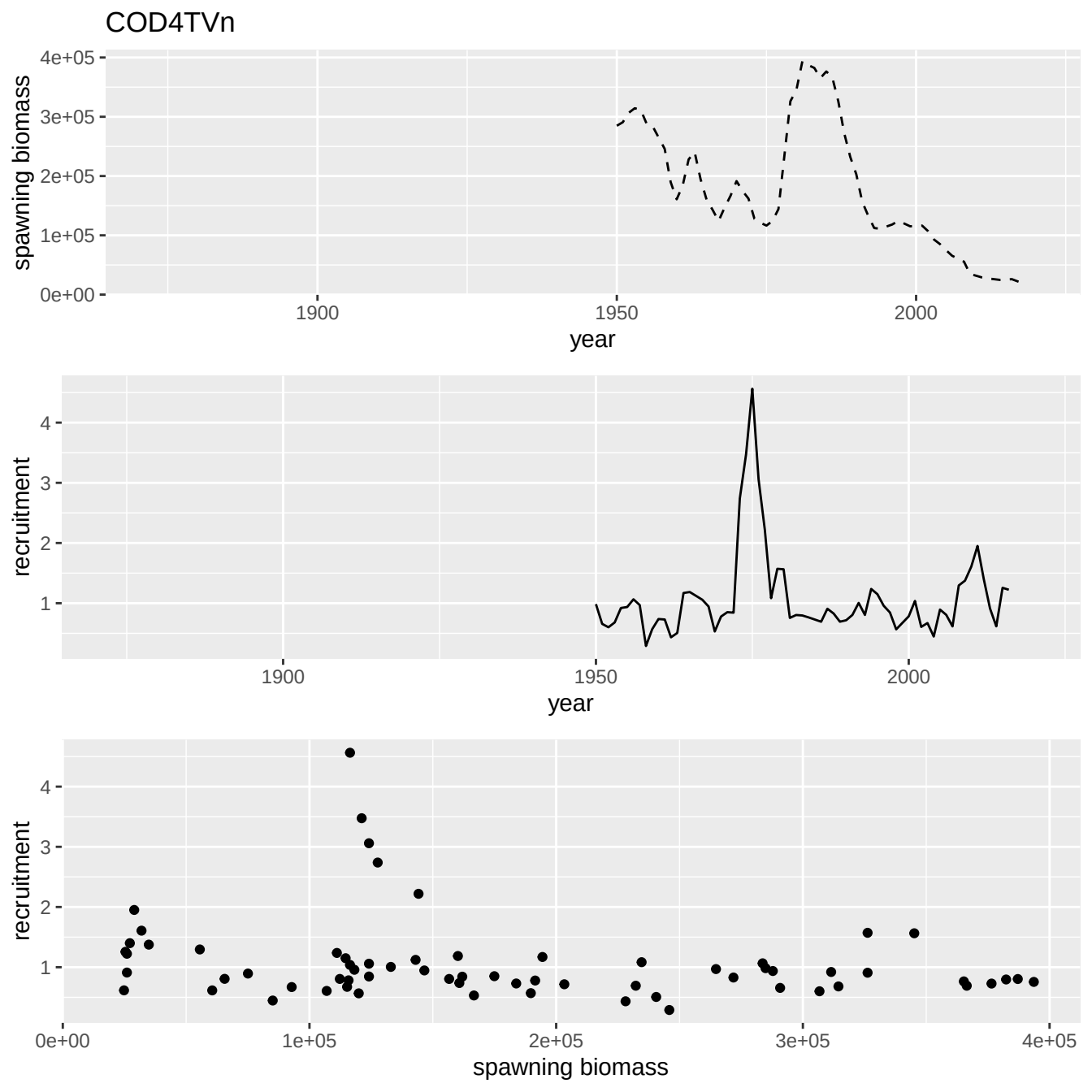

COD1IN
spawning biomass
50000
40000
30000
20000
10000
0
1900
1950
2000
year
recruitment
4e+07
3e+07
2e+07
1e+07
0e+00
1900
1950
2000
year
recruitment
4e+07
3e+07
2e+07
1e+07
0e+00
0
10000
20000
30000
40000
50000
spawning biomass

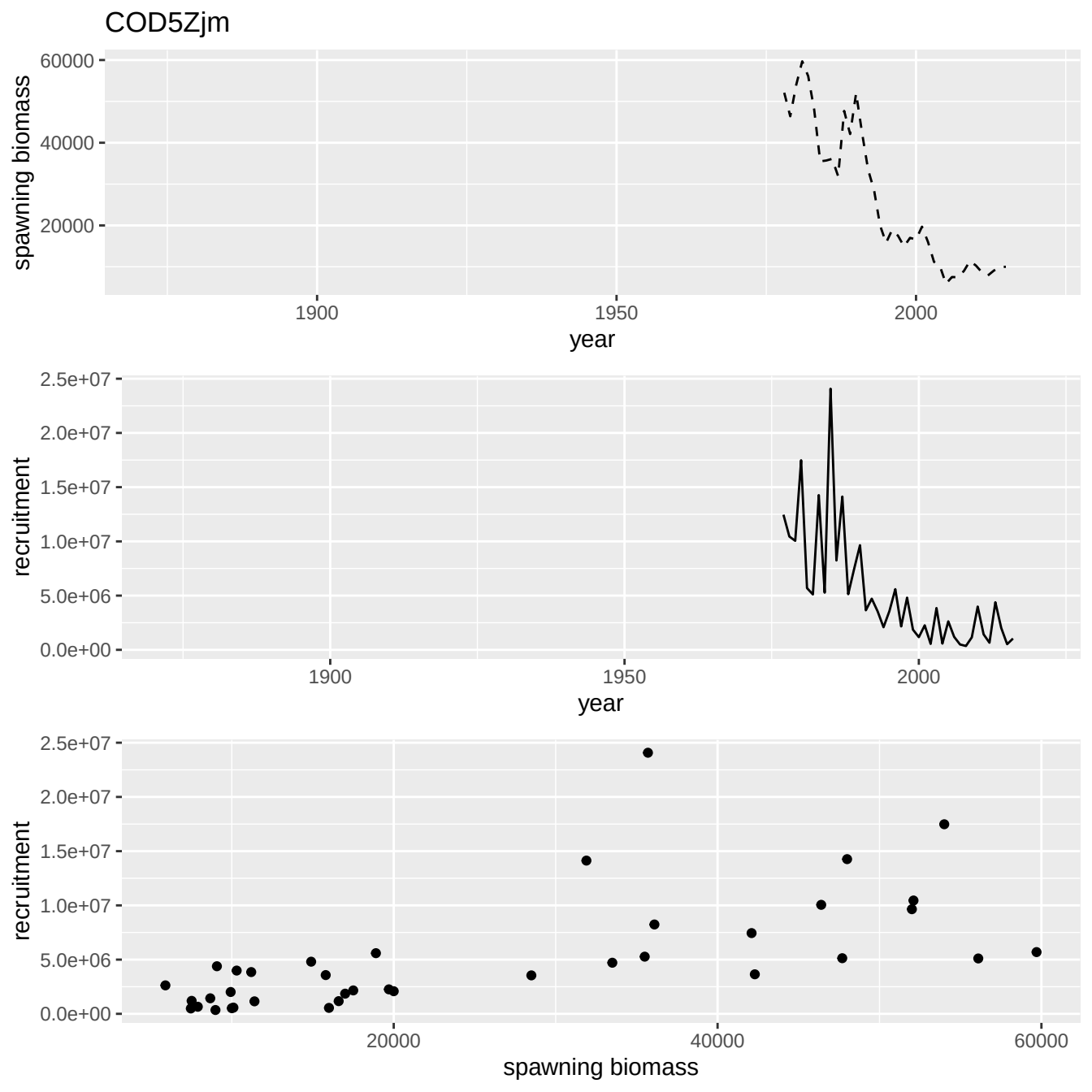

COD2J3KL
spawning biomass
750000
500000
250000
0
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
0.0e+00
0
250000
500000
750000
spawning biomass

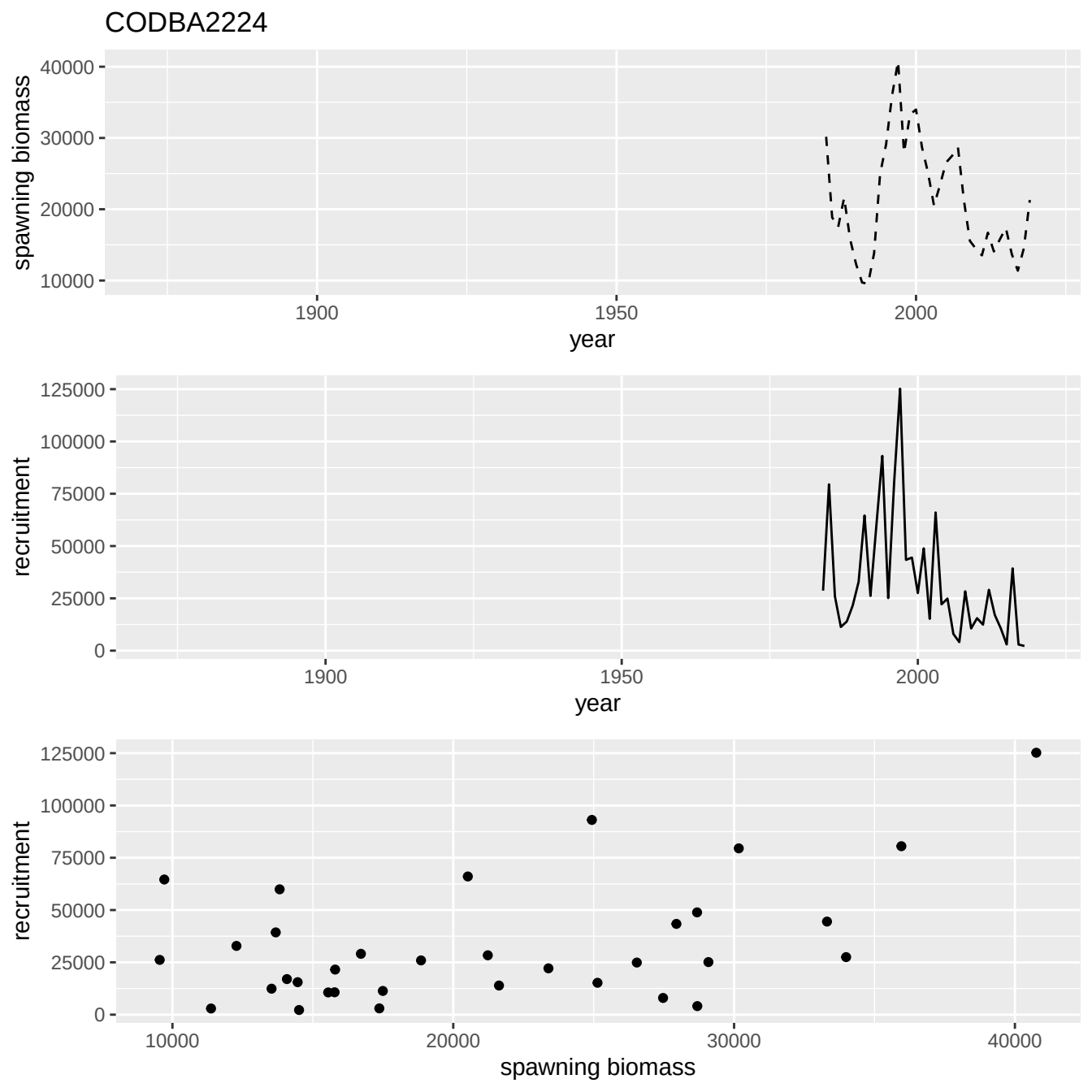

COD3M
spawning biomass
30000
20000
10000
1900
1950
2000
year
recruitment
60000
40000
20000
0
1900
1950
2000
year
recruitment
60000
40000
20000
0
10000
20000
30000
spawning biomass

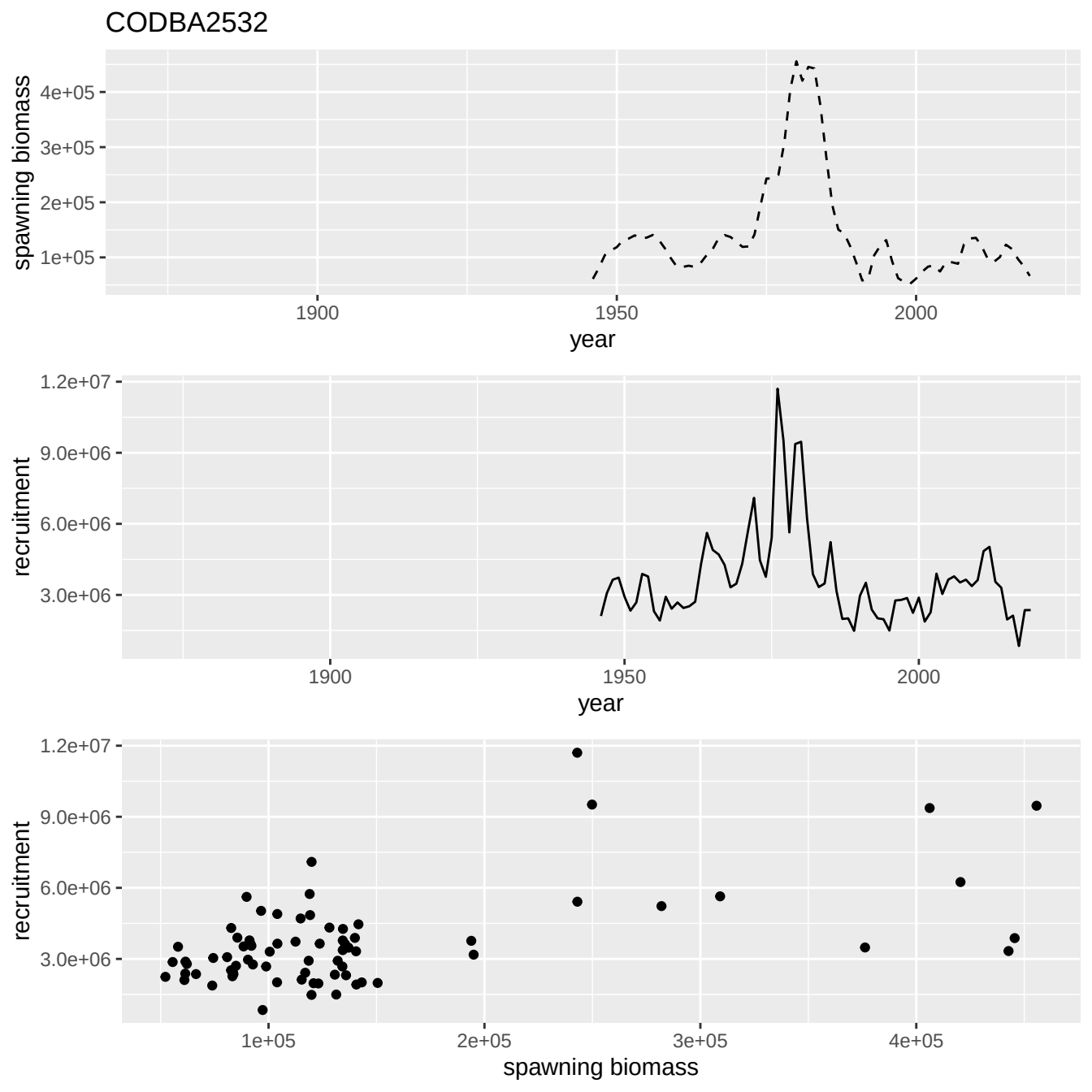

COD3Pn4RS
spawning biomass
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
250000
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
250000
200000
150000
100000
50000
0
0e+00
1e+05
2e+05
3e+05
spawning biomass

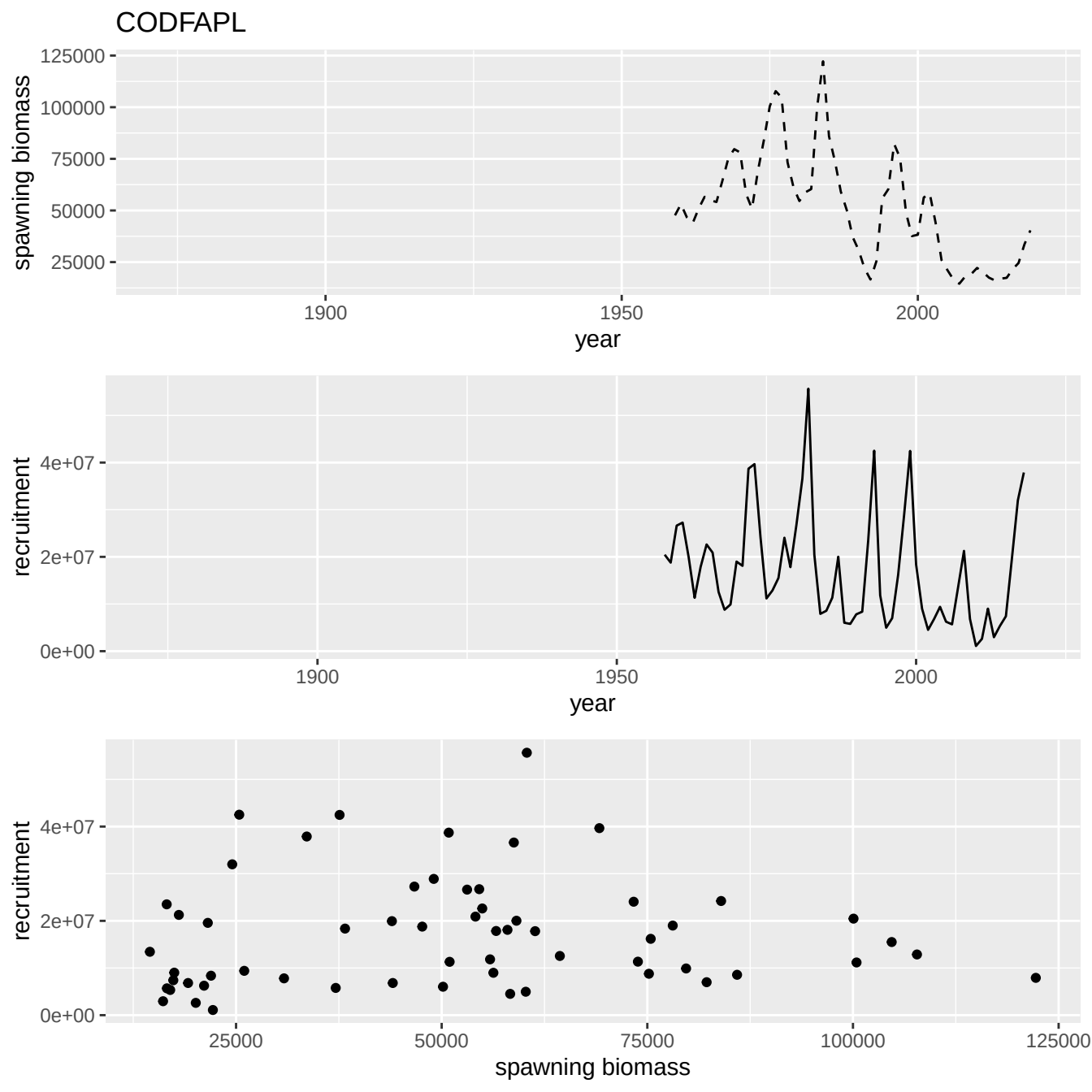

COD3Ps
spawning biomass
2.0
1.6
1.2
1900
1950
2000
year
recruitment
20
15
10
5
1900
1950
2000
year
recruitment
20
15
10
5
1.2
1.6
2.0
spawning biomass

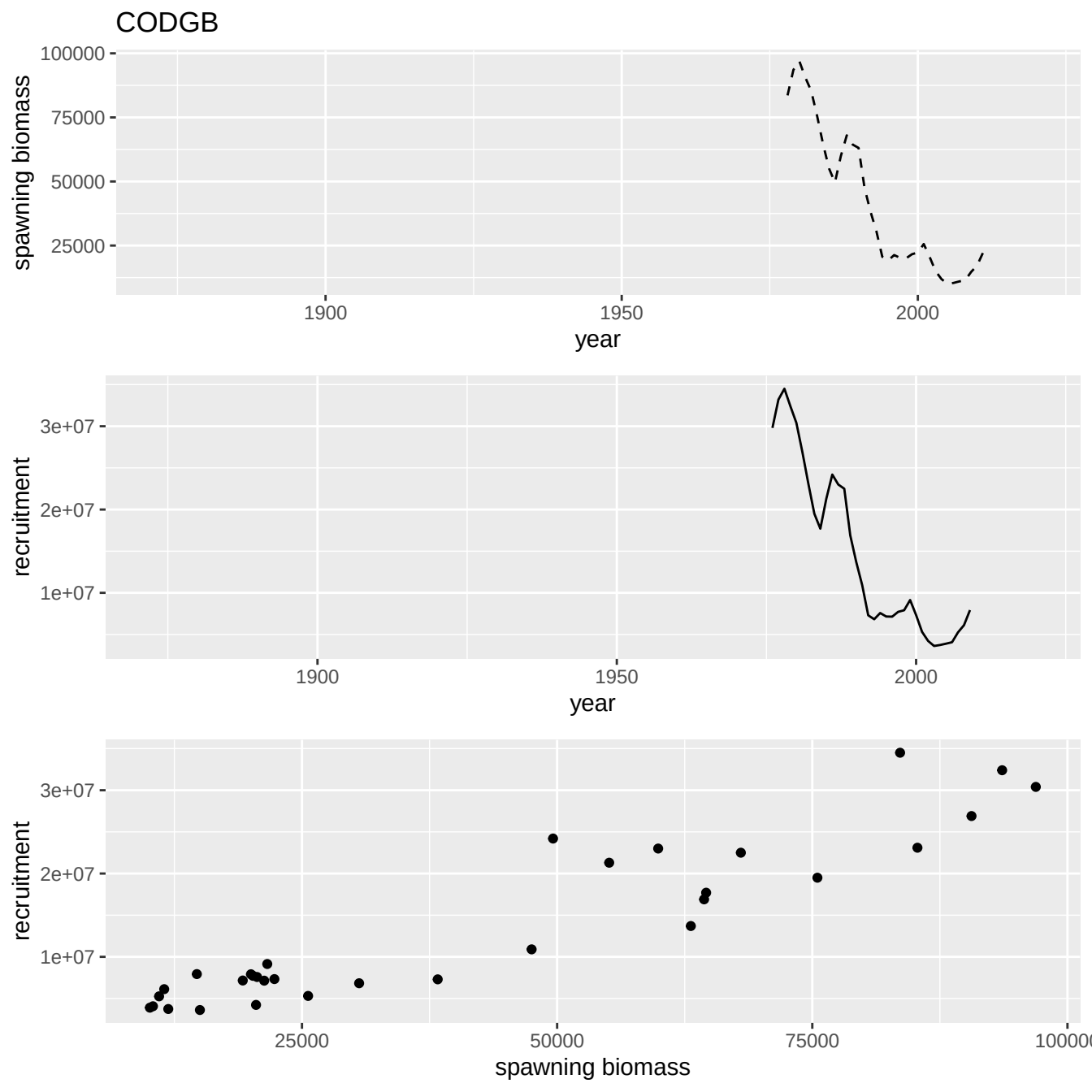

COD4TVn
spawning biomass
4e+05
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
4
3
2
1
1900
1950
2000
year
recruitment
4
3
2
1
0e+00
1e+05
2e+05
3e+05
4e+05
spawning biomass

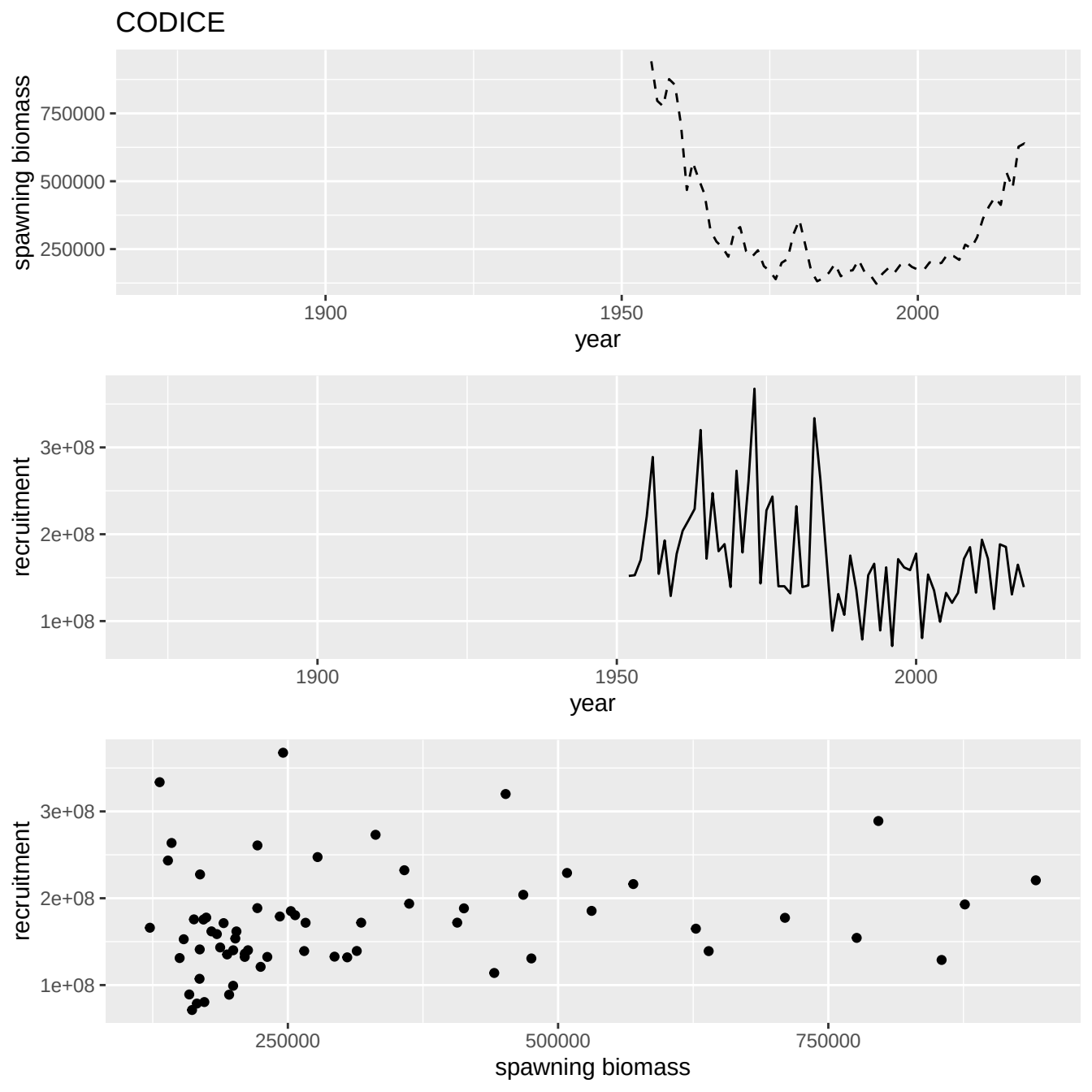

COD5Zjm
spawning biomass
60000
40000
20000
1900
1950
2000
year
recruitment
2.5e+07
2.0e+07
1.5e+07
1.0e+07
5.0e+06
0.0e+00
1900
1950
2000
year
recruitment
2.5e+07
2.0e+07
1.5e+07
1.0e+07
5.0e+06
0.0e+00
20000
40000
60000
spawning biomass

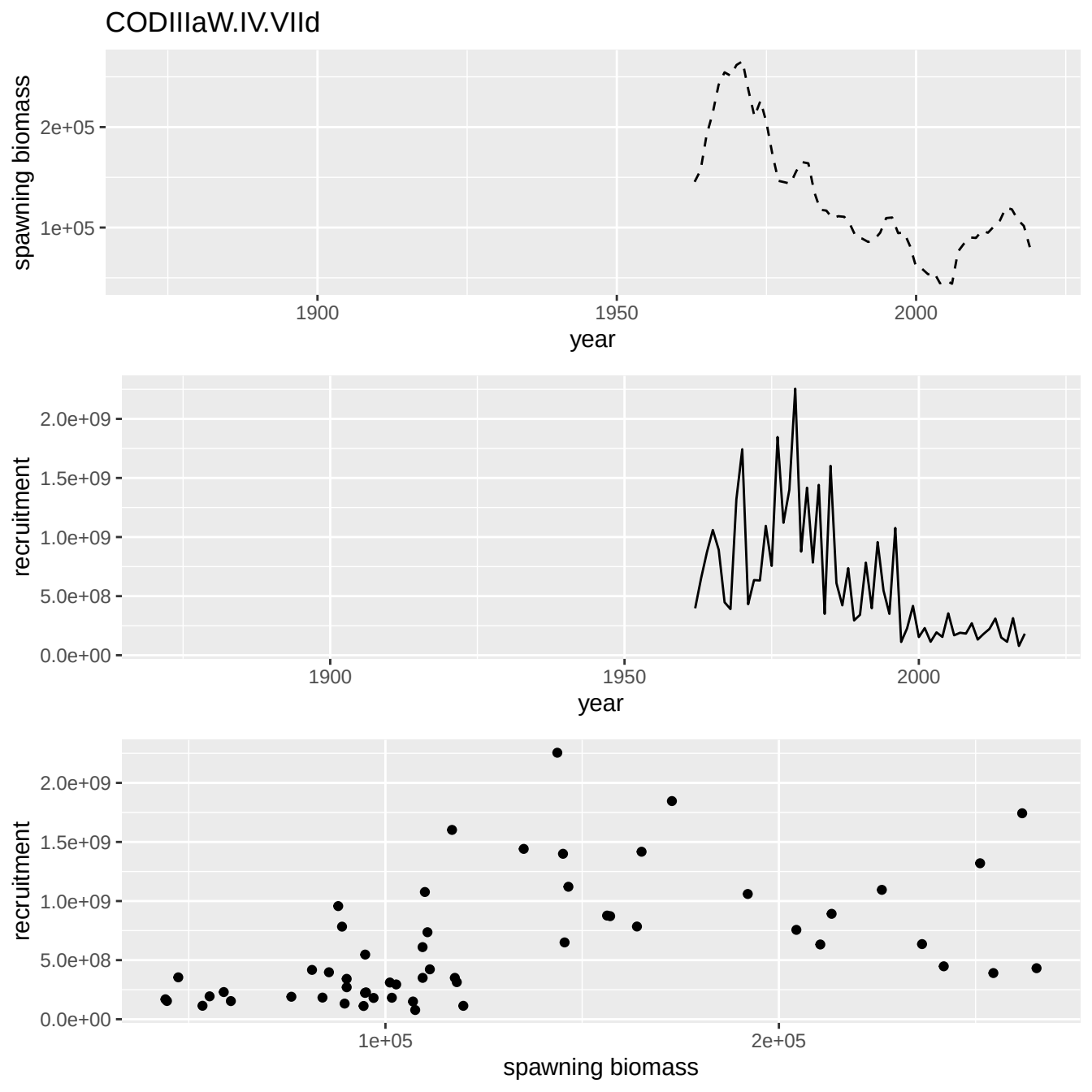

CODBA2224
spawning biomass
40000
30000
20000
10000
1900
1950
2000
year
recruitment
125000
100000
75000
50000
25000
0
1900
1950
2000
year
recruitment
125000
100000
75000
50000
25000
0
10000
20000
30000
40000
spawning biomass

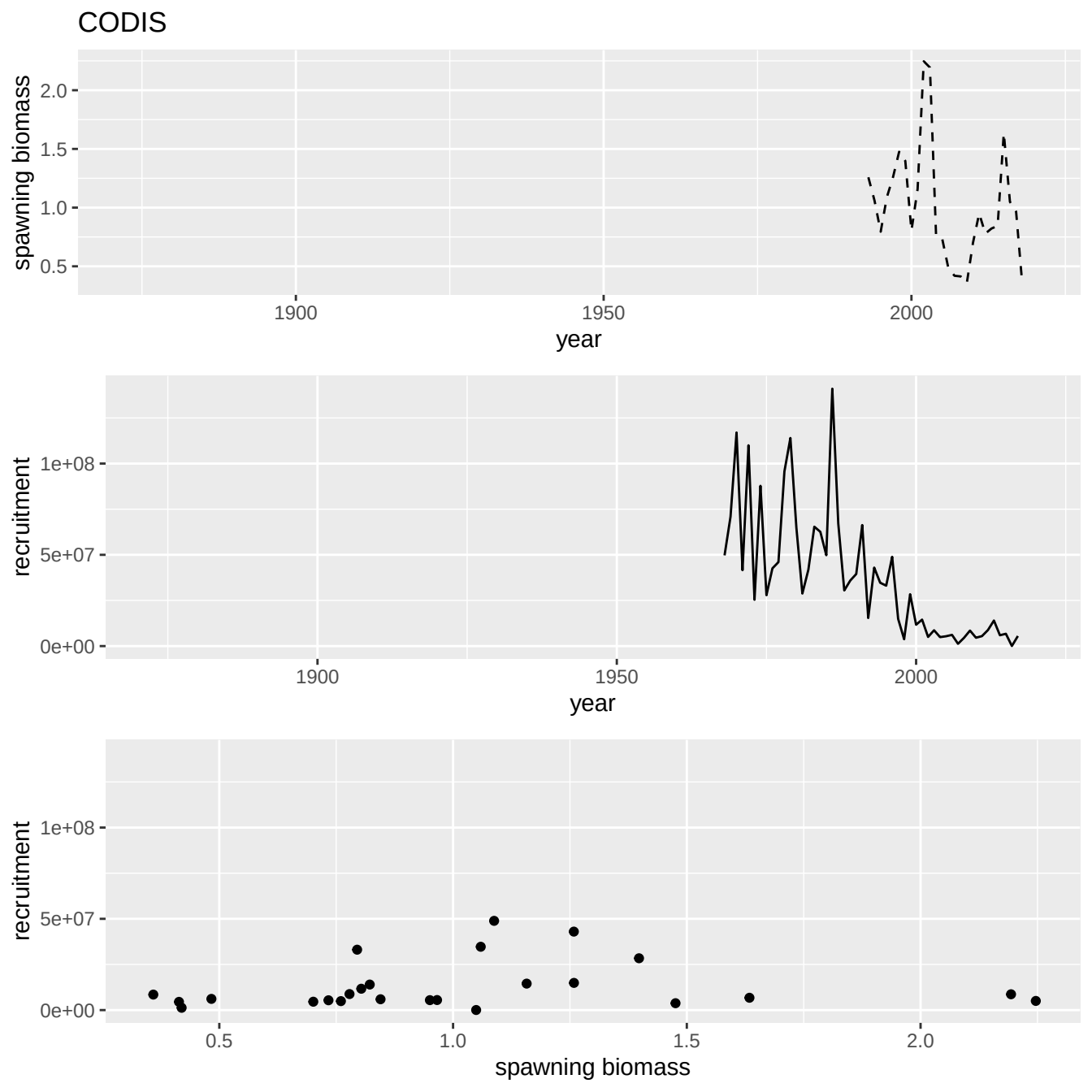

CODBA2532
spawning biomass
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
1.2e+07
9.0e+06
6.0e+06
3.0e+06
1900
1950
2000
year
recruitment
1.2e+07
9.0e+06
6.0e+06
3.0e+06
1e+05
2e+05
3e+05
4e+05
spawning biomass

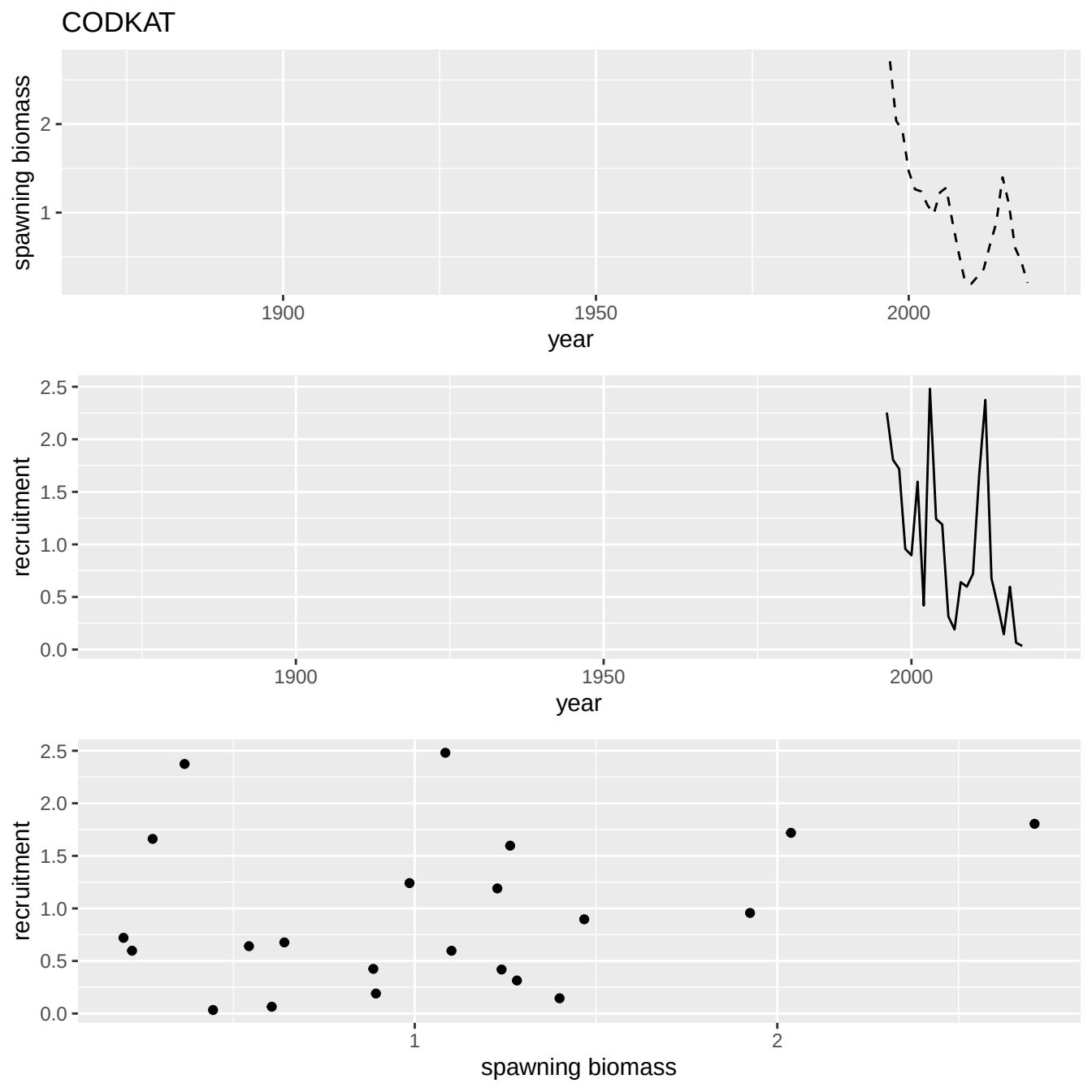

CODFAPL
spawning biomass
125000
100000
75000
50000
25000
1900
1950
2000
year
recruitment
4e+07
2e+07
0e+00
1900
1950
2000
year
recruitment
4e+07
2e+07
0e+00
25000
50000
75000
100000
125000
spawning biomass

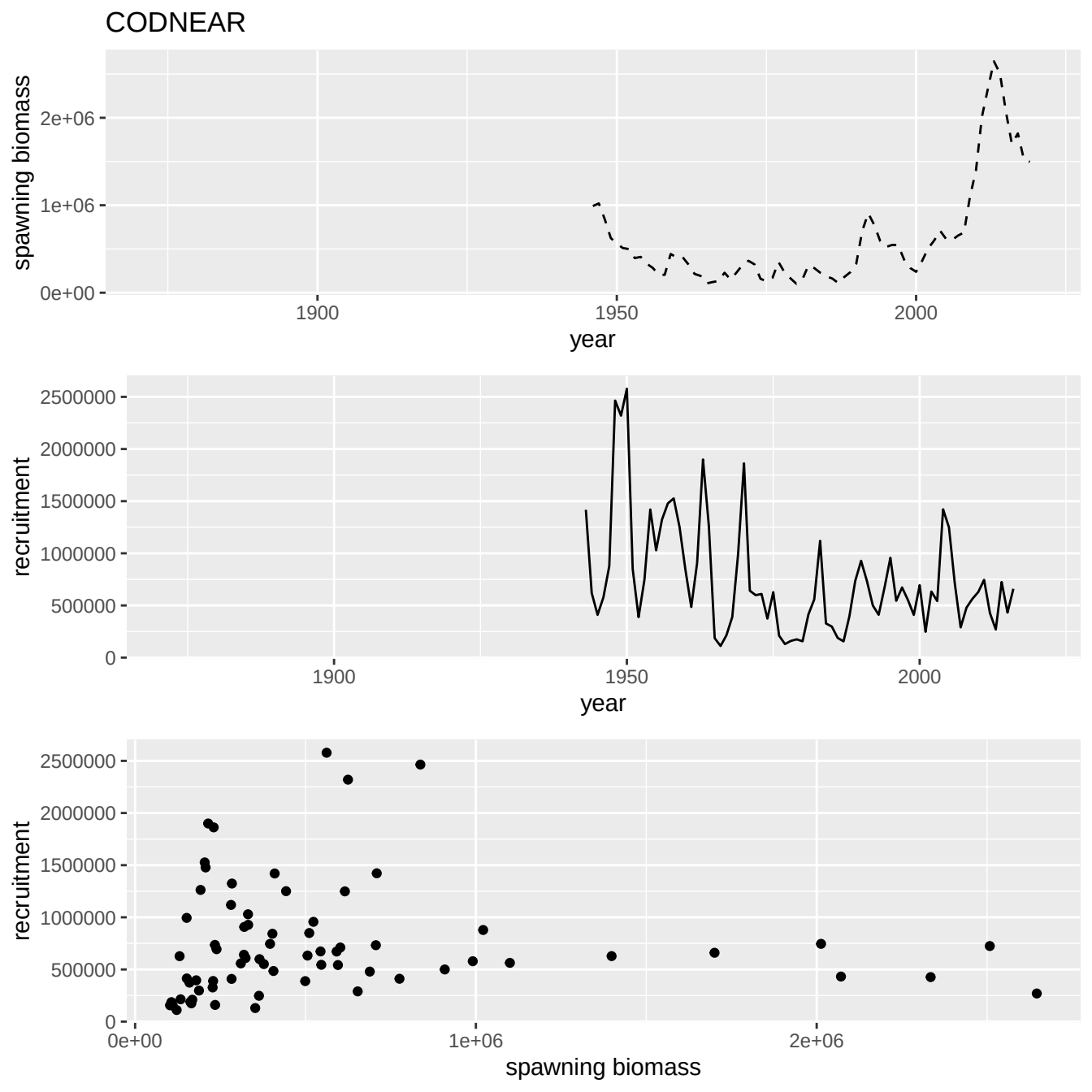

CODGB
spawning biomass
100000
75000
50000
25000
1900
1950
2000
year
recruitment
3e+07
2e+07
1e+07
1900
1950
2000
year
recruitment
3e+07
2e+07
1e+07
25000
50000
75000
spawning biomass

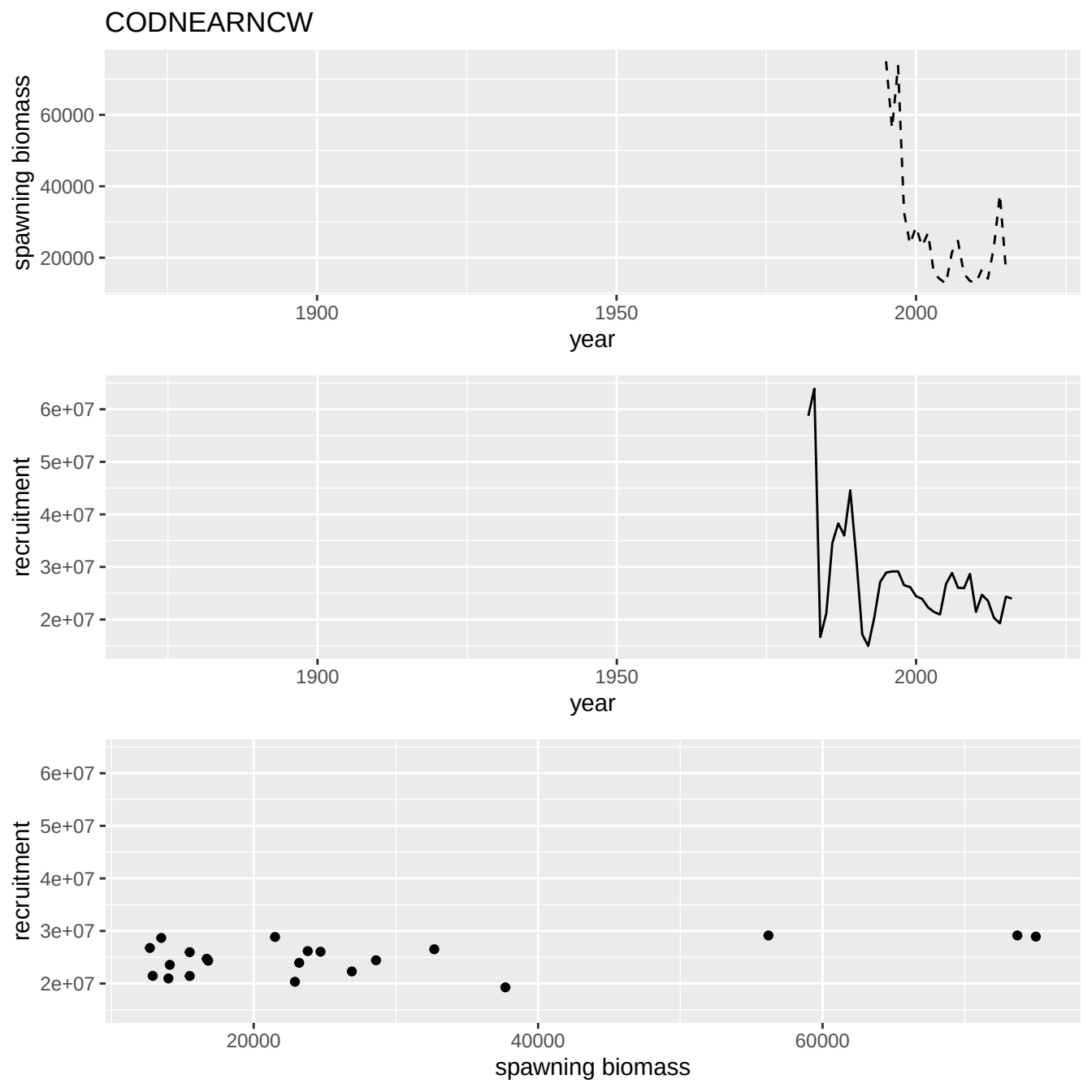

CODICE
spawning biomass
750000
500000
250000
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
250000
500000
750000
spawning biomass

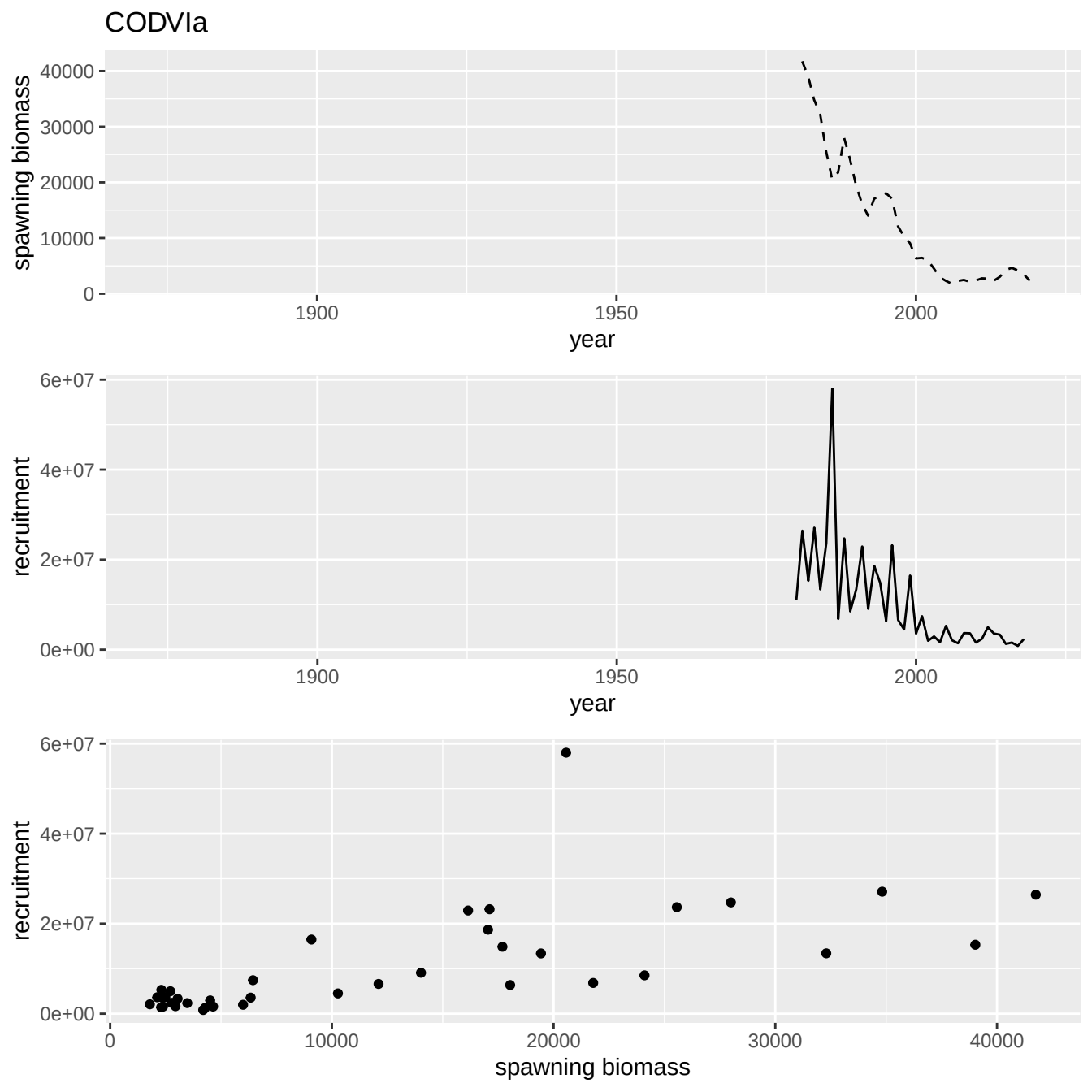

CODIIIaW.IV.VIId
spawning biomass
2e+05
1e+05
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1e+05
2e+05
spawning biomass

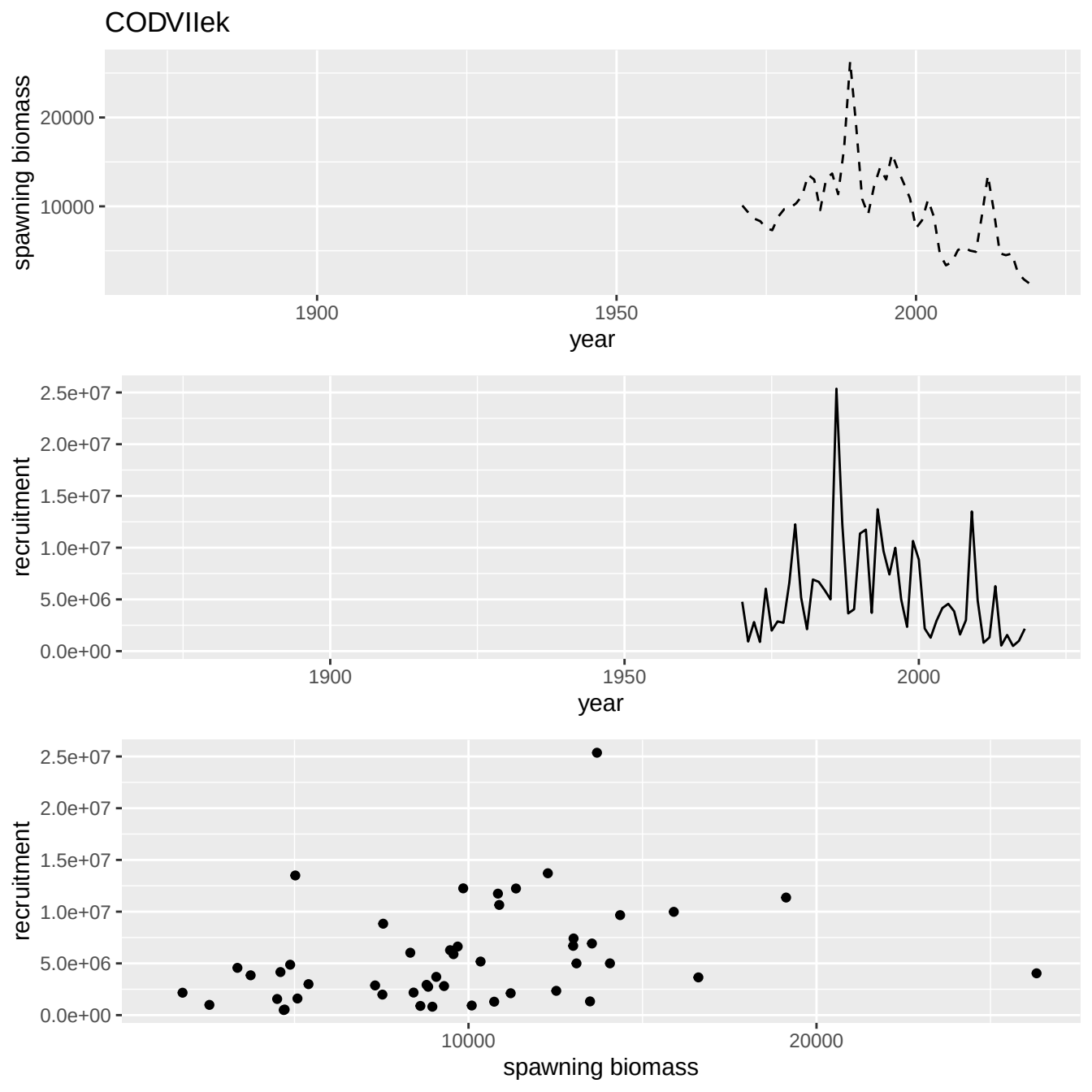

CODIS
spawning biomass
2.0
1.5
1.0
0.5
1900
1950
2000
year
recruitment
1e+08
5e+07
0e+00
1900
1950
2000
year
recruitment
1e+08
5e+07
0e+00
0.5
1.0
1.5
2.0
spawning biomass

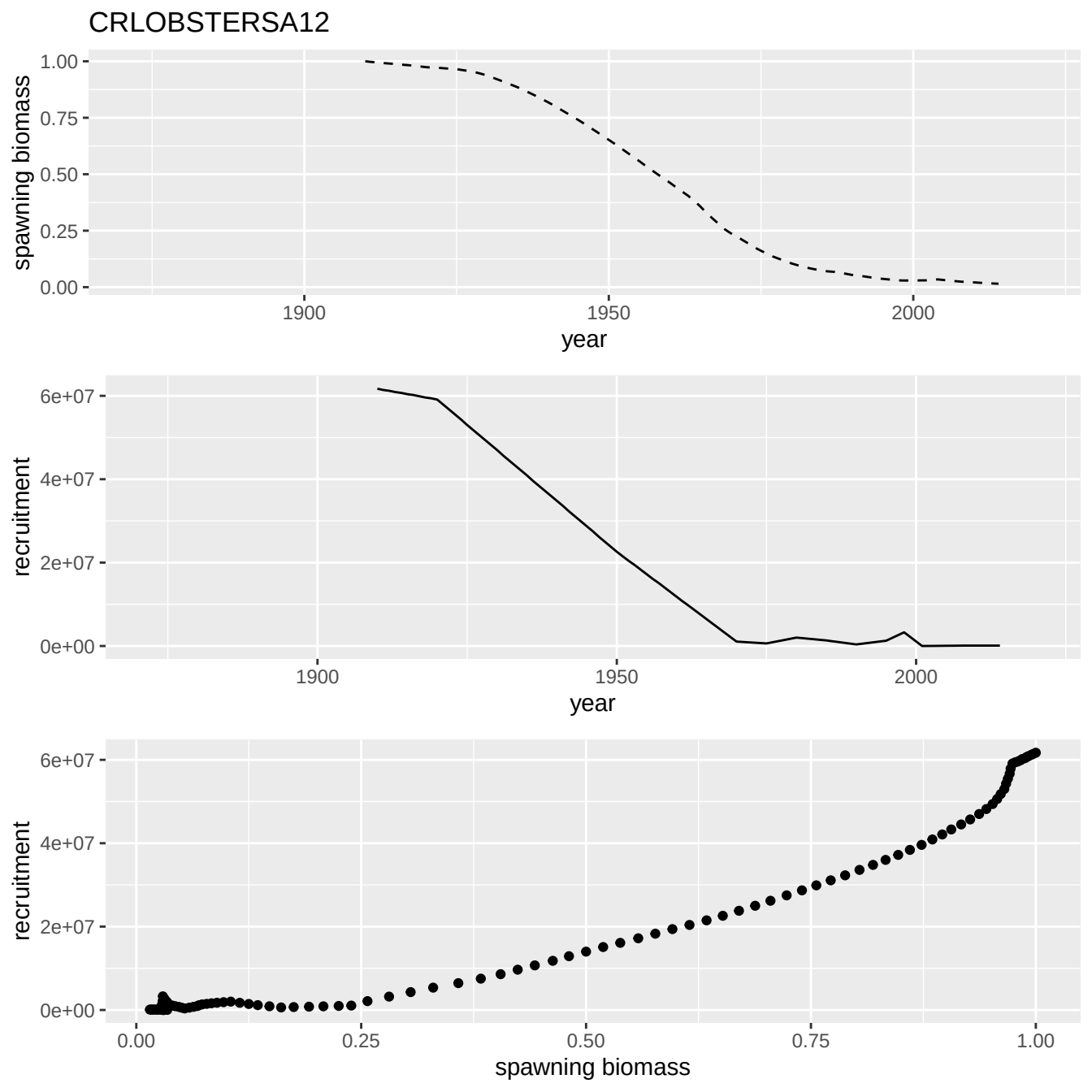

CODKAT
spawning biomass
2
1
1900
1950
2000
year
recruitment
2.5
2.0
1.5
1.0
0.5
0.0
1900
1950
2000
year
recruitment
2.5
2.0
1.5
1.0
0.5
0.0
1
2
spawning biomass

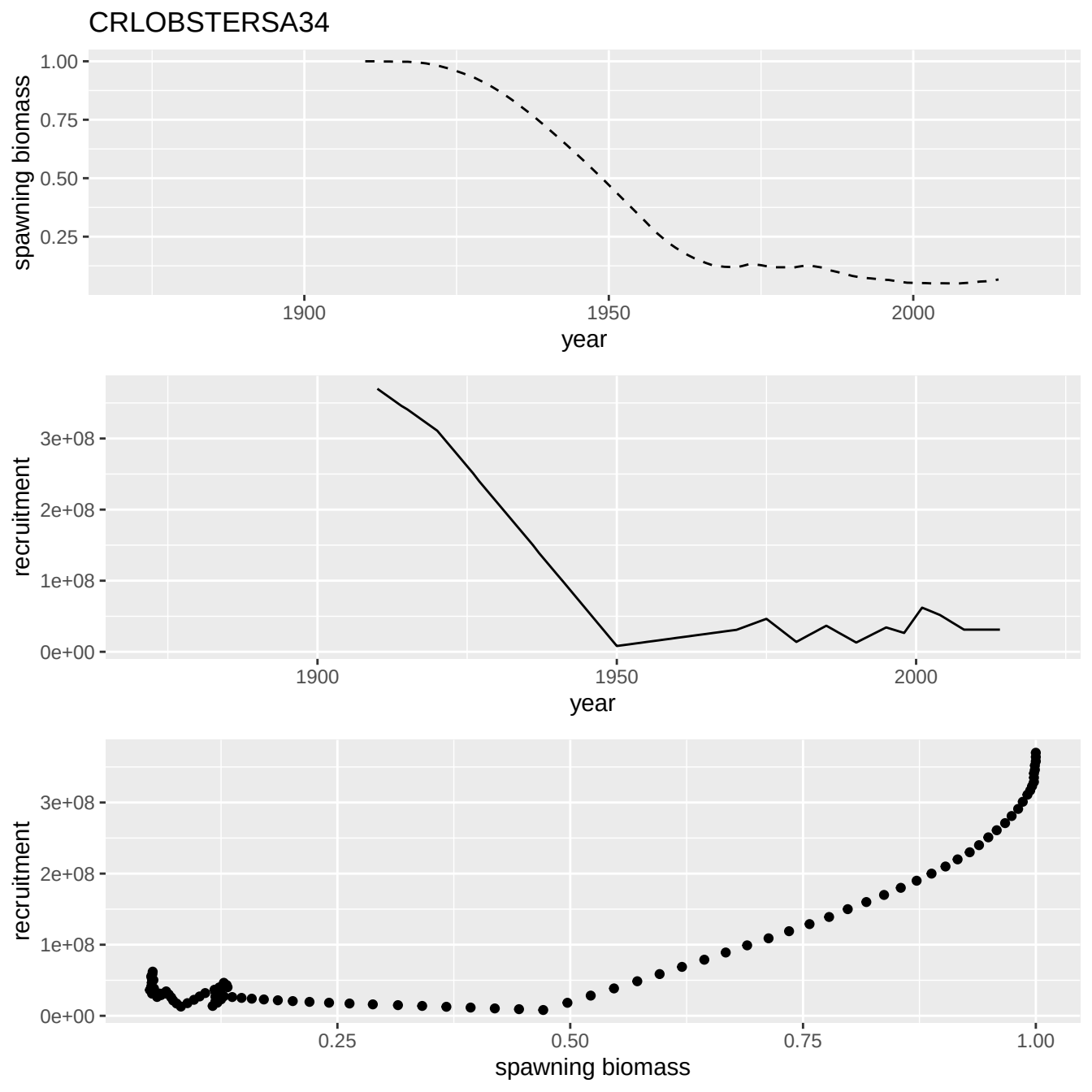

CODNEAR
spawning biomass
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
2500000
2000000
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
2500000
2000000
1500000
1000000
500000
0
0e+00
1e+06
2e+06
spawning biomass

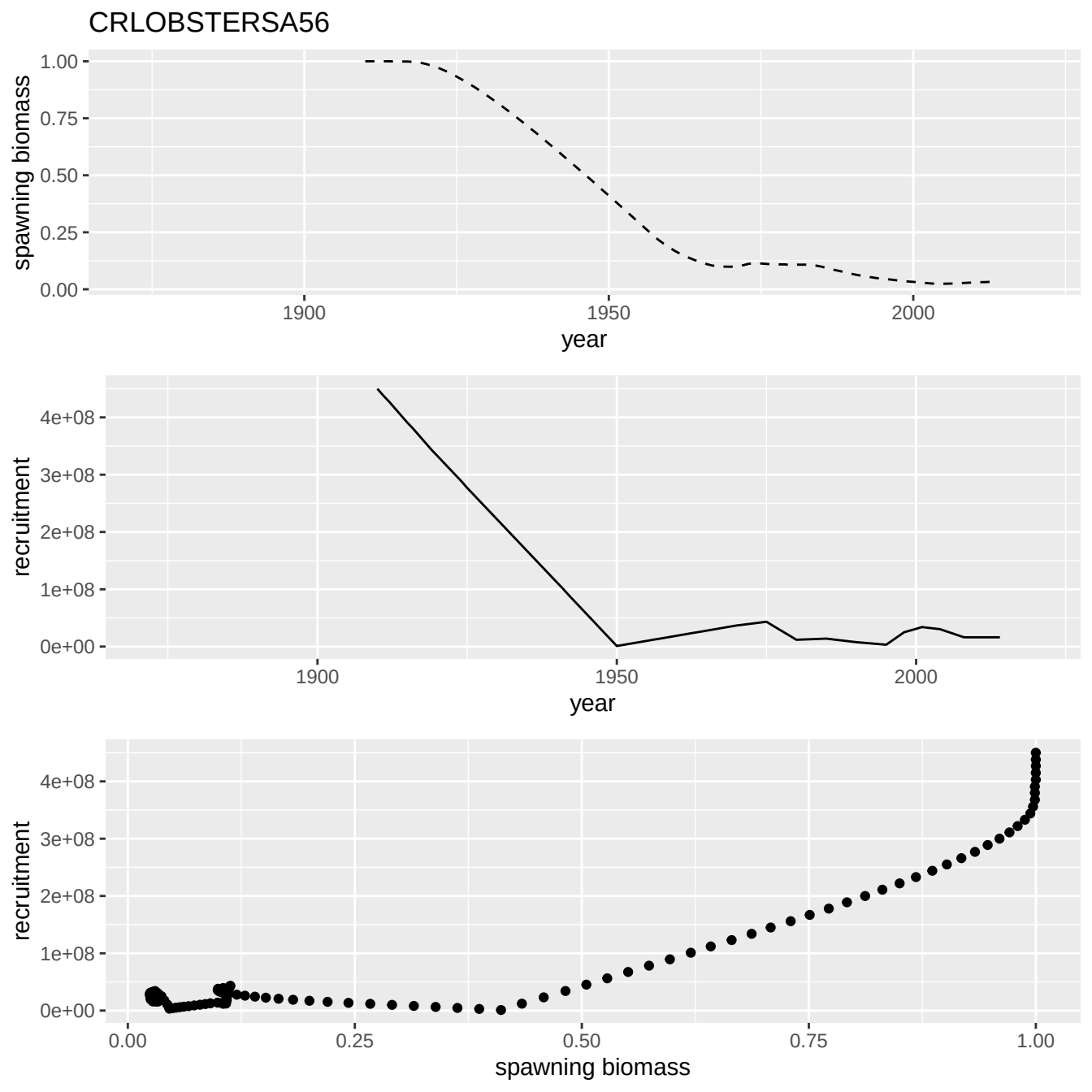

CODNEARNCW
spawning biomass
60000
40000
20000
1900
1950
2000
year
recruitment
6e+07
5e+07
4e+07
3e+07
2e+07
1900
1950
2000
year
recruitment
6e+07
5e+07
4e+07
3e+07
2e+07
20000
40000
60000
spawning biomass

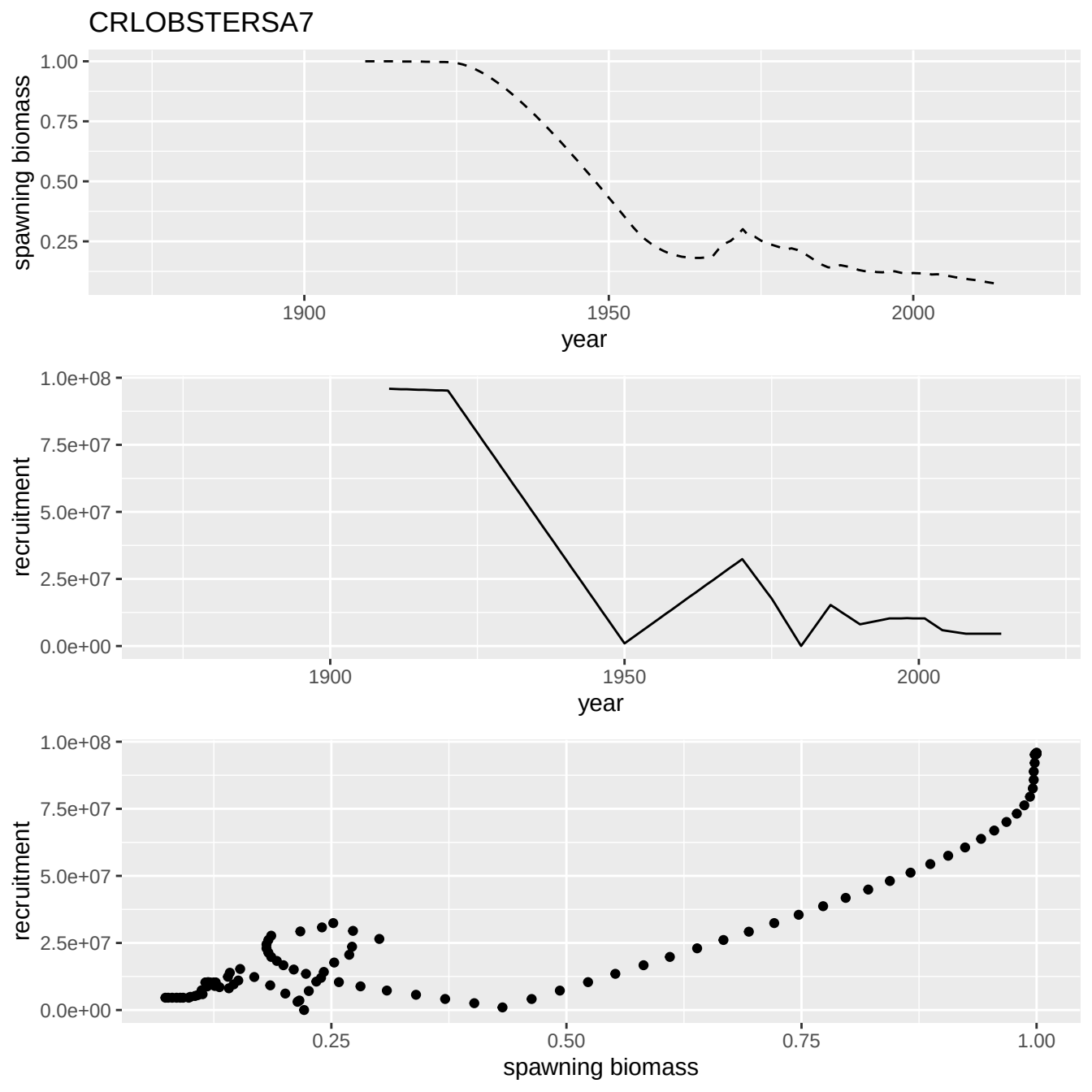

CODVIa
spawning biomass
40000
30000
20000
10000
0
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
0e+00
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
0e+00
0
10000
20000
30000
40000
spawning biomass

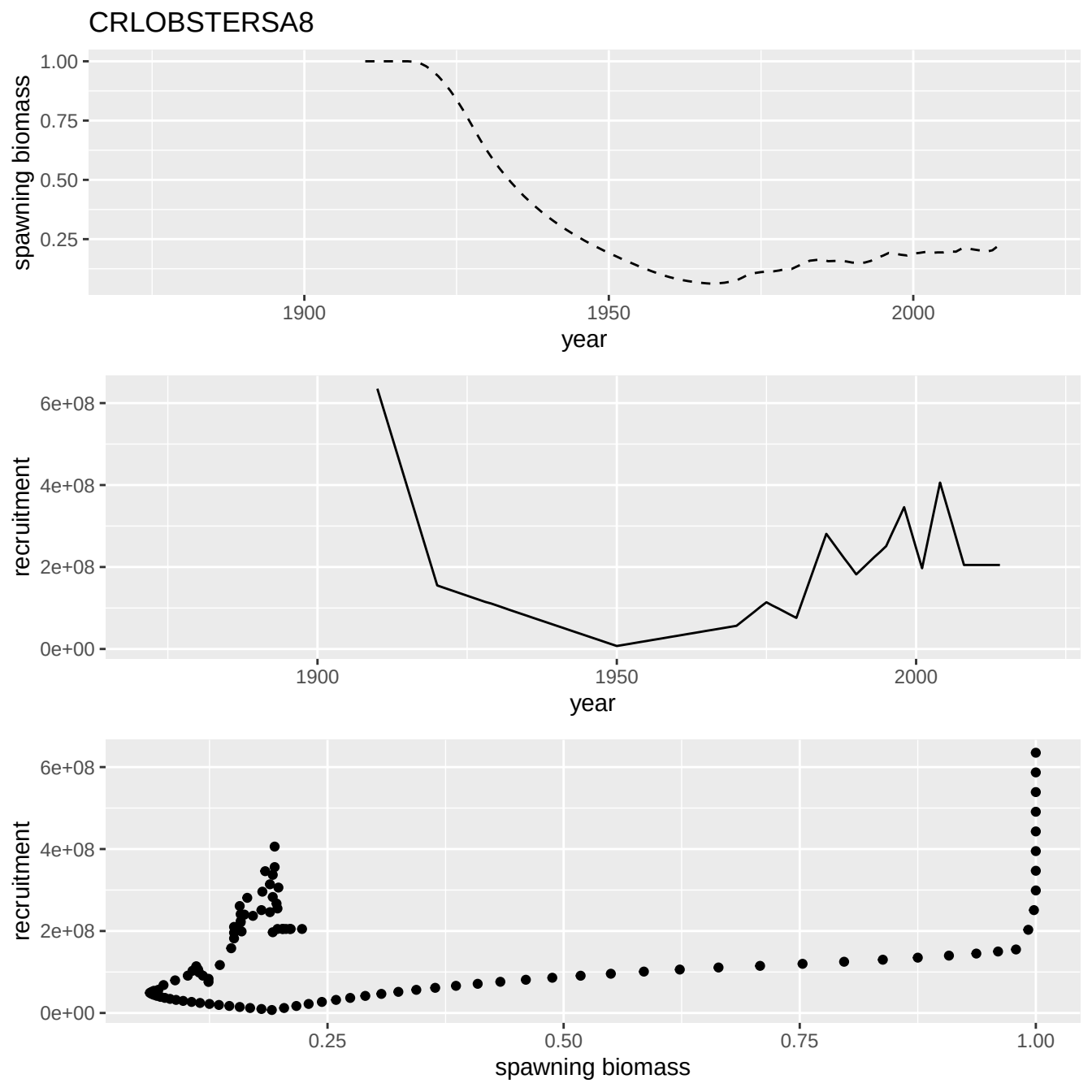

CODVIIek
spawning biomass
20000
10000
1900
1950
2000
year
recruitment
2.5e+07
2.0e+07
1.5e+07
1.0e+07
5.0e+06
0.0e+00
1900
1950
2000
year
recruitment
2.5e+07
2.0e+07
1.5e+07
1.0e+07
5.0e+06
0.0e+00
10000
20000
spawning biomass

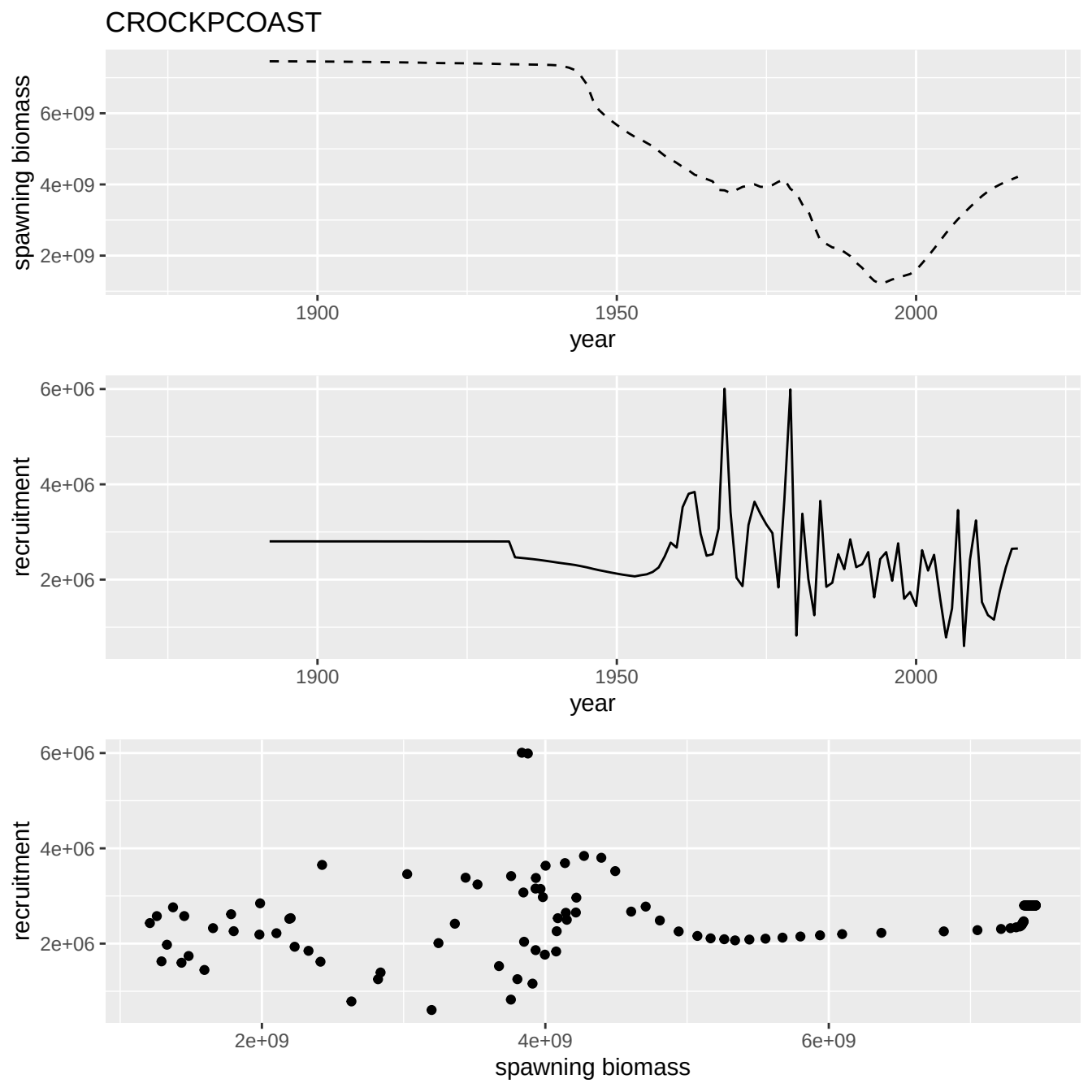

CRLOBSTERSA12
spawning biomass
1.00
0.75
0.50
0.25
0.00
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
0e+00
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
0e+00
0.00
0.25
0.50
0.75
1.00
spawning biomass

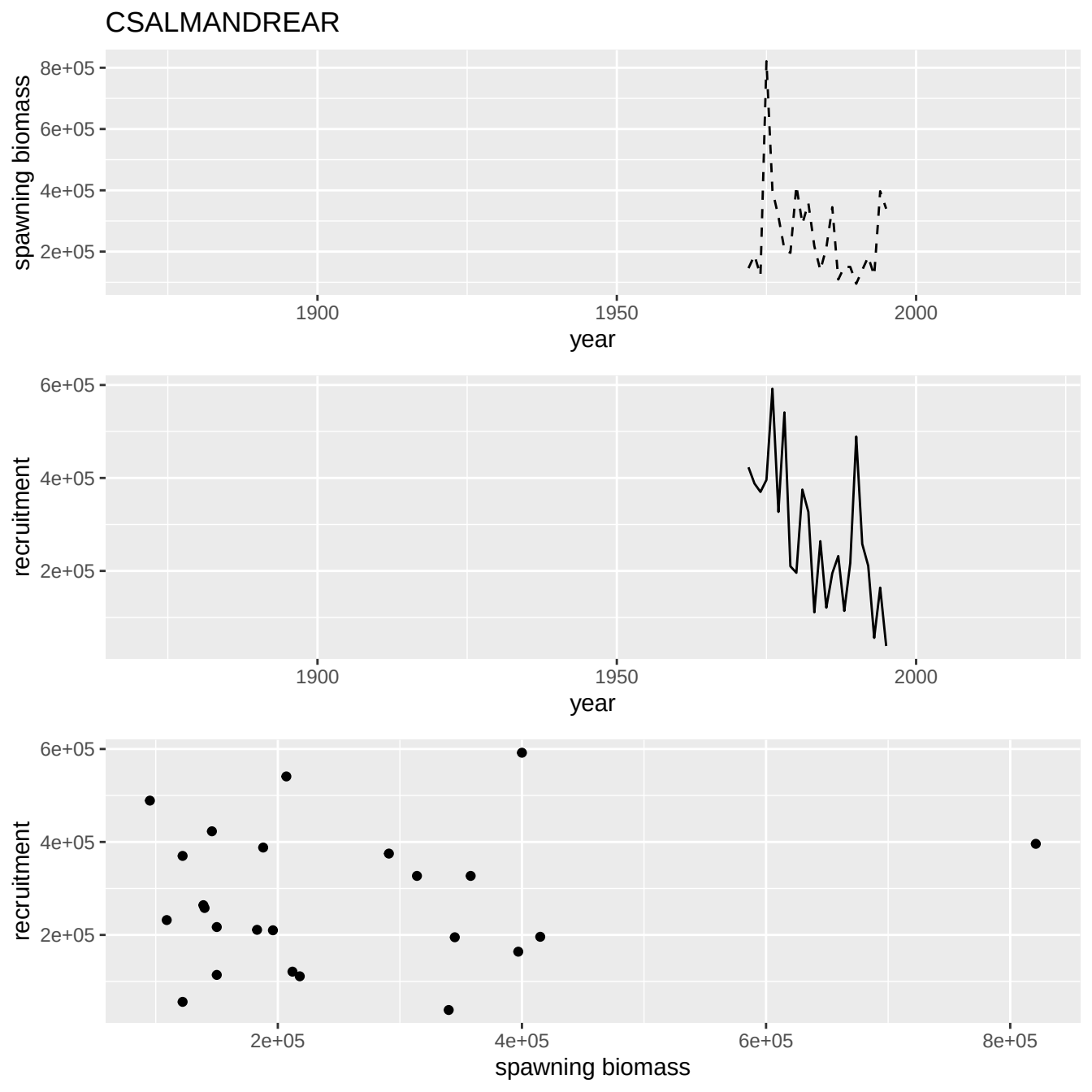

CRLOBSTERSA34
spawning biomass
1.00
0.75
0.50
0.25
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
0e+00
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
0e+00
0.25
0.50
0.75
1.00
spawning biomass

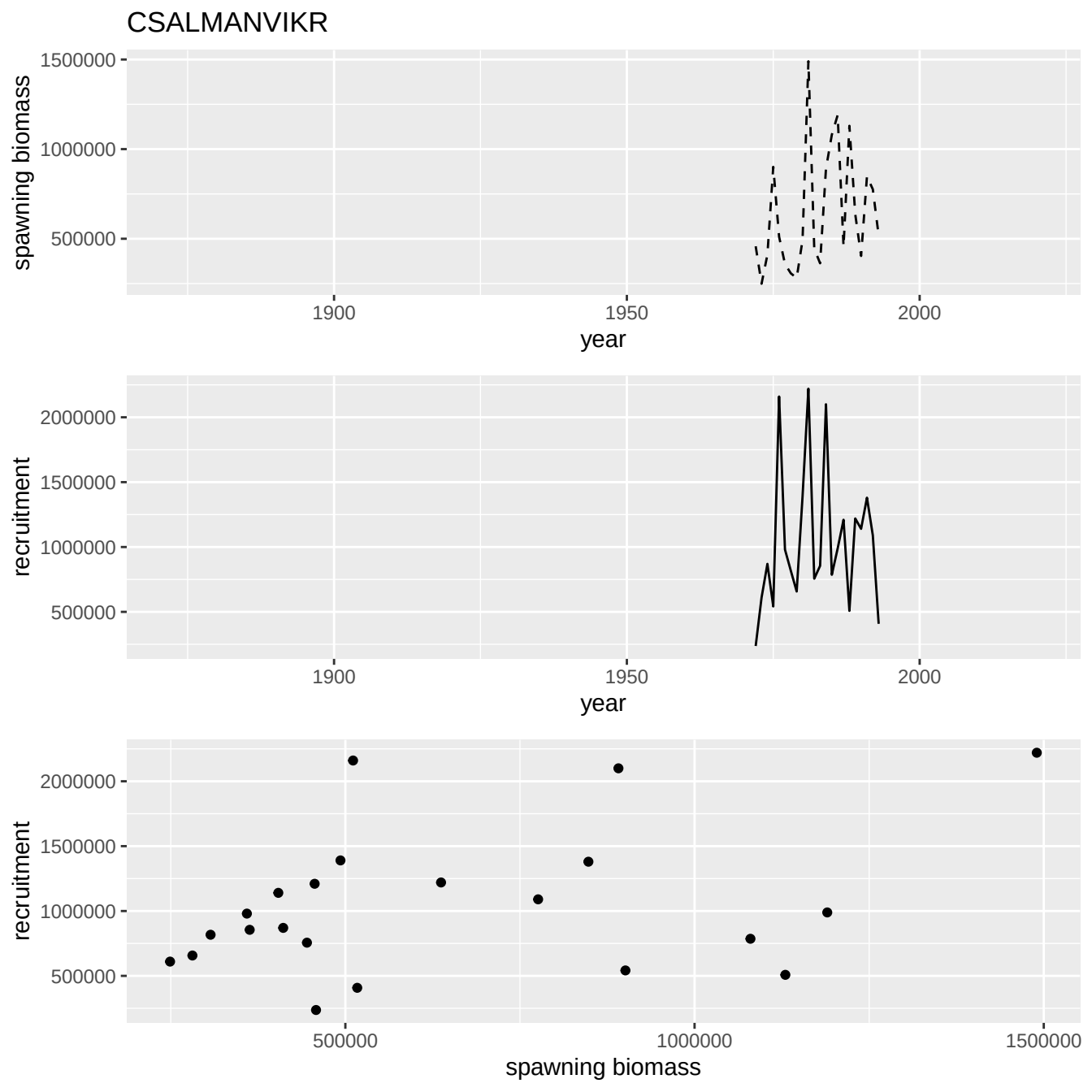

CRLOBSTERSA56
spawning biomass
1.00
0.75
0.50
0.25
0.00
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
0e+00
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
0e+00
0.00
0.25
0.50
0.75
1.00
spawning biomass

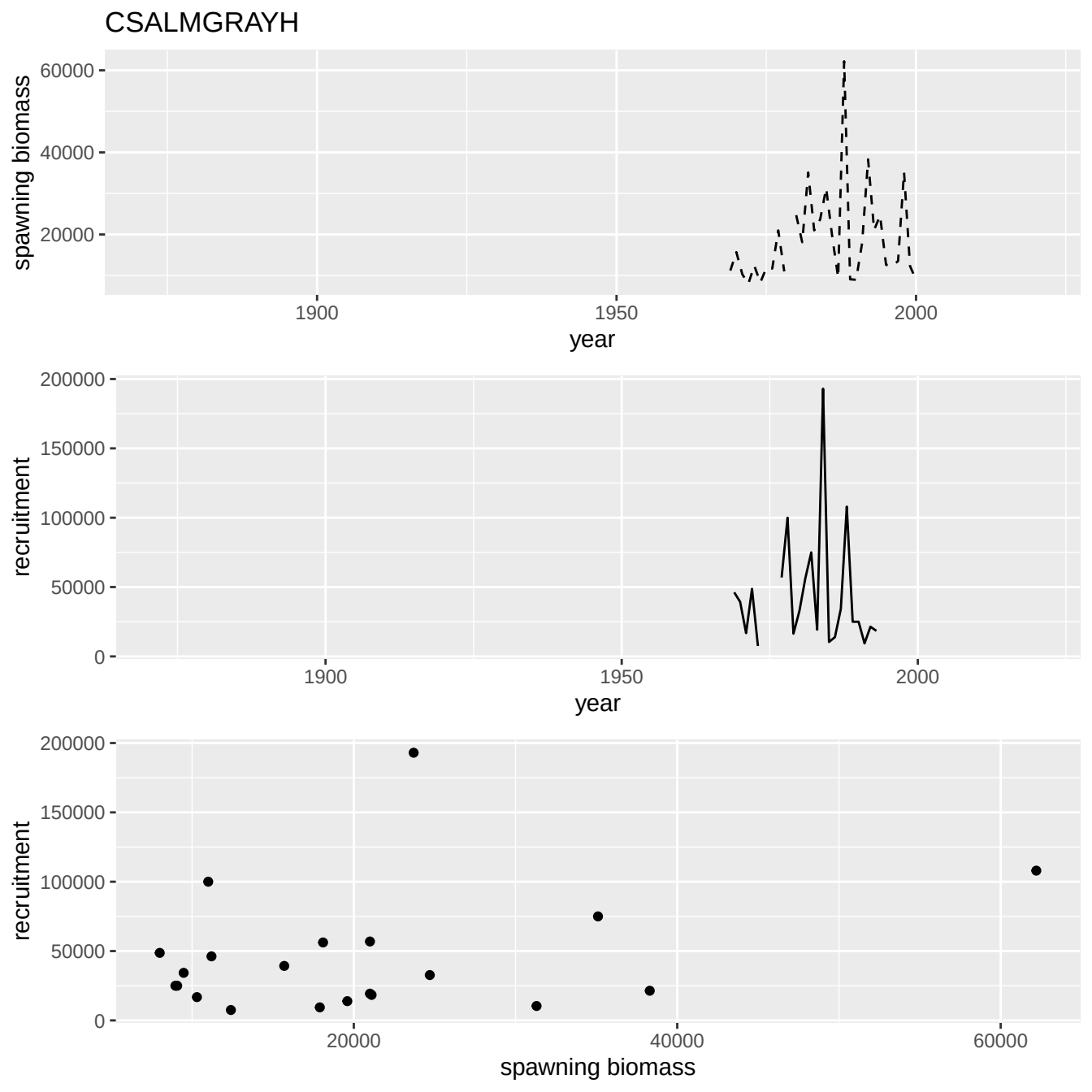

CRLOBSTERSA7
spawning biomass
1.00
0.75
0.50
0.25
1900
1950
2000
year
recruitment
1.0e+08
7.5e+07
5.0e+07
2.5e+07
0.0e+00
1900
1950
2000
year
recruitment
1.0e+08
7.5e+07
5.0e+07
2.5e+07
0.0e+00
0.25
0.50
0.75
1.00
spawning biomass

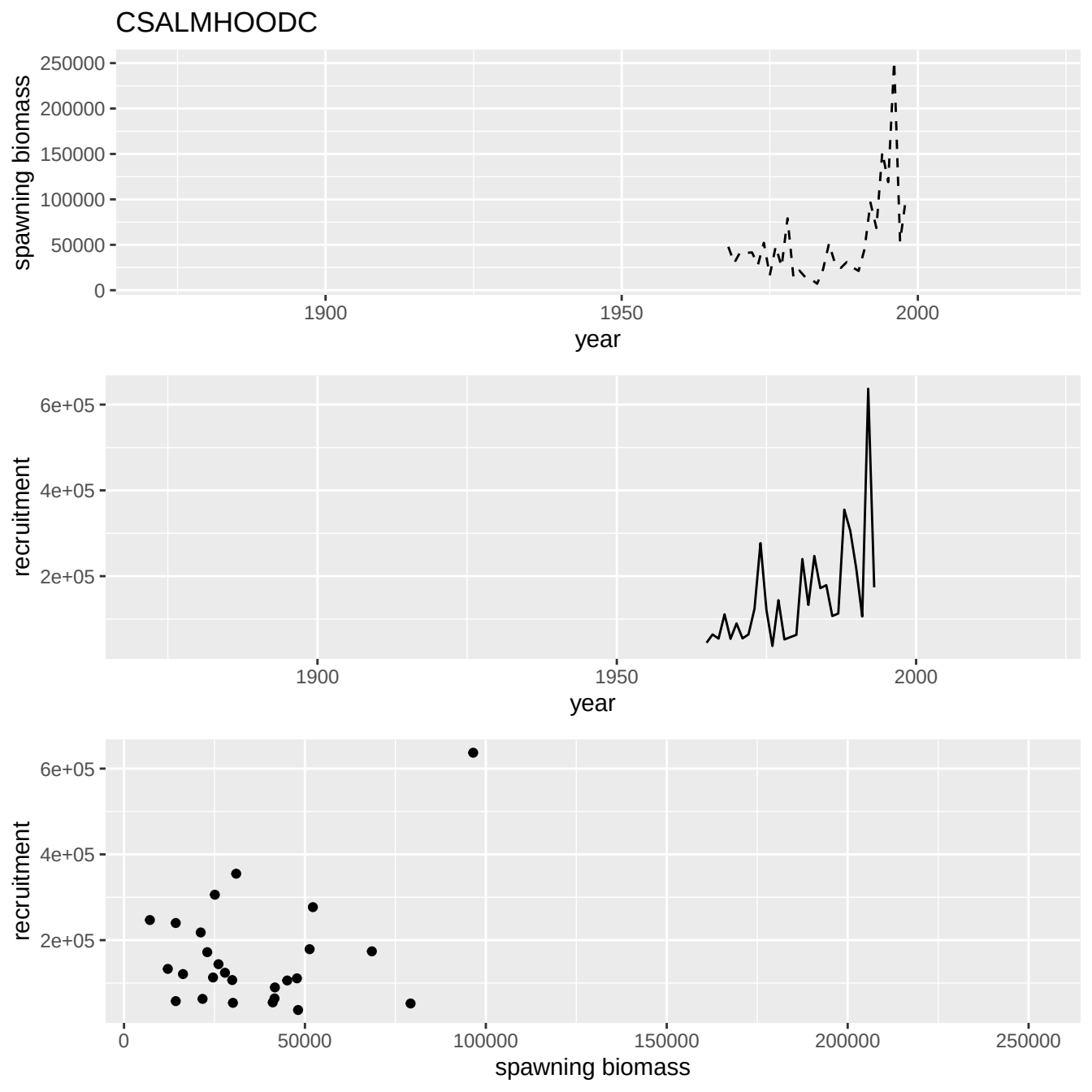

CRLOBSTERSA8
spawning biomass
1.00
0.75
0.50
0.25
1900
1950
2000
year
recruitment
6e+08
4e+08
2e+08
0e+00
1900
1950
2000
year
recruitment
6e+08
4e+08
2e+08
0e+00
0.25
0.50
0.75
1.00
spawning biomass

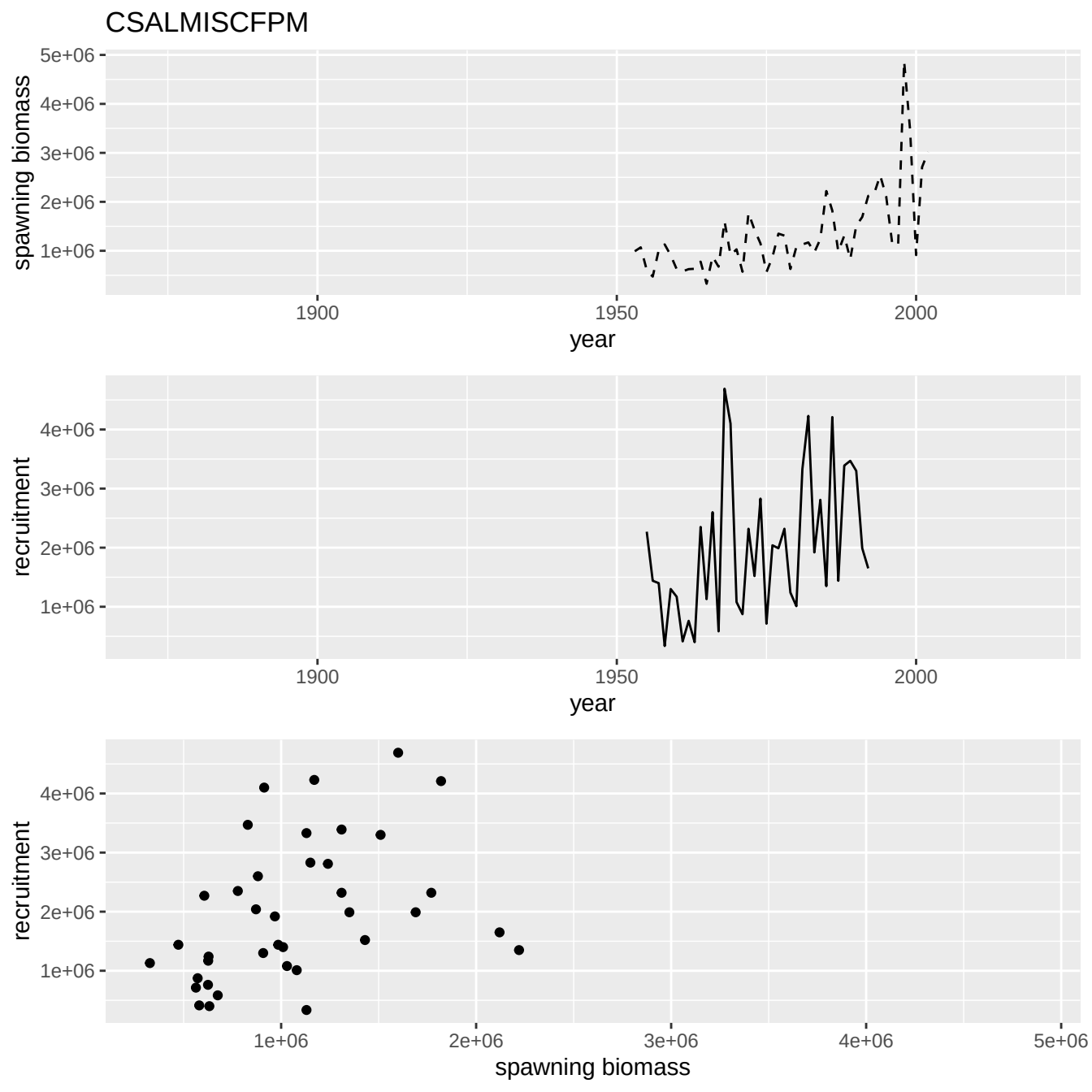

CROCKPCOAST
spawning biomass
6e+09
4e+09
2e+09
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
2e+09
4e+09
6e+09
spawning biomass

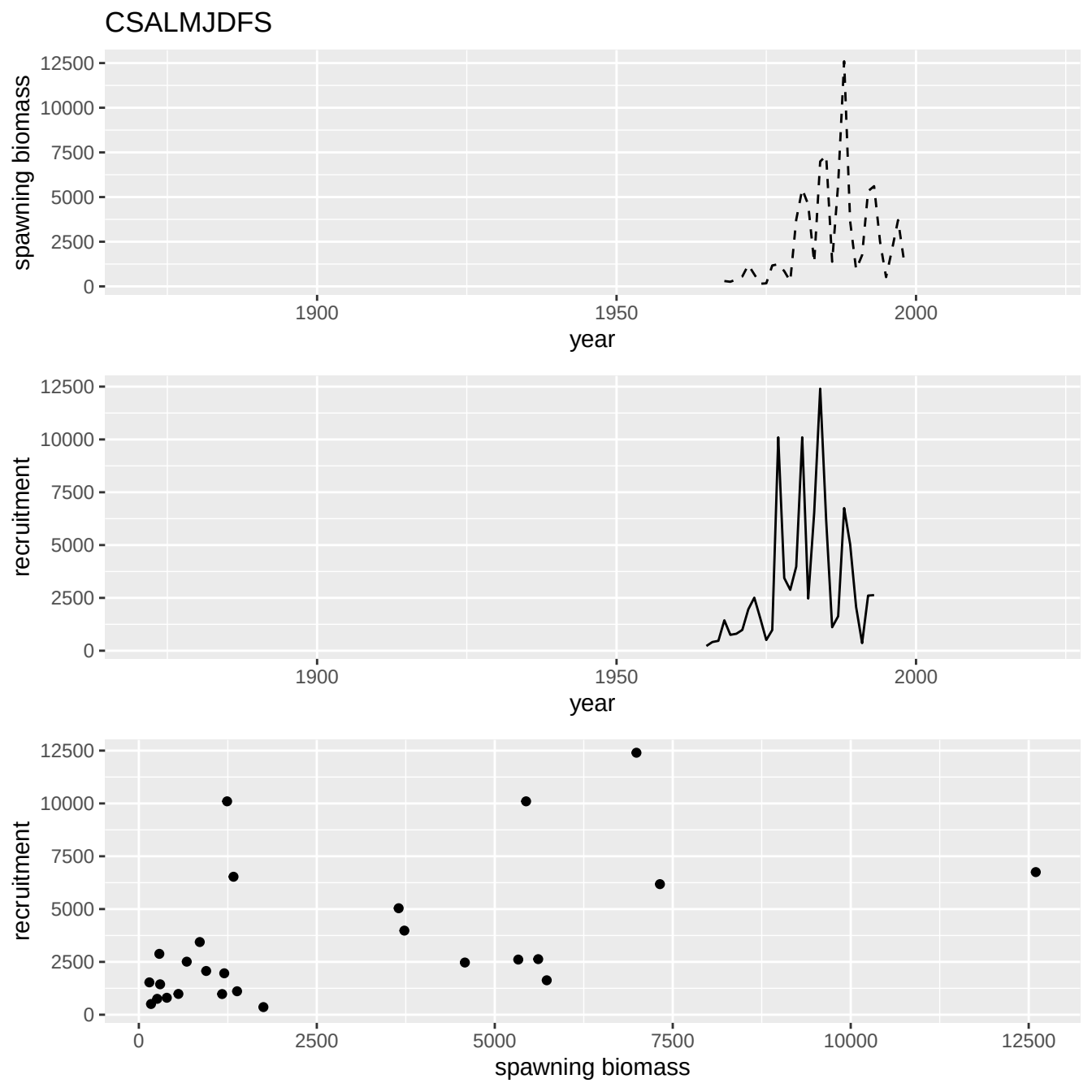

CSALMANDREAR
spawning biomass
8e+05
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
2e+05
4e+05
6e+05
8e+05
spawning biomass

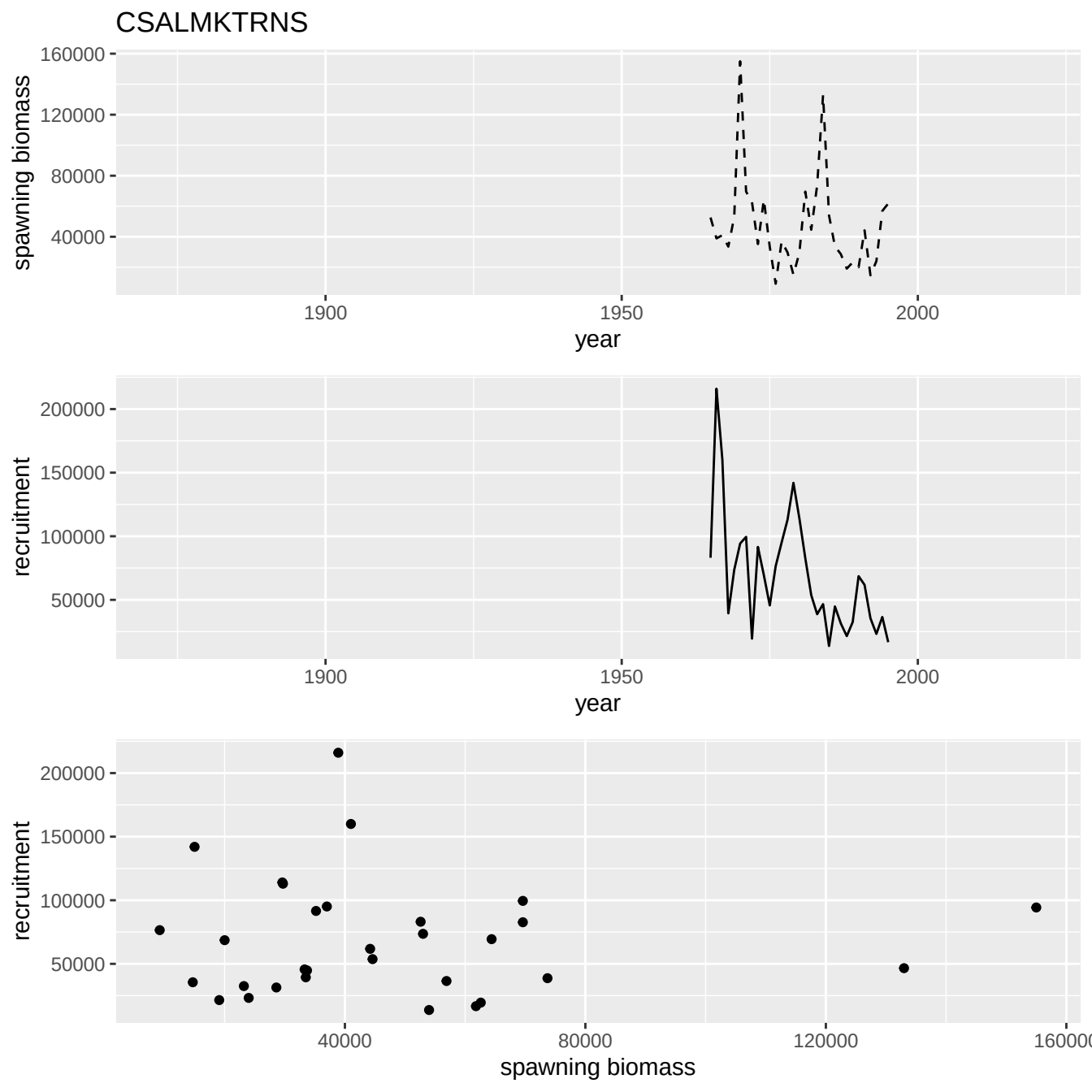

CSALMANVIKR
spawning biomass
1500000
1000000
500000
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
500000
1000000
1500000
spawning biomass

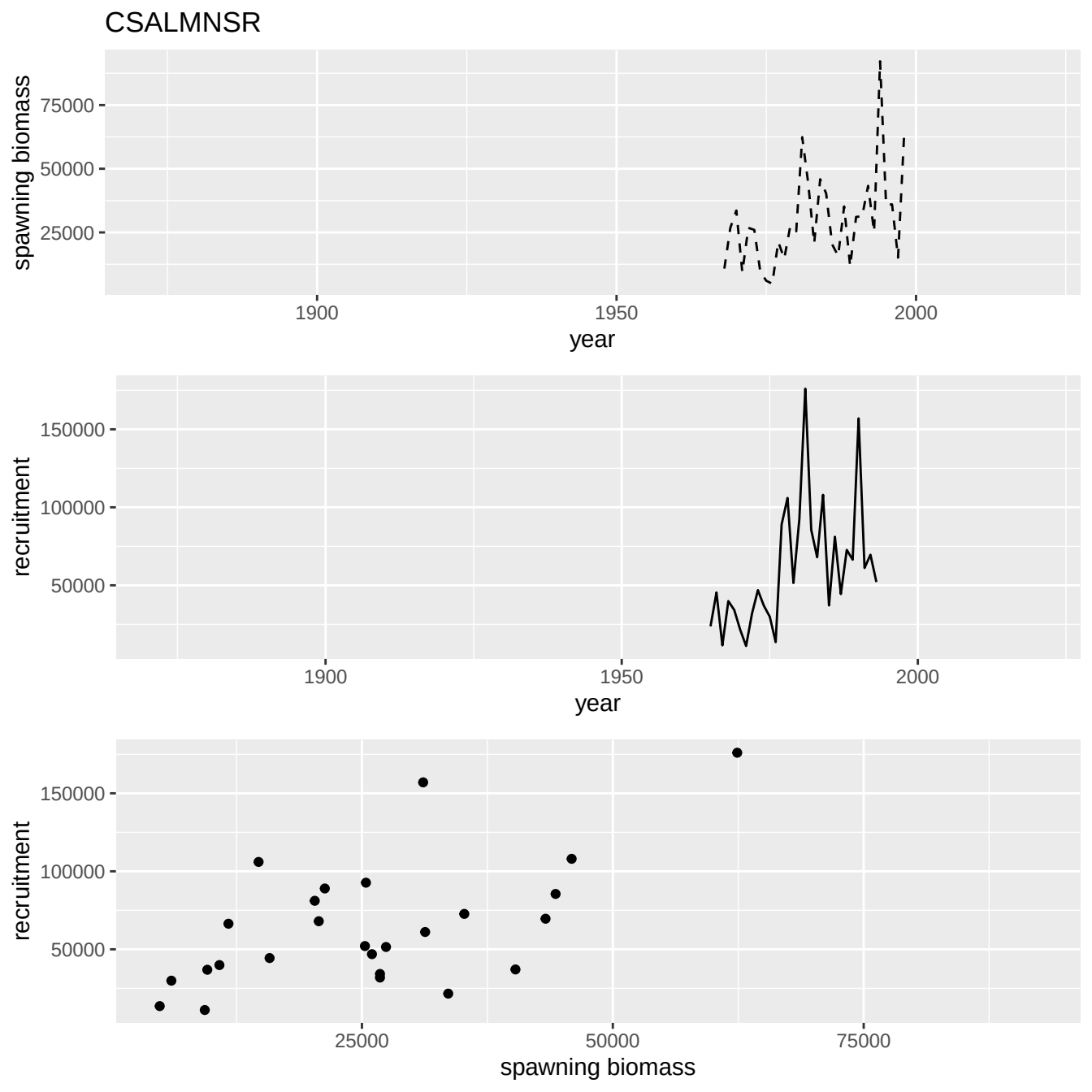

CSALMGRAYH
spawning biomass
60000
40000
20000
1900
1950
2000
year
recruitment
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
200000
150000
100000
50000
0
20000
40000
60000
spawning biomass

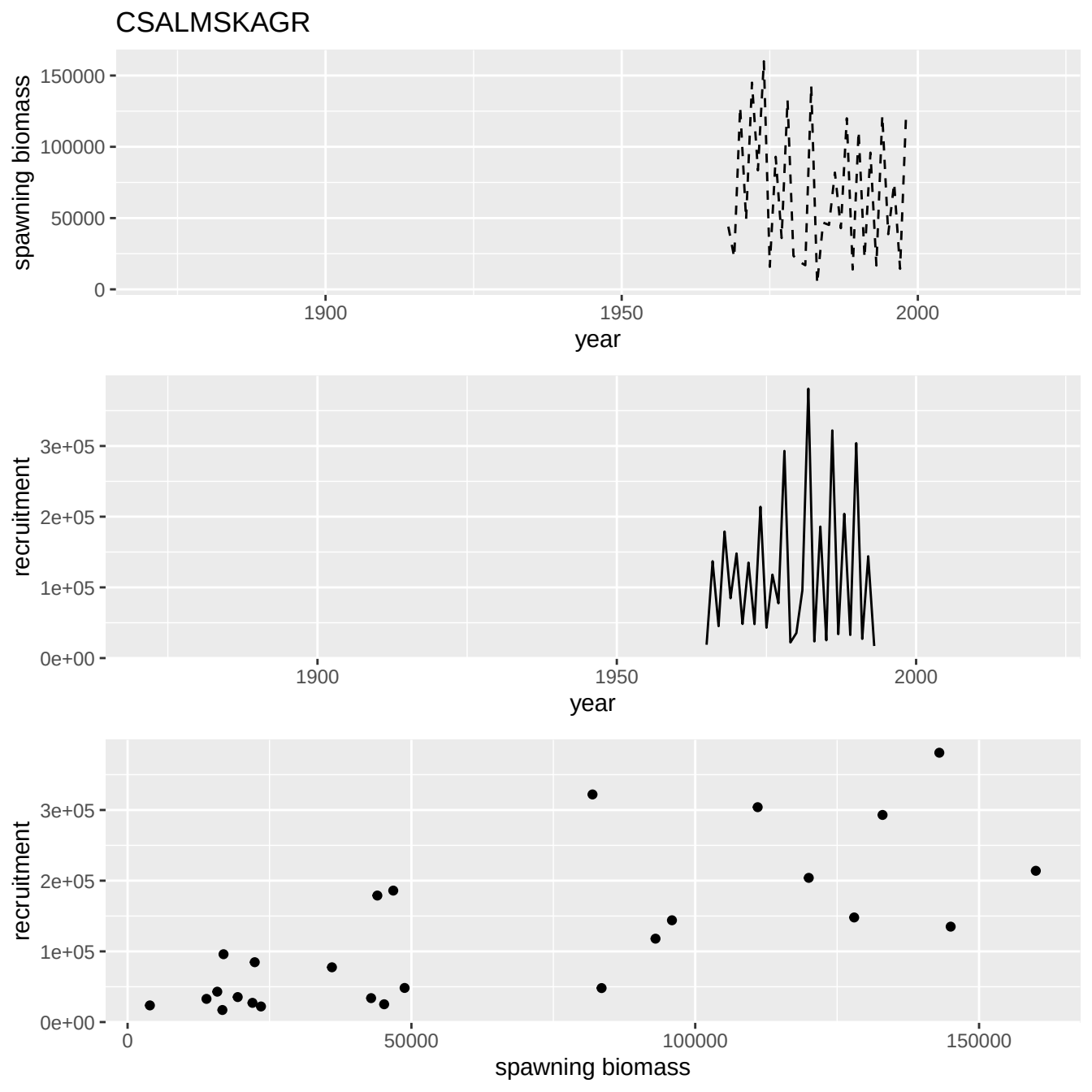

CSALMHOODC
spawning biomass
250000
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
0
50000
100000
150000
200000
250000
spawning biomass

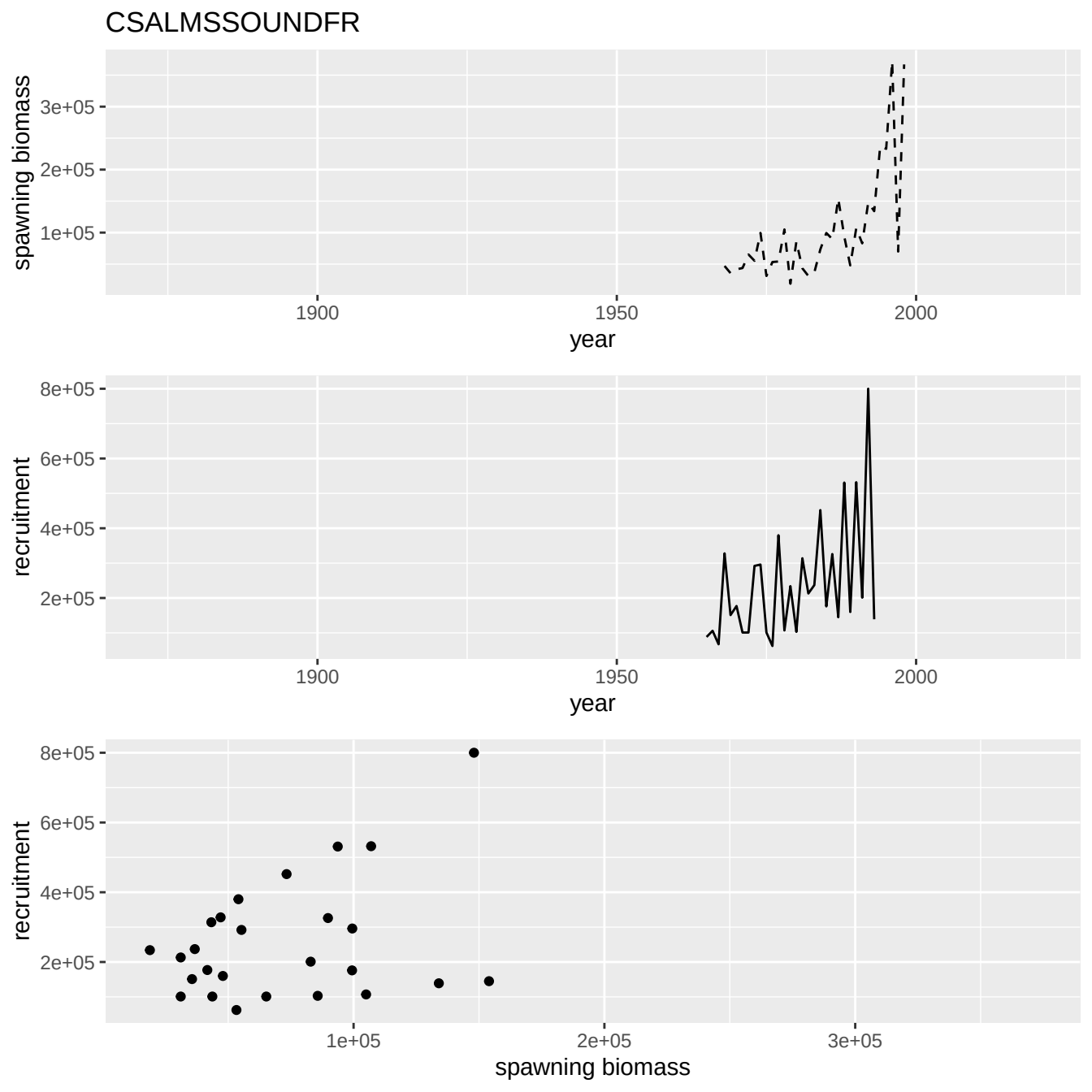

CSALMISCFPM
spawning biomass
5e+06
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
1e+06
2e+06
3e+06
4e+06
5e+06
spawning biomass

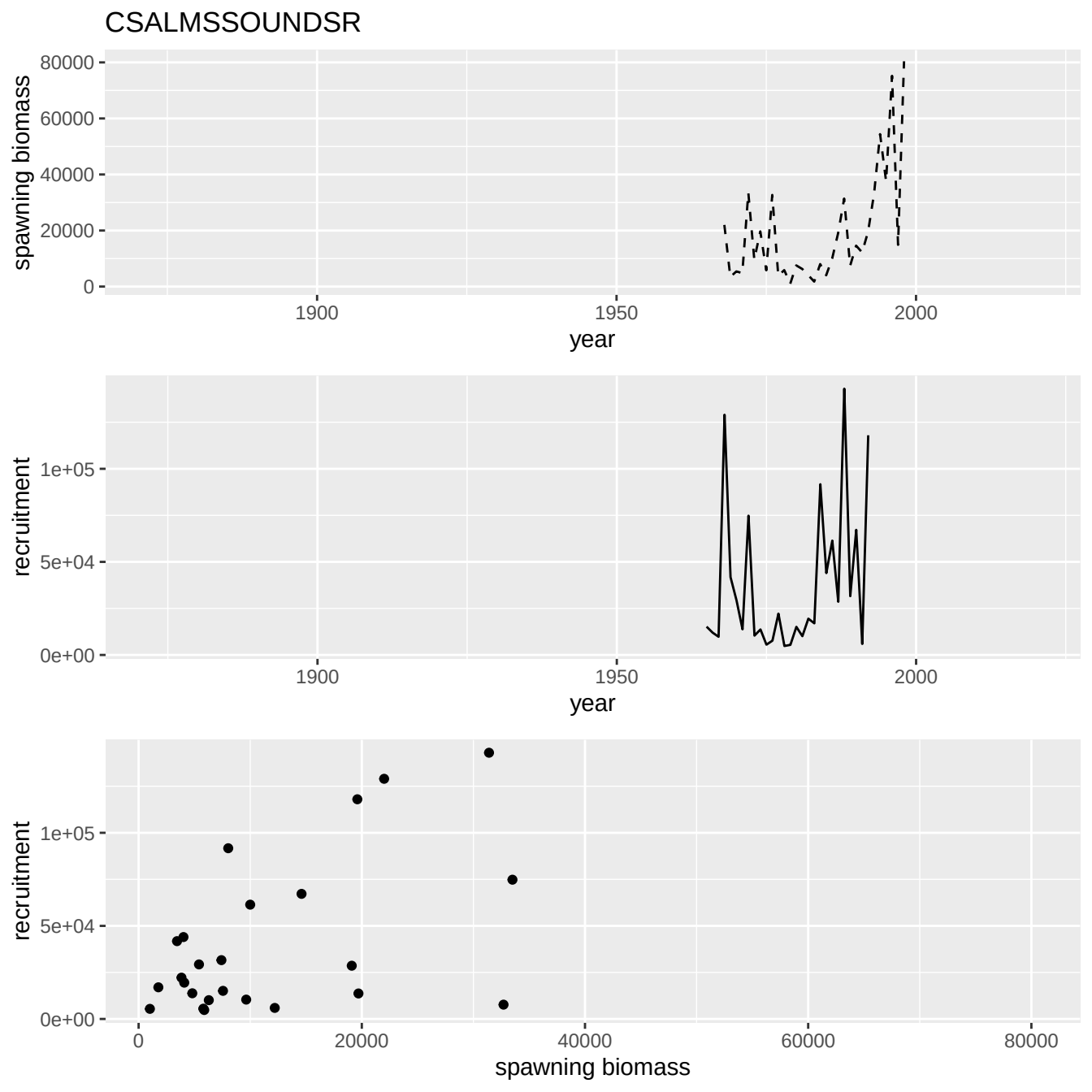

CSALMJDFS
spawning biomass
12500
10000
7500
5000
2500
0
1900
1950
2000
year
recruitment
12500
10000
7500
5000
2500
0
1900
1950
2000
year
recruitment
12500
10000
7500
5000
2500
0
0
2500
5000
7500
10000
12500
spawning biomass

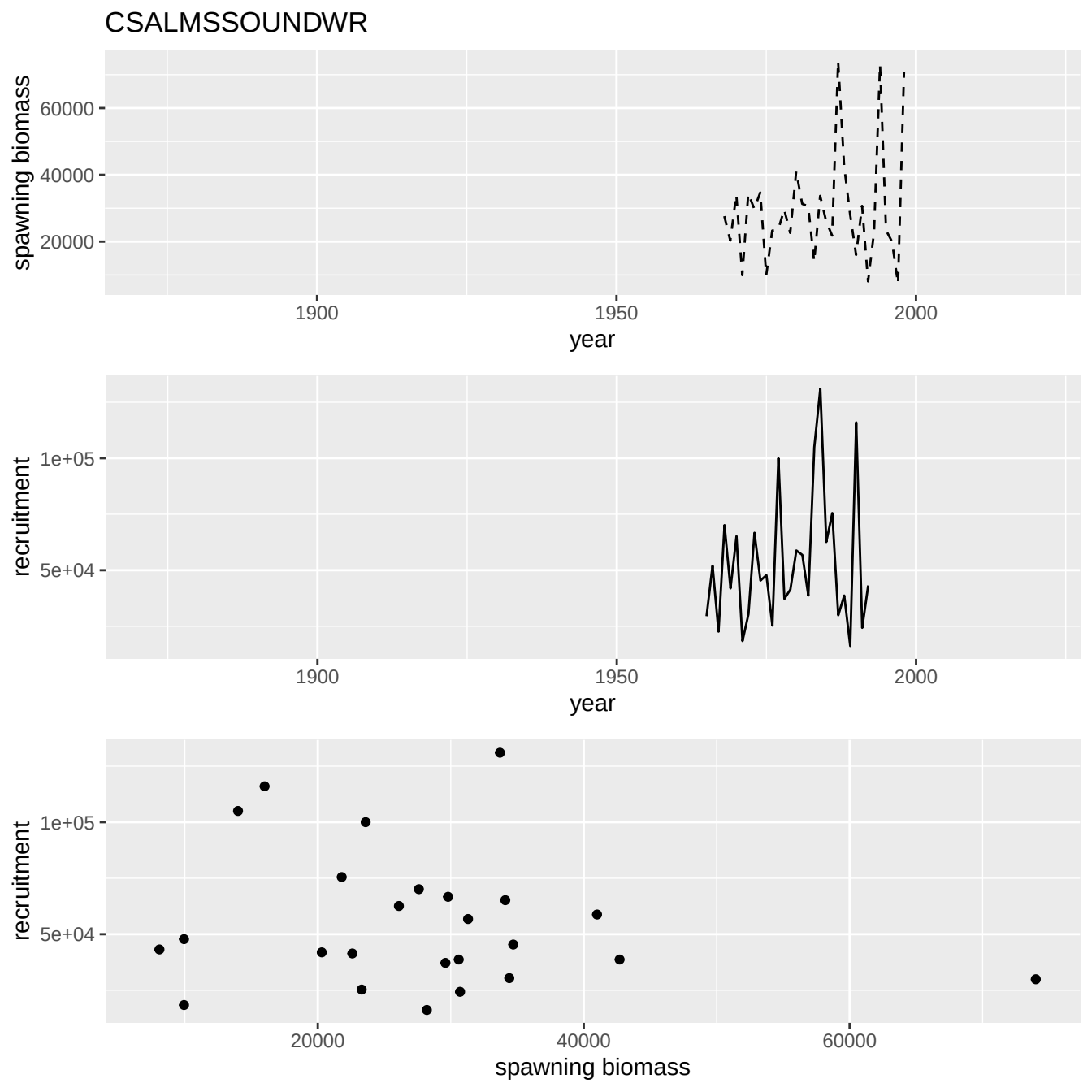

CSALMKTRNS
spawning biomass
160000
120000
80000
40000
1900
1950
2000
year
recruitment
200000
150000
100000
50000
1900
1950
2000
year
recruitment
200000
150000
100000
50000
40000
80000
120000
160000
spawning biomass

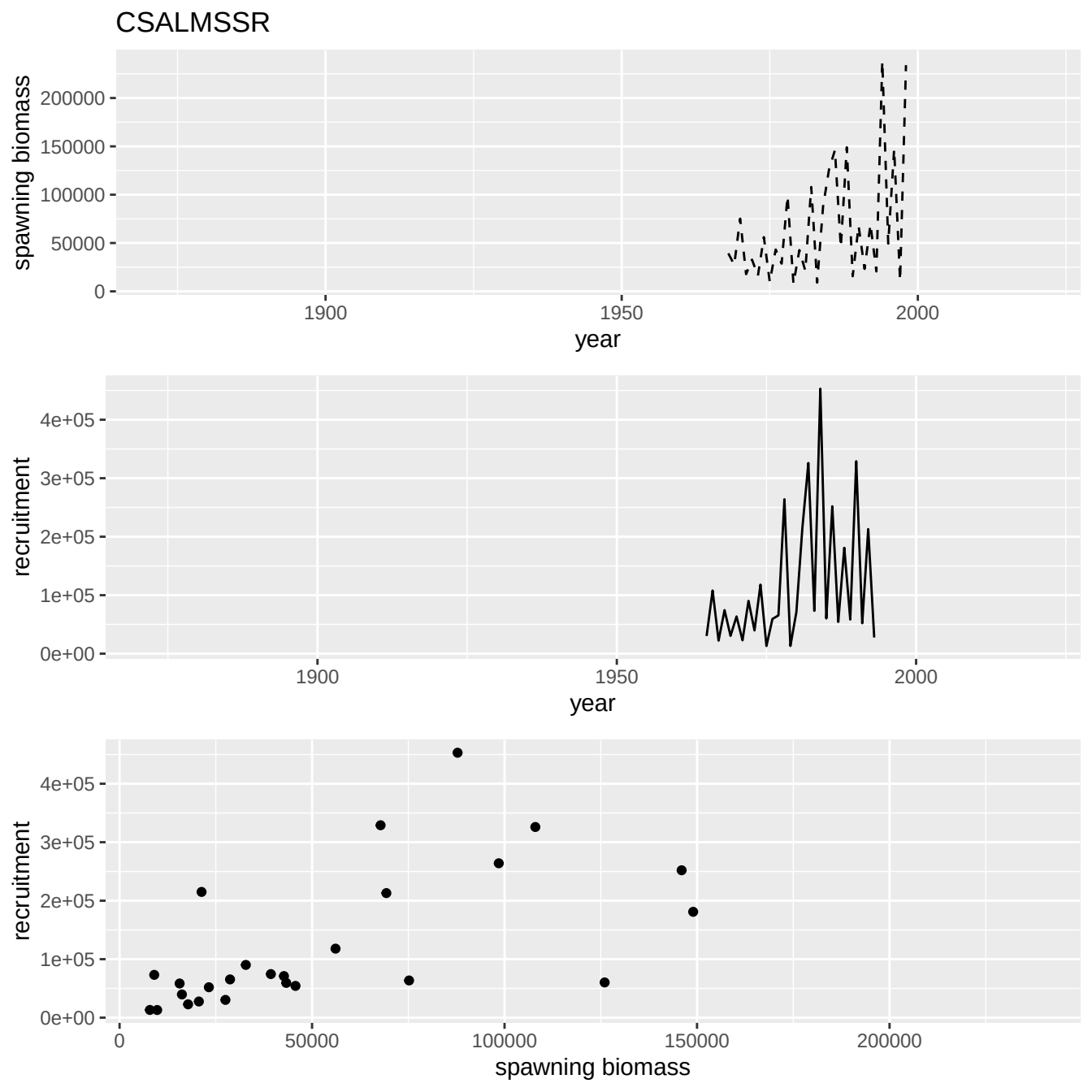

CSALMNSR
spawning biomass
75000
50000
25000
1900
1950
2000
year
recruitment
150000
100000
50000
1900
1950
2000
year
recruitment
150000
100000
50000
25000
50000
75000
spawning biomass

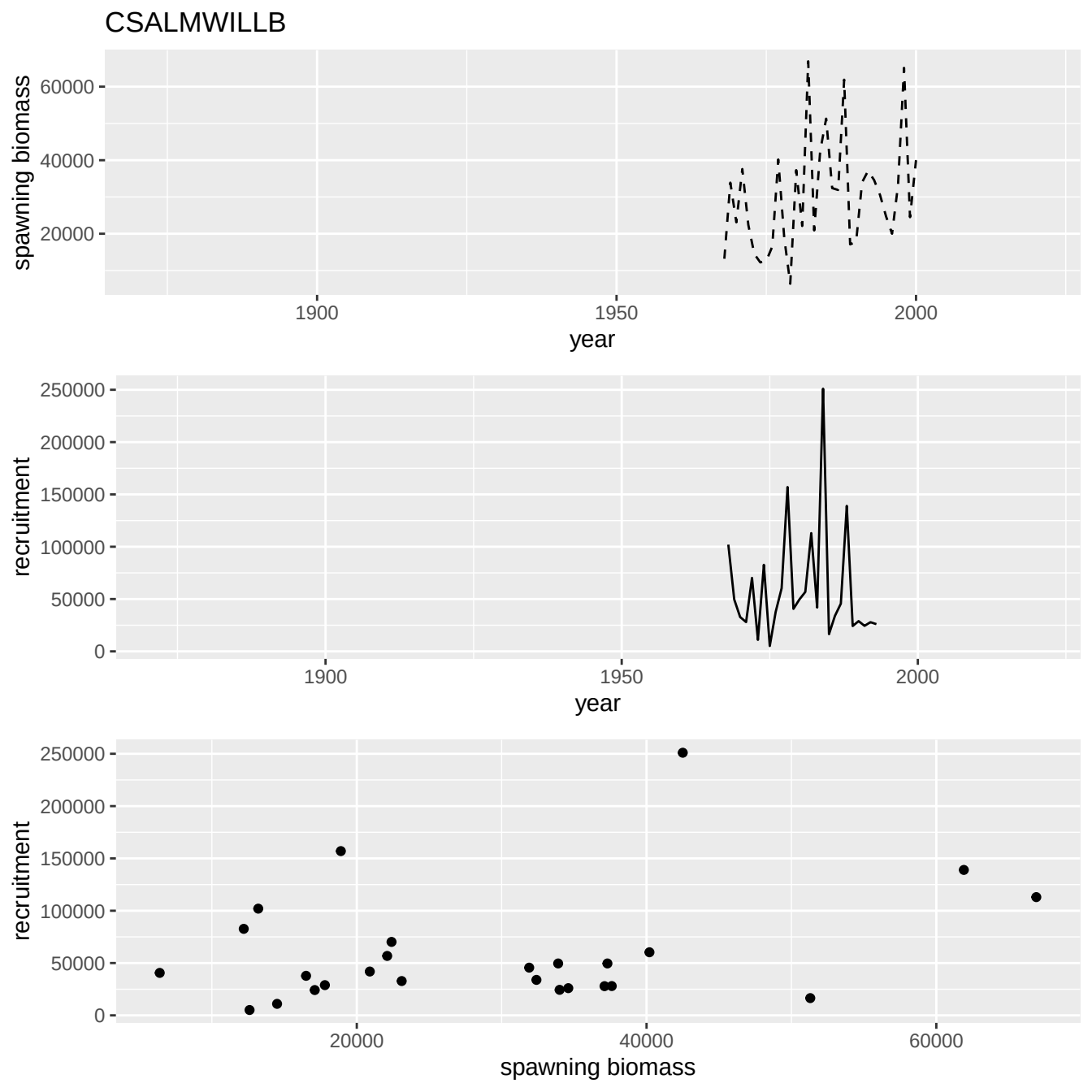

CSALMSKAGR
spawning biomass
150000
100000
50000
0
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
0
50000
100000
150000
spawning biomass

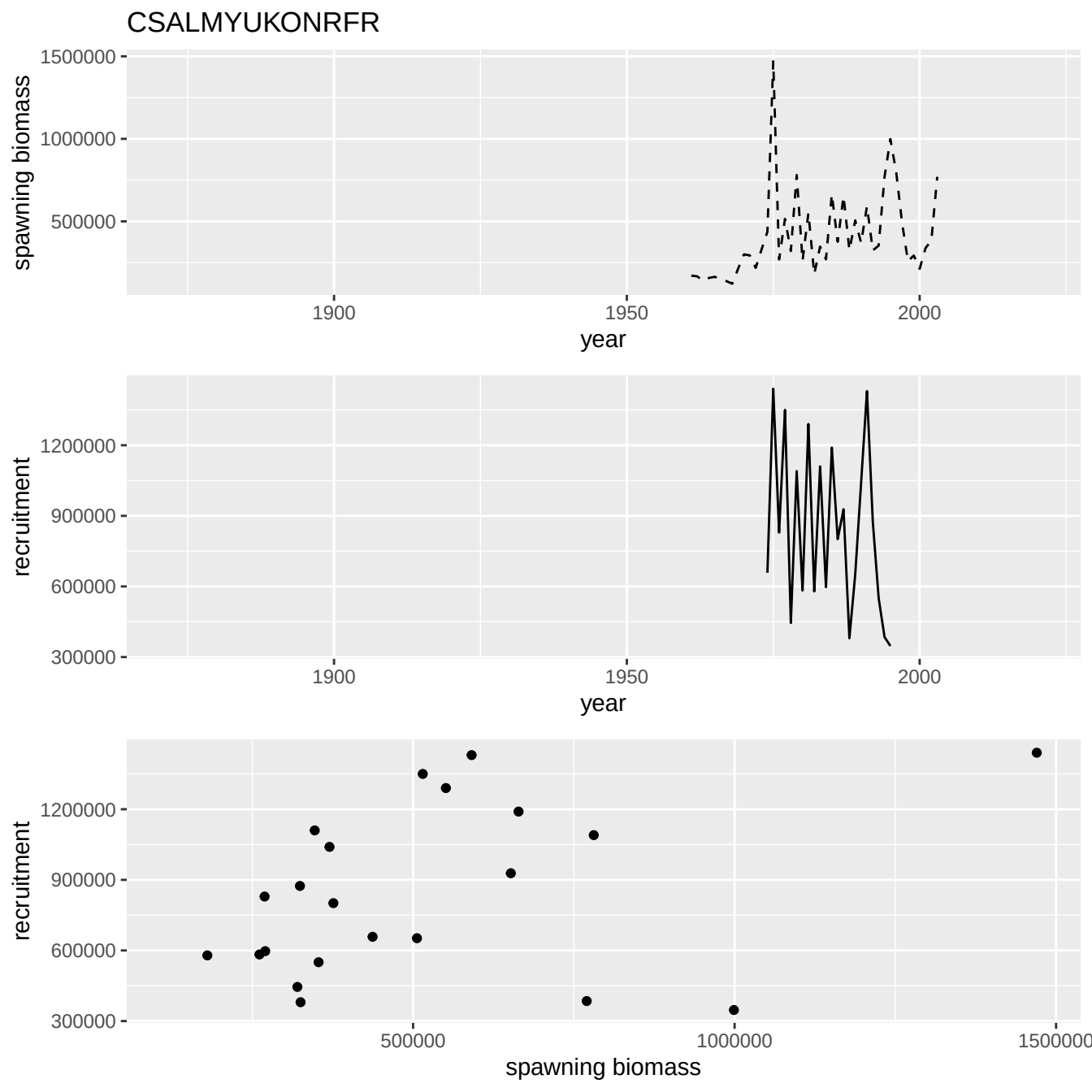

CSALMSSOUNDFR
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
8e+05
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
8e+05
6e+05
4e+05
2e+05
1e+05
2e+05
3e+05
spawning biomass

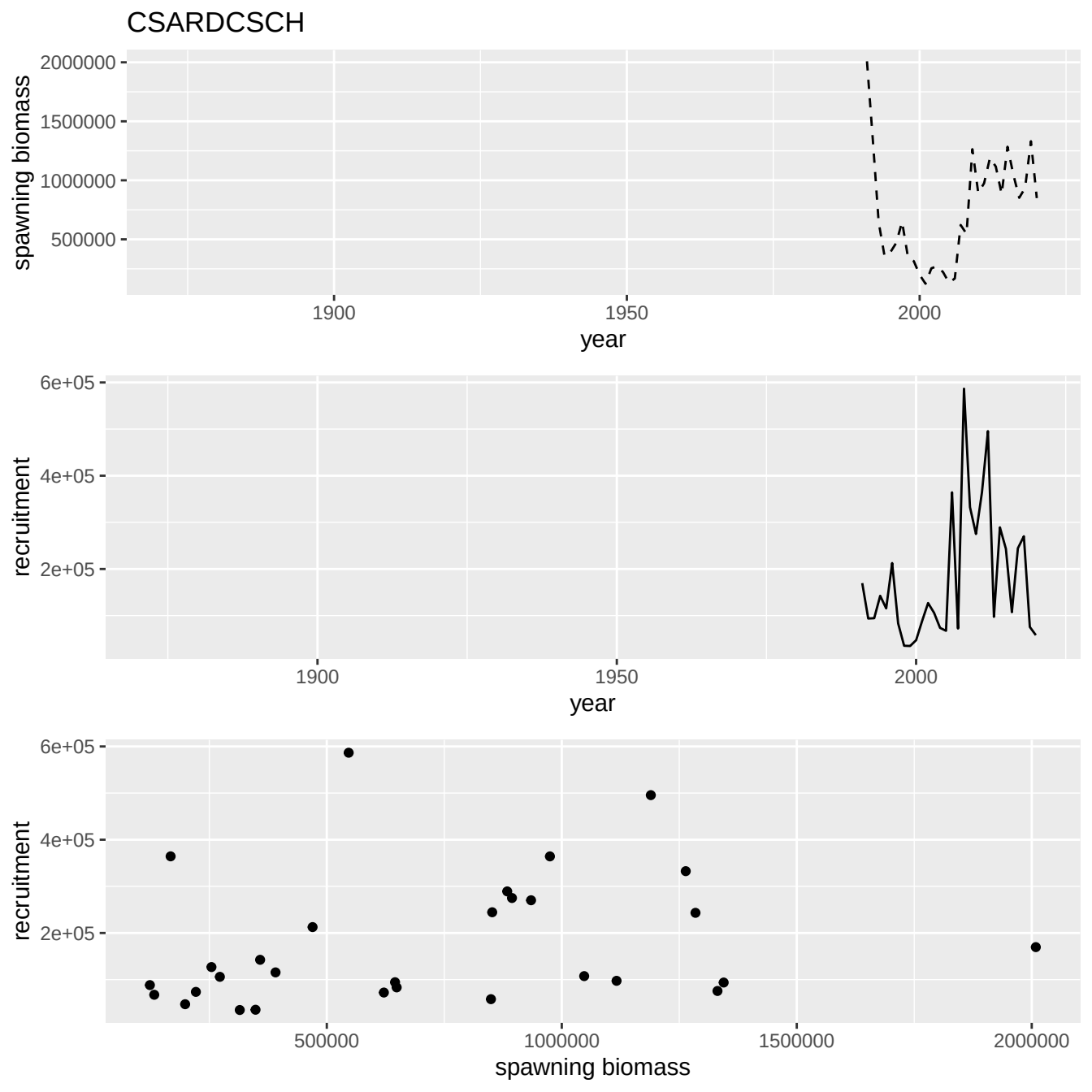

CSALMSSOUNDSR
spawning biomass
80000
60000
40000
20000
0
1900
1950
2000
year
recruitment
1e+05
5e+04
0e+00
1900
1950
2000
year
recruitment
1e+05
5e+04
0e+00
0
20000
40000
60000
80000
spawning biomass

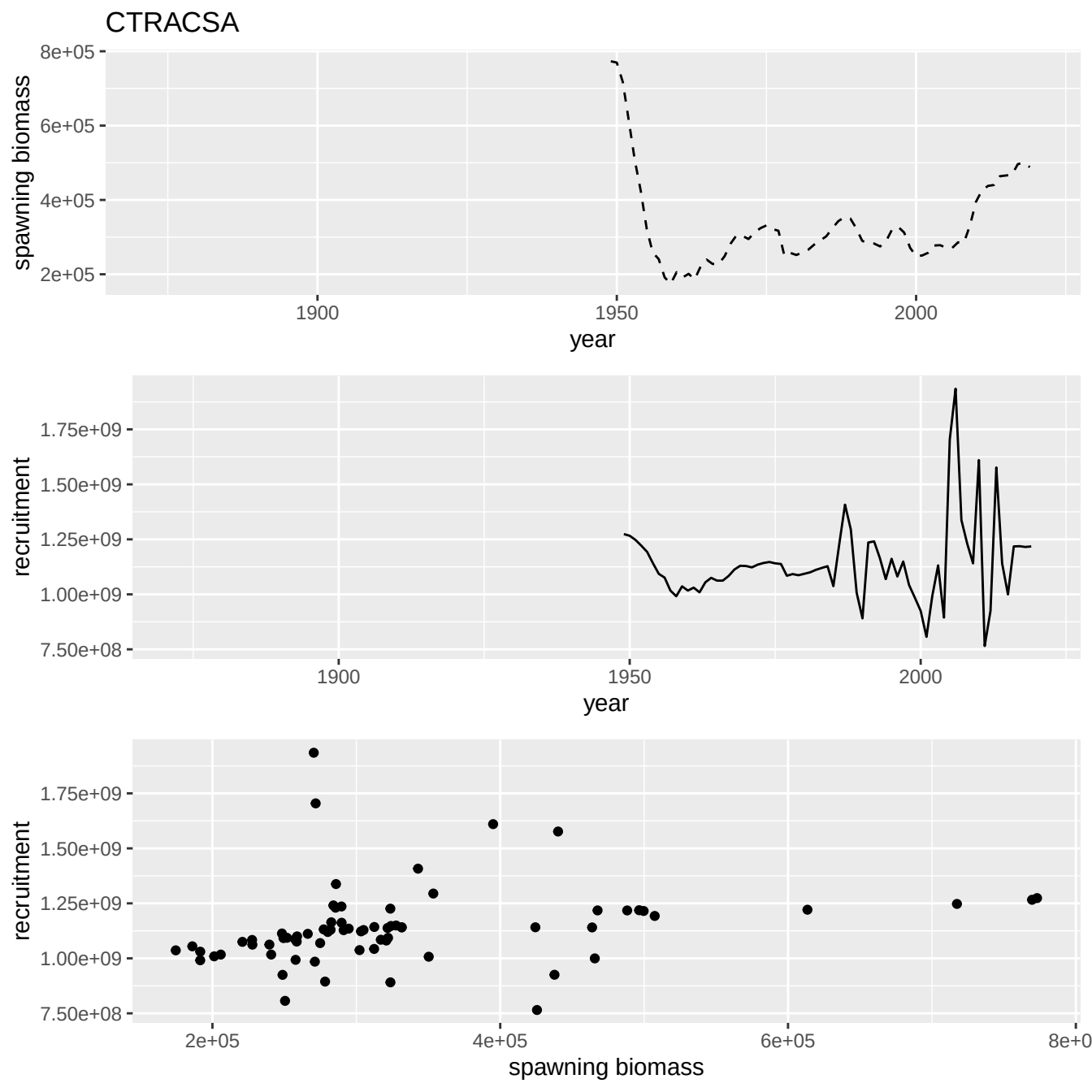

CSALMSSOUNDWR
spawning biomass
60000
40000
20000
1900
1950
2000
year
recruitment
1e+05
5e+04
1900
1950
2000
year
recruitment
1e+05
5e+04
20000
40000
60000
spawning biomass

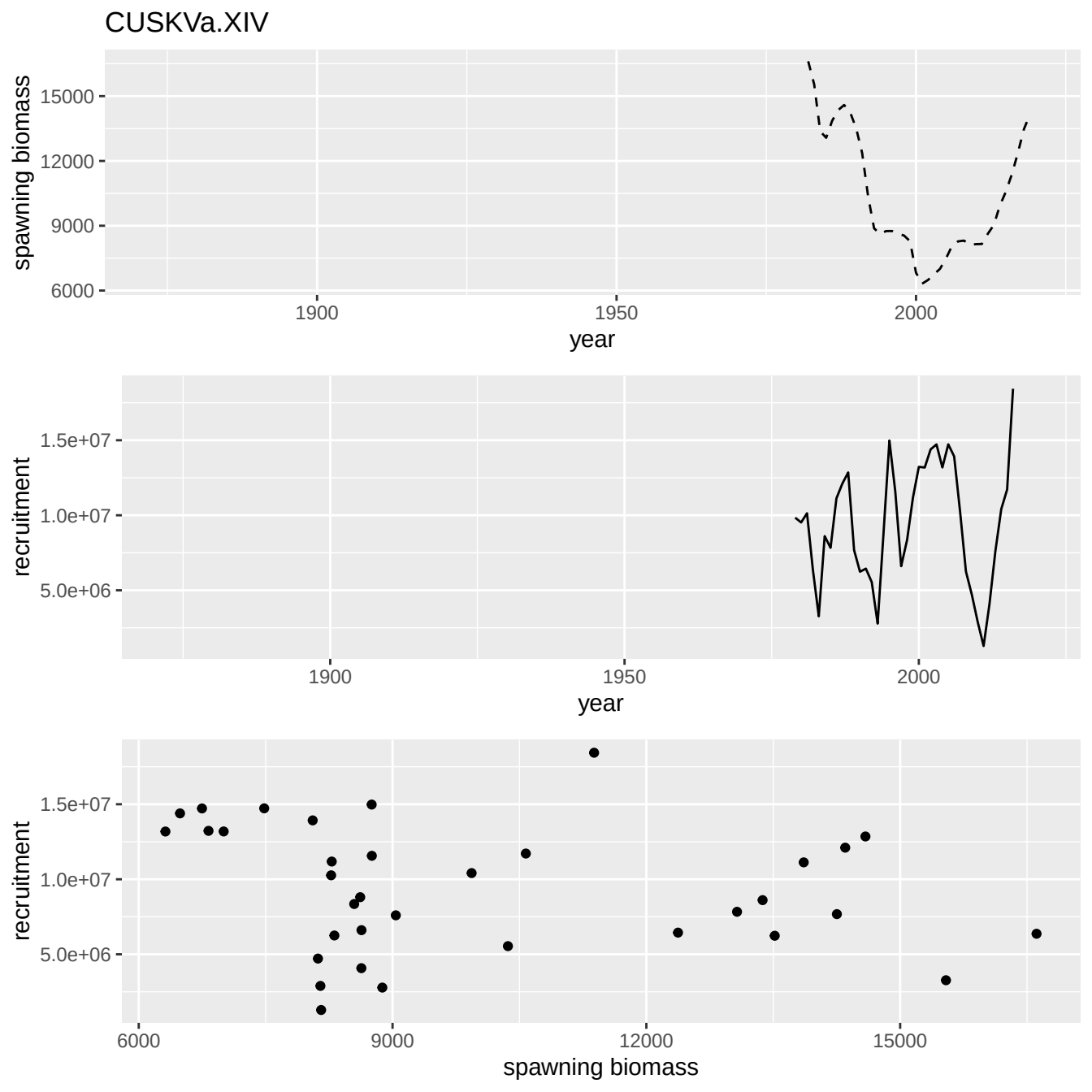

CSALMSSR
spawning biomass
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
0e+00
0
50000
100000
150000
200000
spawning biomass

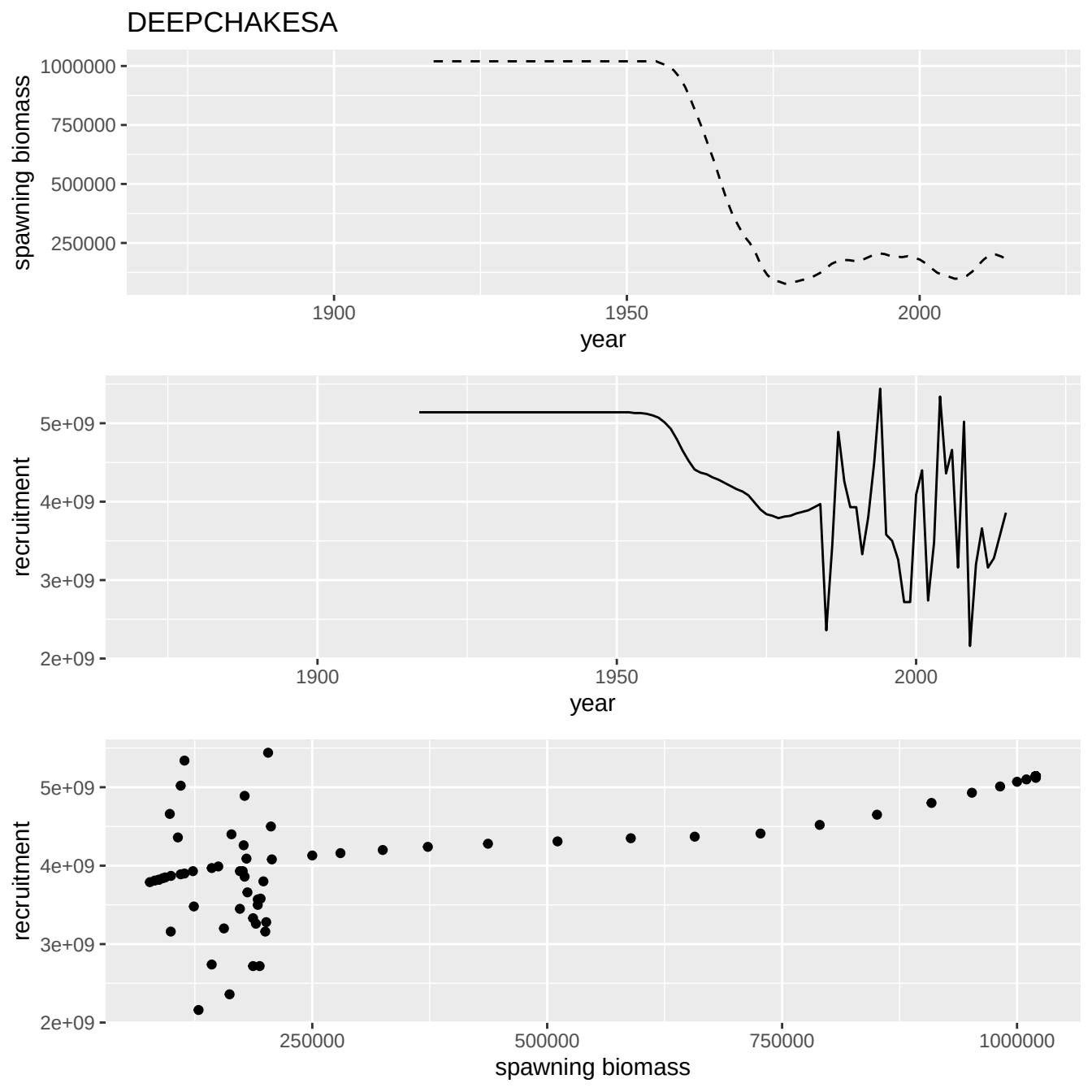

CSALMWILLB
spawning biomass
60000
40000
20000
1900
1950
2000
year
recruitment
250000
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
250000
200000
150000
100000
50000
0
20000
40000
60000
spawning biomass

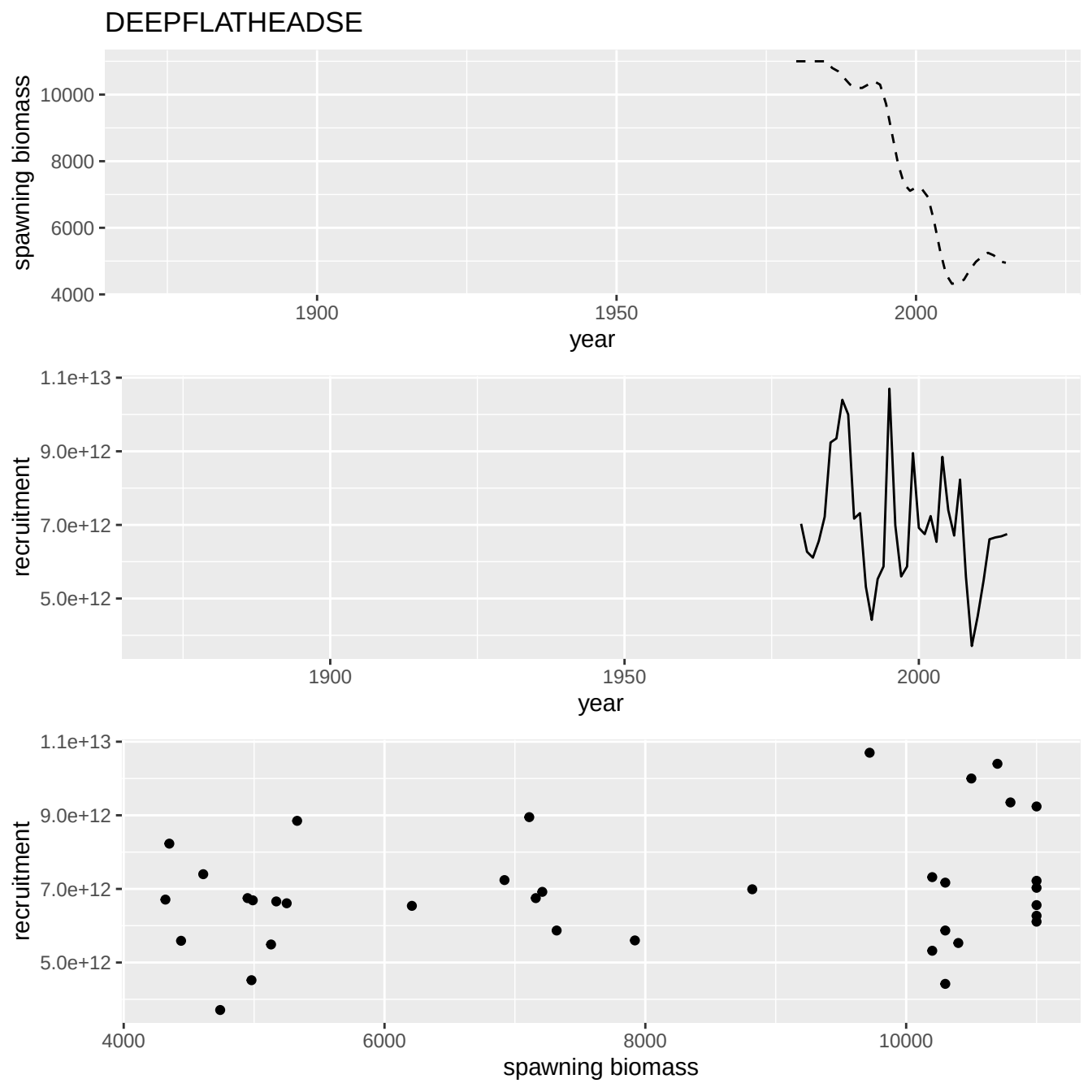

CSALMYUKONRFR
spawning biomass
1500000
1000000
500000
1900
1950
2000
year
recruitment
1200000
900000
600000
300000
1900
1950
2000
year
recruitment
1200000
900000
600000
300000
500000
1000000
1500000
spawning biomass

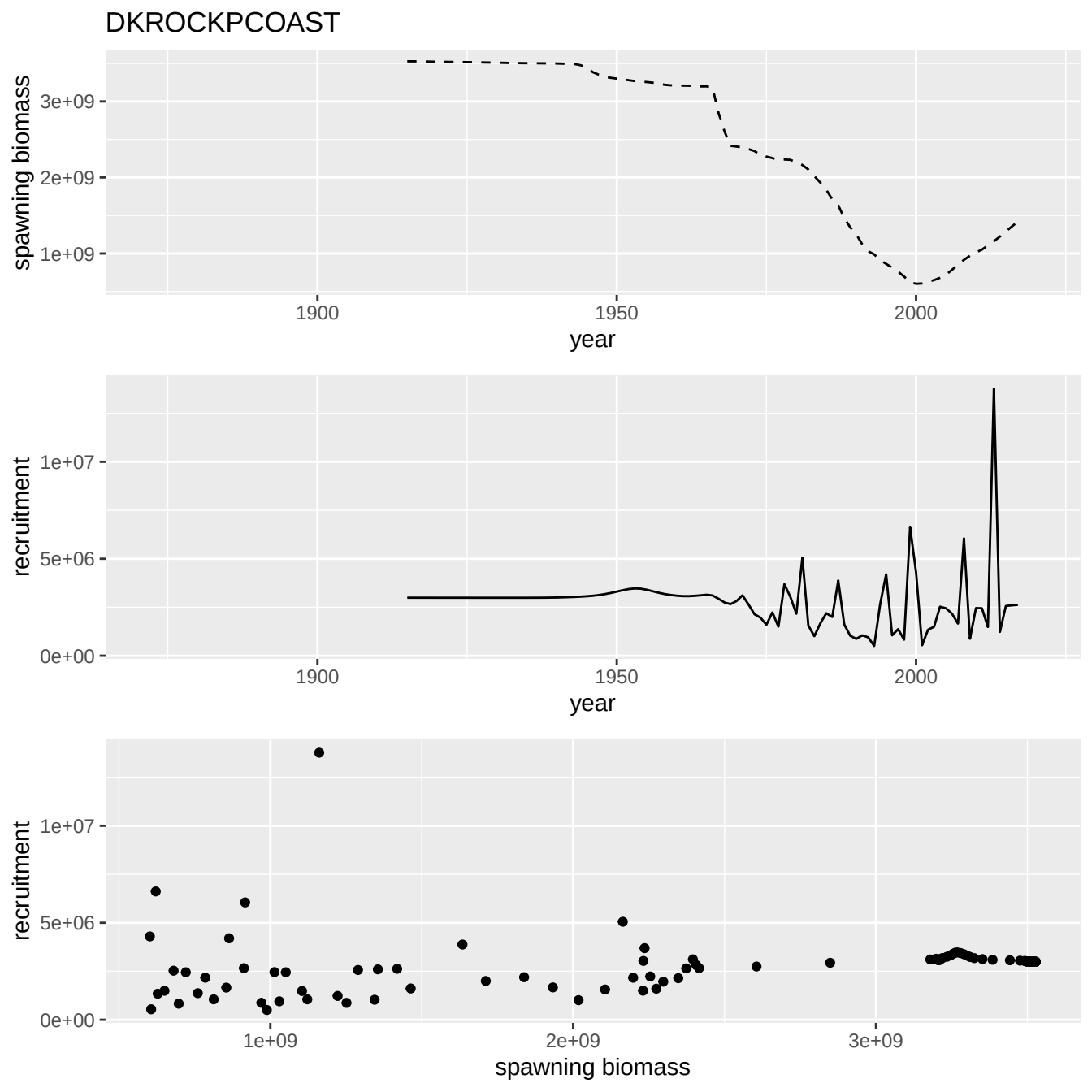

CSARDCSCH
spawning biomass
2000000
1500000
1000000
500000
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
500000
1000000
1500000
2000000
spawning biomass

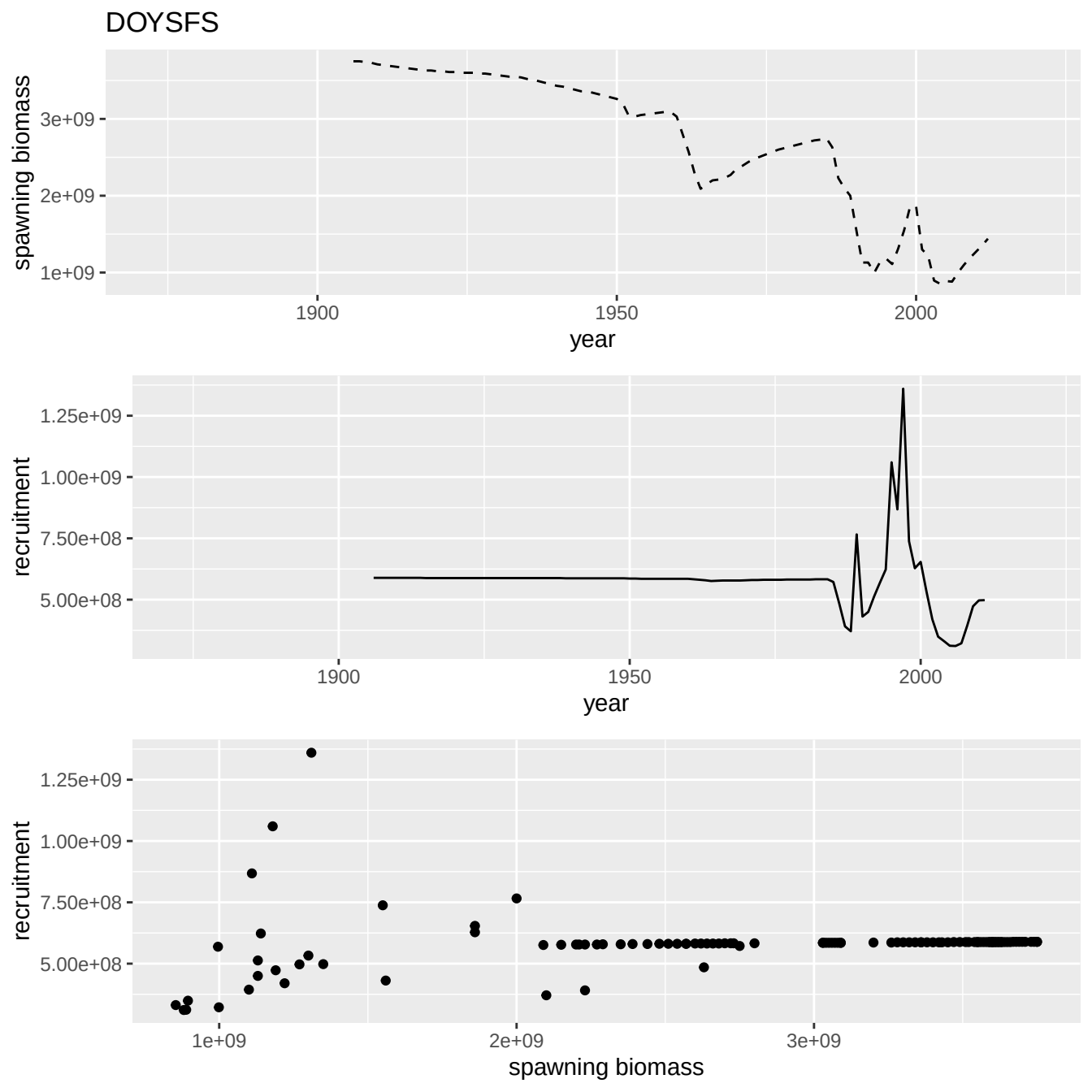

CTRACSA
spawning biomass
8e+05
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
1.75e+09
1.50e+09
1.25e+09
1.00e+09
7.50e+08
1900
1950
2000
year
recruitment
1.75e+09
1.50e+09
1.25e+09
1.00e+09
7.50e+08
2e+05
4e+05
6e+05
8e+0
spawning biomass

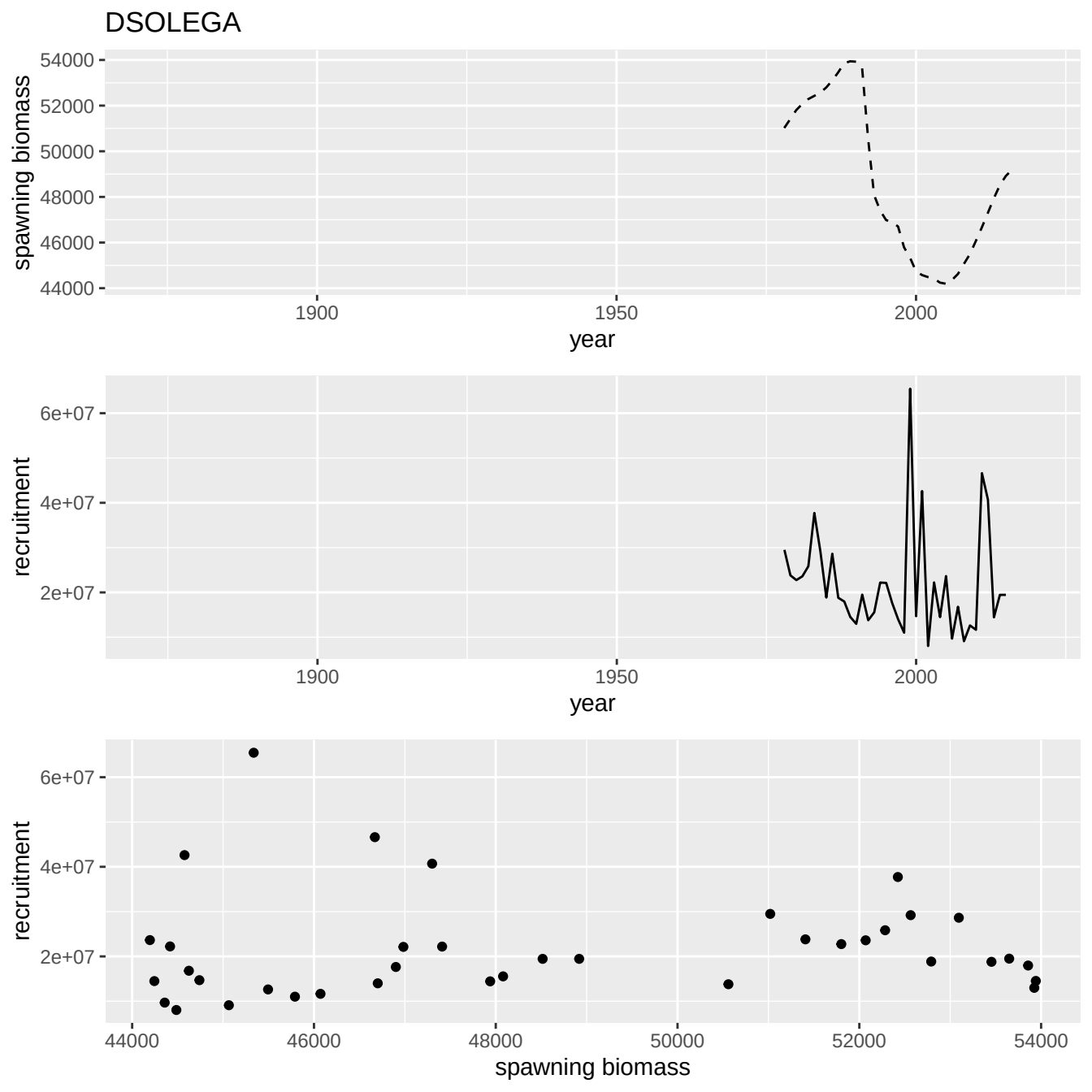

CUSKVa.XIV
spawning biomass
15000
12000
9000
6000
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
6000
9000
12000
15000
spawning biomass

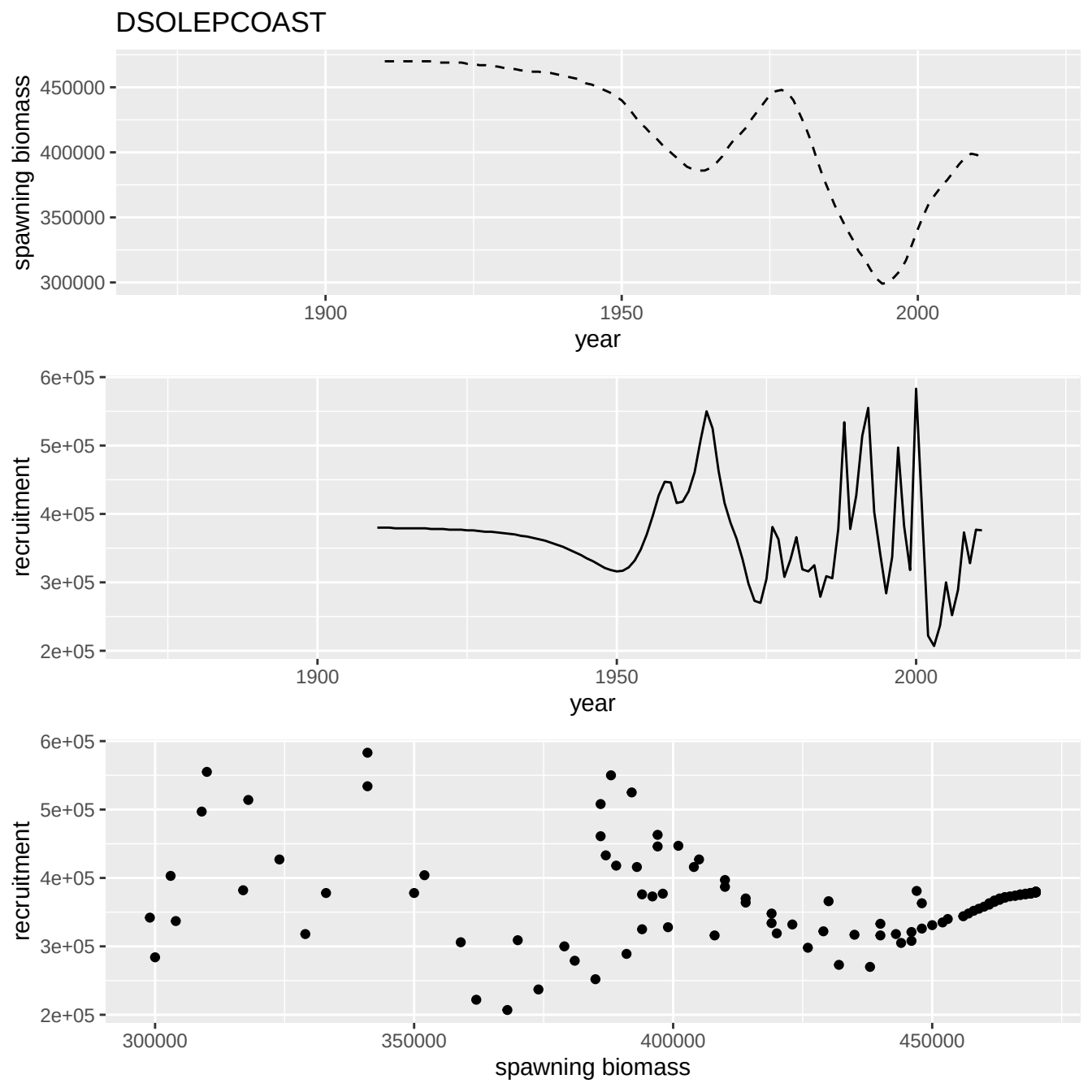

DEEPCHAKESA
spawning biomass
1000000
750000
500000
250000
1900
1950
2000
year
recruitment
5e+09
4e+09
3e+09
2e+09
1900
1950
2000
year
recruitment
5e+09
4e+09
3e+09
2e+09
250000
500000
750000
1000000
spawning biomass

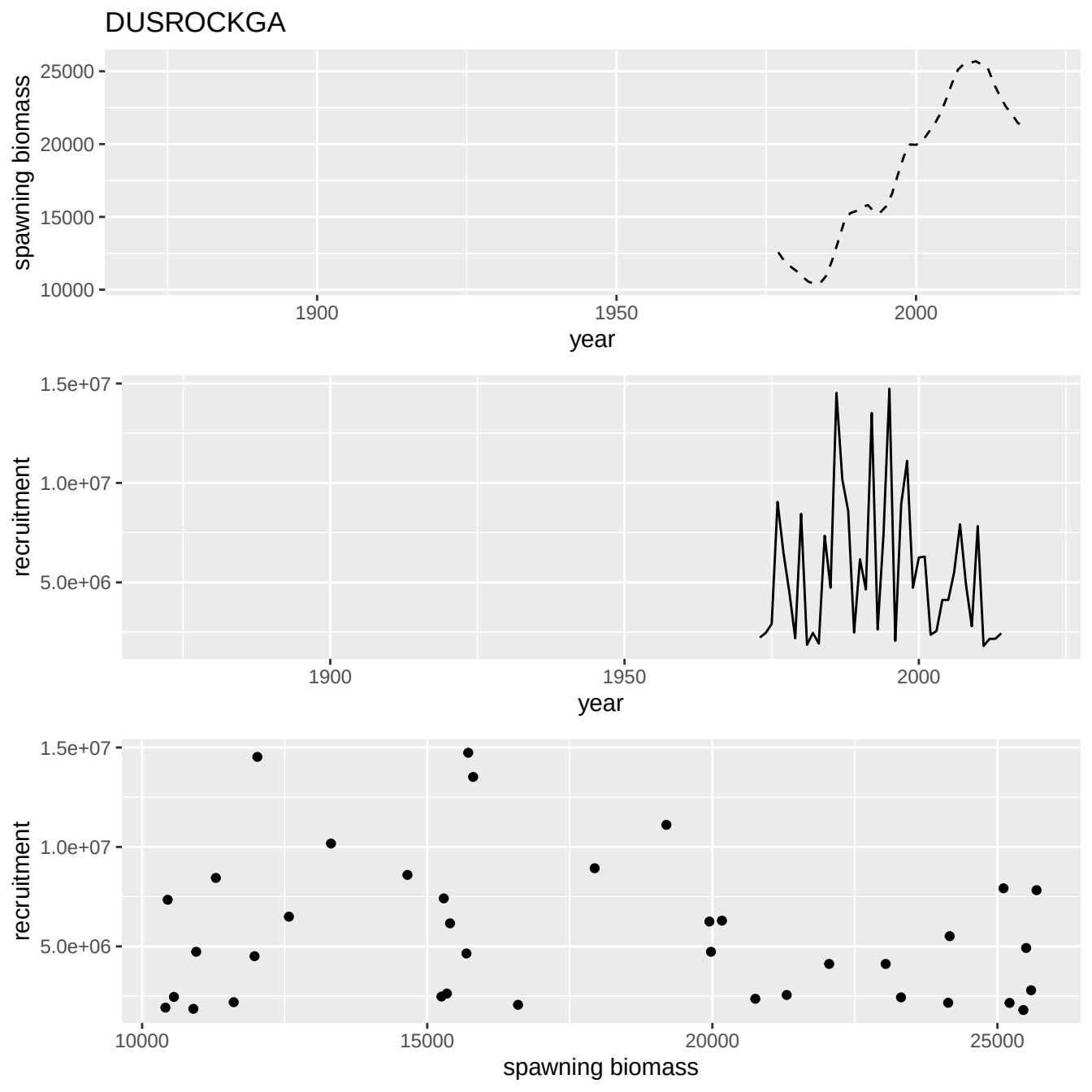

DEEPFLATHEADSE
spawning biomass
10000
8000
6000
4000
1900
1950
2000
year
recruitment
1.1e+13
9.0e+12
7.0e+12
5.0e+12
1900
1950
2000
year
recruitment
1.1e+13
9.0e+12
7.0e+12
5.0e+12
4000
6000
8000
10000
spawning biomass

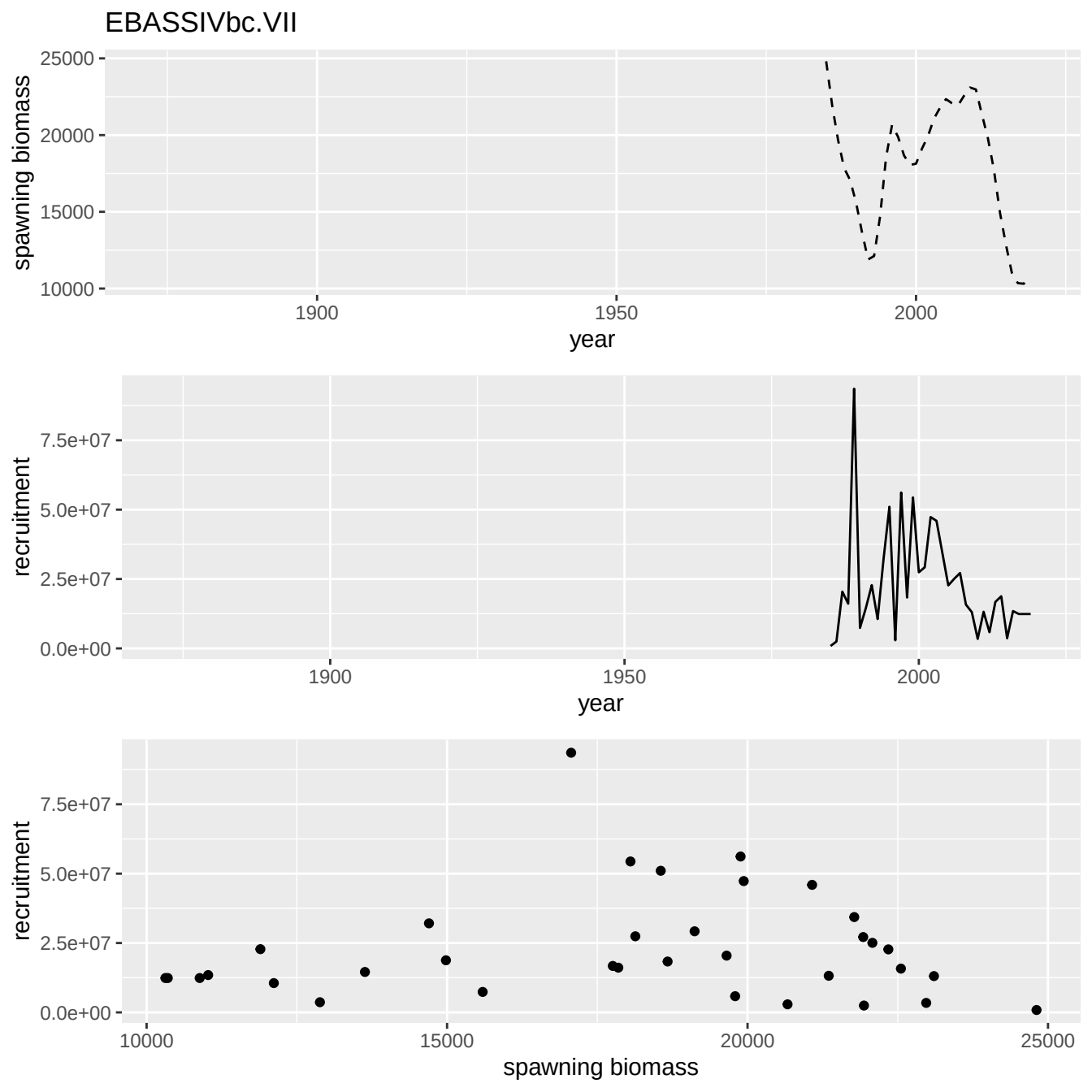

DKROCKPCOAST
spawning biomass
3e+09
2e+09
1e+09
1900
1950
2000
year
recruitment
1e+07
5e+06
0e+00
1900
1950
2000
year
recruitment
1e+07
5e+06
0e+00
1e+09
2e+09
3e+09
spawning biomass

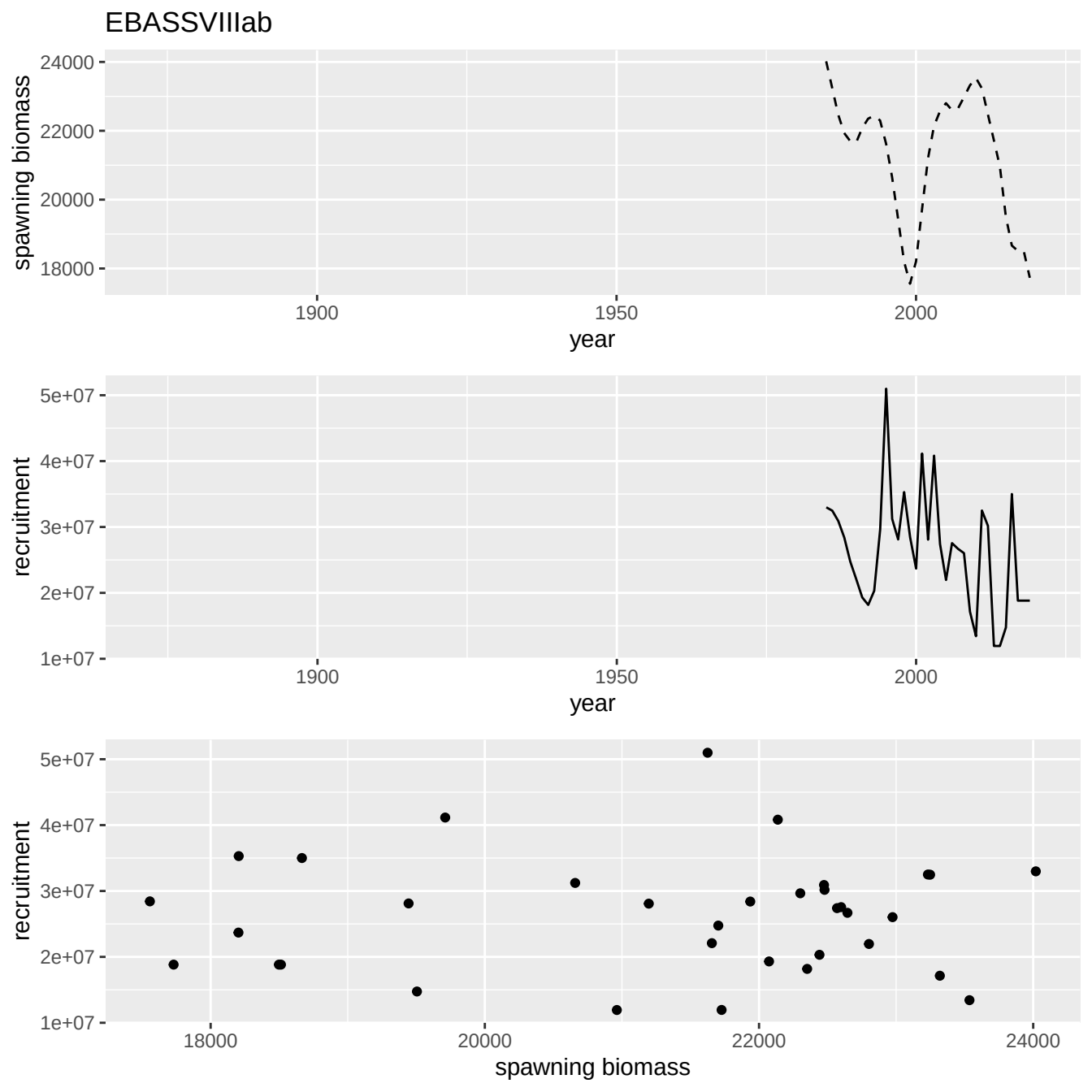

DOYSFS
spawning biomass
3e+09
2e+09
1e+09
1900
1950
2000
year
recruitment
1.25e+09
1.00e+09
7.50e+08
5.00e+08
1900
1950
2000
year
recruitment
1.25e+09
1.00e+09
7.50e+08
5.00e+08
1e+09
2e+09
3e+09
spawning biomass

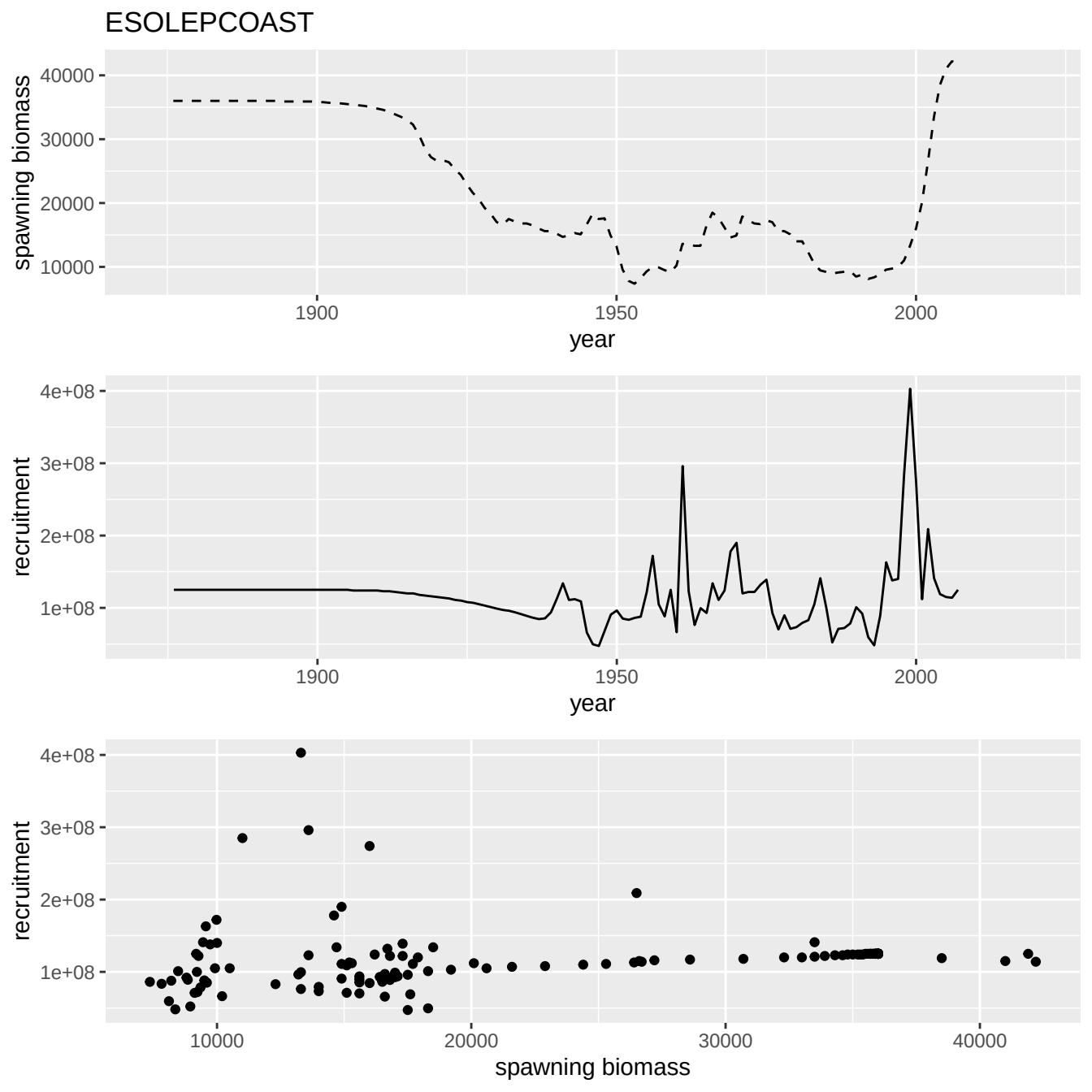

DSOLEGA
spawning biomass
54000
52000
50000
48000
46000
44000
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
44000
46000
48000
50000
52000
54000
spawning biomass

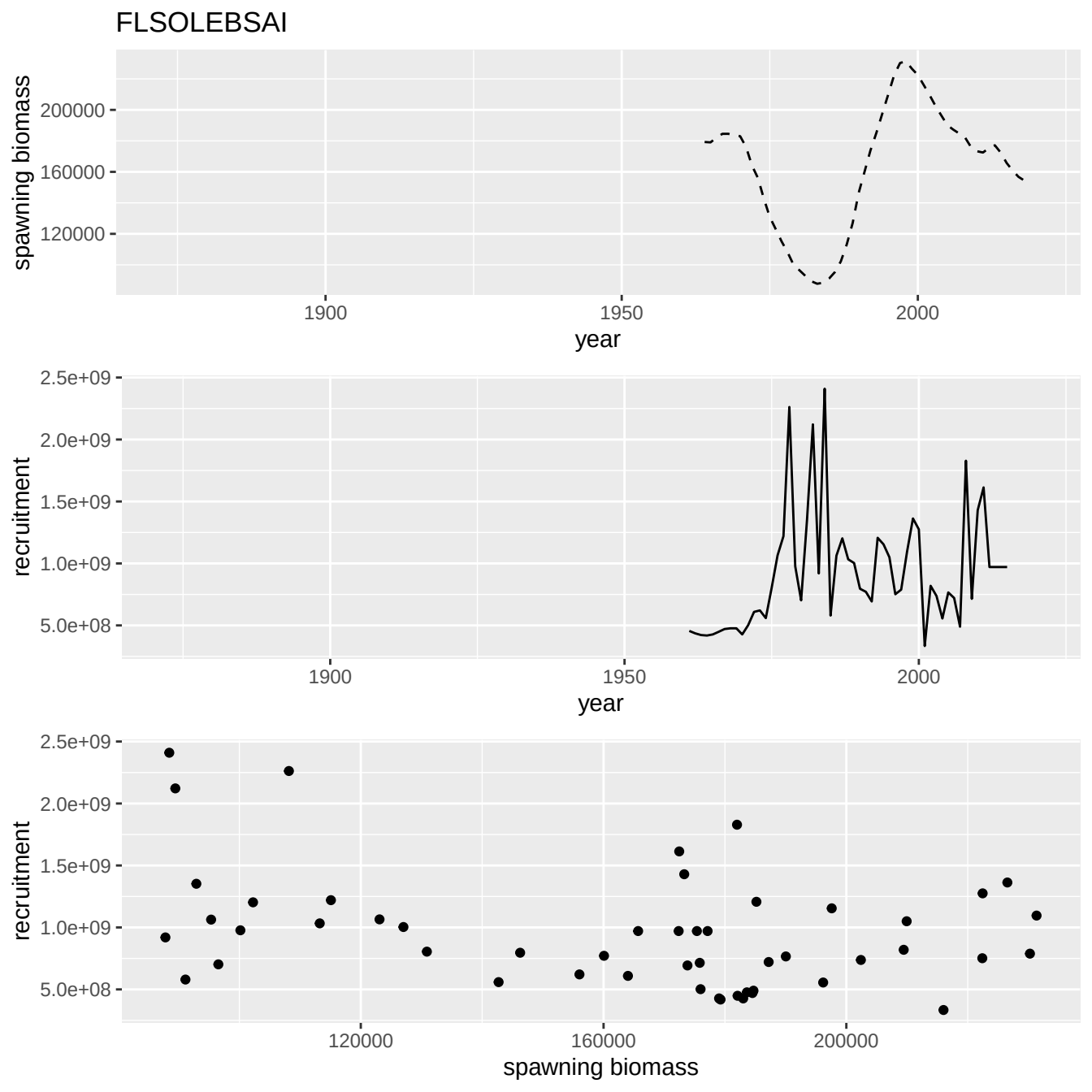

DSOLEPCOAST
spawning biomass
450000
400000
350000
300000
1900
1950
2000
year
recruitment
6e+05
5e+05
4e+05
3e+05
2e+05
1900
1950
2000
year
recruitment
6e+05
5e+05
4e+05
3e+05
2e+05
300000
350000
400000
450000
spawning biomass

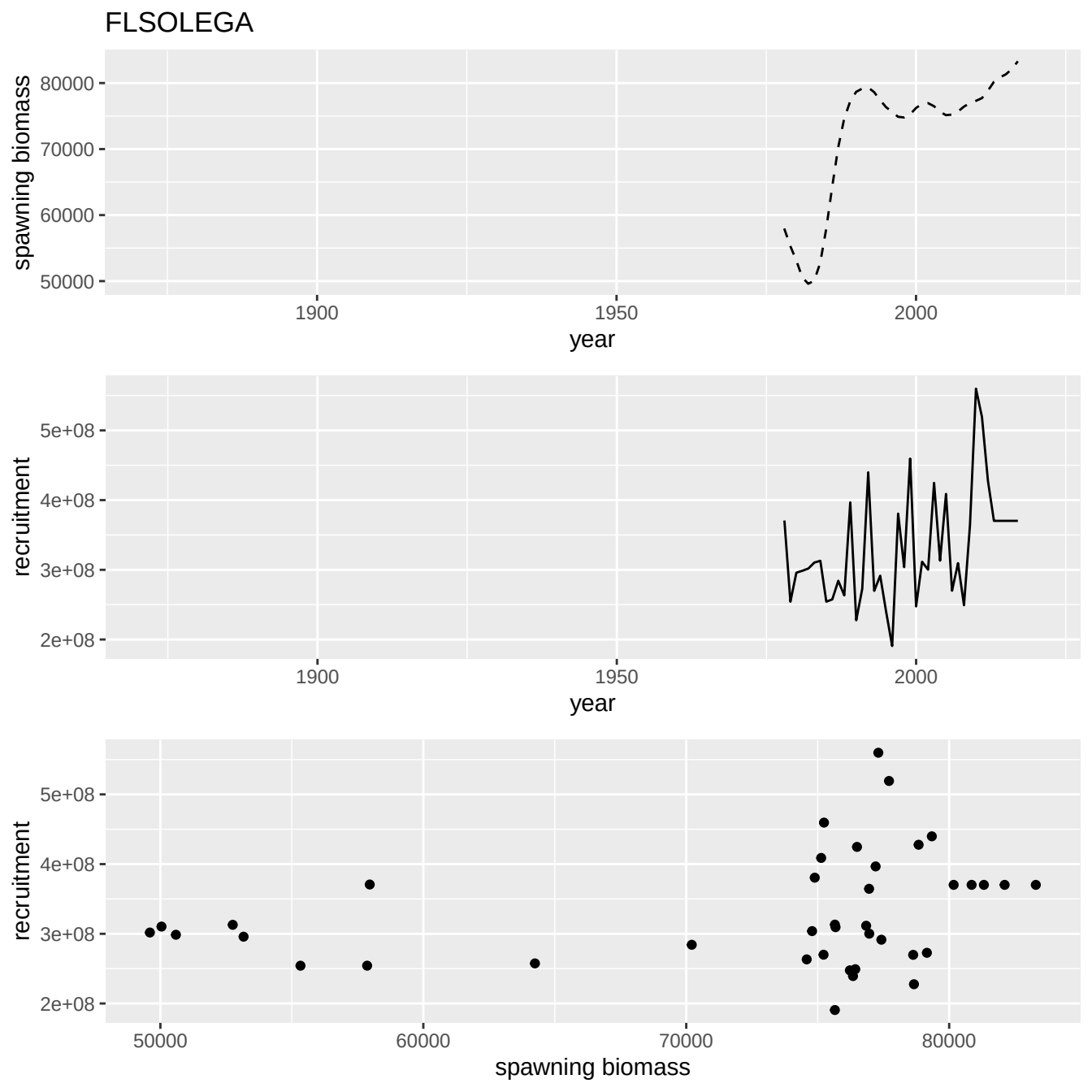

DUSROCKGA
spawning biomass
25000
20000
15000
10000
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
10000
15000
20000
25000
spawning biomass

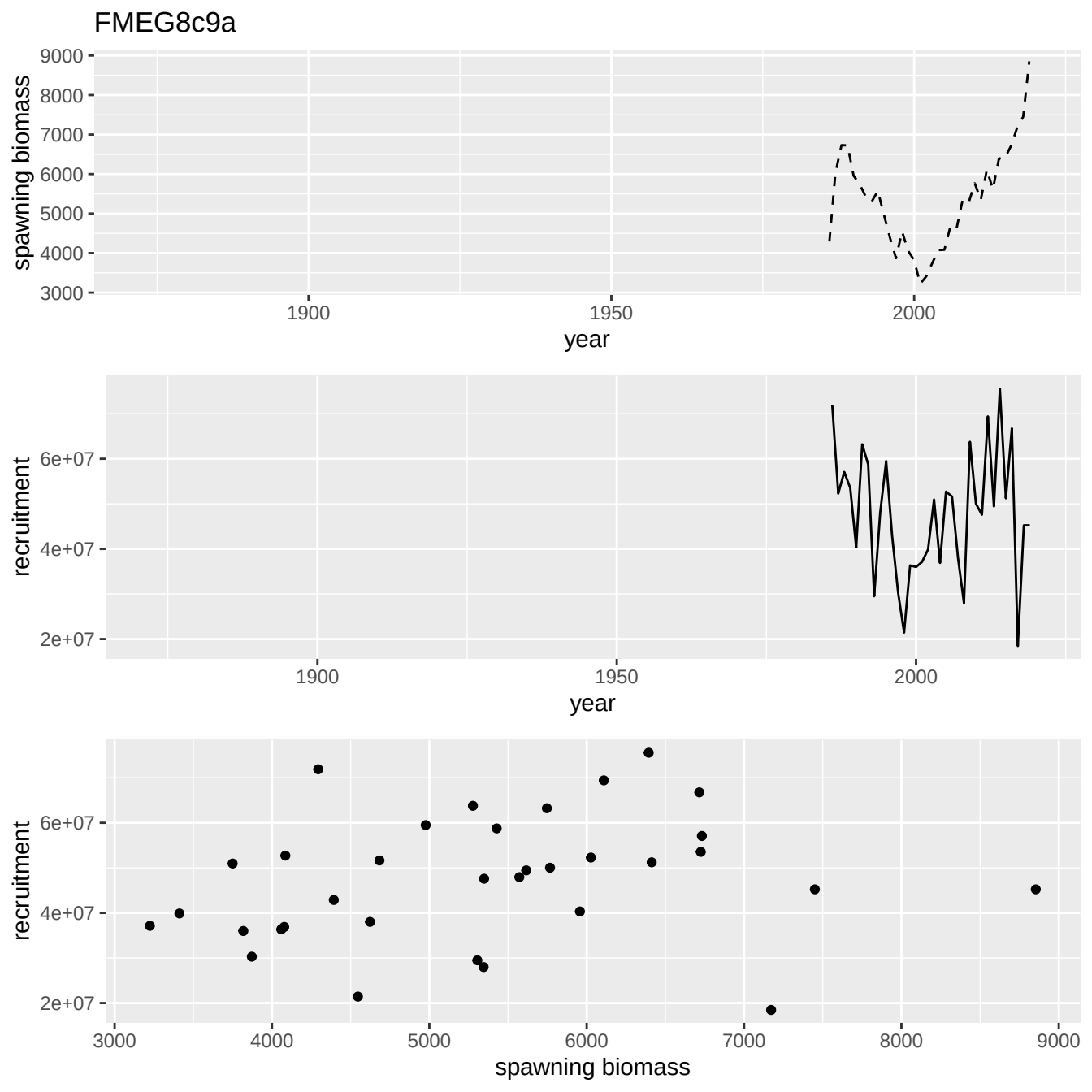

EBASSIVbc.VII
spawning biomass
25000
20000
15000
10000
1900
1950
2000
year
recruitment
7.5e+07
5.0e+07
2.5e+07
0.0e+00
1900
1950
2000
year
recruitment
7.5e+07
5.0e+07
2.5e+07
0.0e+00
10000
15000
20000
25000
spawning biomass

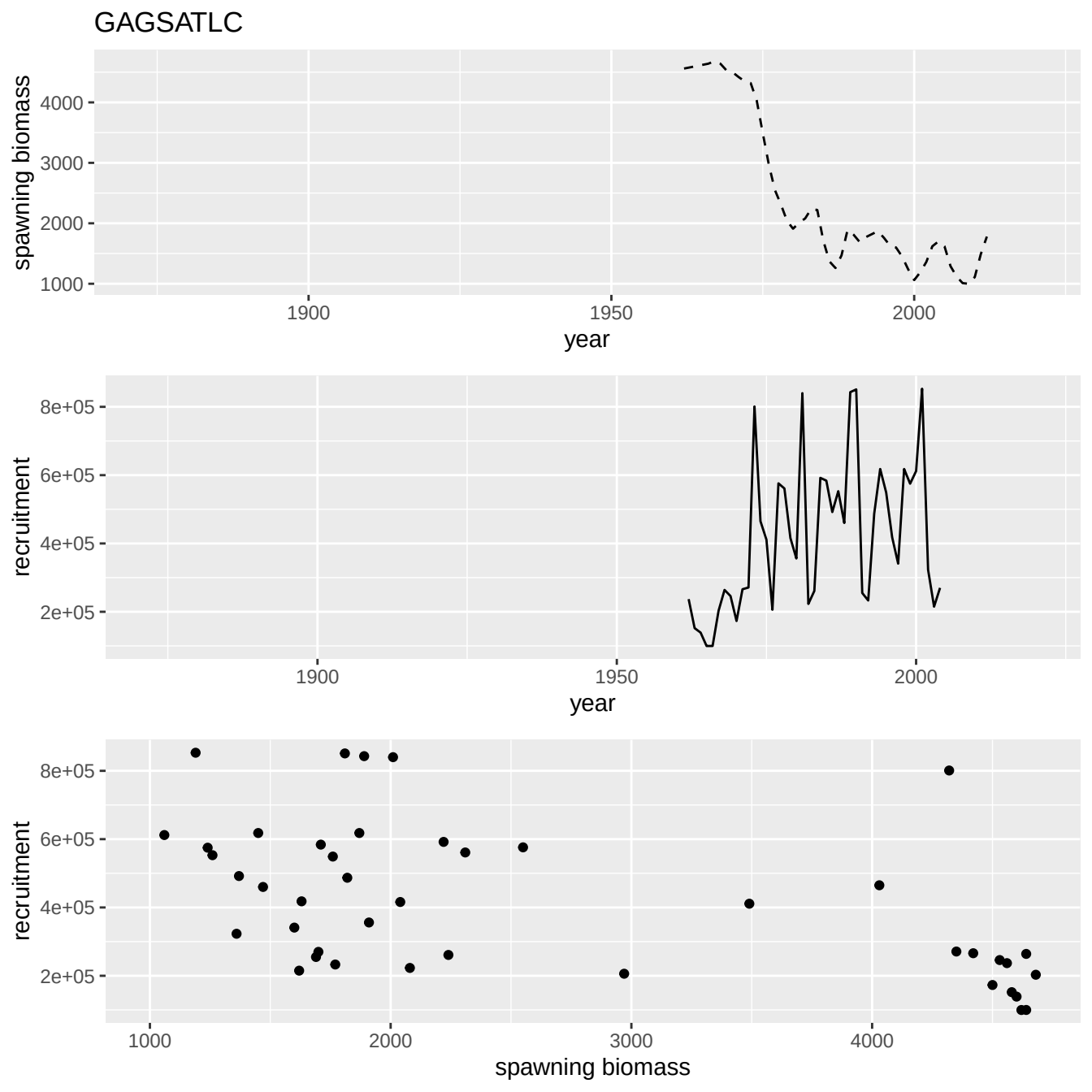

EBASSVIIIab
spawning biomass
24000
22000
20000
18000
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
18000
20000
22000
24000
spawning biomass

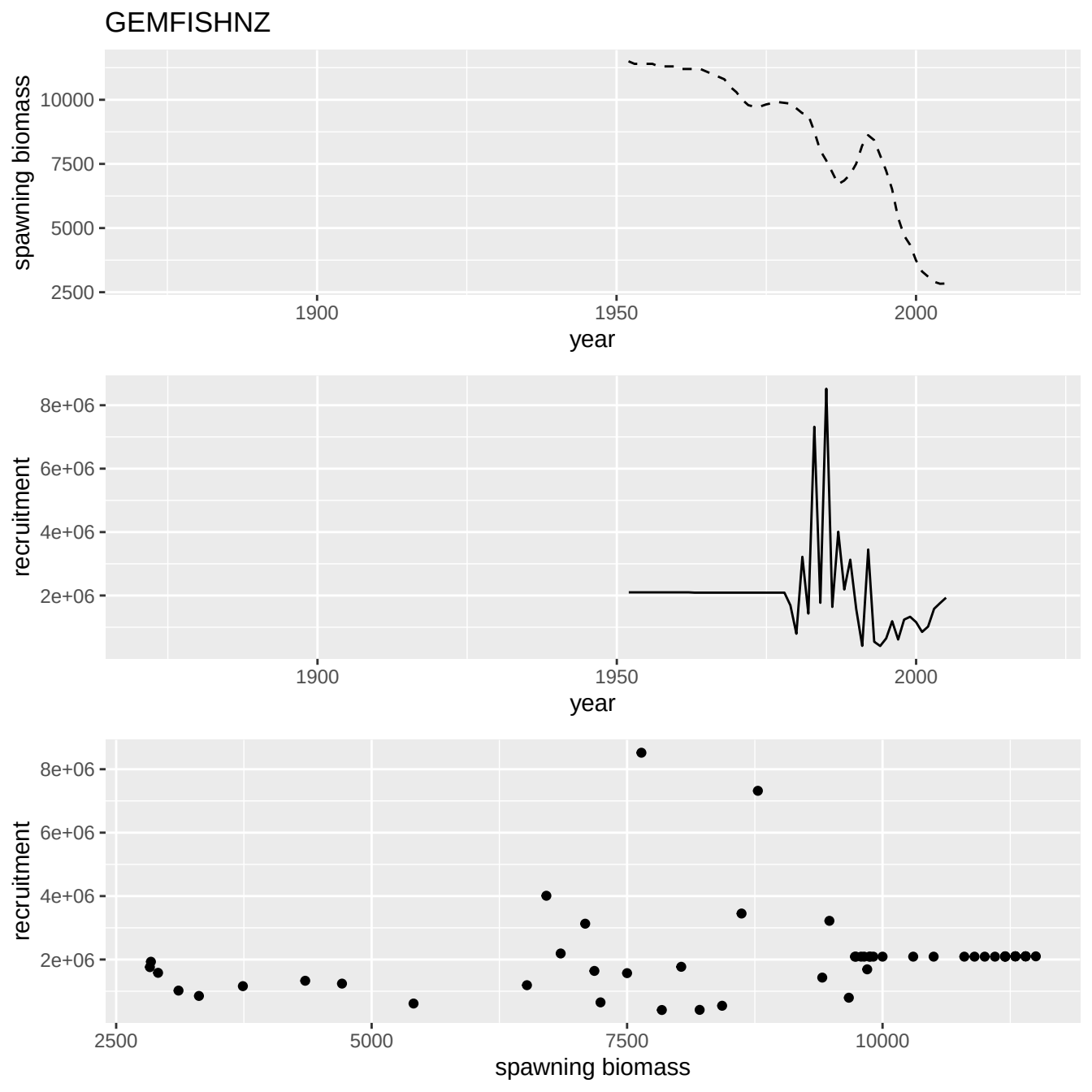

ESOLEPCOAST
spawning biomass
40000
30000
20000
10000
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
10000
20000
30000
40000
spawning biomass

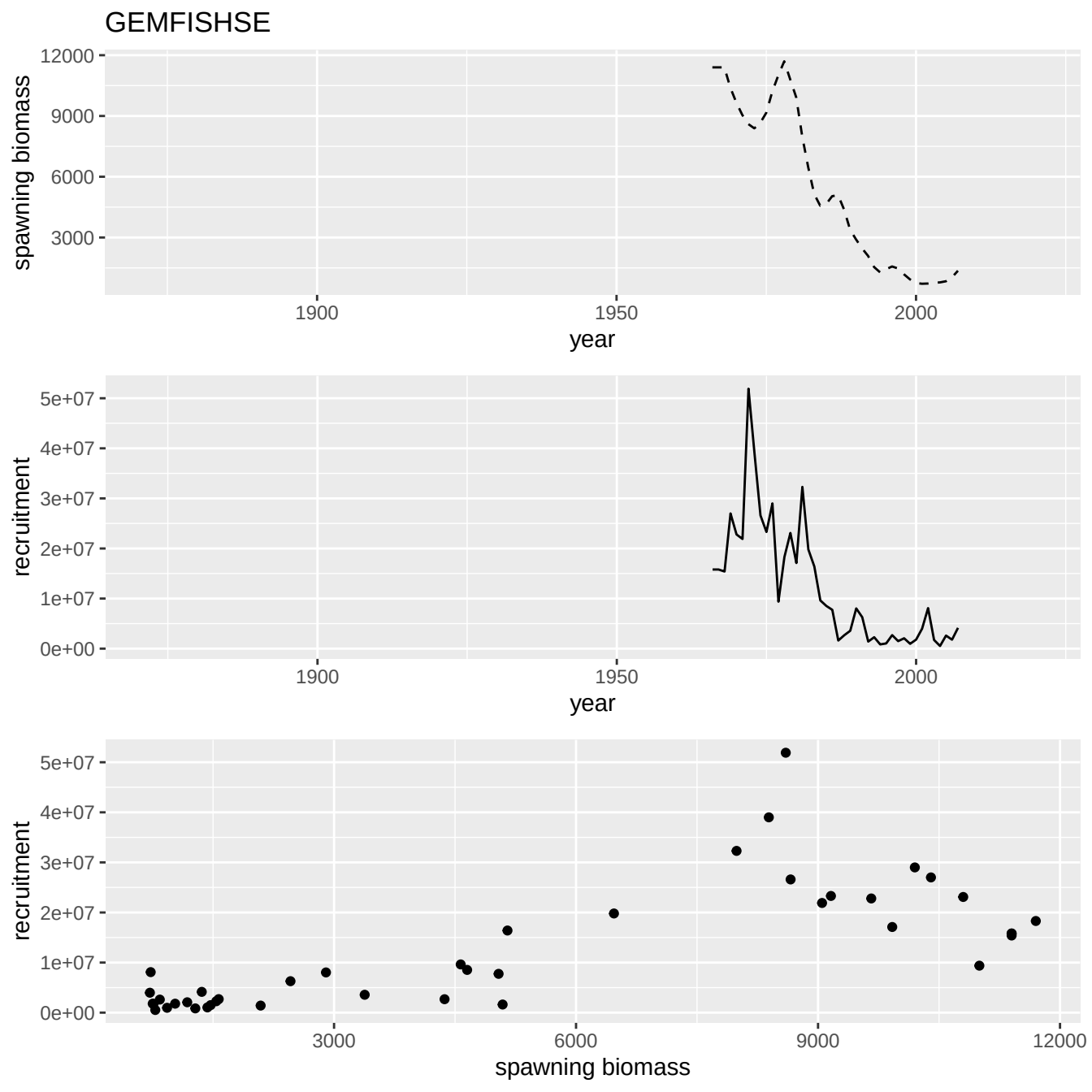

FLSOLEBSAI
spawning biomass
200000
160000
120000
1900
1950
2000
year
recruitment
2.5e+09
2.0e+09
1.5e+09
1.0e+09
5.0e+08
1900
1950
2000
year
recruitment
2.5e+09
2.0e+09
1.5e+09
1.0e+09
5.0e+08
120000
160000
200000
spawning biomass

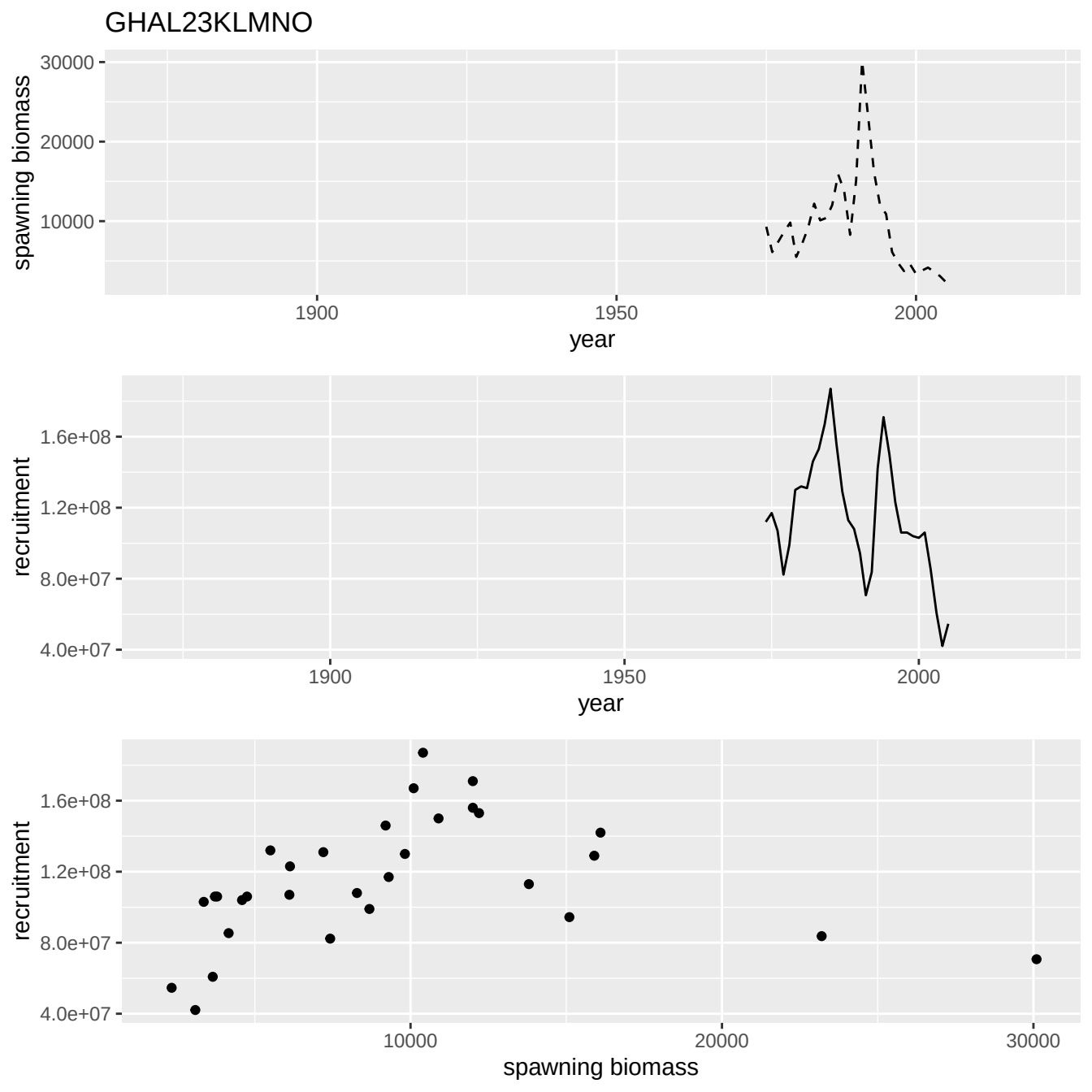

FLSOLEGA
spawning biomass
80000
70000
60000
50000
1900
1950
2000
year
recruitment
5e+08
4e+08
3e+08
2e+08
1900
1950
2000
year
recruitment
5e+08
4e+08
3e+08
2e+08
50000
60000
70000
80000
spawning biomass

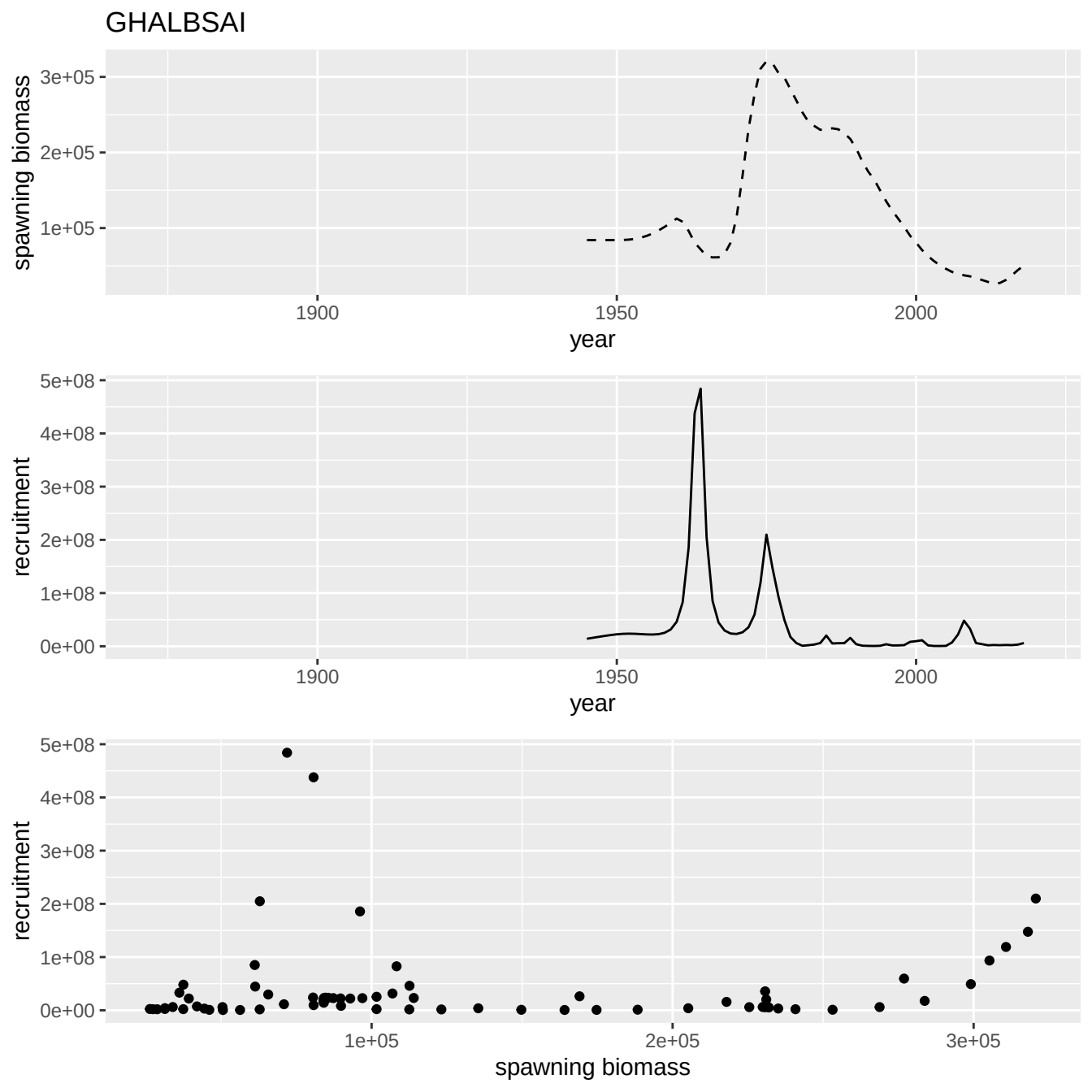

FMEG8c9a
spawning biomass
9000
8000
7000
6000
5000
4000
3000
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
3000
4000
5000
6000
7000
8000
9000
spawning biomass

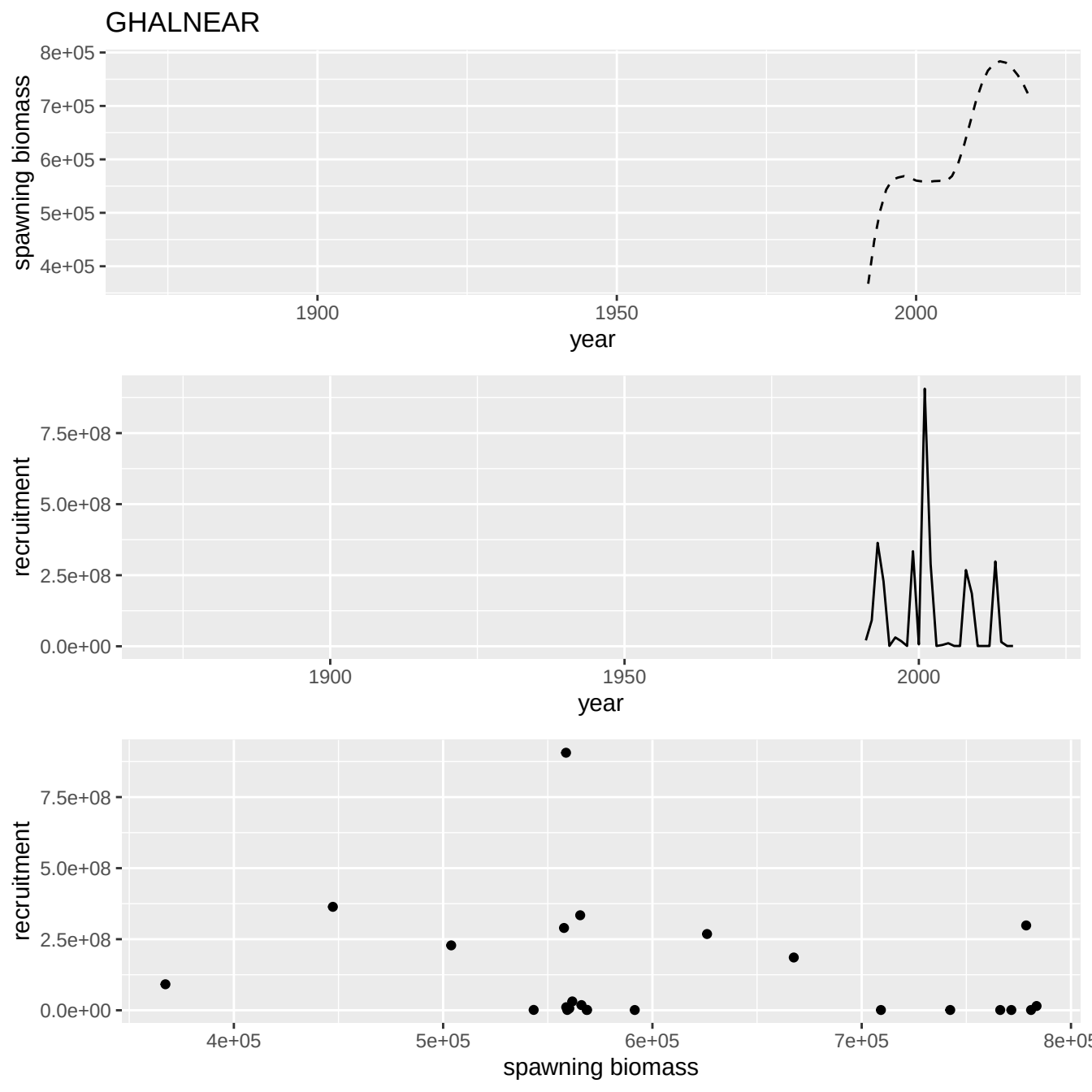

GAGSATLC
spawning biomass
4000
3000
2000
1000
1900
1950
2000
year
recruitment
8e+05
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
8e+05
6e+05
4e+05
2e+05
1000
2000
3000
4000
spawning biomass

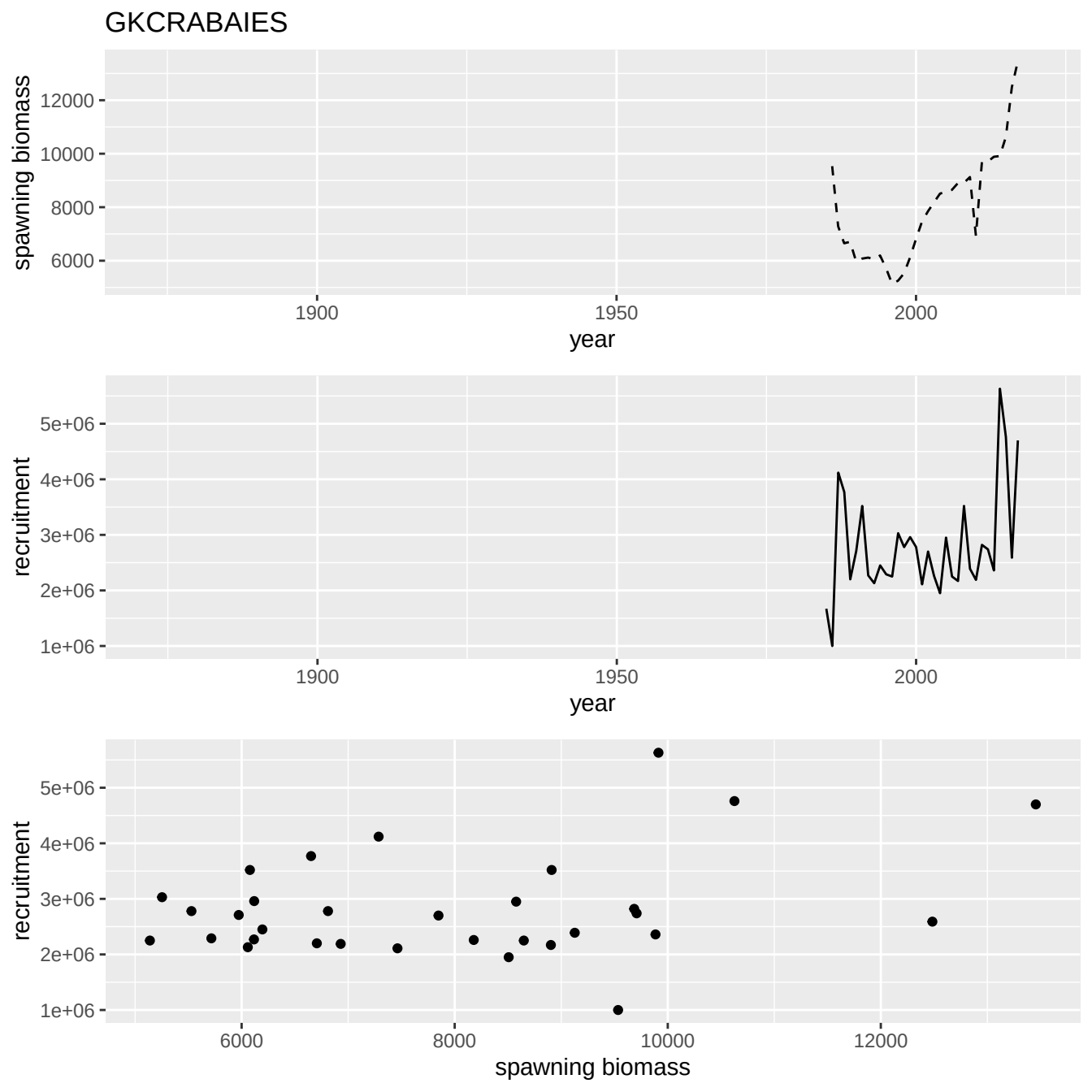

GEMFISHNZ
spawning biomass
10000
7500
5000
2500
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
2500
5000
7500
10000
spawning biomass

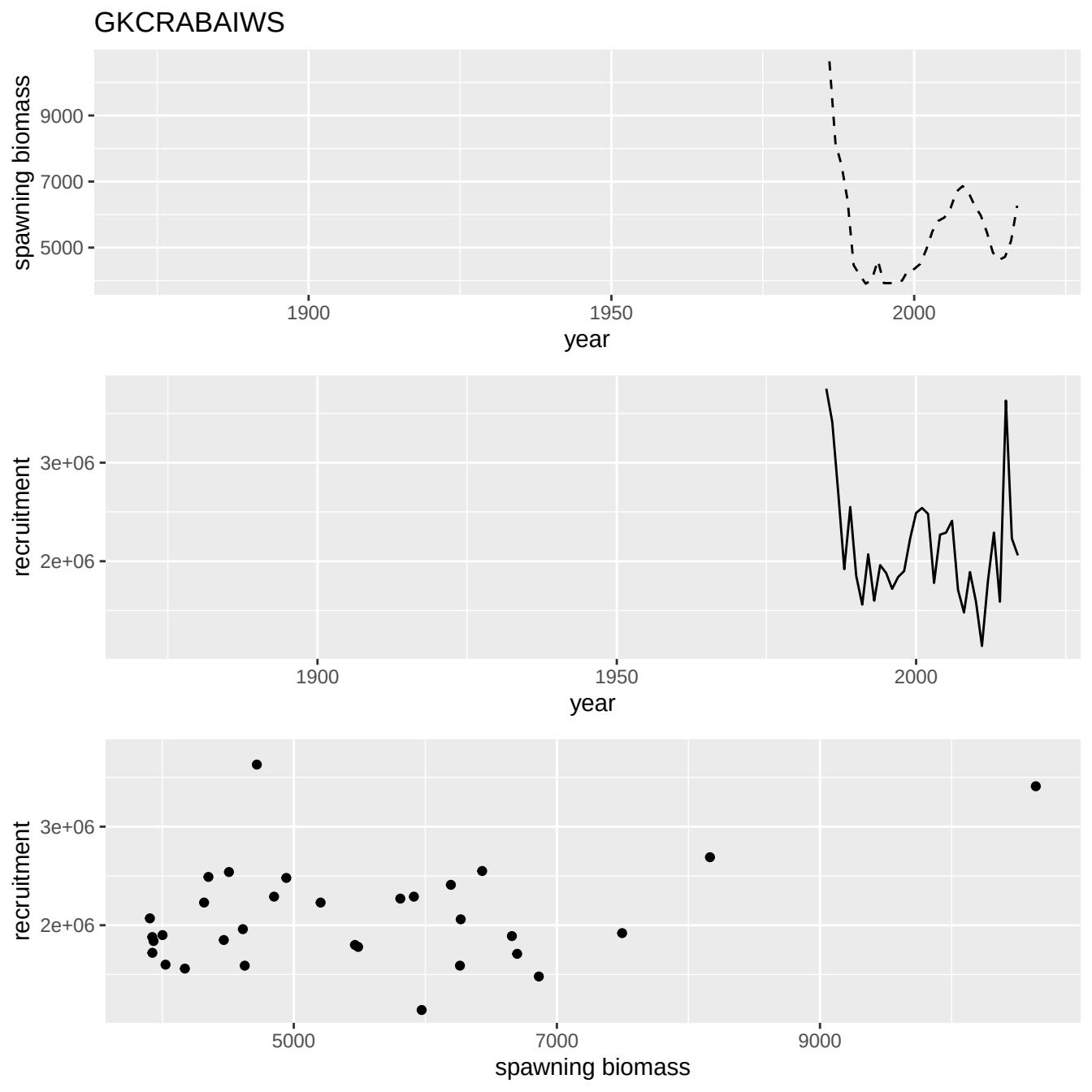

GEMFISHSE
spawning biomass
12000
9000
6000
3000
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
0e+00
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
0e+00
3000
6000
9000
12000
spawning biomass

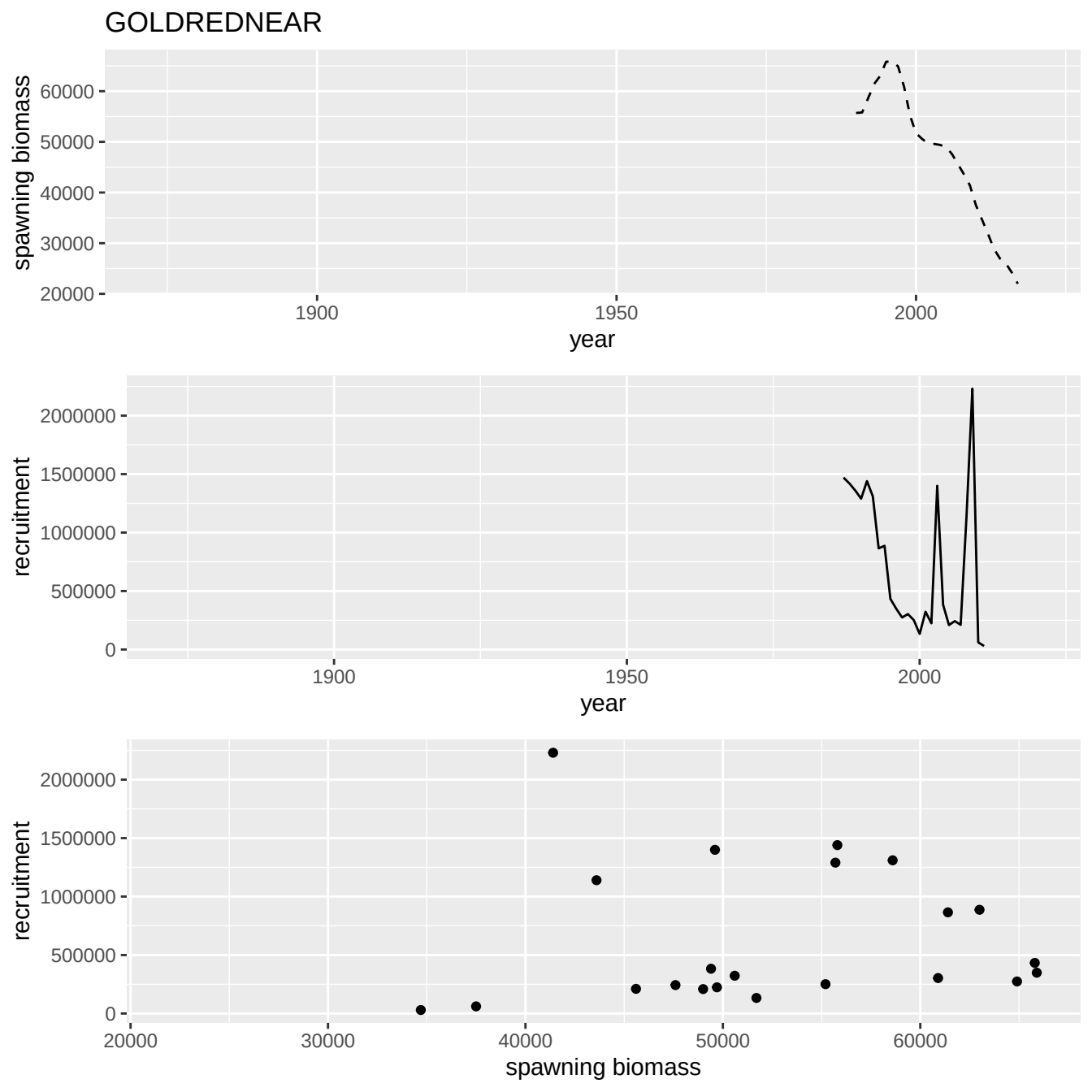

GHAL23KLMNO
spawning biomass
30000
20000
10000
1900
1950
2000
year
recruitment
1.6e+08
1.2e+08
8.0e+07
4.0e+07
1900
1950
2000
year
recruitment
1.6e+08
1.2e+08
8.0e+07
4.0e+07
10000
20000
30000
spawning biomass

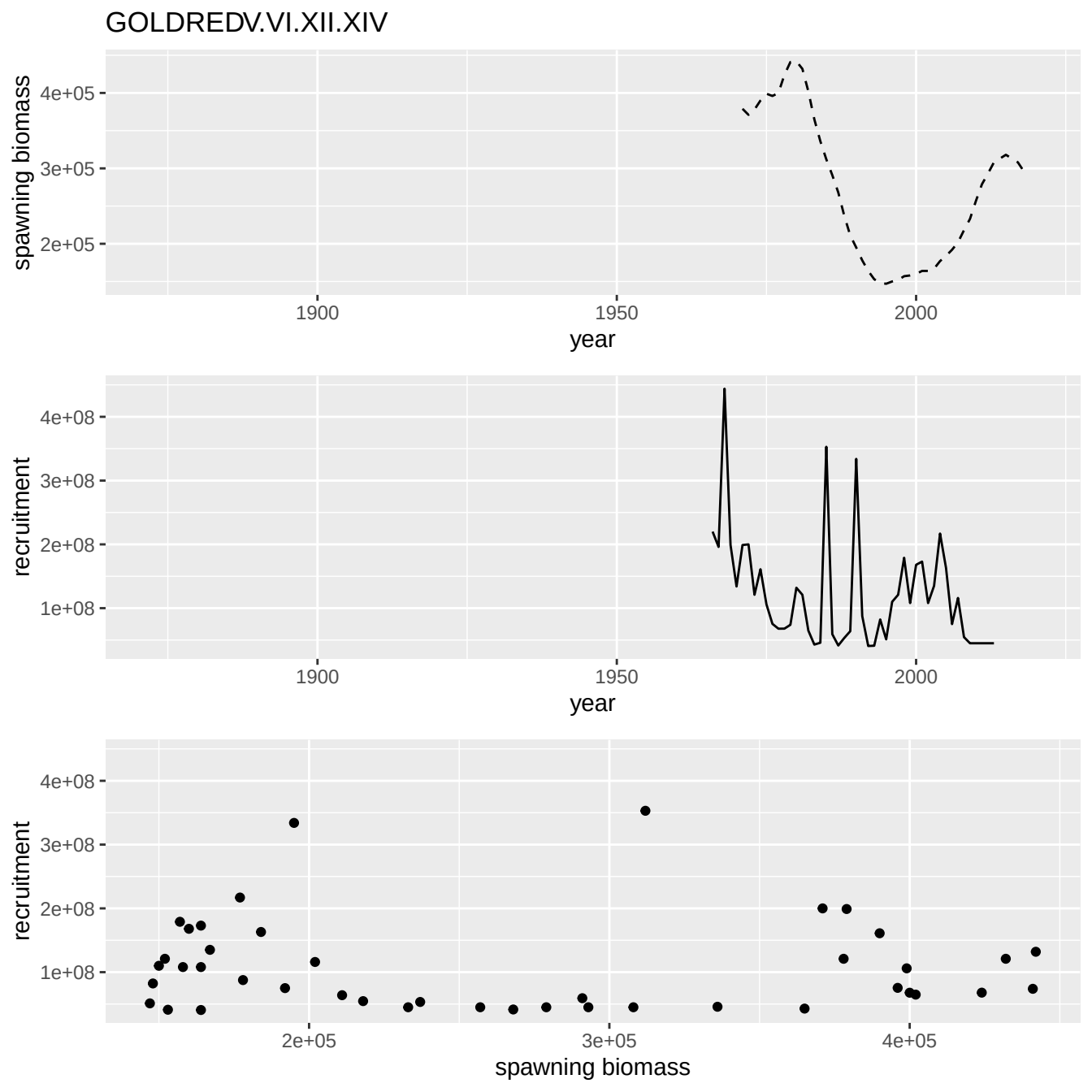

GHALBSAI
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
5e+08
4e+08
3e+08
2e+08
1e+08
0e+00
1900
1950
2000
year
recruitment
5e+08
4e+08
3e+08
2e+08
1e+08
0e+00
1e+05
2e+05
3e+05
spawning biomass

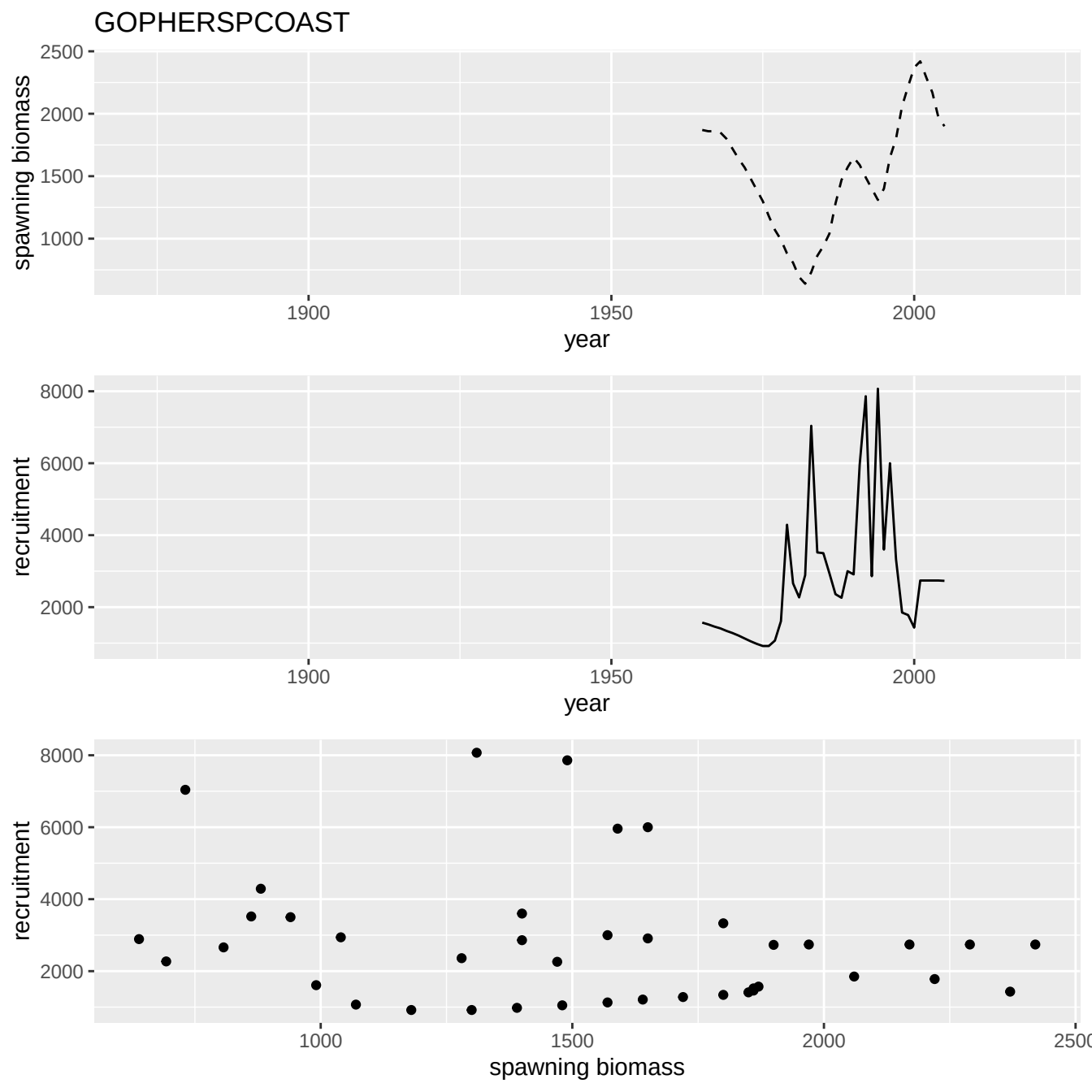

GHALNEAR
spawning biomass
8e+05
7e+05
6e+05
5e+05
4e+05
1900
1950
2000
year
recruitment
7.5e+08
5.0e+08
2.5e+08
0.0e+00
1900
1950
2000
year
recruitment
7.5e+08
5.0e+08
2.5e+08
0.0e+00
4e+05
5e+05
6e+05
7e+05
8e+05
spawning biomass

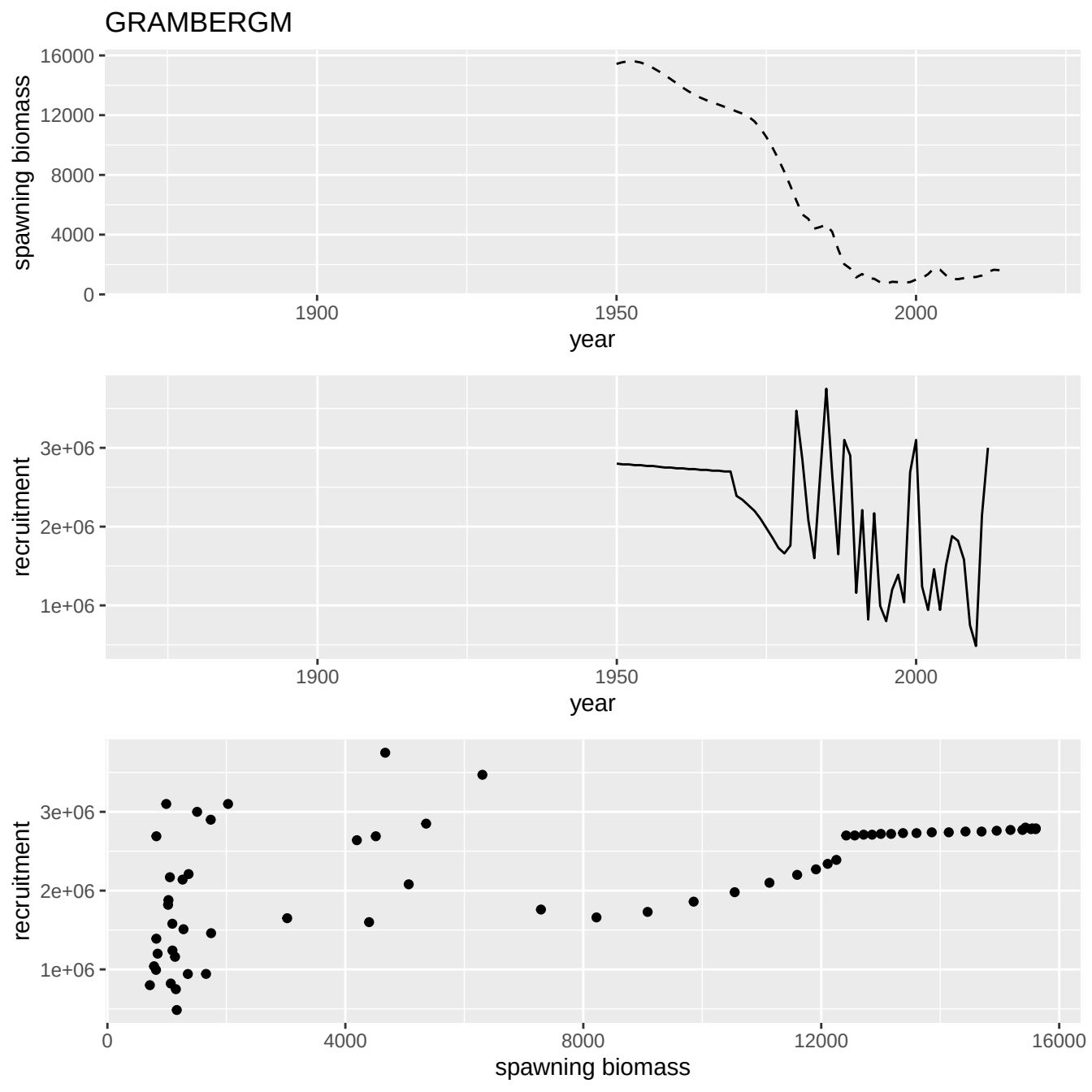

GKCRABAIES
spawning biomass
12000
10000
8000
6000
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
6000
8000
10000
12000
spawning biomass


GKCRABAIWS
spawning biomass
9000
7000
5000
1900
1950
2000
year
recruitment
3e+06
2e+06
1900
1950
2000
year
recruitment
3e+06
2e+06
5000
7000
9000
spawning biomass


GOLDREDNEAR
spawning biomass
60000
50000
40000
30000
20000
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
0
20000
30000
40000
50000
60000
spawning biomass


GOLDREDV.VI.XII.XIV
spawning biomass
4e+05
3e+05
2e+05
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
2e+05
3e+05
4e+05
spawning biomass


GOPHERSPCOAST
spawning biomass
2500
2000
1500
1000
1900
1950
2000
year
recruitment
8000
6000
4000
2000
1900
1950
2000
year
recruitment
8000
6000
4000
2000
1000
1500
2000
2500
spawning biomass


GRAMBERGM
spawning biomass
16000
12000
8000
4000
0
1900
1950
2000
year
recruitment
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
3e+06
2e+06
1e+06
0
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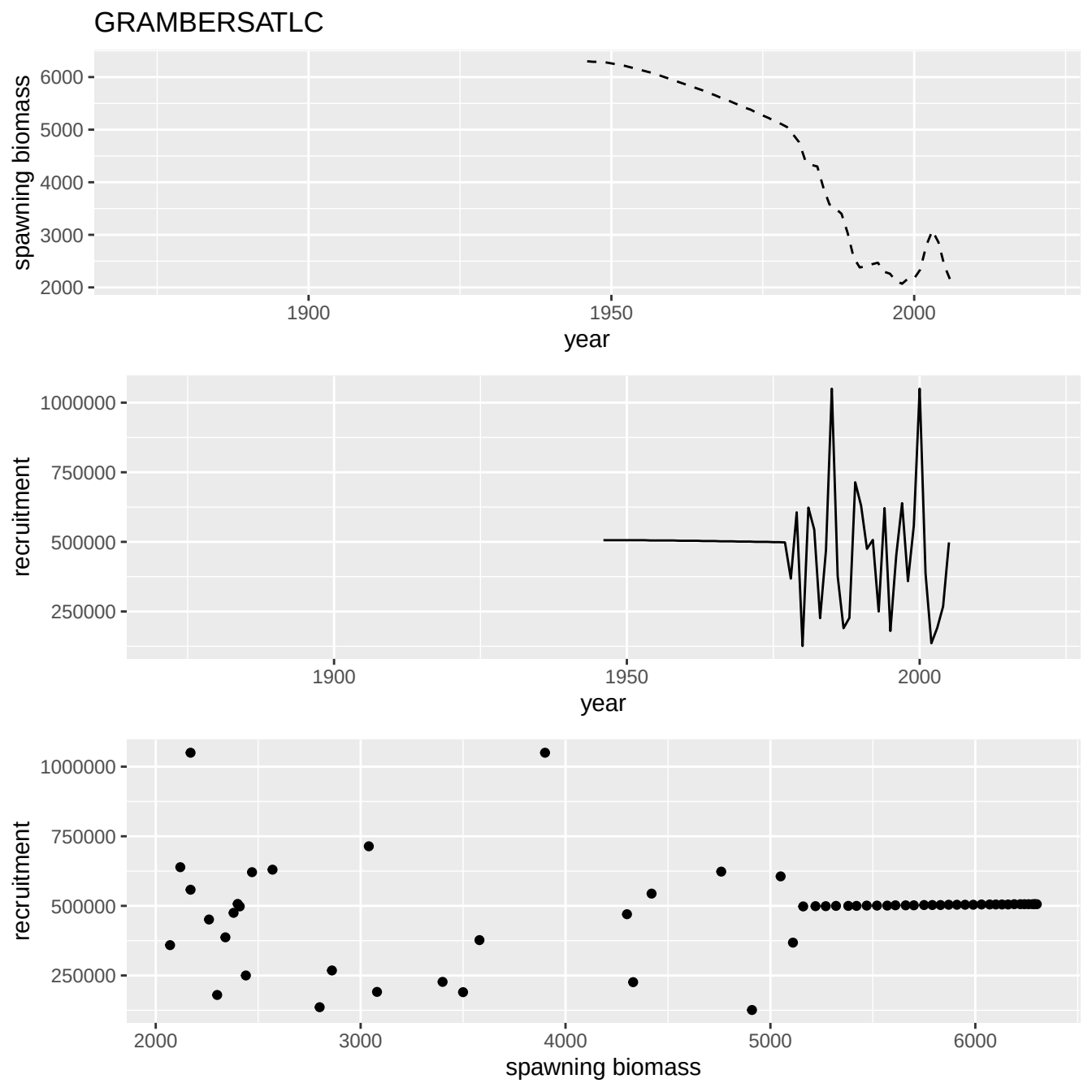
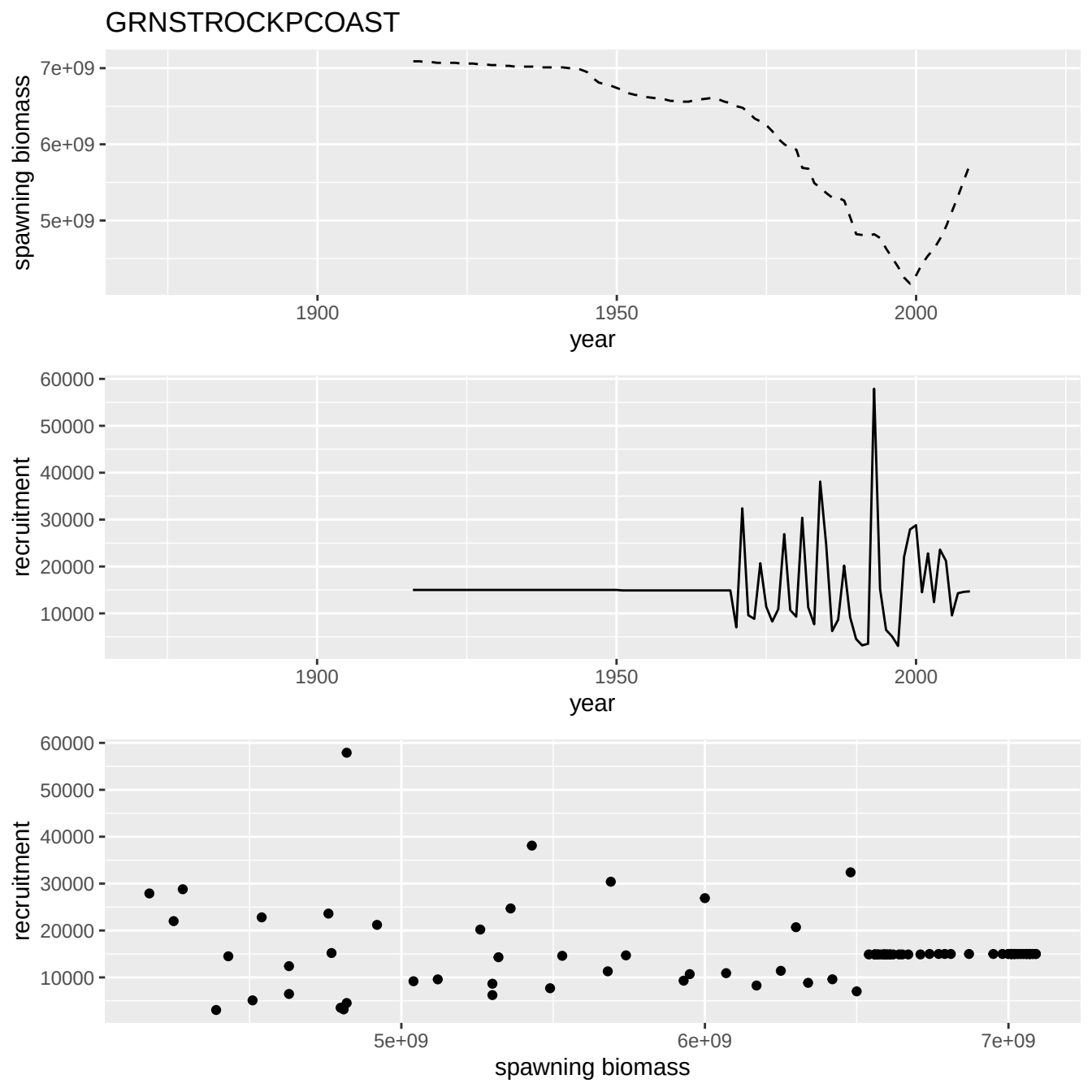
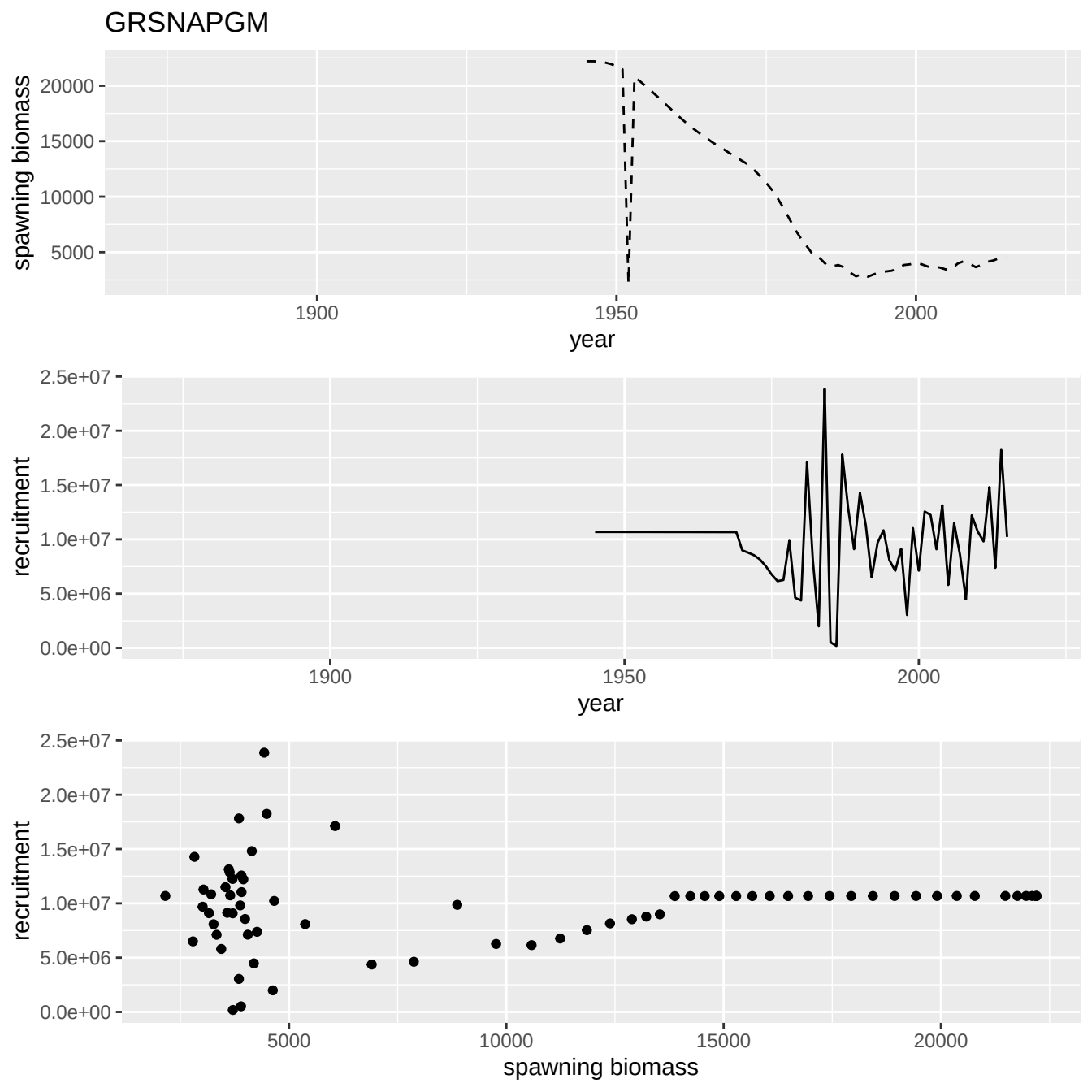
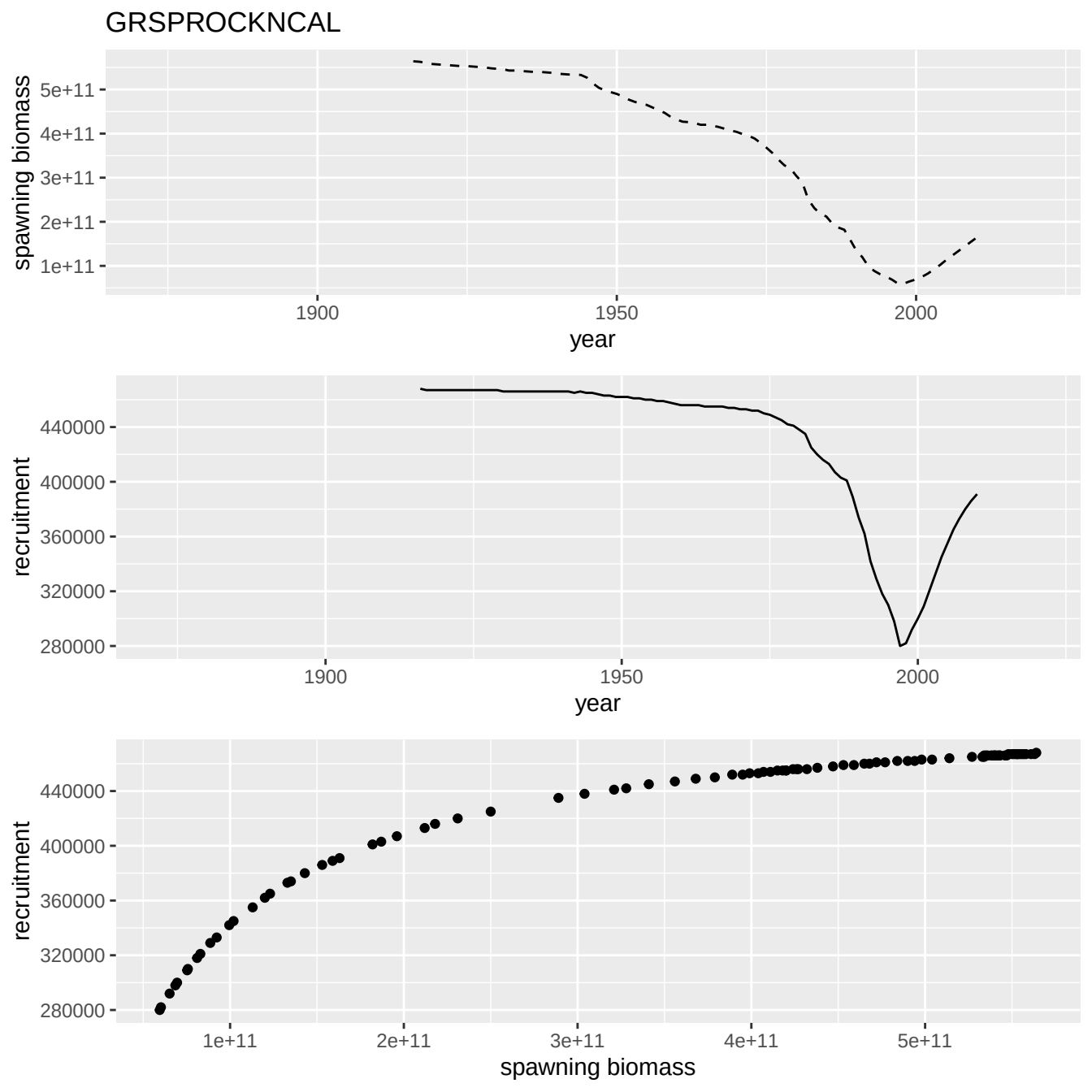
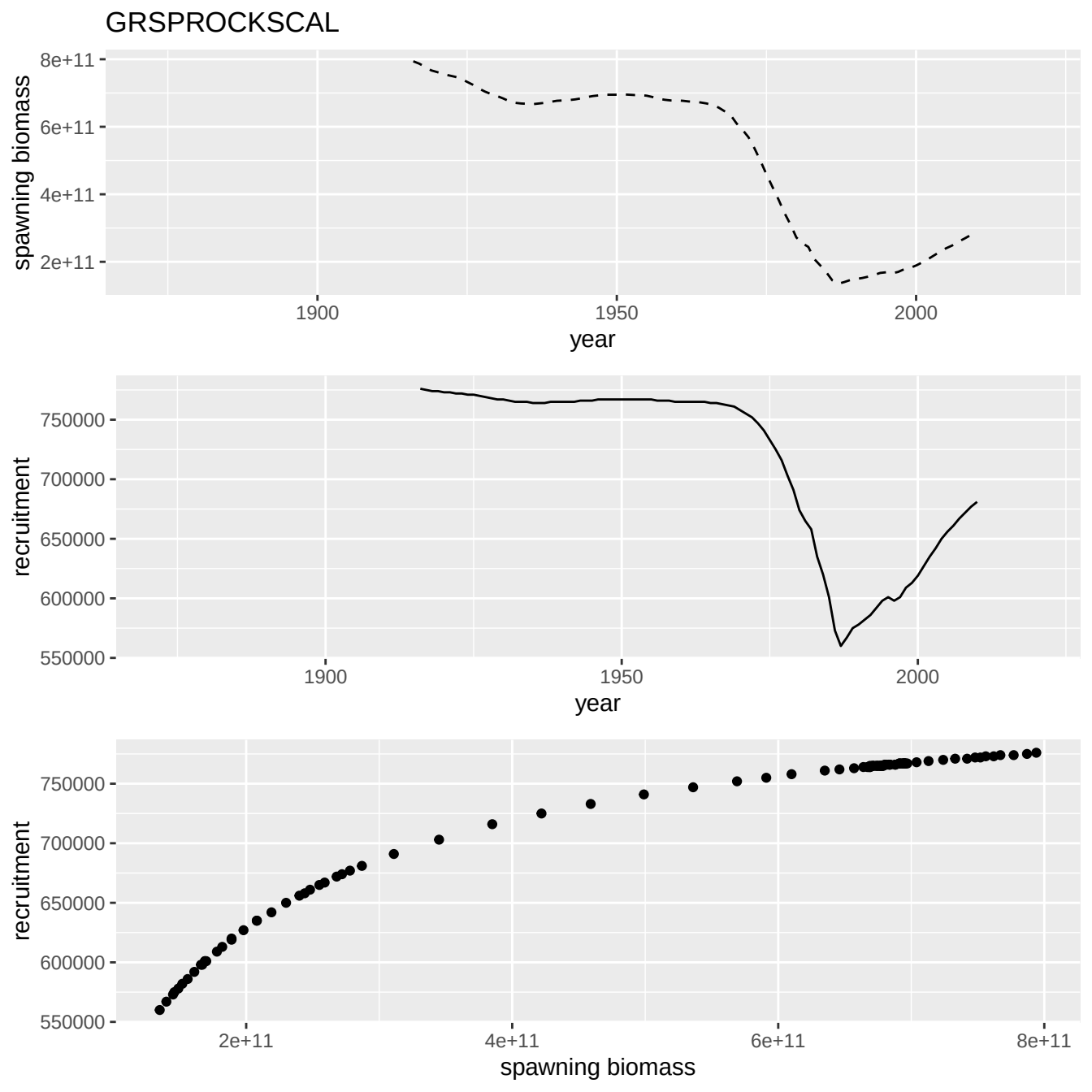
8000
12000
16000
spawning biomass

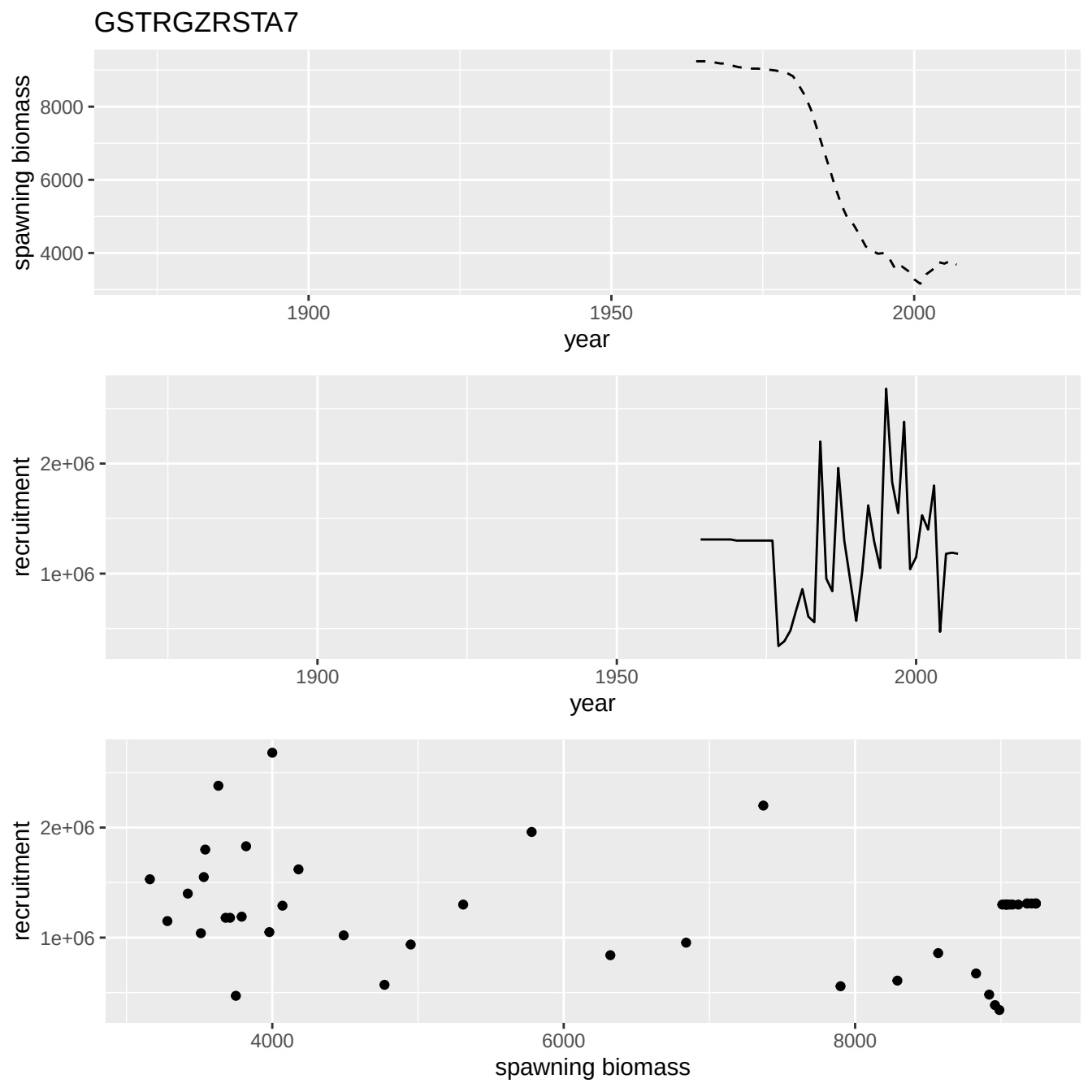

GRAMBERSATLC
spawning biomass
6000
5000
4000
3000
2000
1900
1950
2000
year
recruitment
1000000
750000
500000
250000
1900
1950
2000
year
recruitment
1000000
750000
500000
250000
2000
3000
4000
5000
6000
spawning biomass

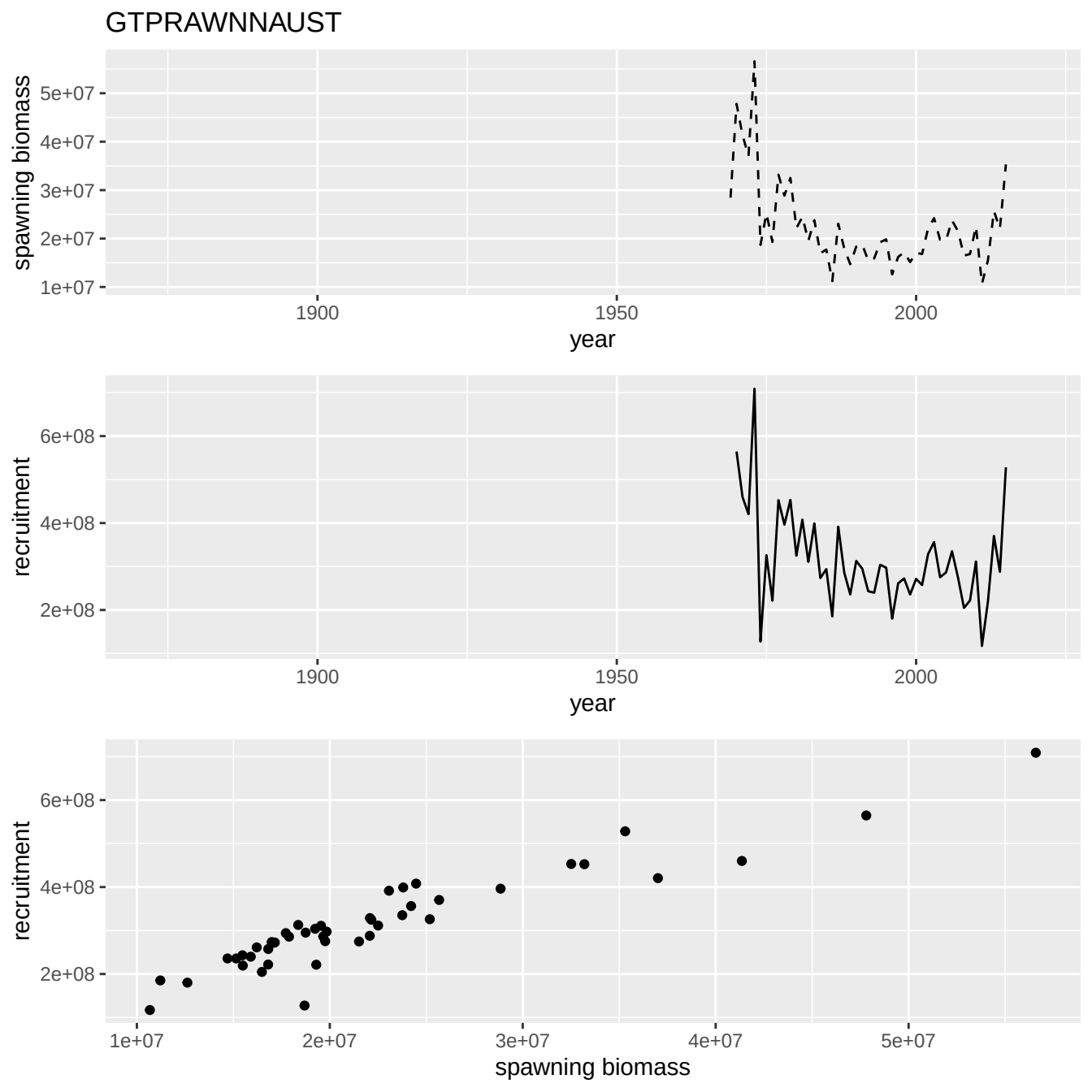

GRNSTROCKPCOAST
spawning biomass
7e+09
6e+09
5e+09
1900
1950
2000
year
recruitment
60000
50000
40000
30000
20000
10000
1900
1950
2000
year
recruitment
60000
50000
40000
30000
20000
10000
5e+09
6e+09
7e+09
spawning biomass

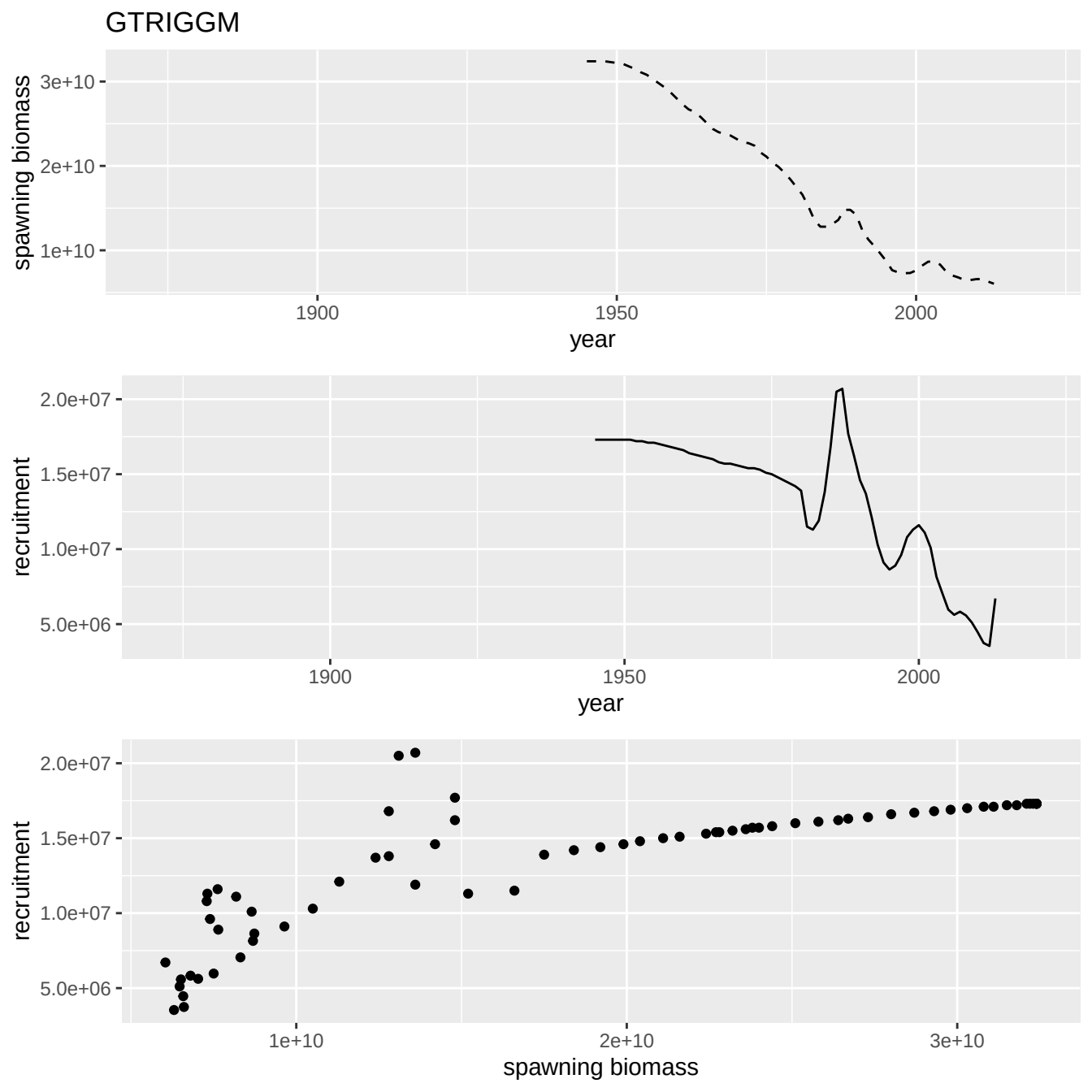

GRSNAPGM
spawning biomass
20000
15000
10000
5000
1900
1950
2000
year
recruitment
2.5e+07
2.0e+07
1.5e+07
1.0e+07
5.0e+06
0.0e+00
1900
1950
2000
year
recruitment
2.5e+07
2.0e+07
1.5e+07
1.0e+07
5.0e+06
0.0e+00
5000
10000
15000
20000
spawning biomass

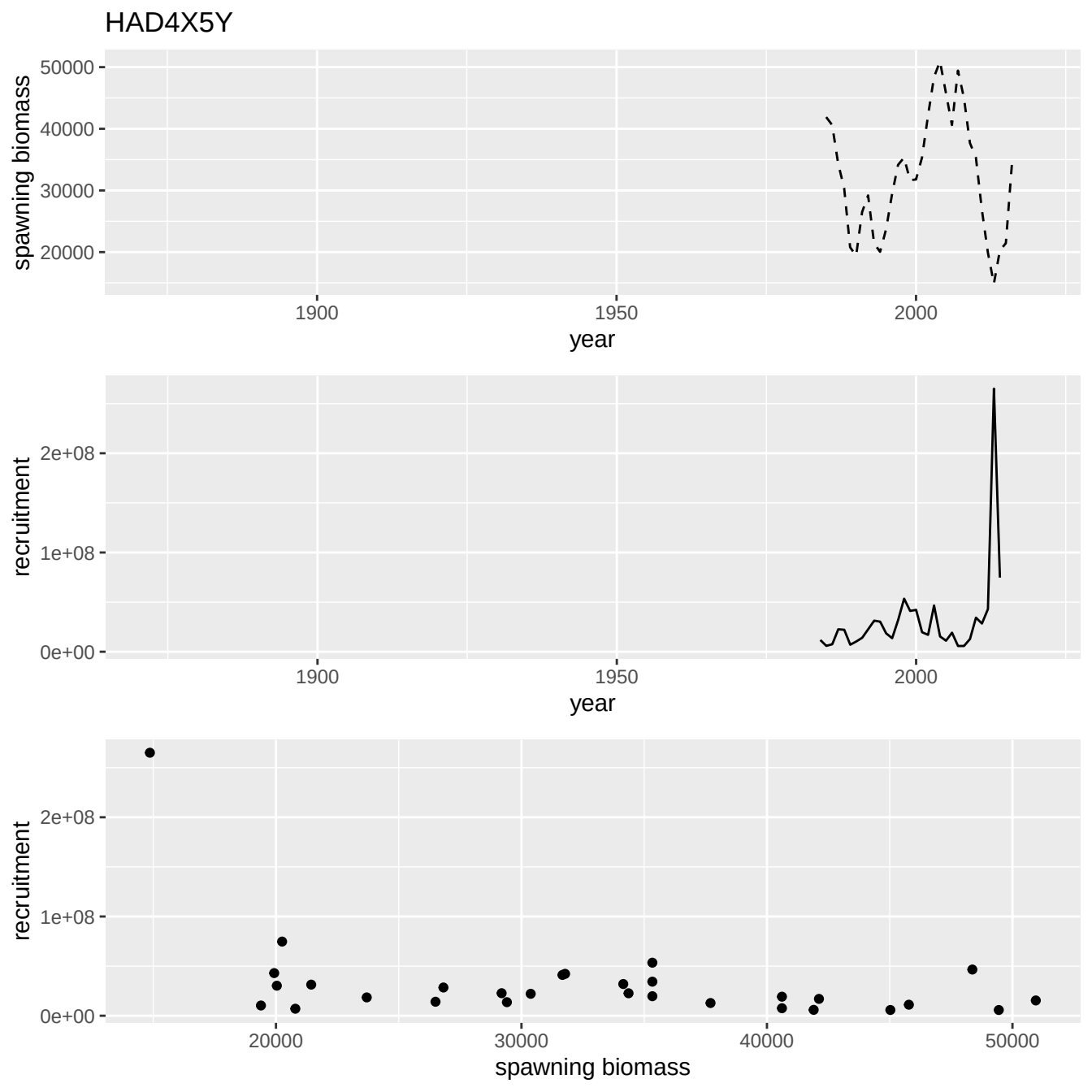

GRSPROCKNCAL
spawning biomass
5e+11
4e+11
3e+11
2e+11
1e+11
1900
1950
2000
year
recruitment
440000
400000
360000
320000
280000
1900
1950
2000
year
recruitment
440000
400000
360000
320000
280000
1e+11
2e+11
3e+11
4e+11
5e+11
spawning biomass

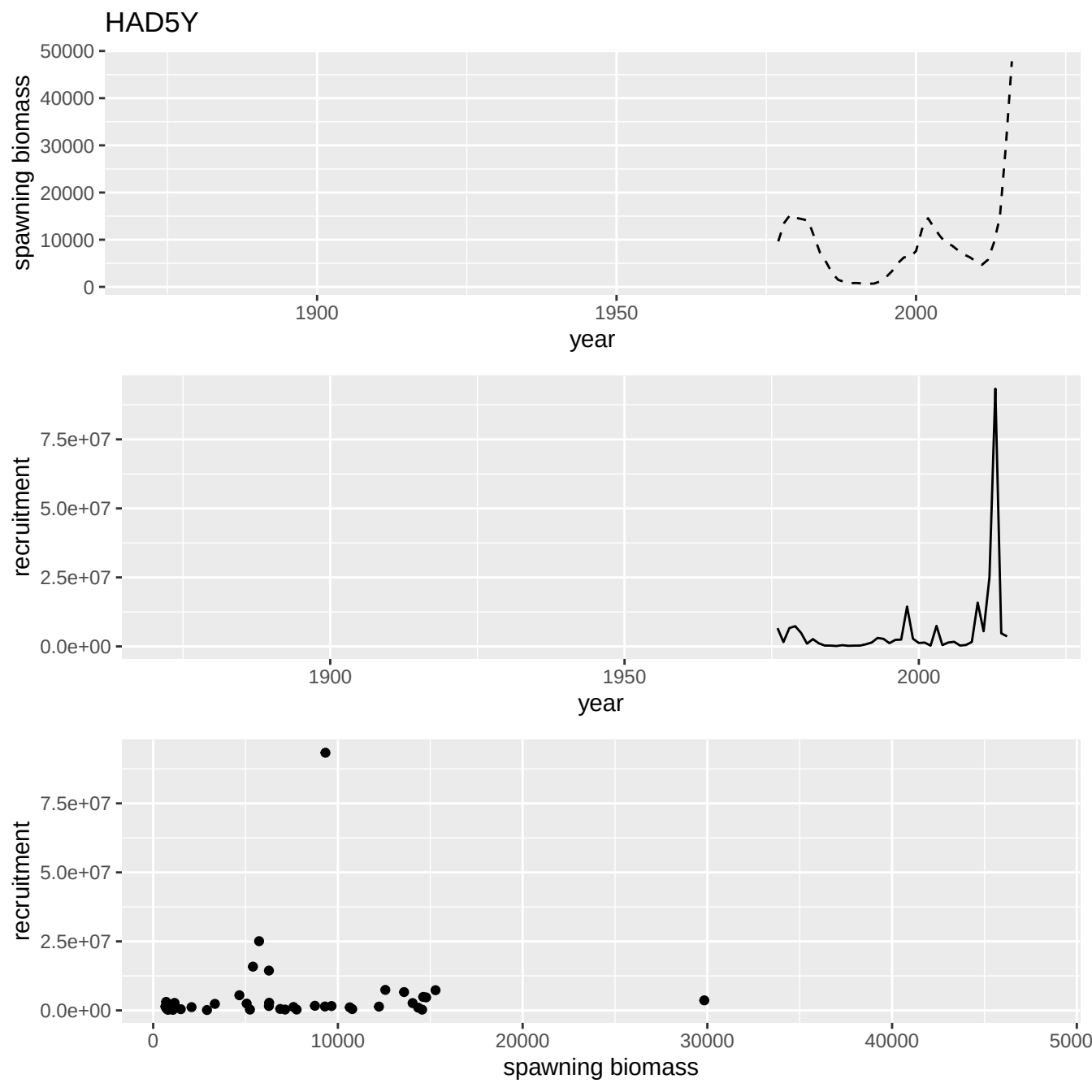

GRSPROCKSCAL
spawning biomass
8e+11
6e+11
4e+11
2e+11
1900
1950
2000
year
recruitment
750000
700000
650000
600000
550000
1900
1950
2000
year
recruitment
750000
700000
650000
600000
550000
2e+11
4e+11
6e+11
8e+11
spawning biomass

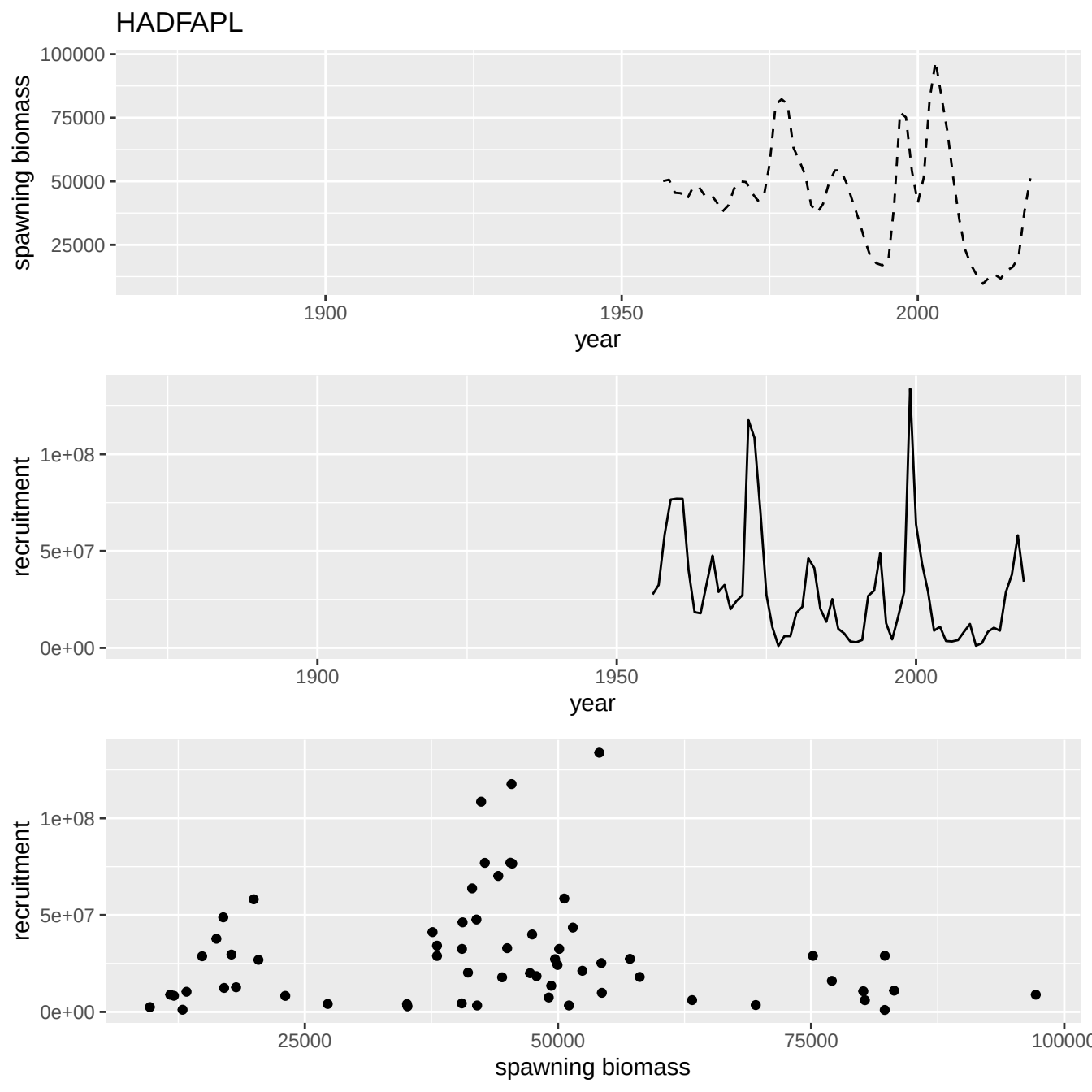

GSTRGZRSTA7
spawning biomass
8000
6000
4000
1900
1950
2000
year
recruitment
2e+06
1e+06
1900
1950
2000
year
recruitment
2e+06
1e+06
4000
6000
8000
spawning biomass

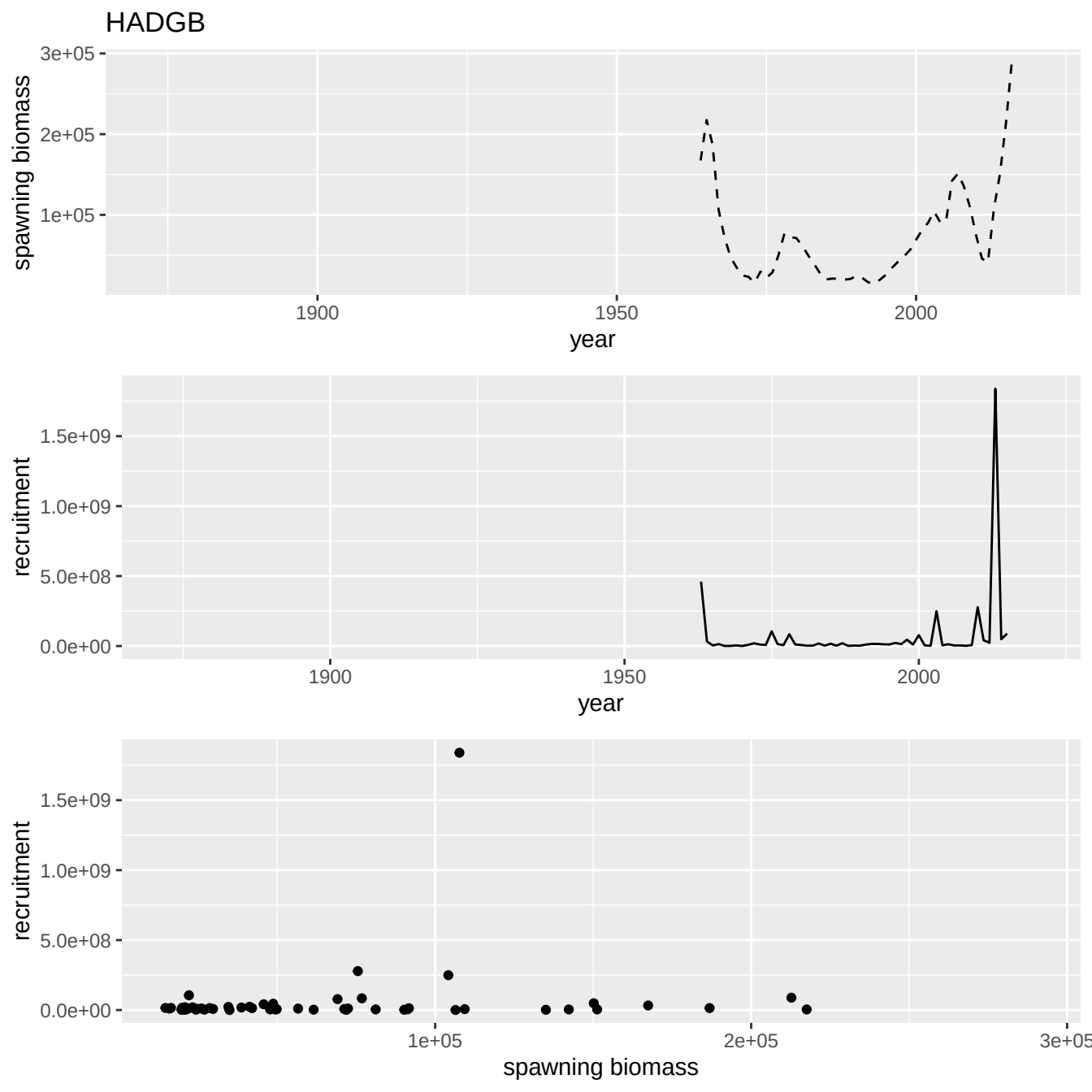

GTPRAWNNAUST
spawning biomass
5e+07
4e+07
3e+07
2e+07
1e+07
1900
1950
2000
year
recruitment
6e+08
4e+08
2e+08
1900
1950
2000
year
recruitment
6e+08
4e+08
2e+08
1e+07
2e+07
3e+07
4e+07
5e+07
spawning biomass

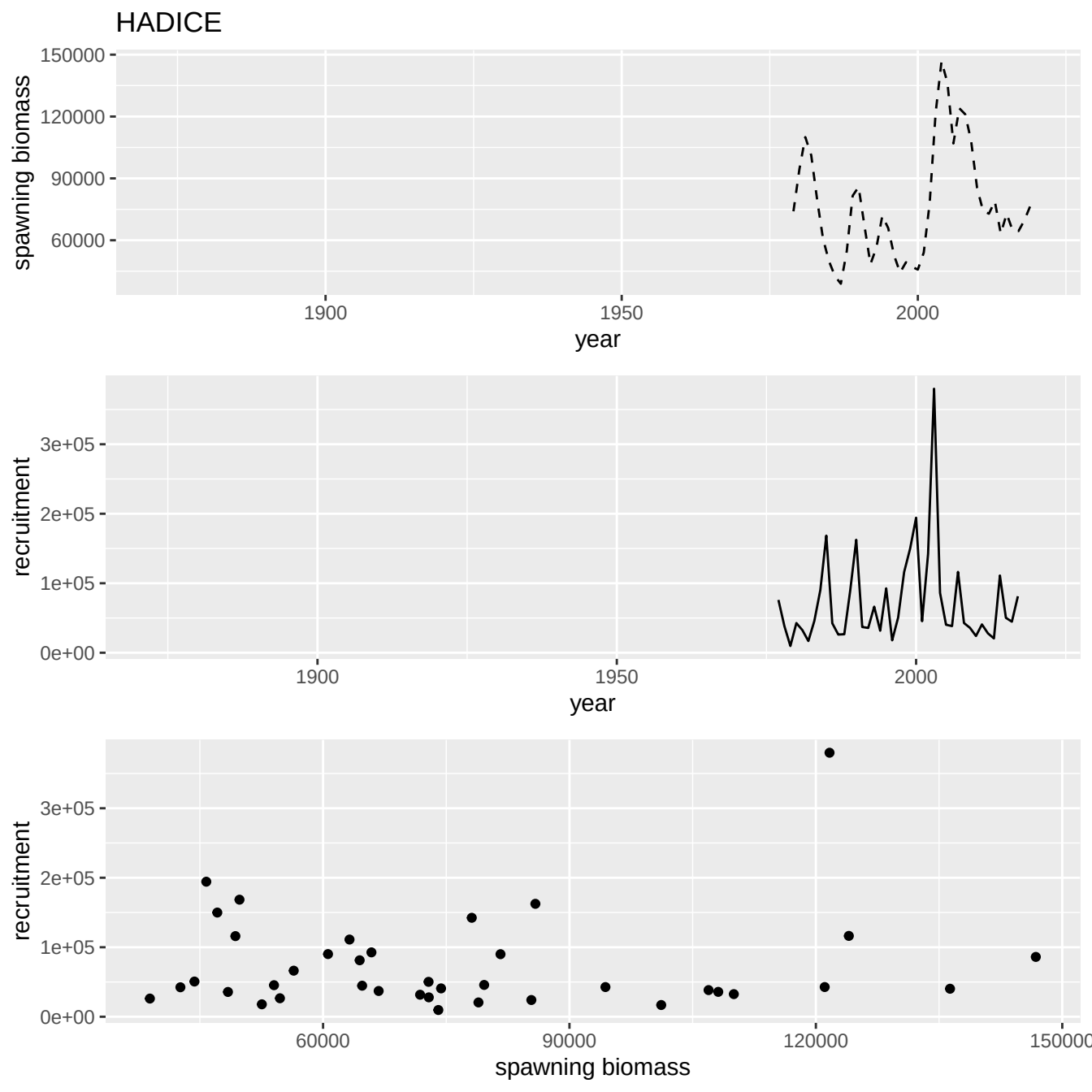

GTRIGGM
spawning biomass
3e+10
2e+10
1e+10
1900
1950
2000
year
recruitment
2.0e+07
1.5e+07
1.0e+07
5.0e+06
1900
1950
2000
year
recruitment
2.0e+07
1.5e+07
1.0e+07
5.0e+06
1e+10
2e+10
3e+10
spawning biomass

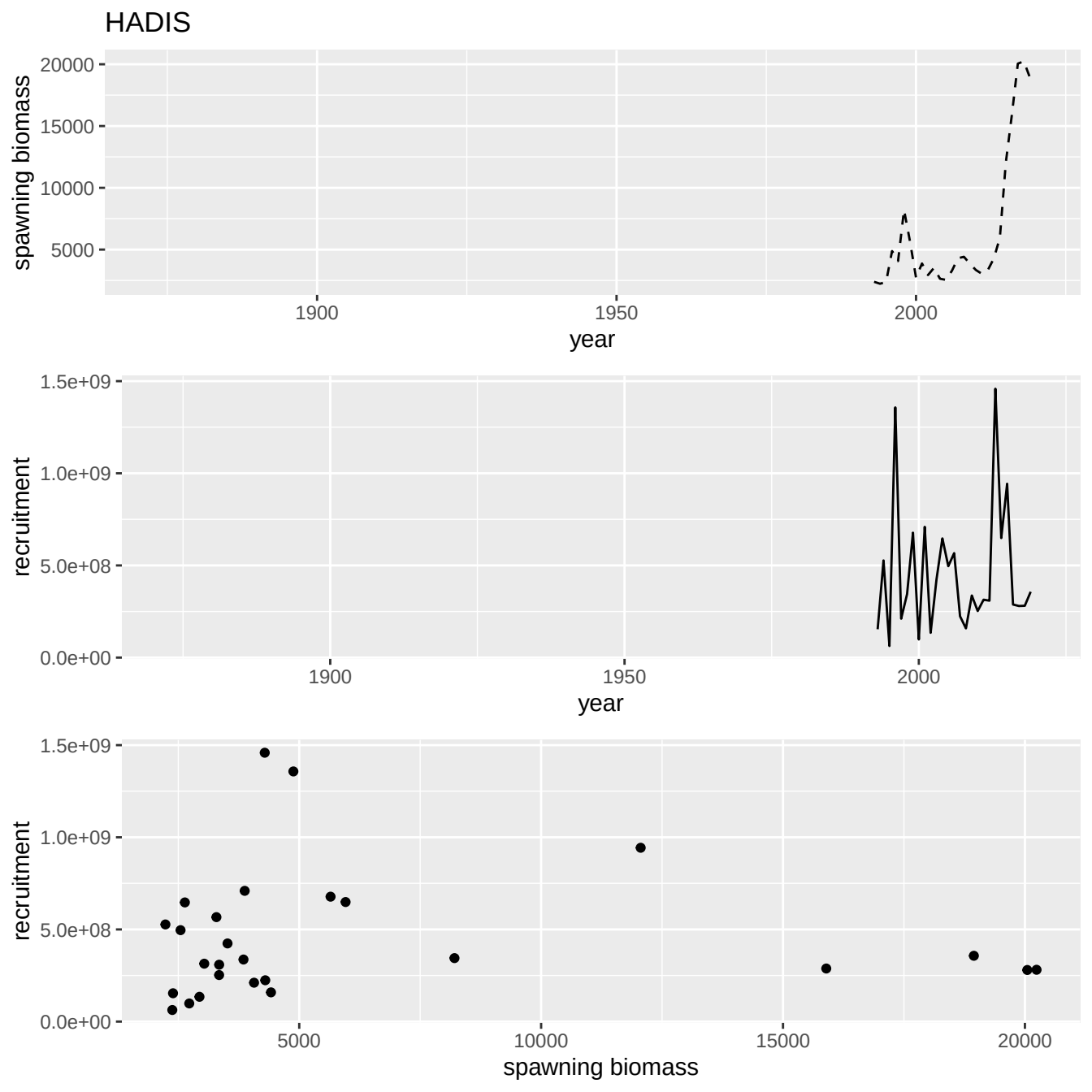

HAD4X5Y
spawning biomass
50000
40000
30000
20000
1900
1950
2000
year
recruitment
2e+08
1e+08
0e+00
1900
1950
2000
year
recruitment
2e+08
1e+08
0e+00
20000
30000
40000
50000
spawning biomass

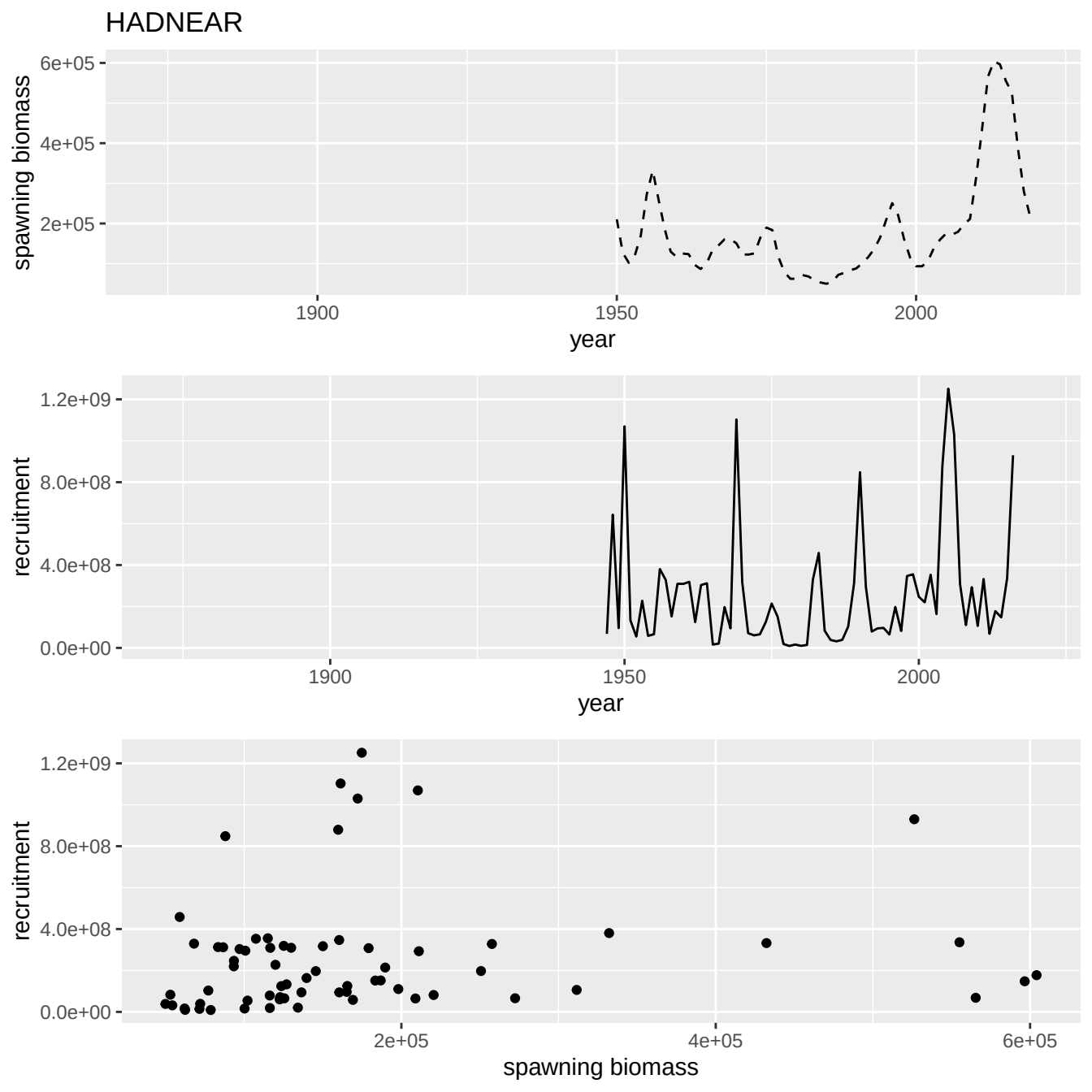

HAD5Y
spawning biomass
50000
40000
30000
20000
10000
0
1900
1950
2000
year
recruitment
7.5e+07
5.0e+07
2.5e+07
0.0e+00
1900
1950
2000
year
recruitment
7.5e+07
5.0e+07
2.5e+07
0.0e+00
0
10000
20000
30000
40000
5000
spawning biomass

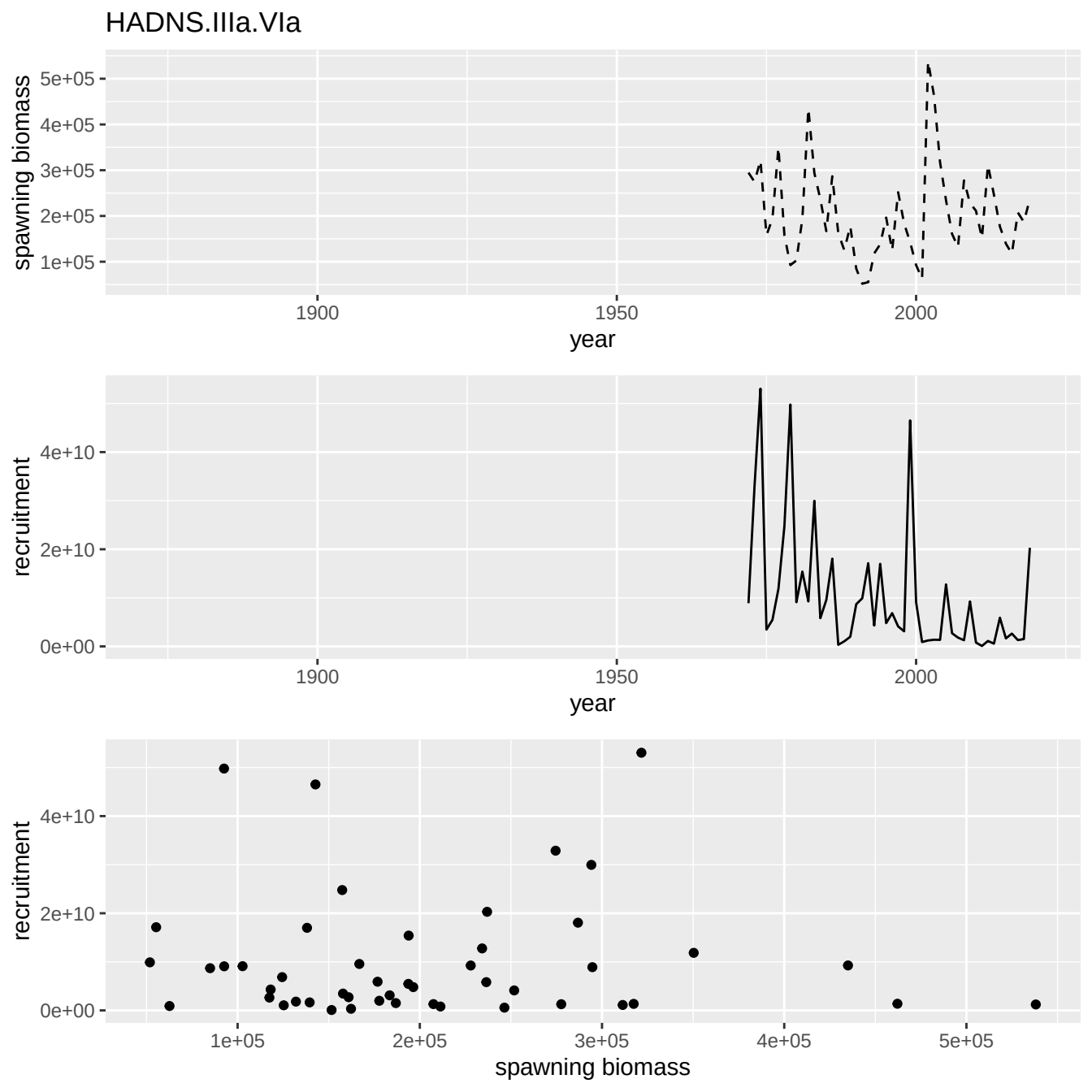

HADFAPL
spawning biomass
100000
75000
50000
25000
1900
1950
2000
year
recruitment
1e+08
5e+07
0e+00
1900
1950
2000
year
recruitment
1e+08
5e+07
0e+00
25000
50000
75000
100000
spawning biomass

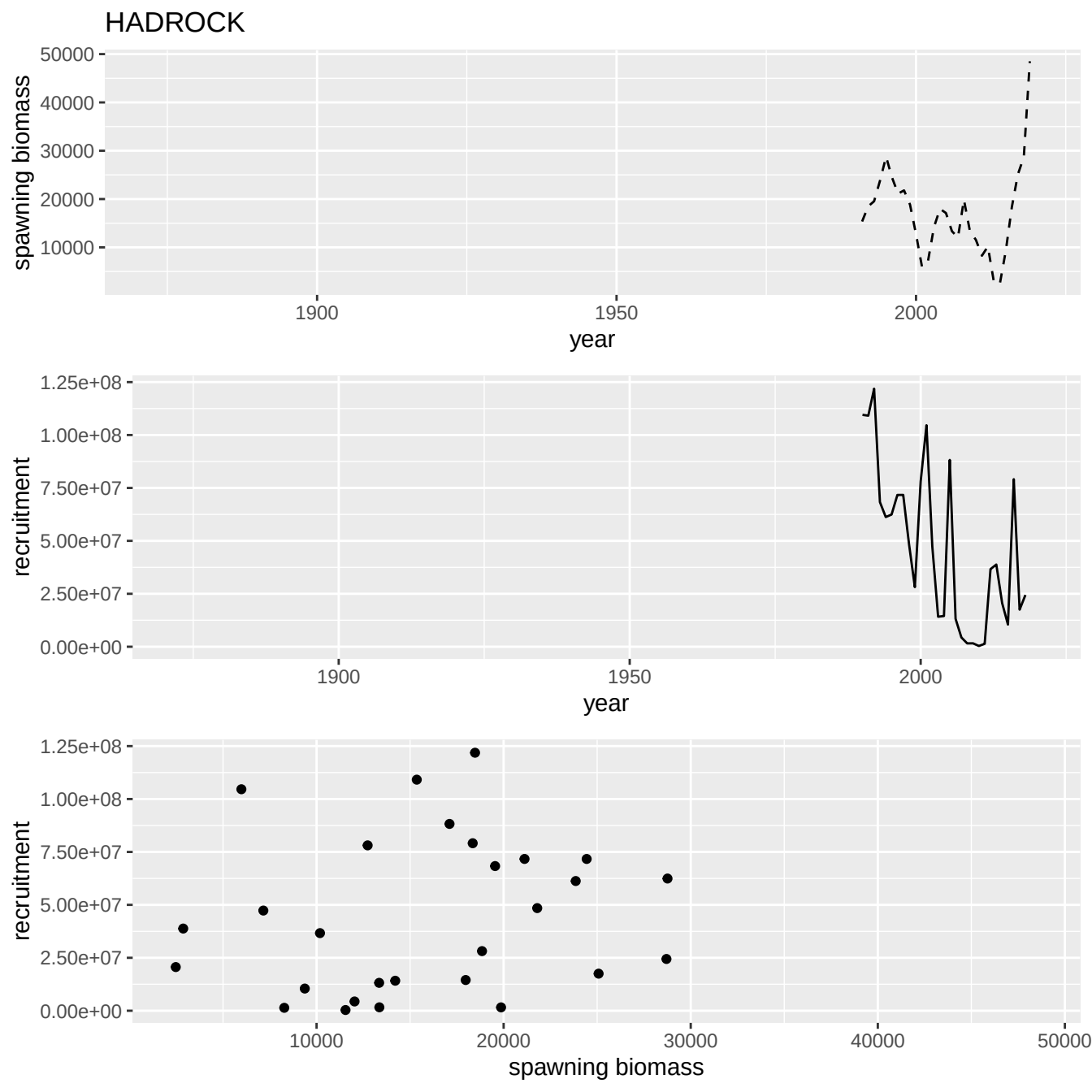

HADGB
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1e+05
2e+05
3e+05
spawning biomass

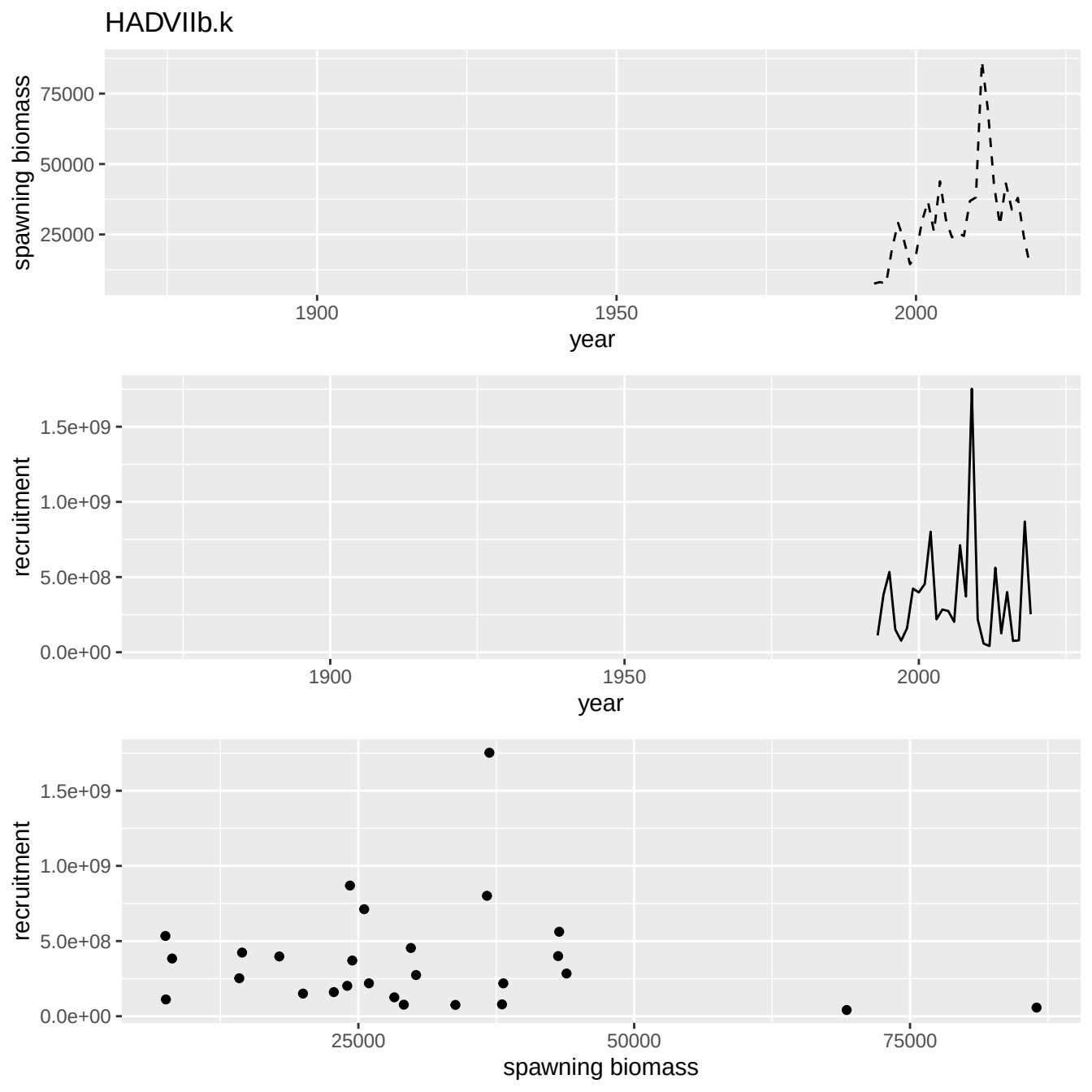

HADICE
spawning biomass
150000
120000
90000
60000
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
60000
90000
120000
150000
spawning biomass

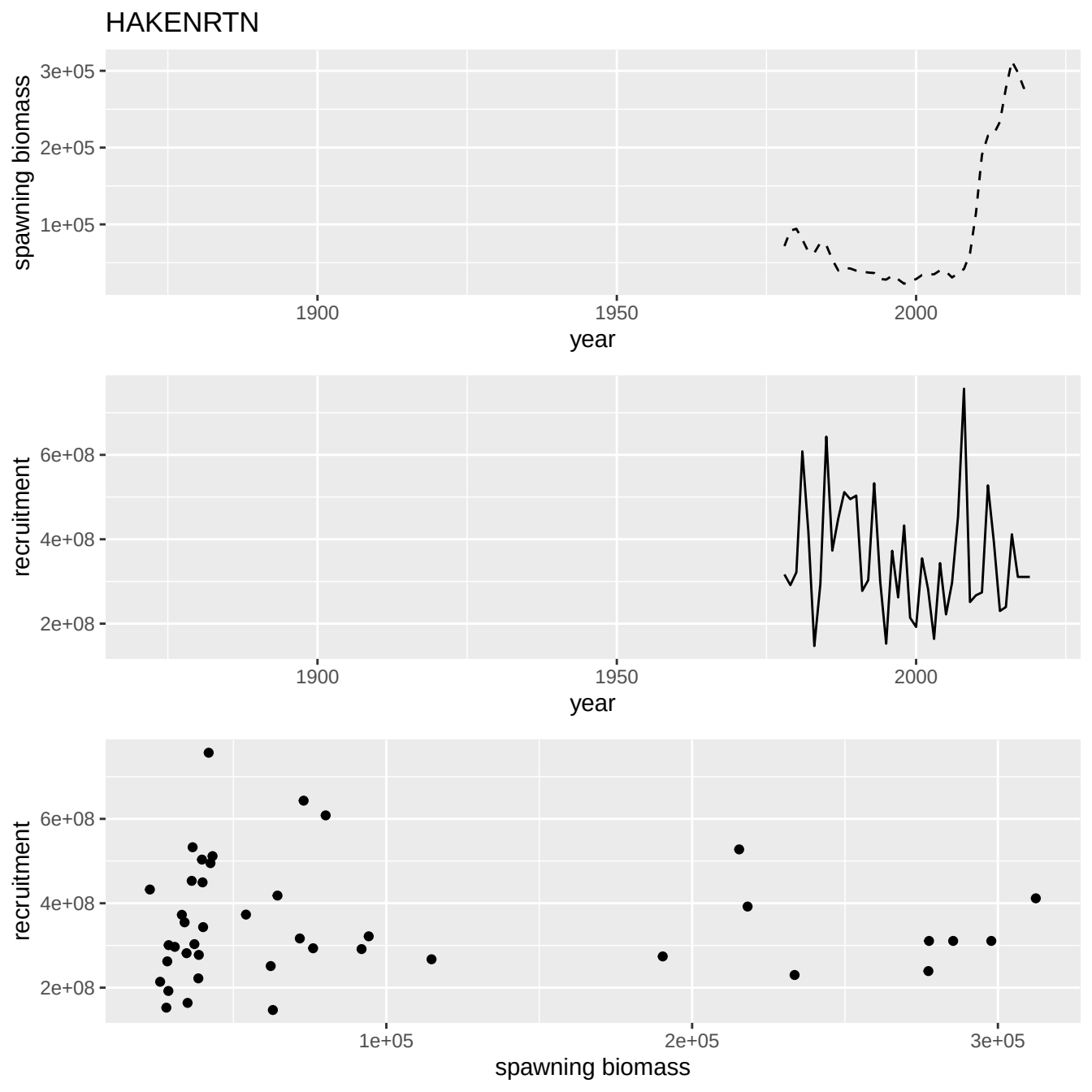

HADIS
spawning biomass
20000
15000
10000
5000
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
5000
10000
15000
20000
spawning biomass

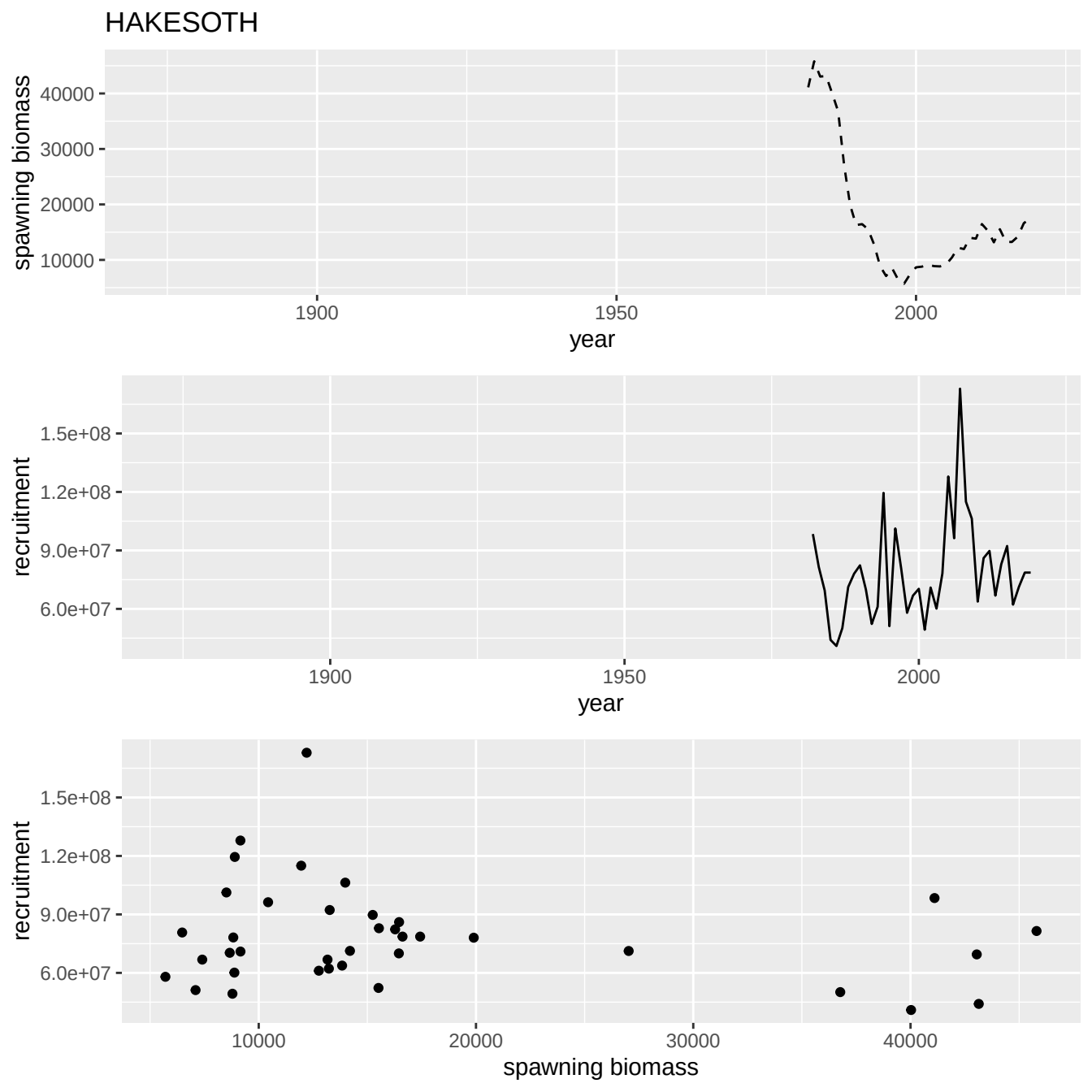

HADNEAR
spawning biomass
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
1.2e+09
8.0e+08
4.0e+08
0.0e+00
1900
1950
2000
year
recruitment
1.2e+09
8.0e+08
4.0e+08
0.0e+00
2e+05
4e+05
6e+05
spawning biomass

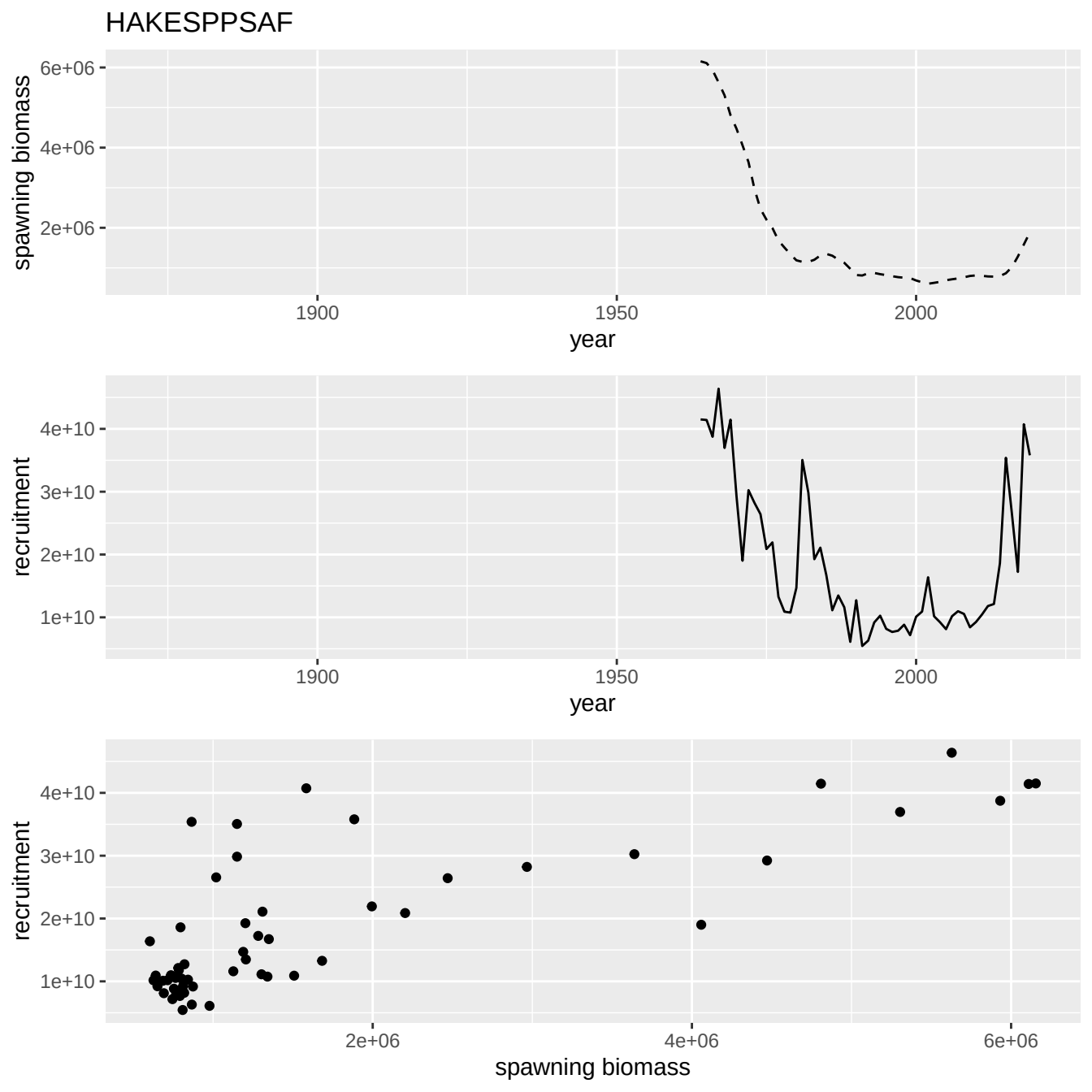

HADNS.IIIa.VIa
spawning biomass
5e+05
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
4e+10
2e+10
0e+00
1900
1950
2000
year
recruitment
4e+10
2e+10
0e+00
1e+05
2e+05
3e+05
4e+05
5e+05
spawning biomass


HADROCK
spawning biomass
50000
40000
30000
20000
10000
1900
1950
2000
year
recruitment
1.25e+08
1.00e+08
7.50e+07
5.00e+07
2.50e+07
0.00e+00
1900
1950
2000
year
recruitment
1.25e+08
1.00e+08
7.50e+07
5.00e+07
2.50e+07
0.00e+00
10000
20000
30000
40000
50000
spawning biomass


HADVIIb.k
spawning biomass
75000
50000
25000
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
25000
50000
75000
spawning biomass


HAKENRTN
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
6e+08
4e+08
2e+08
1900
1950
2000
year
recruitment
6e+08
4e+08
2e+08
1e+05
2e+05
3e+05
spawning biomass


HAKESOTH
spawning biomass
40000
30000
20000
10000
1900
1950
2000
year
recruitment
1.5e+08
1.2e+08
9.0e+07
6.0e+07
1900
1950
2000
year
recruitment
1.5e+08
1.2e+08
9.0e+07
6.0e+07
10000
20000
30000
40000
spawning biomass


HAKESPPSAF
spawning biomass
6e+06
4e+06
2e+06
1900
1950
2000
year
recruitment
4e+10
3e+10
2e+10
1e+10
1900
1950
2000
year
recruitment
4e+10
3e+10
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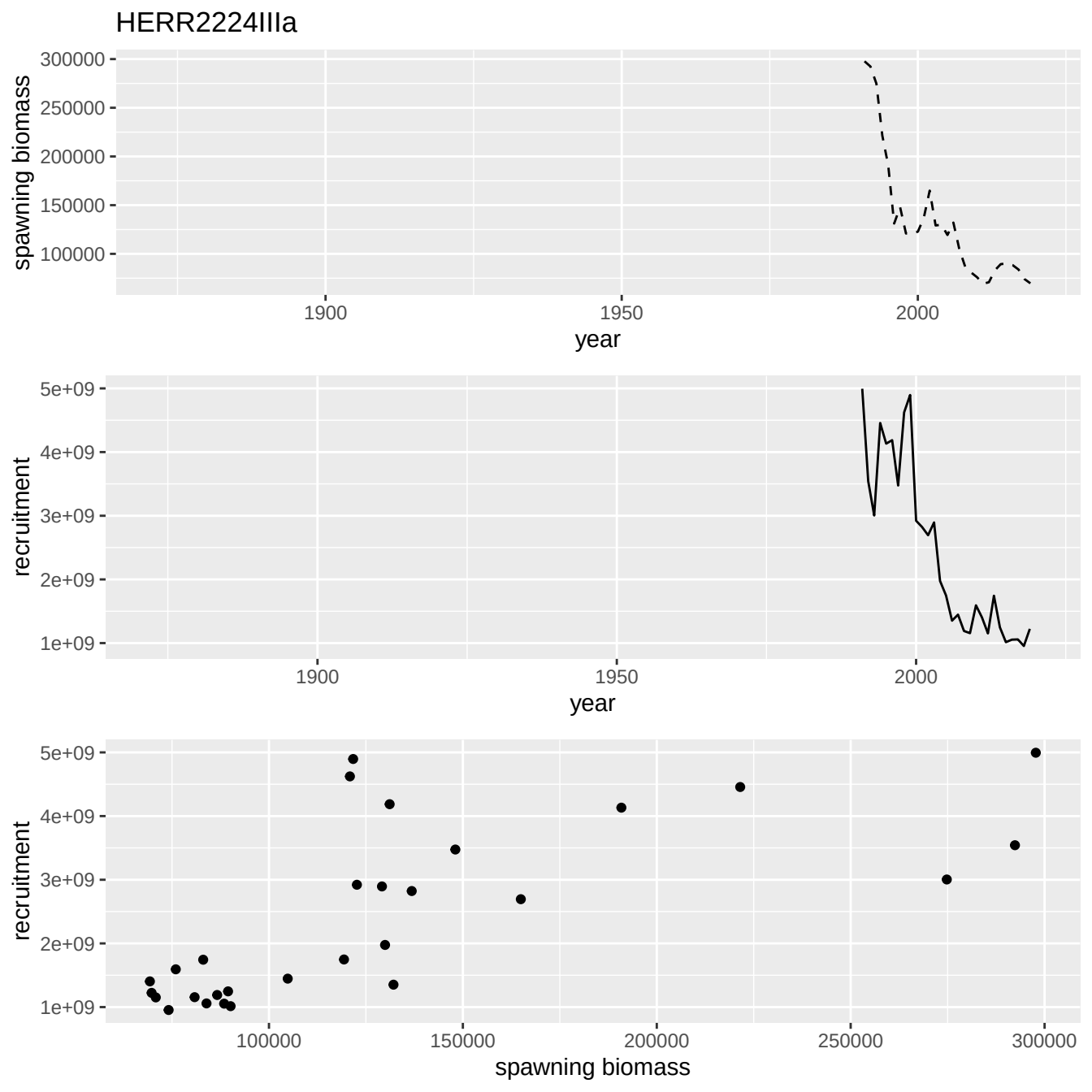
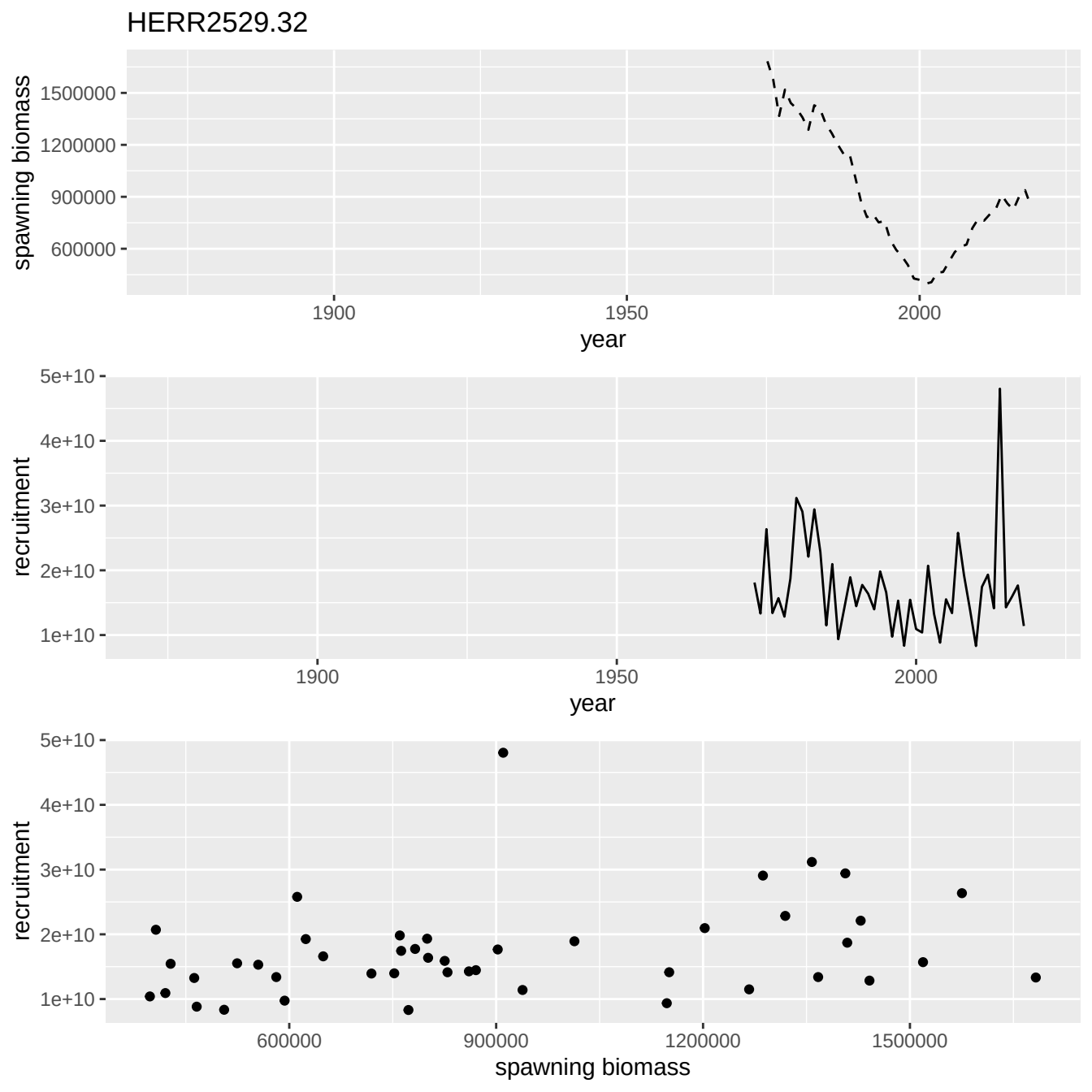
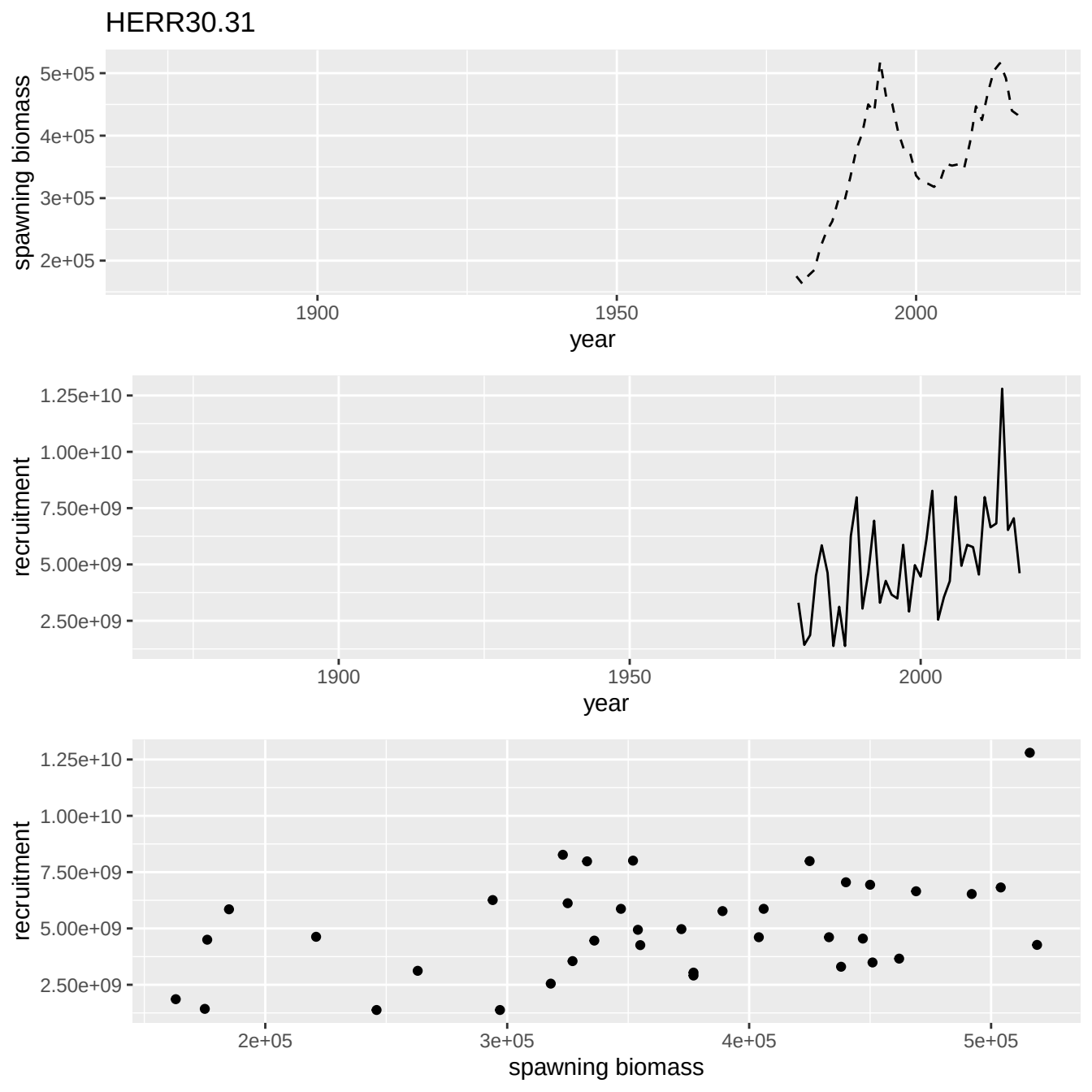
1e+10
2e+06
4e+06
6e+06
spawning biomass


HERR2224IIIa
spawning biomass
300000
250000
200000
150000
100000
1900
1950
2000
year
recruitment
5e+09
4e+09
3e+09
2e+09
1e+09
1900
1950
2000
year
recruitment
5e+09
4e+09
3e+09
2e+09
1e+09
100000
150000
200000
250000
300000
spawning biomass


HERR2529.32
spawning biomass
1500000
1200000
900000
600000
1900
1950
2000
year
recruitment
5e+10
4e+10
3e+10
2e+10
1e+10
1900
1950
2000
year
recruitment
5e+10
4e+10
3e+10
2e+10
1e+10
600000
900000
1200000
1500000
spawning biomass


HERR30.31
spawning biomass
5e+05
4e+05
3e+05
2e+05
1900
1950
2000
year
recruitment
1.25e+10
1.00e+10
7.50e+09
5.00e+09
2.50e+09
1900
1950
2000
year
recruitment
1.25e+10
1.00e+10
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5.00e+09
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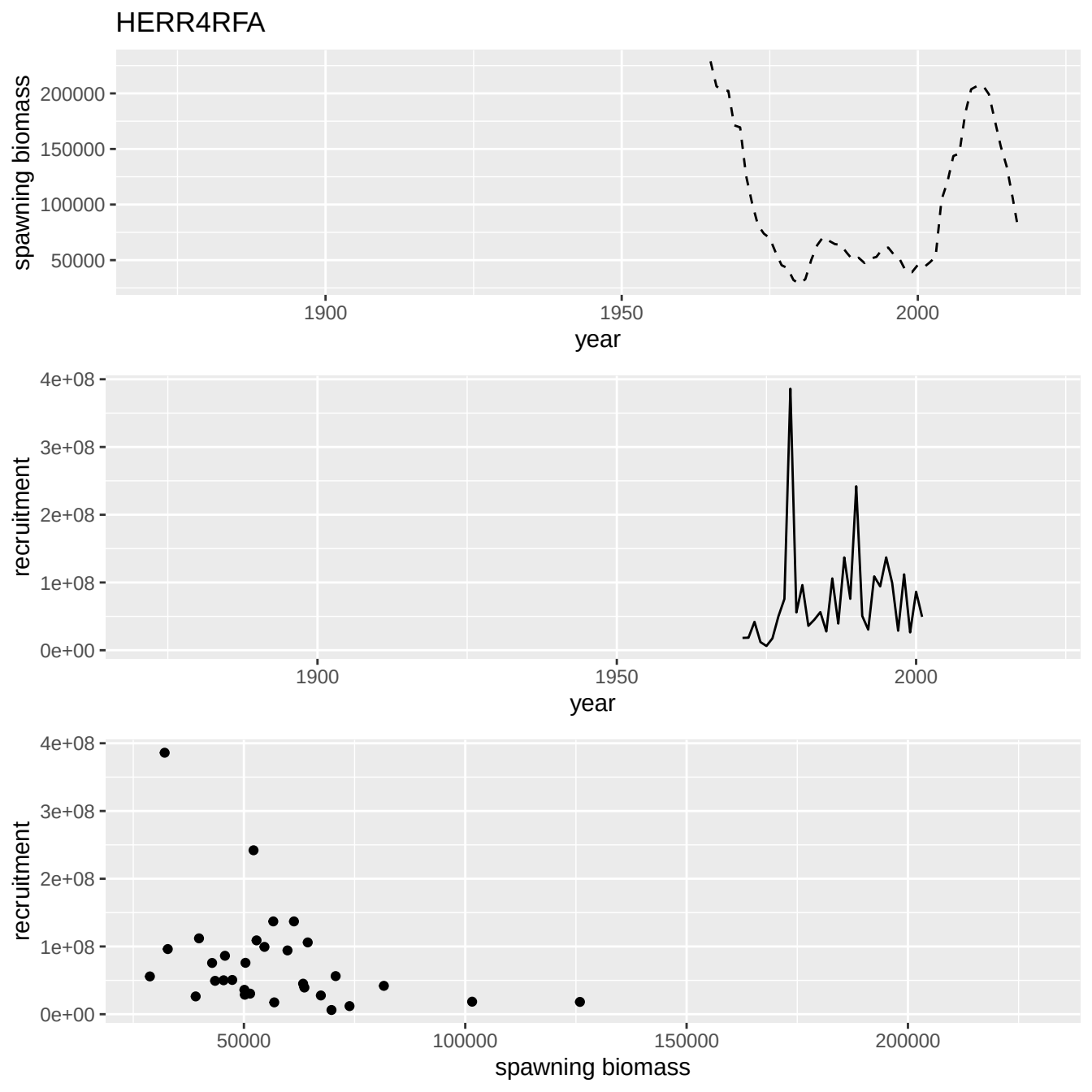
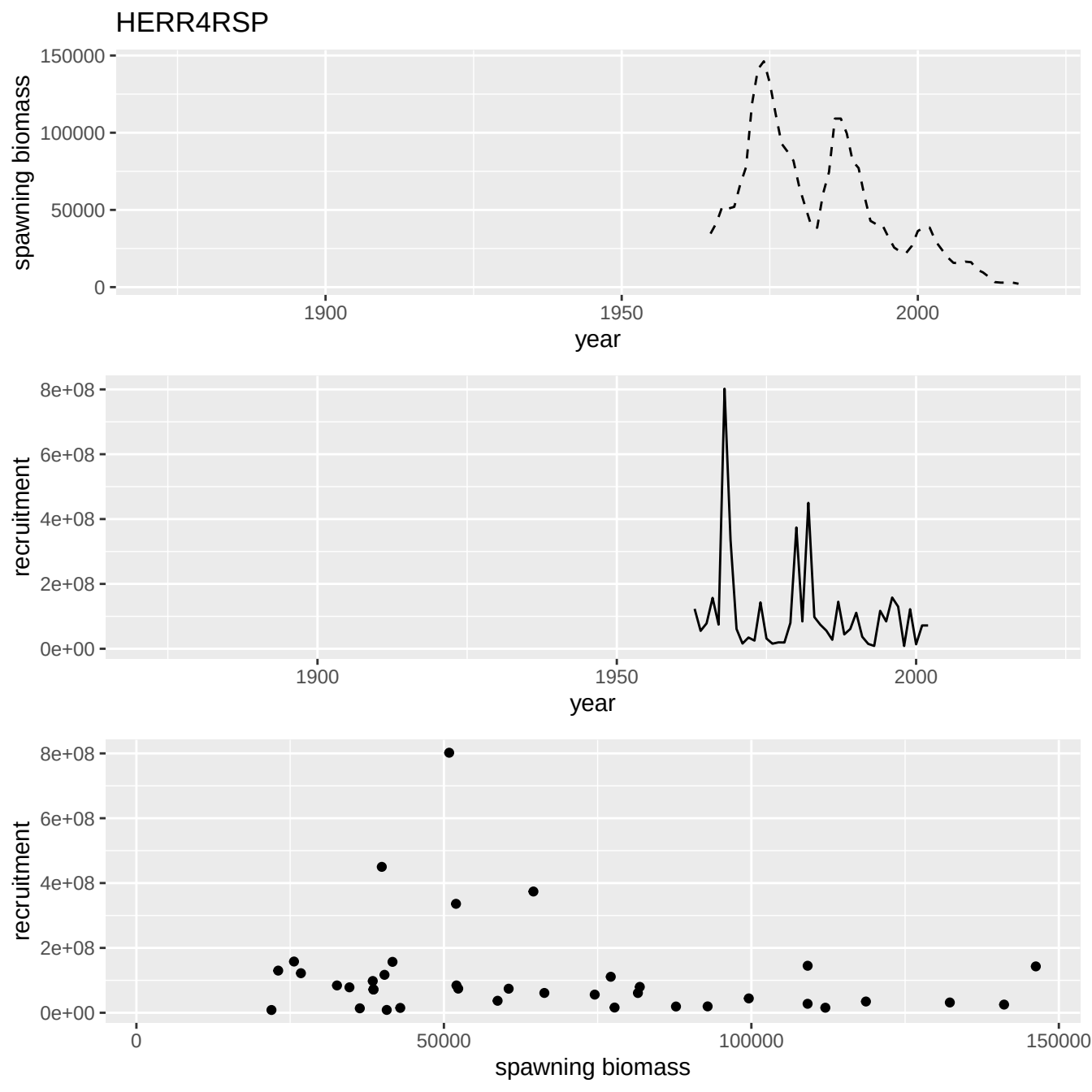
2e+05
3e+05
4e+05
5e+05
spawning biomass


HERR4RFA
spawning biomass
200000
150000
100000
50000
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
0e+00
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
0e+00
50000
100000
150000
200000
spawning biomass


HERR4RSP
spawning biomass
150000
100000
50000
0
1900
1950
2000
year
recruitment
8e+08
6e+08
4e+08
2e+08
0e+00
1900
1950
2000
year
recruitment
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6e+08
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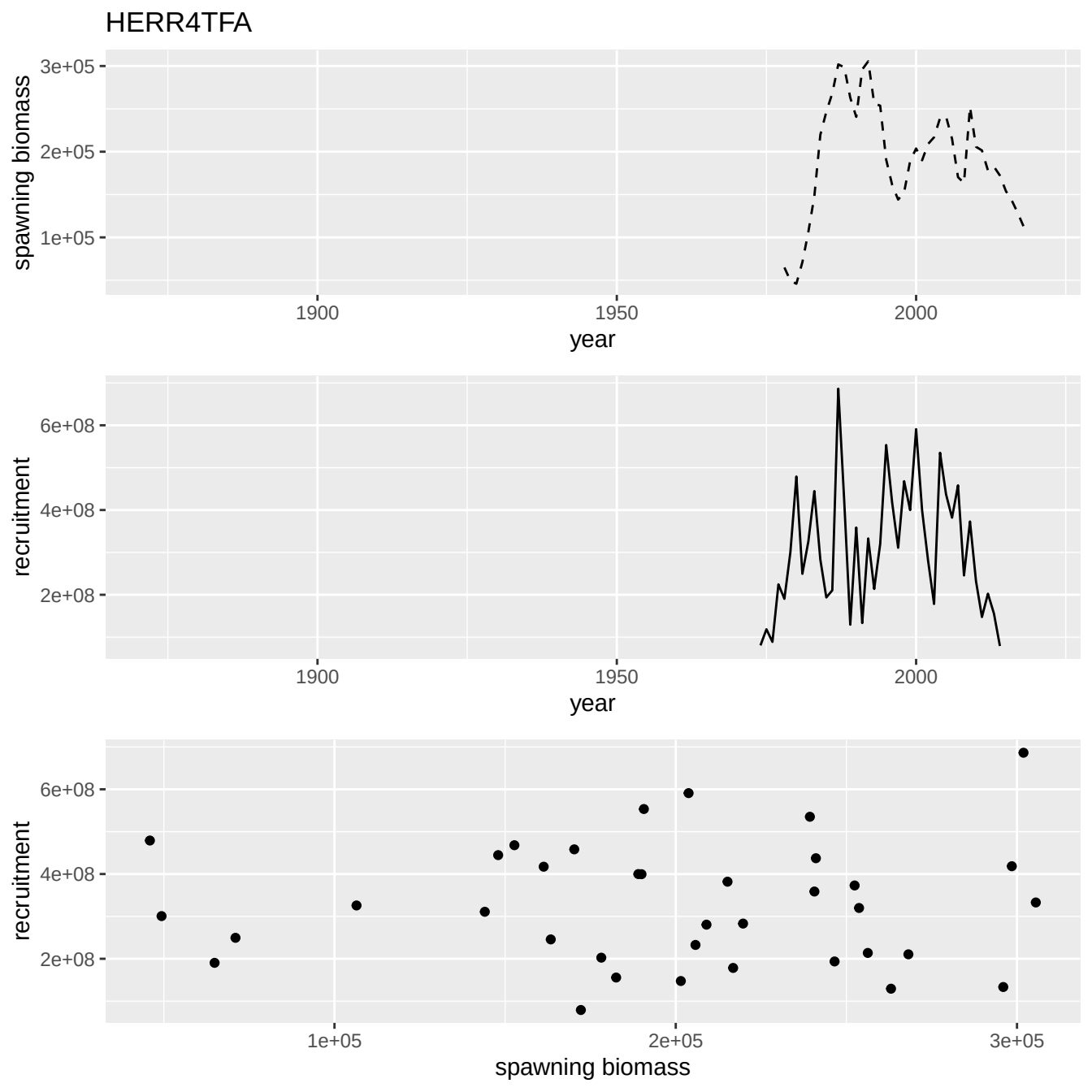
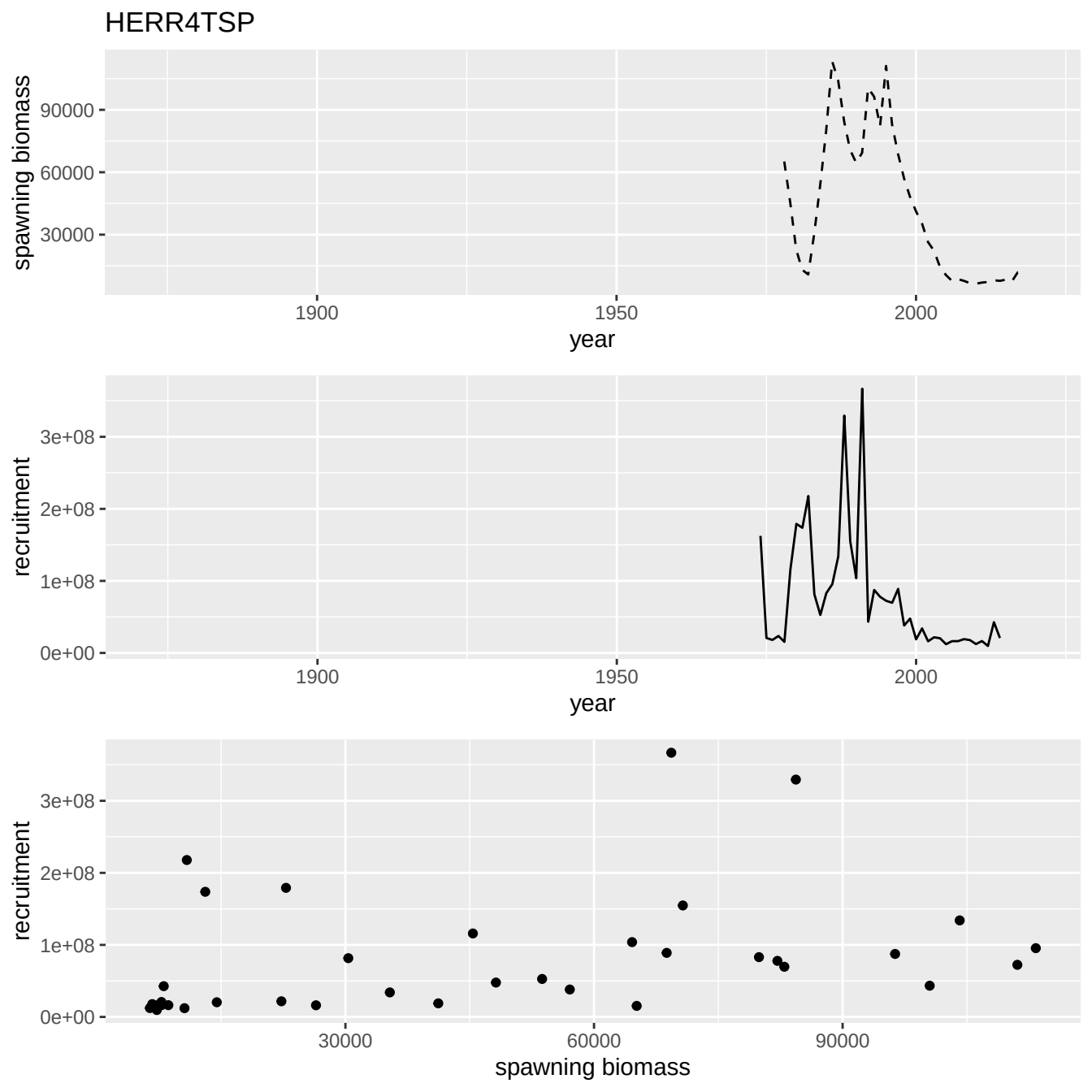
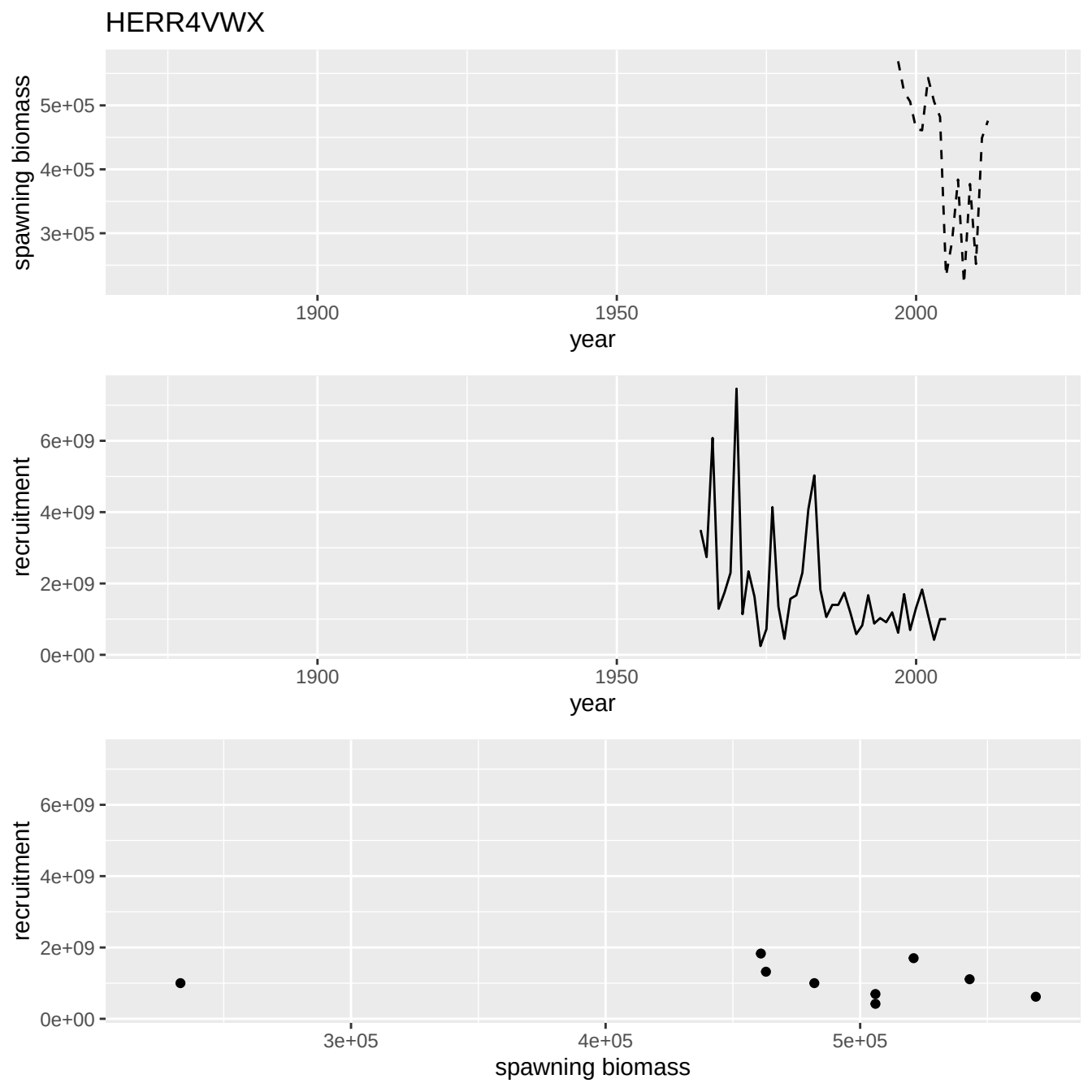
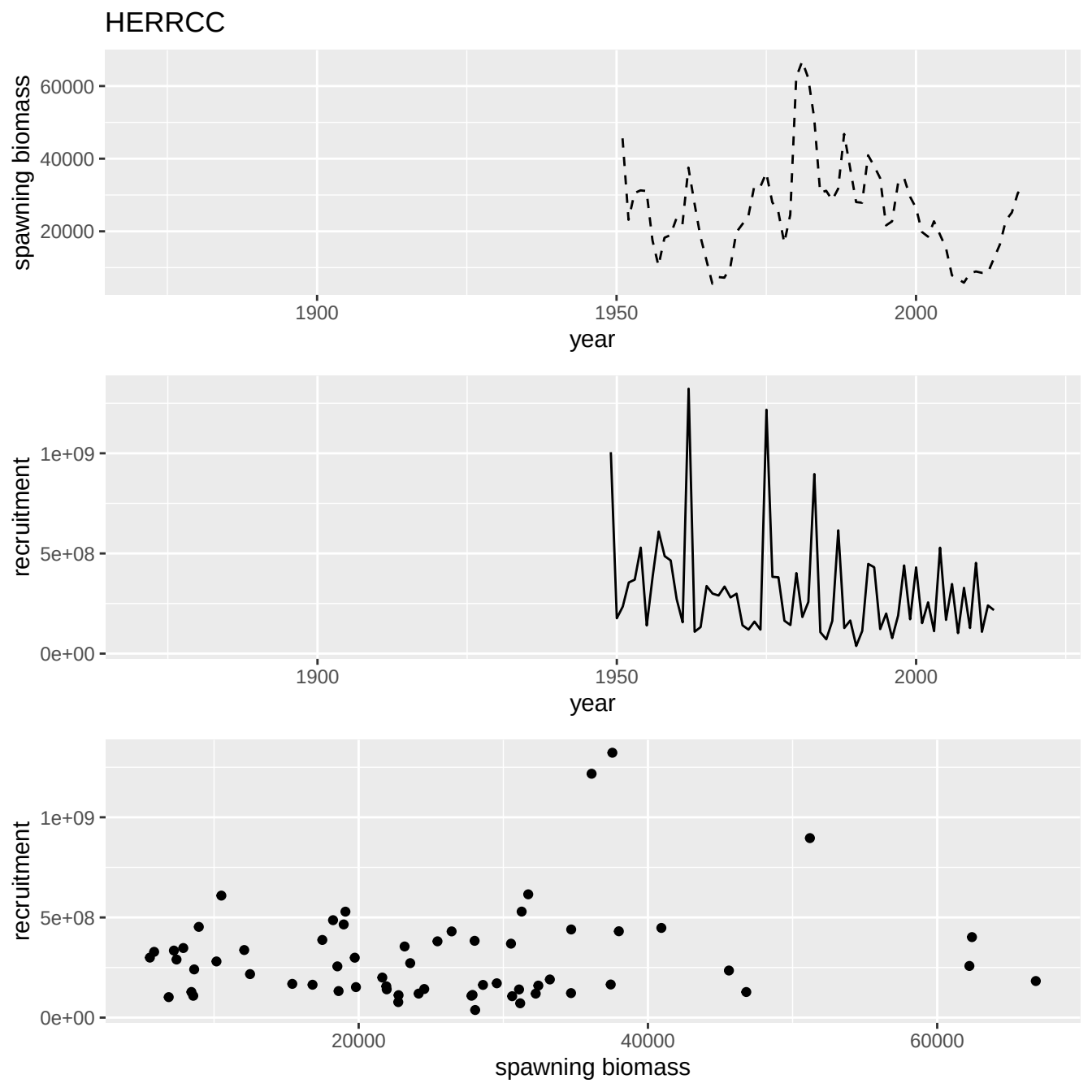
50000
100000
150000
spawning biomass


HERR4TFA
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
6e+08
4e+08
2e+08
1900
1950
2000
year
recruitment
6e+08
4e+08
2e+08
1e+05
2e+05
3e+05
spawning biomass


HERR4TSP
spawning biomass
90000
60000
30000
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
0e+00
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
0e+00
30000
60000
90000
spawning biomass


HERR4VWX
spawning biomass
5e+05
4e+05
3e+05
1900
1950
2000
year
recruitment
6e+09
4e+09
2e+09
0e+00
1900
1950
2000
year
recruitment
6e+09
4e+09
2e+09
0e+00
3e+05
4e+05
5e+05
spawning biomass


HERRCC
spawning biomass
60000
40000
20000
1900
1950
2000
year
recruitment
1e+09
5e+08
0e+00
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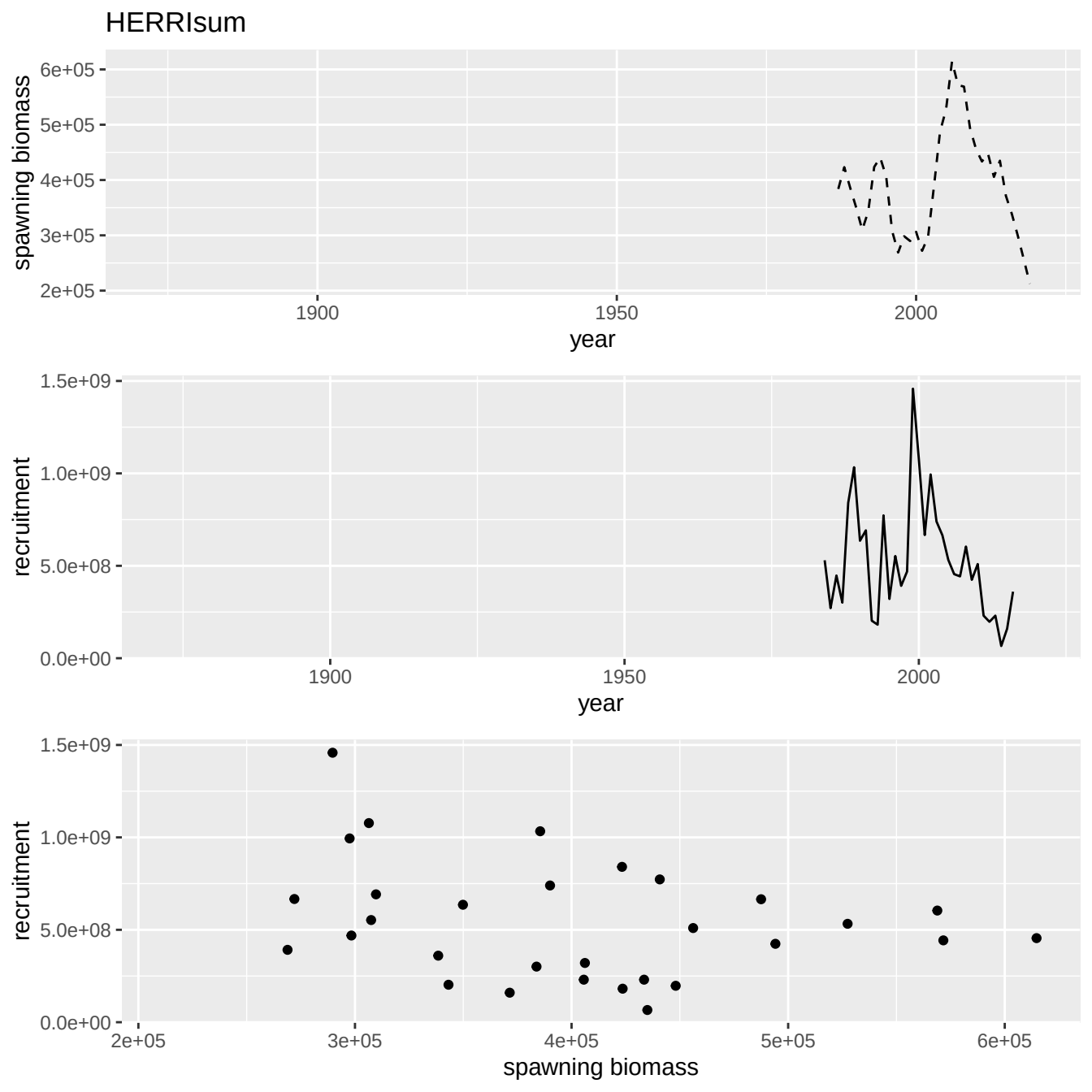
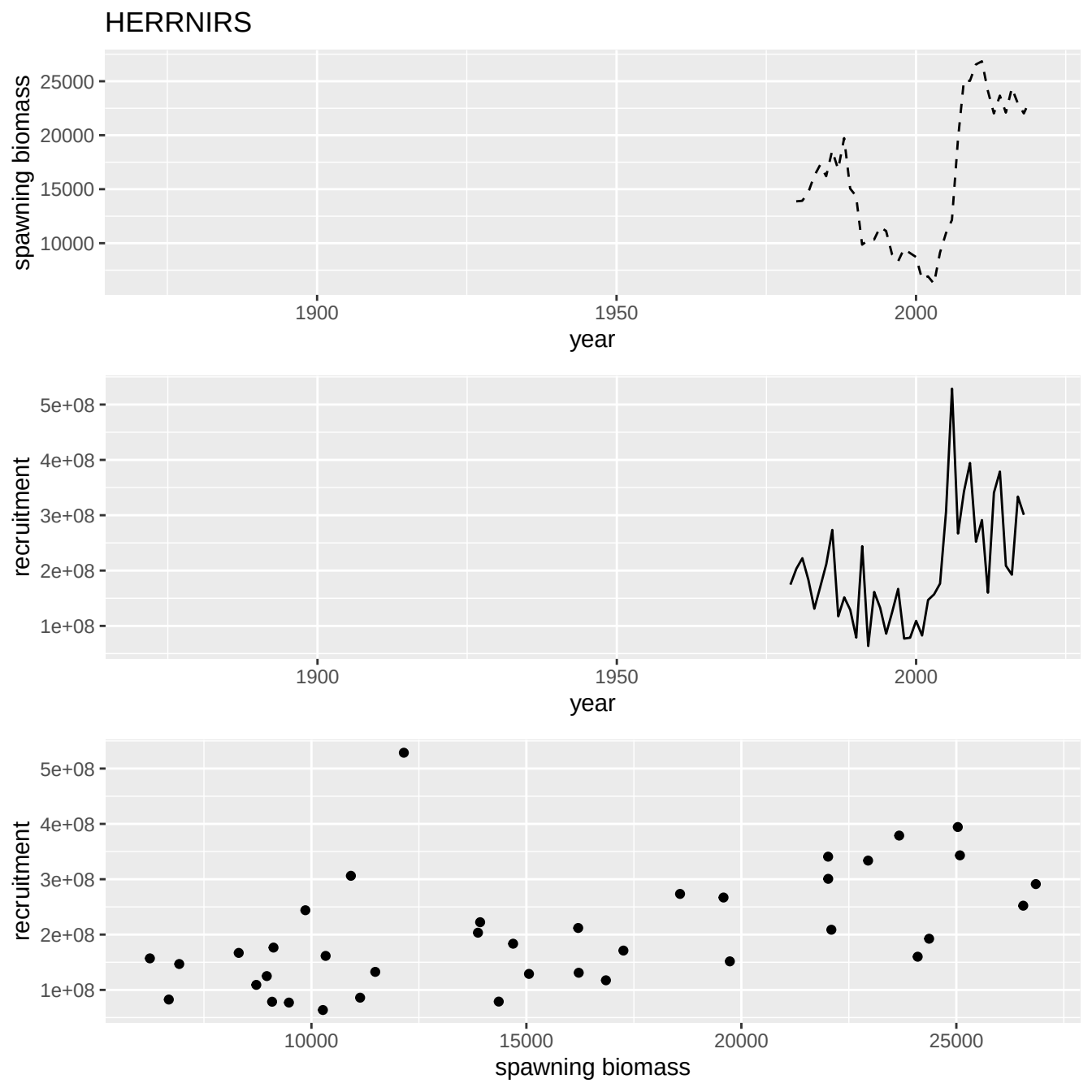
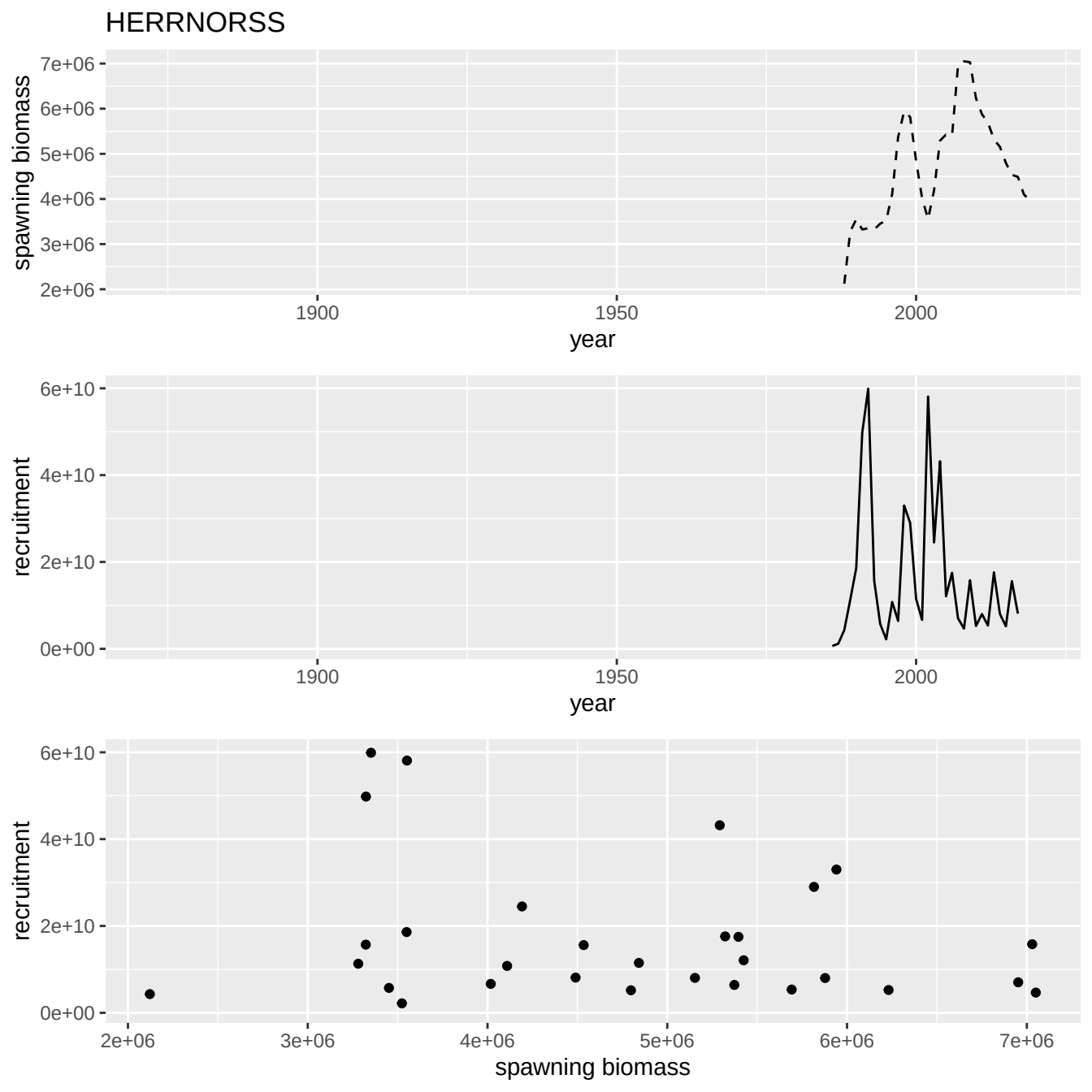
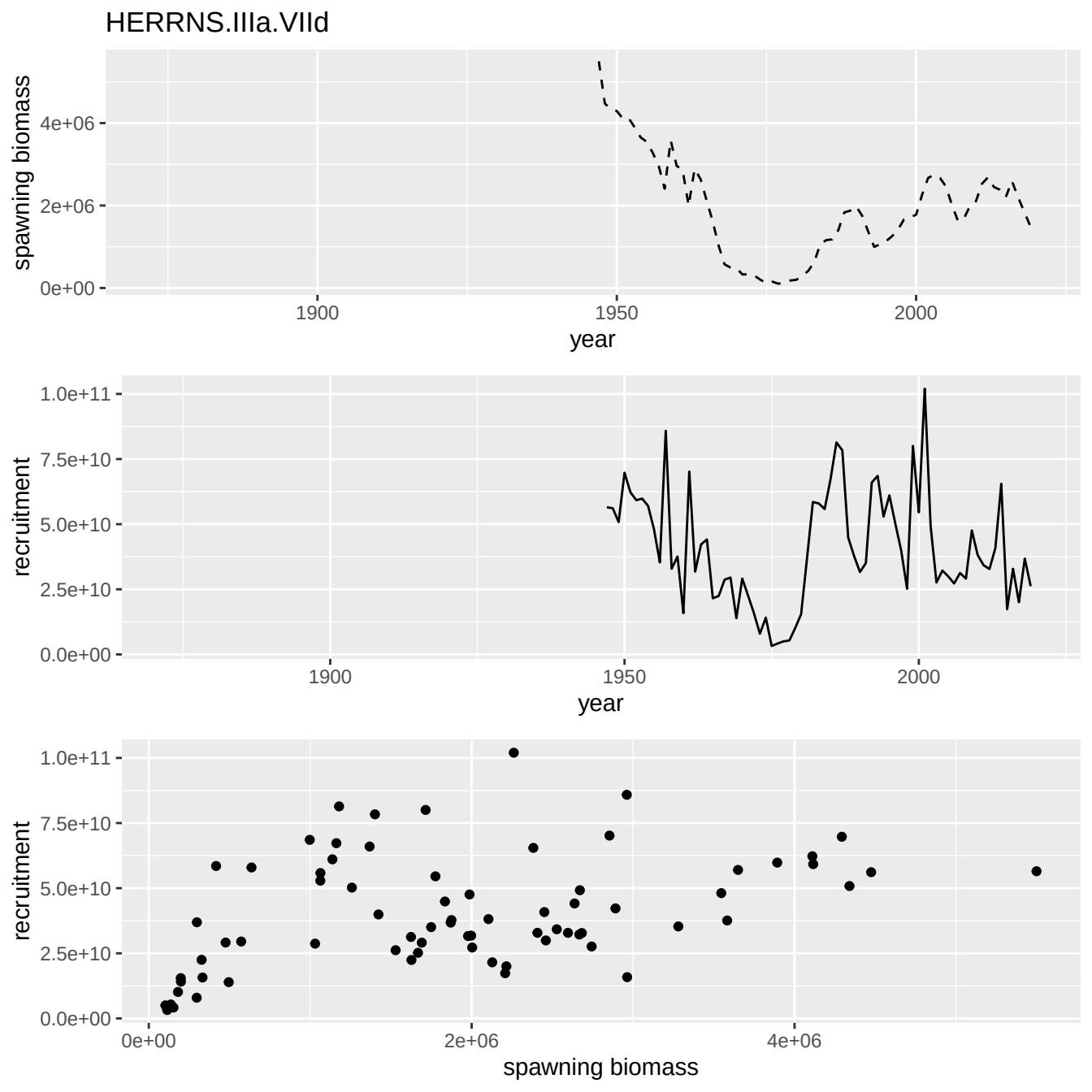
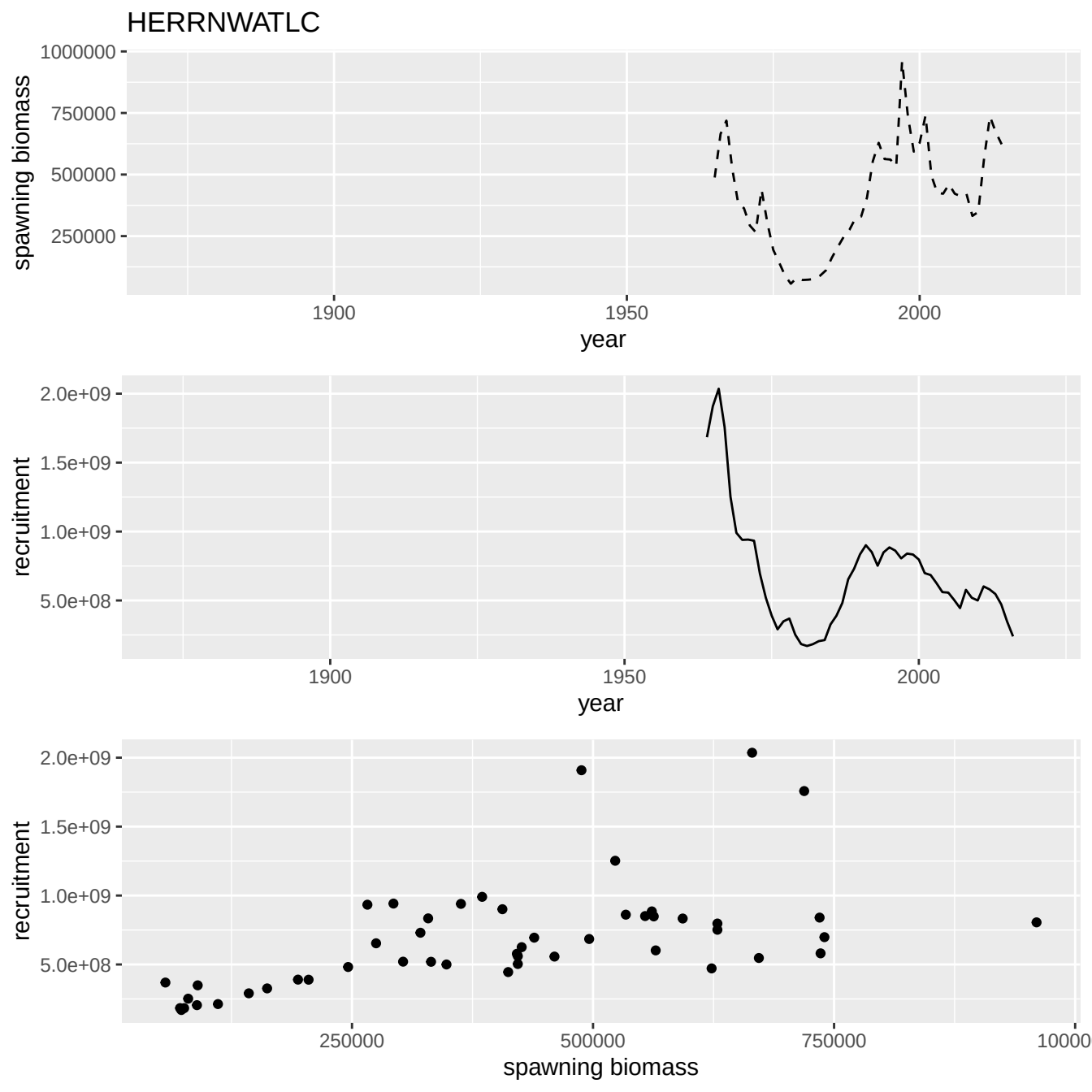
1950
2000
year
recruitment
1e+09
5e+08
0e+00
20000
40000
60000
spawning biomass

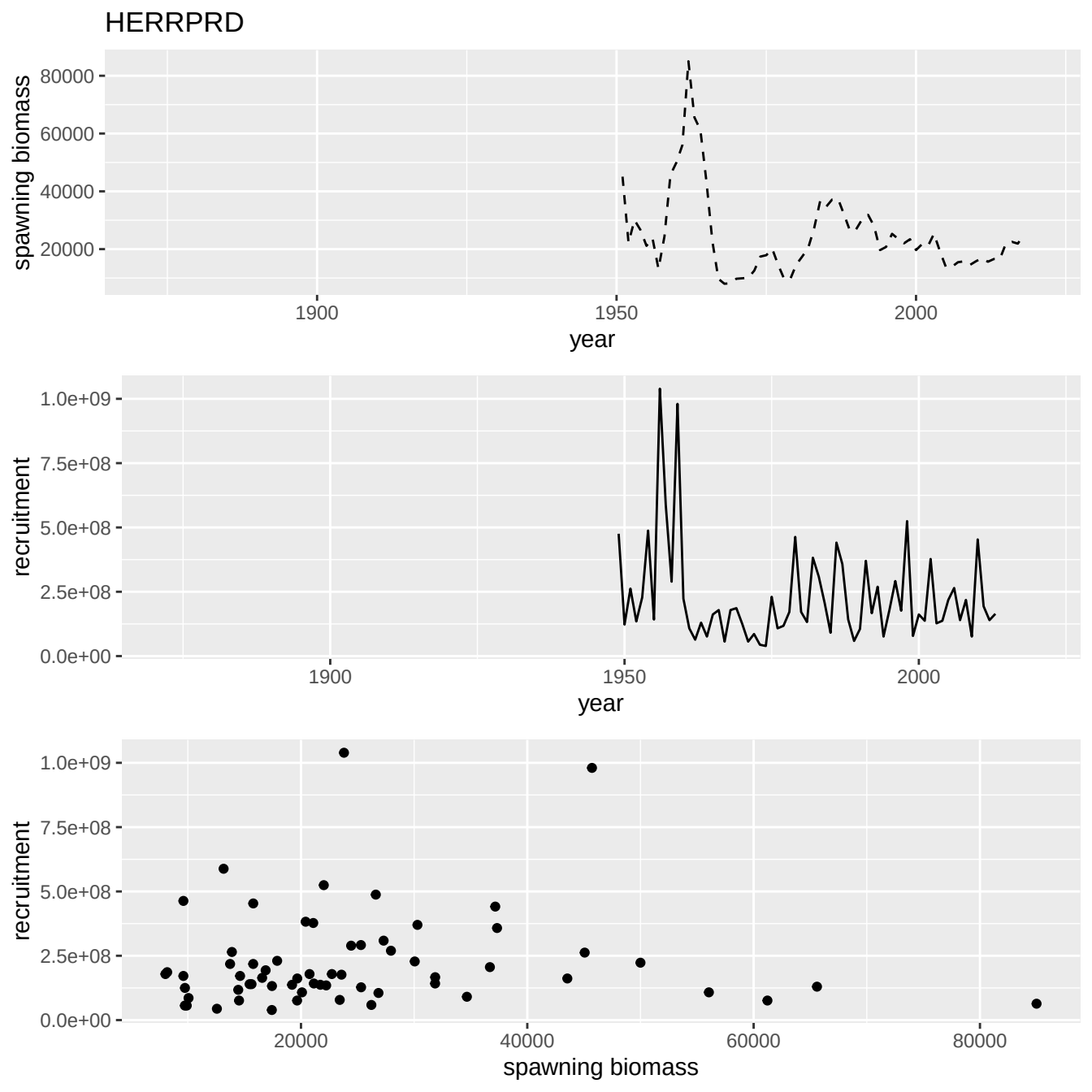

HERRIsum
spawning biomass
6e+05
5e+05
4e+05
3e+05
2e+05
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
2e+05
3e+05
4e+05
5e+05
6e+05
spawning biomass

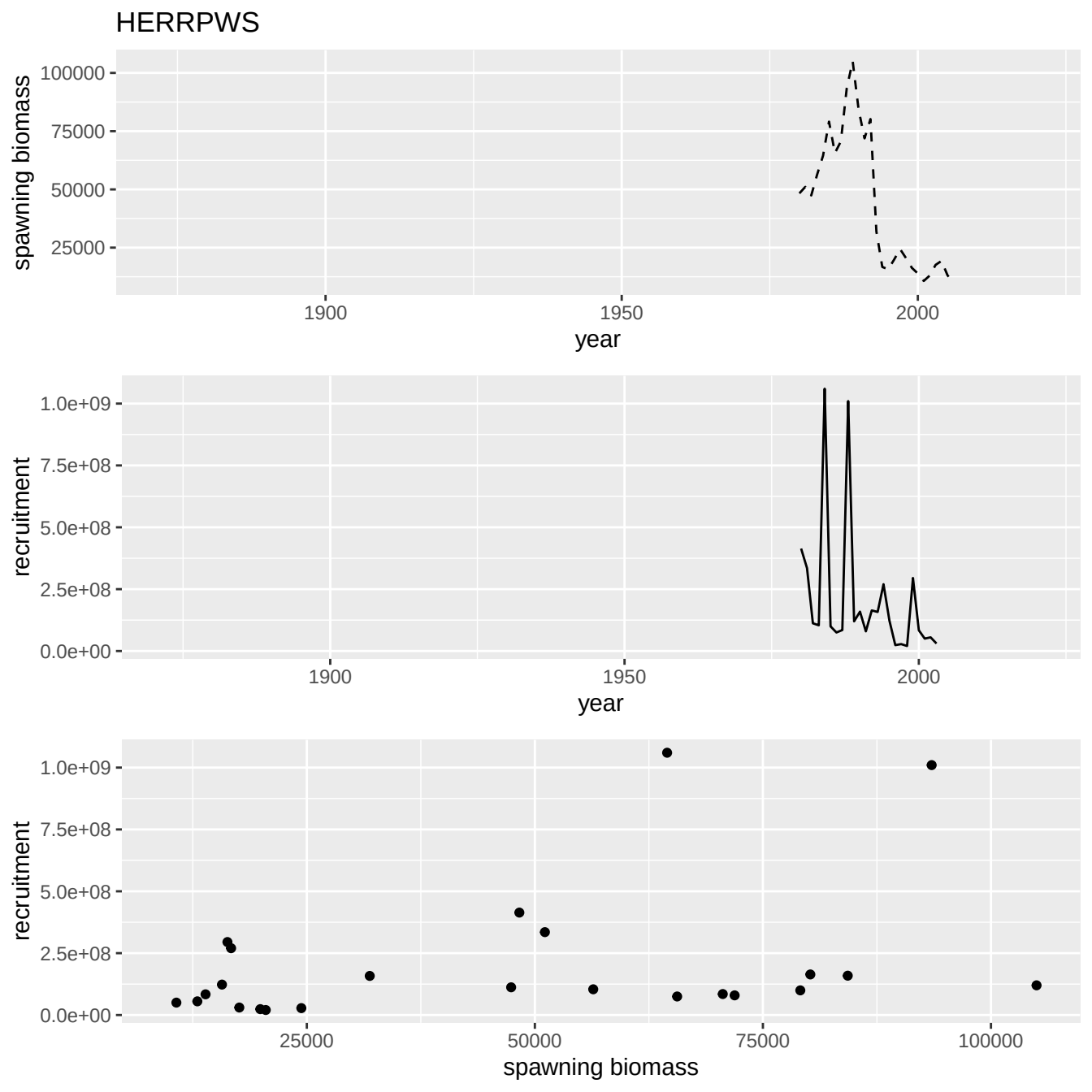

HERRNIRS
spawning biomass
25000
20000
15000
10000
1900
1950
2000
year
recruitment
5e+08
4e+08
3e+08
2e+08
1e+08
1900
1950
2000
year
recruitment
5e+08
4e+08
3e+08
2e+08
1e+08
10000
15000
20000
25000
spawning biomass

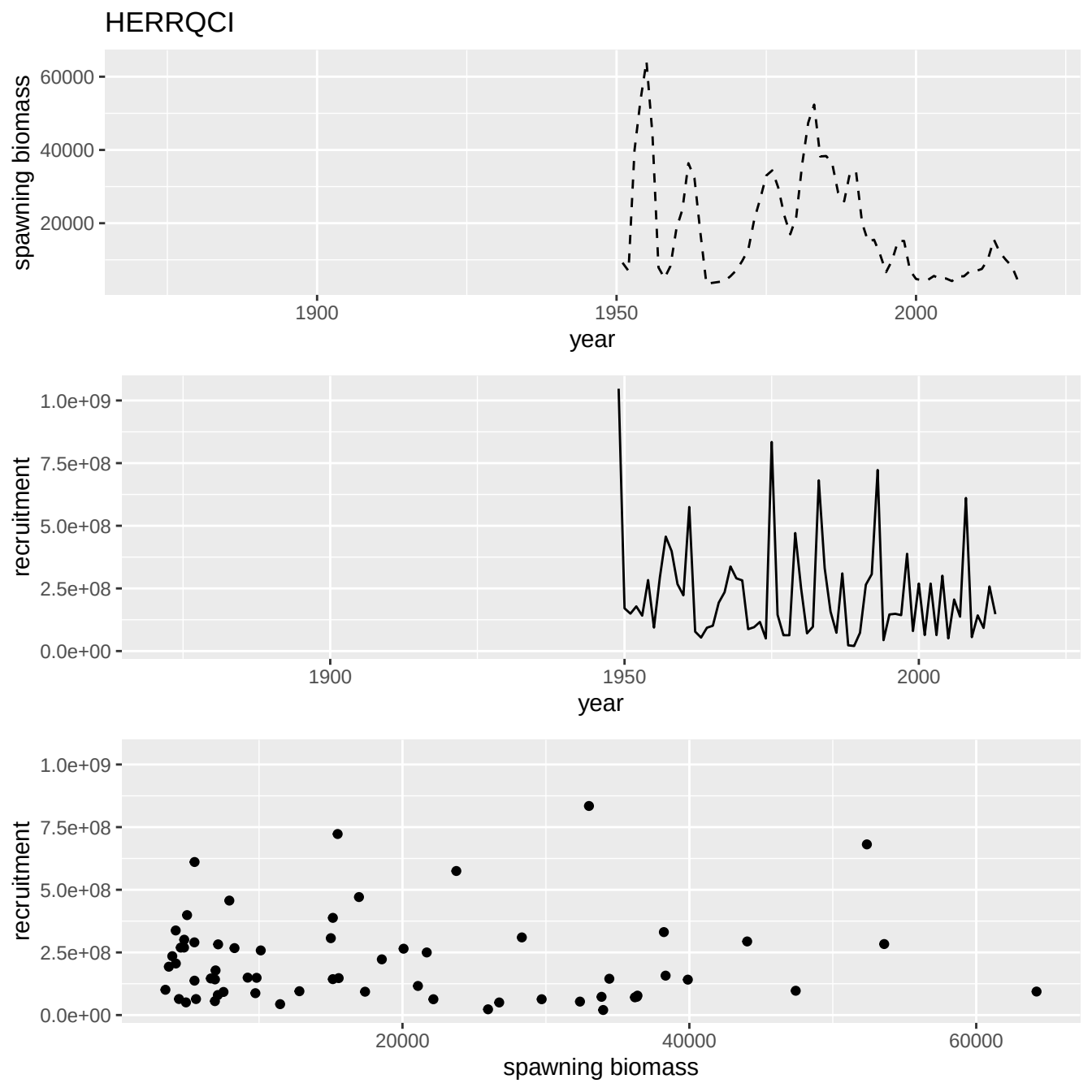

HERRNORSS
spawning biomass
7e+06
6e+06
5e+06
4e+06
3e+06
2e+06
1900
1950
2000
year
recruitment
6e+10
4e+10
2e+10
0e+00
1900
1950
2000
year
recruitment
6e+10
4e+10
2e+10
0e+00
2e+06
3e+06
4e+06
5e+06
6e+06
7e+06
spawning biomass

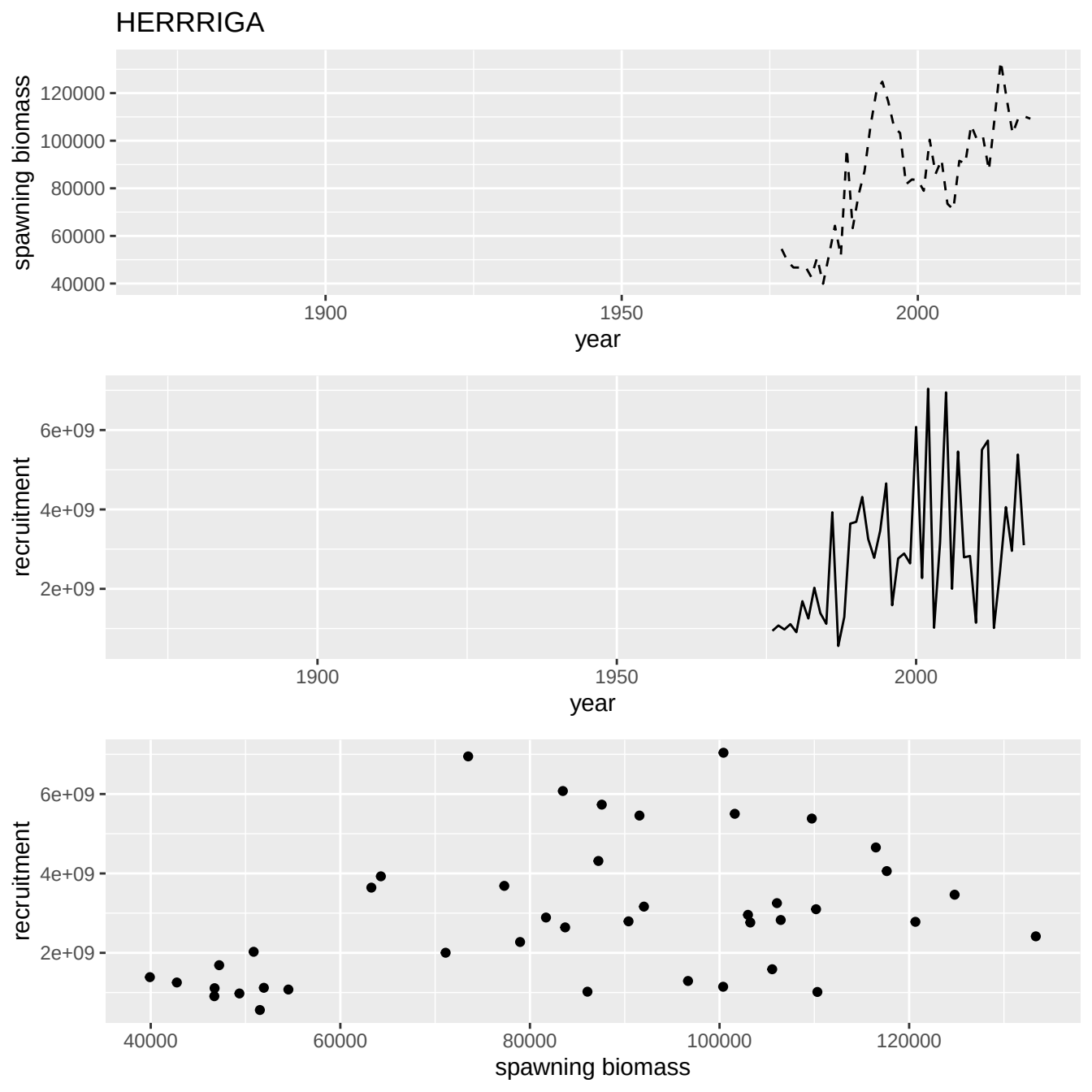

HERRNS.IIIa.VIId
spawning biomass
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
1.0e+11
7.5e+10
5.0e+10
2.5e+10
0.0e+00
1900
1950
2000
year
recruitment
1.0e+11
7.5e+10
5.0e+10
2.5e+10
0.0e+00
0e+00
2e+06
4e+06
spawning biomass

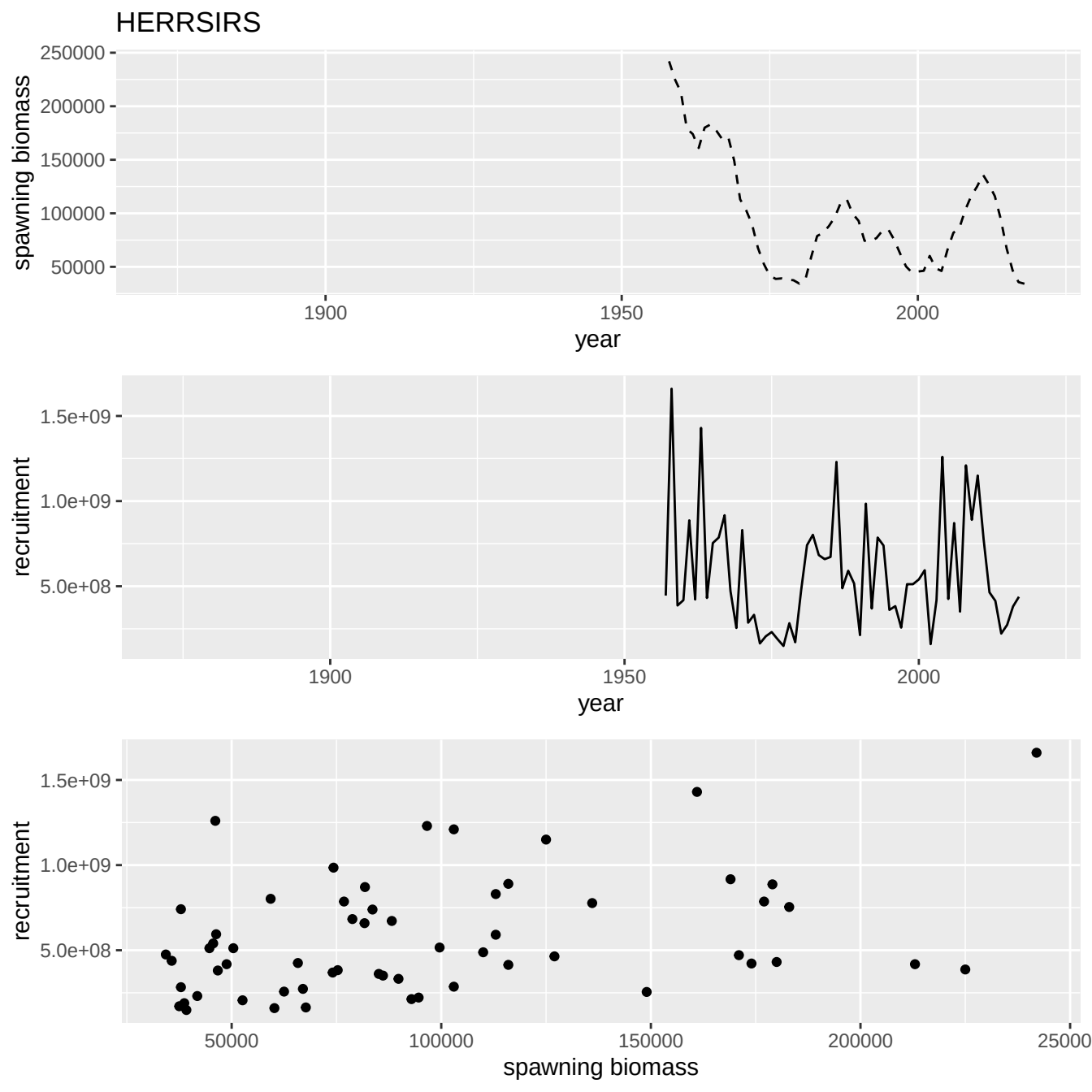

HERRNWATLC
spawning biomass
1000000
750000
500000
250000
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
250000
500000
750000
10000
spawning biomass

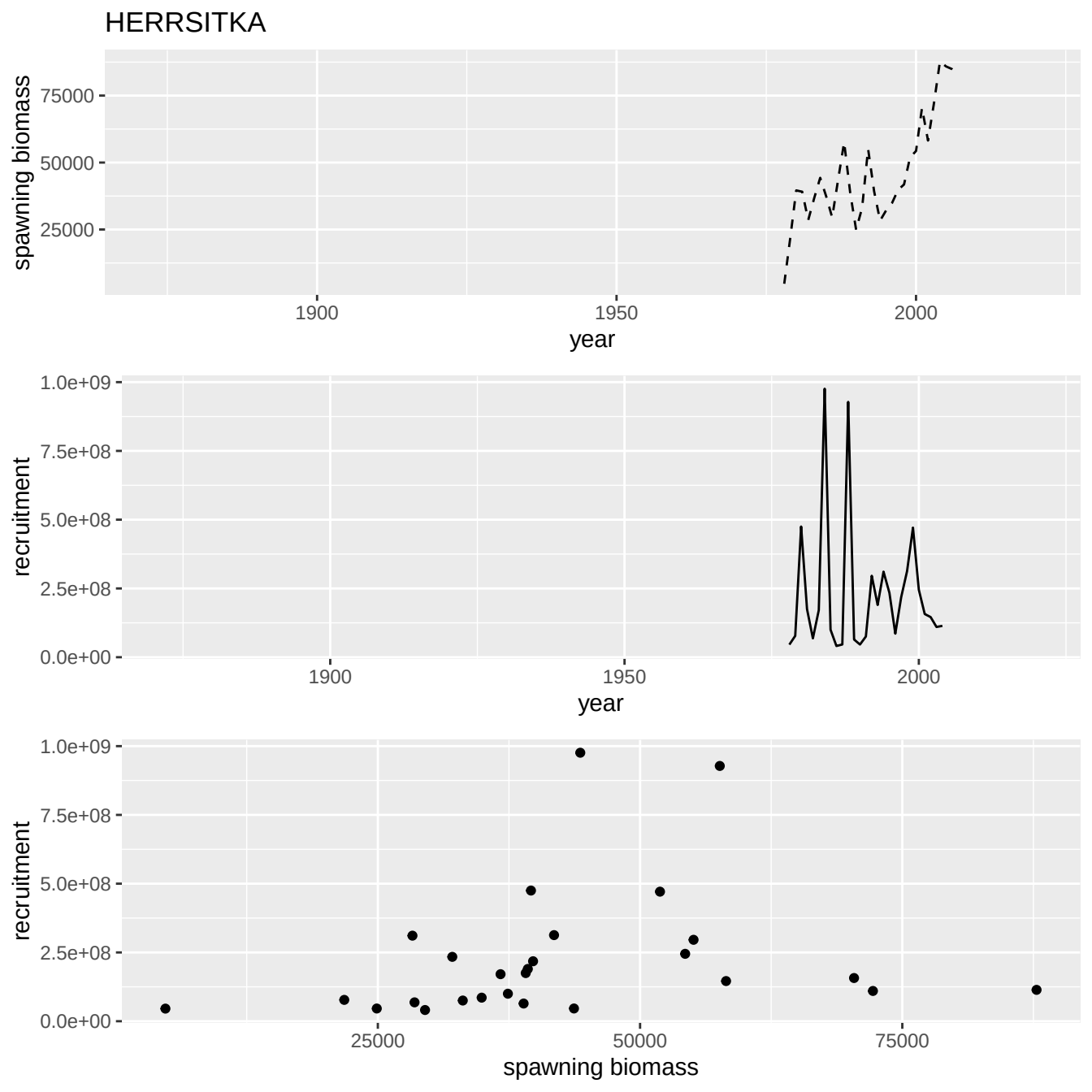

HERRPRD
spawning biomass
80000
60000
40000
20000
1900
1950
2000
year
recruitment
1.0e+09
7.5e+08
5.0e+08
2.5e+08
0.0e+00
1900
1950
2000
year
recruitment
1.0e+09
7.5e+08
5.0e+08
2.5e+08
0.0e+00
20000
40000
60000
80000
spawning biomass

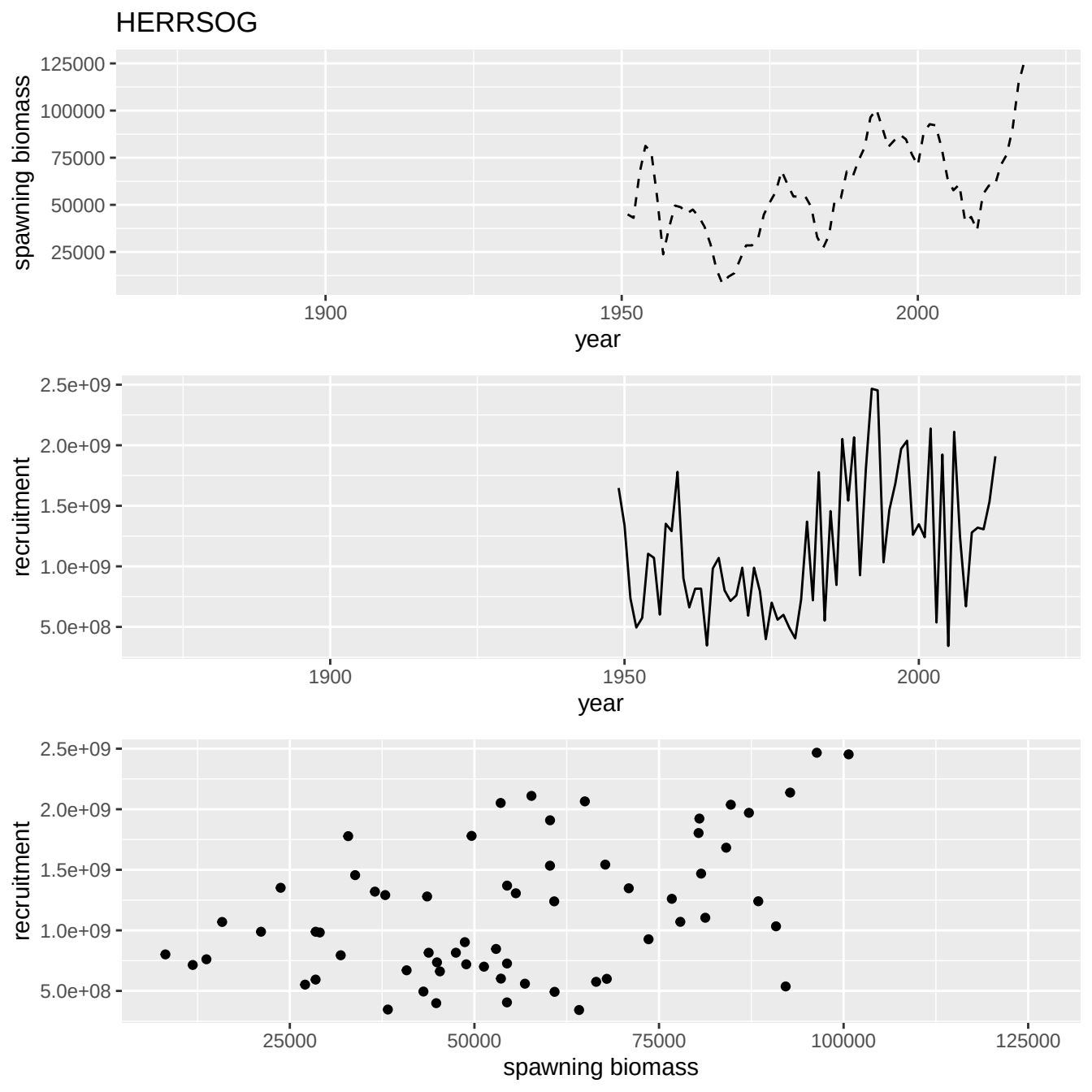

HERRPWS
spawning biomass
100000
75000
50000
25000
1900
1950
2000
year
recruitment
1.0e+09
7.5e+08
5.0e+08
2.5e+08
0.0e+00
1900
1950
2000
year
recruitment
1.0e+09
7.5e+08
5.0e+08
2.5e+08
0.0e+00
25000
50000
75000
100000
spawning biomass

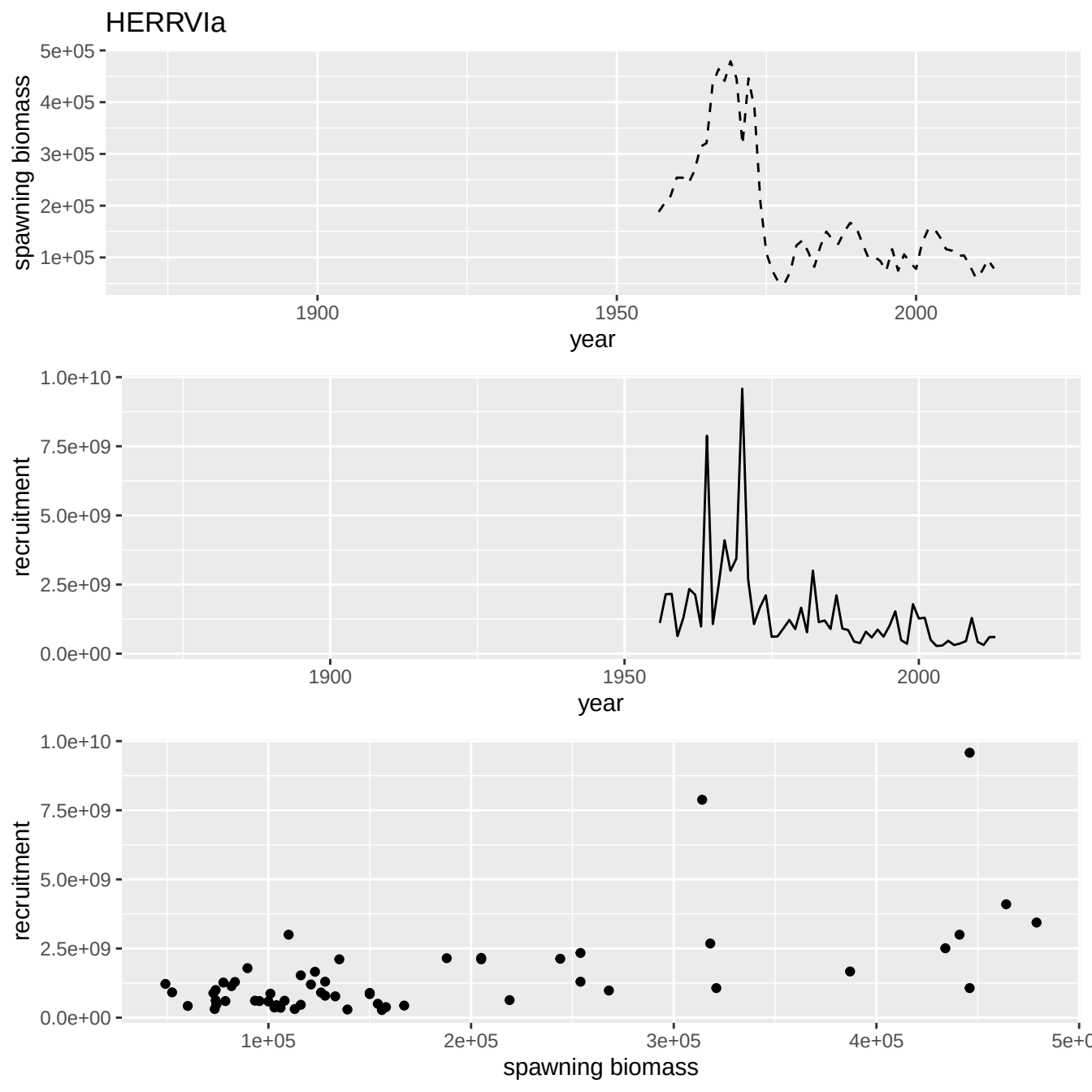

HERRQCI
spawning biomass
60000
40000
20000
1900
1950
2000
year
recruitment
1.0e+09
7.5e+08
5.0e+08
2.5e+08
0.0e+00
1900
1950
2000
year
recruitment
1.0e+09
7.5e+08
5.0e+08
2.5e+08
0.0e+00
20000
40000
60000
spawning biomass

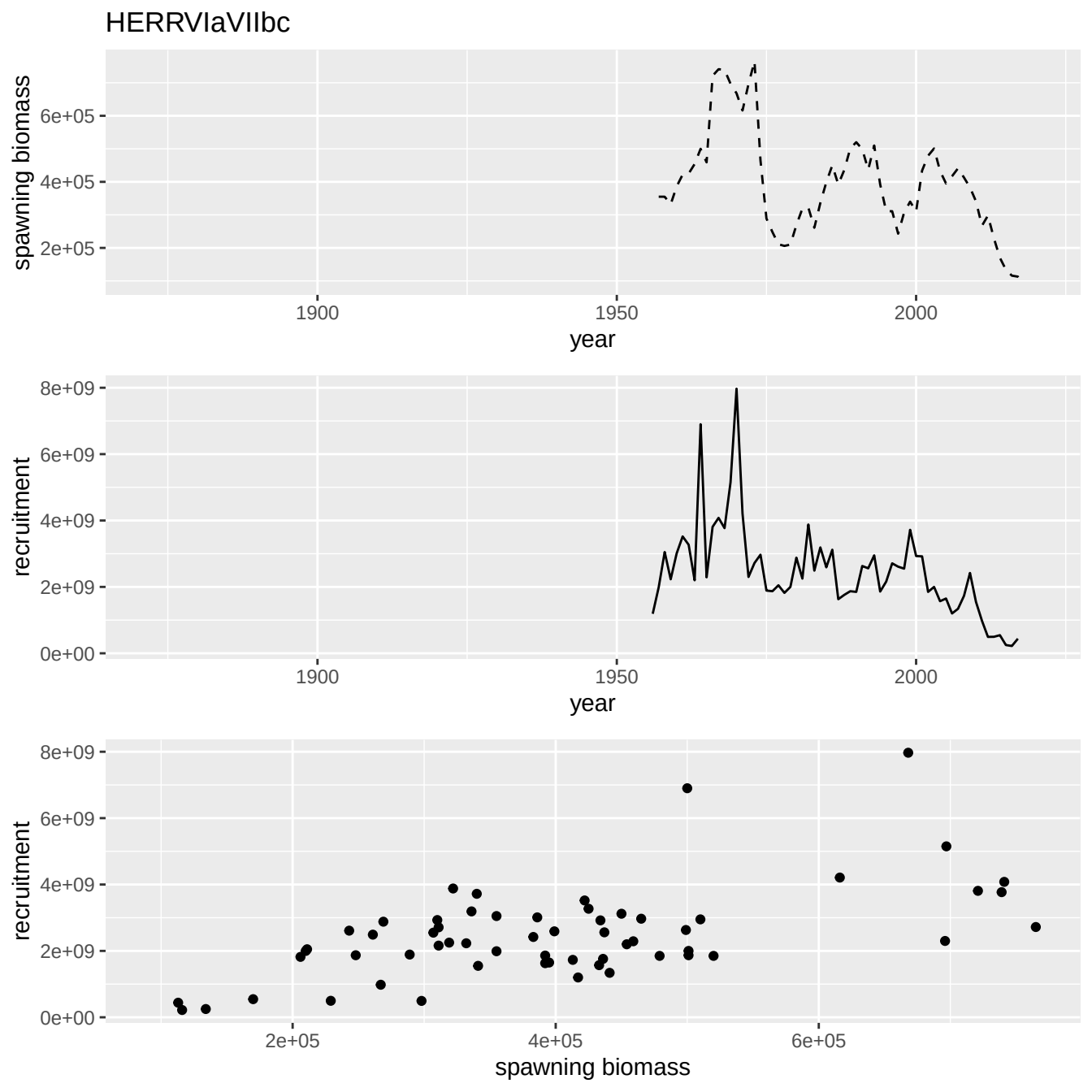

HERRRIGA
spawning biomass
120000
100000
80000
60000
40000
1900
1950
2000
year
recruitment
6e+09
4e+09
2e+09
1900
1950
2000
year
recruitment
6e+09
4e+09
2e+09
40000
60000
80000
100000
120000
spawning biomass

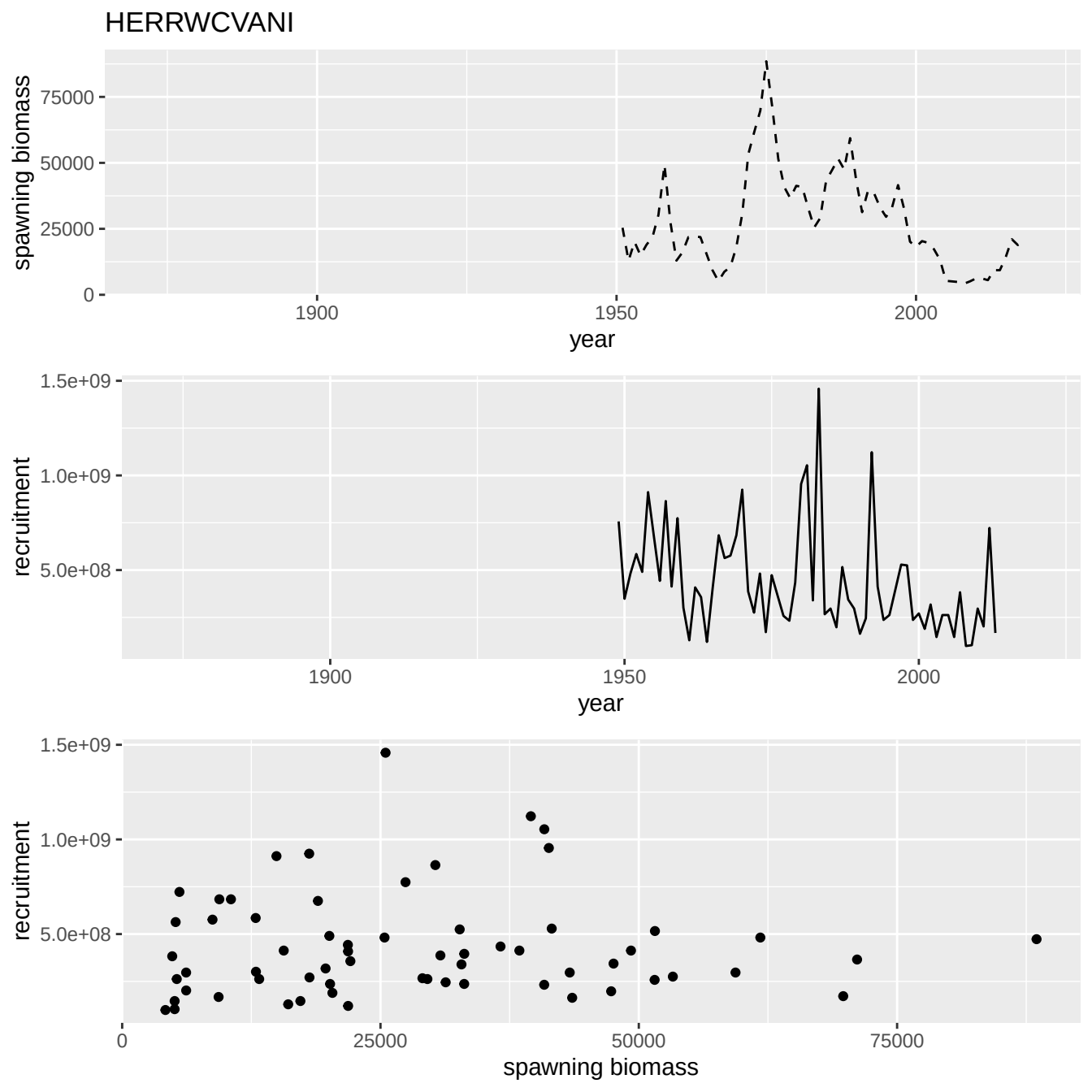

HERRSIRS
spawning biomass
250000
200000
150000
100000
50000
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
50000
100000
150000
200000
25000
spawning biomass

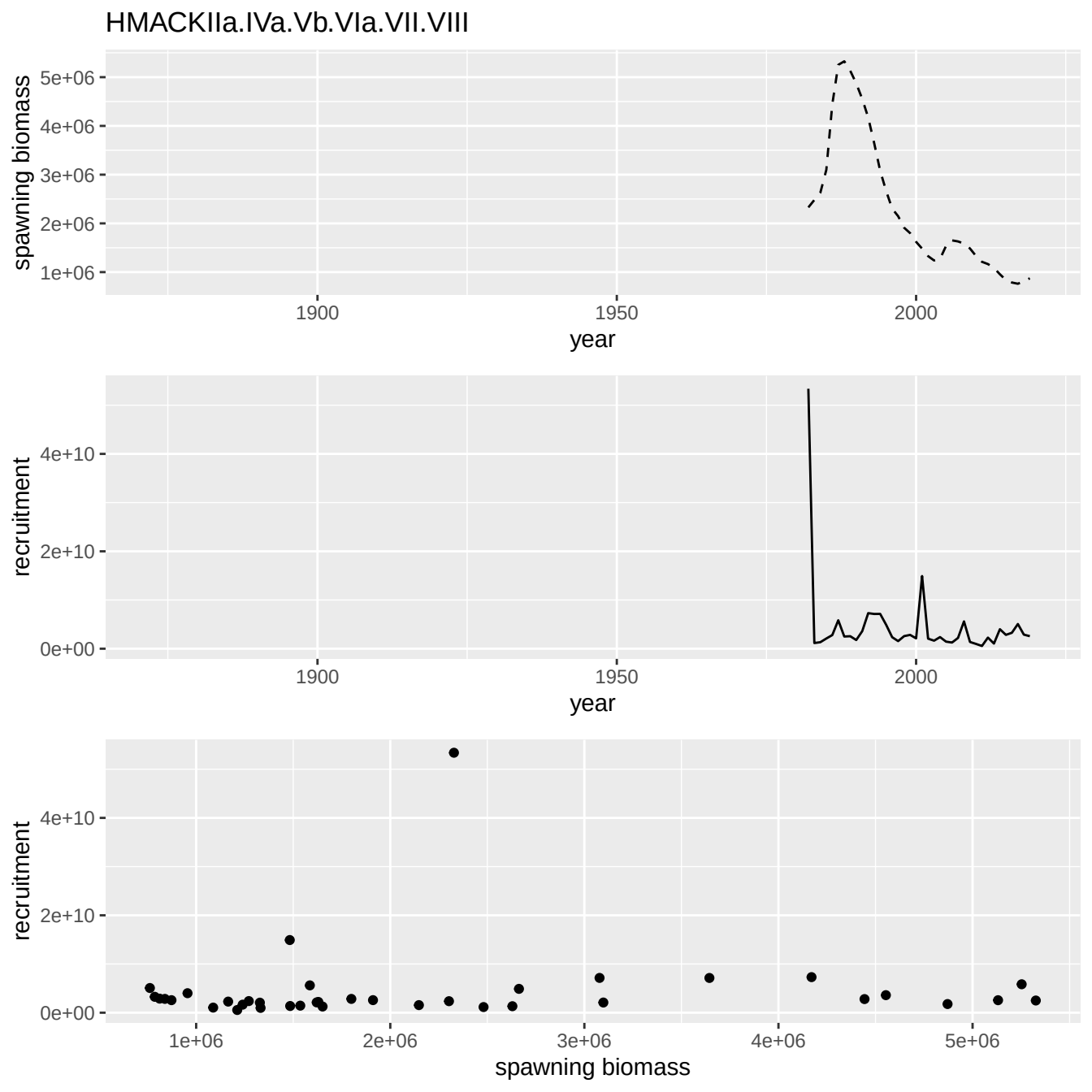

HERRSITKA
spawning biomass
75000
50000
25000
1900
1950
2000
year
recruitment
1.0e+09
7.5e+08
5.0e+08
2.5e+08
0.0e+00
1900
1950
2000
year
recruitment
1.0e+09
7.5e+08
5.0e+08
2.5e+08
0.0e+00
25000
50000
75000
spawning biomass


HERRSOG
spawning biomass
125000
100000
75000
50000
25000
1900
1950
2000
year
recruitment
2.5e+09
2.0e+09
1.5e+09
1.0e+09
5.0e+08
1900
1950
2000
year
recruitment
2.5e+09
2.0e+09
1.5e+09
1.0e+09
5.0e+08
25000
50000
75000
100000
125000
spawning biomass


HERRVIa
spawning biomass
5e+05
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
1.0e+10
7.5e+09
5.0e+09
2.5e+09
0.0e+00
1900
1950
2000
year
recruitment
1.0e+10
7.5e+09
5.0e+09
2.5e+09
0.0e+00
1e+05
2e+05
3e+05
4e+05
5e+0
spawning biomass


HERRVIaVIIbc
spawning biomass
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
8e+09
6e+09
4e+09
2e+09
0e+00
1900
1950
2000
year
recruitment
8e+09
6e+09
4e+09
2e+09
0e+00
2e+05
4e+05
6e+05
spawning biomass


HERRWCVANI
spawning biomass
75000
50000
25000
0
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0
25000
50000
75000
spawning biomass


HMACKIIa.IVa.Vb.VIa.VII.VIII
spawning biomass
5e+06
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
4e+10
2e+10
0e+00
1900
1950
2000
year
recruitment
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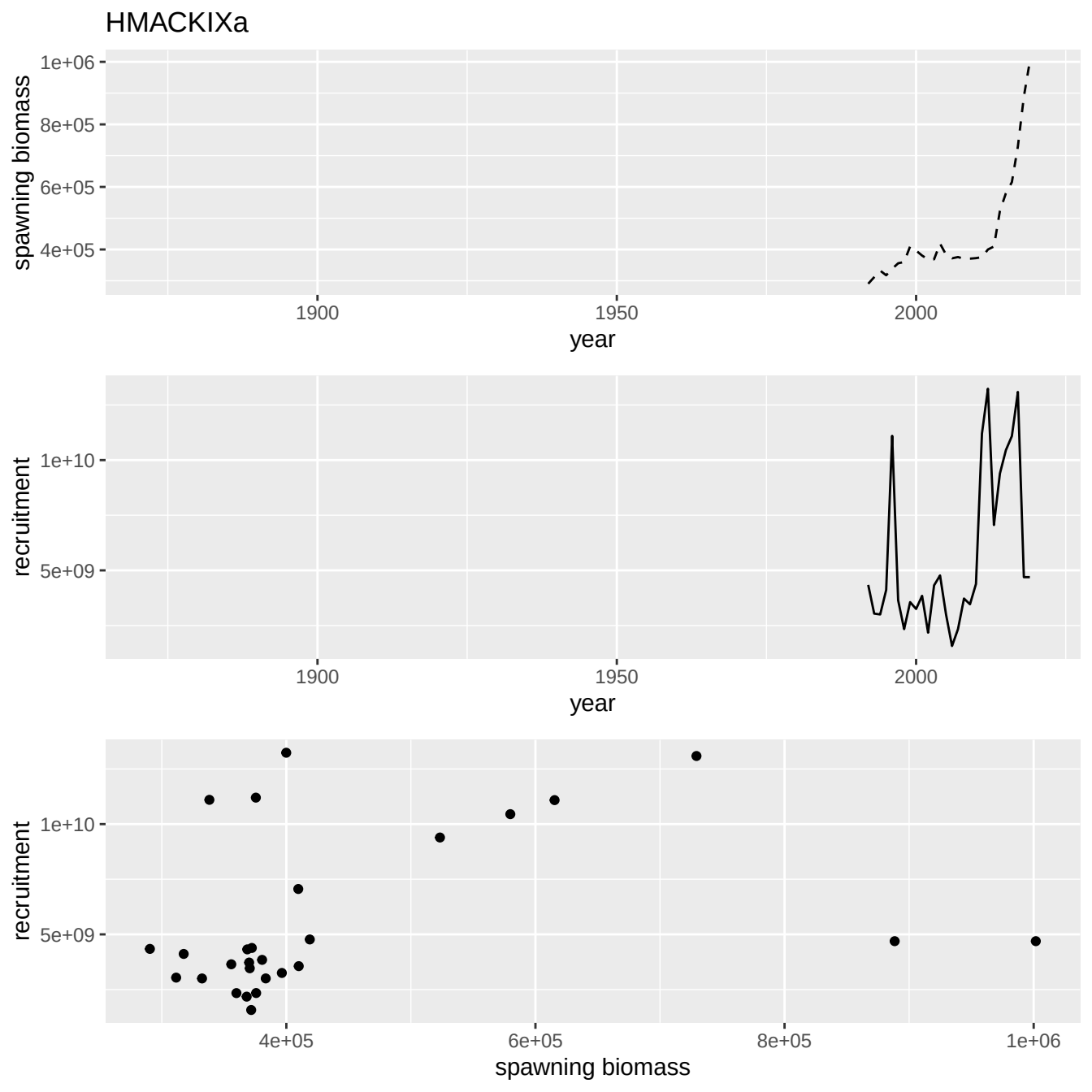
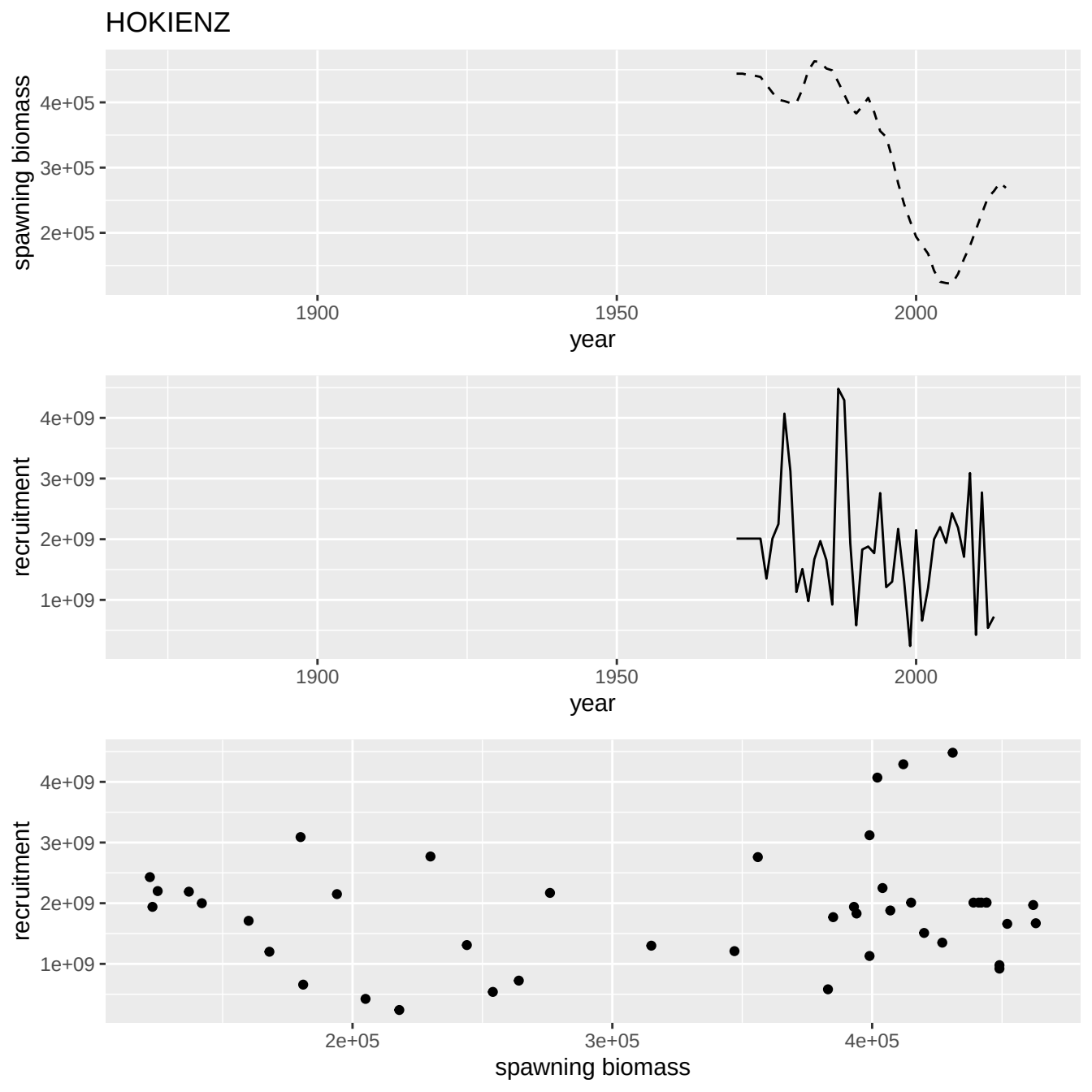
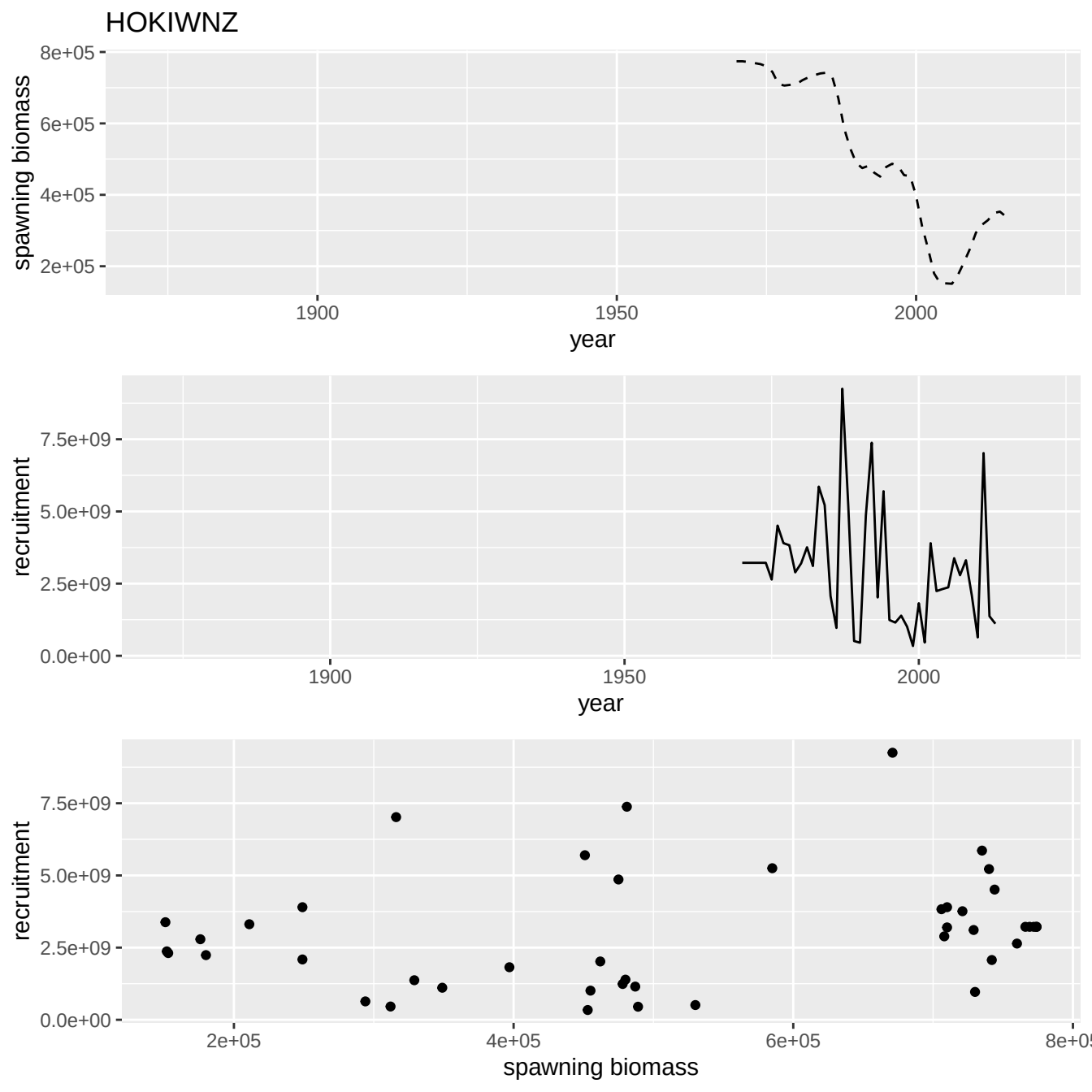
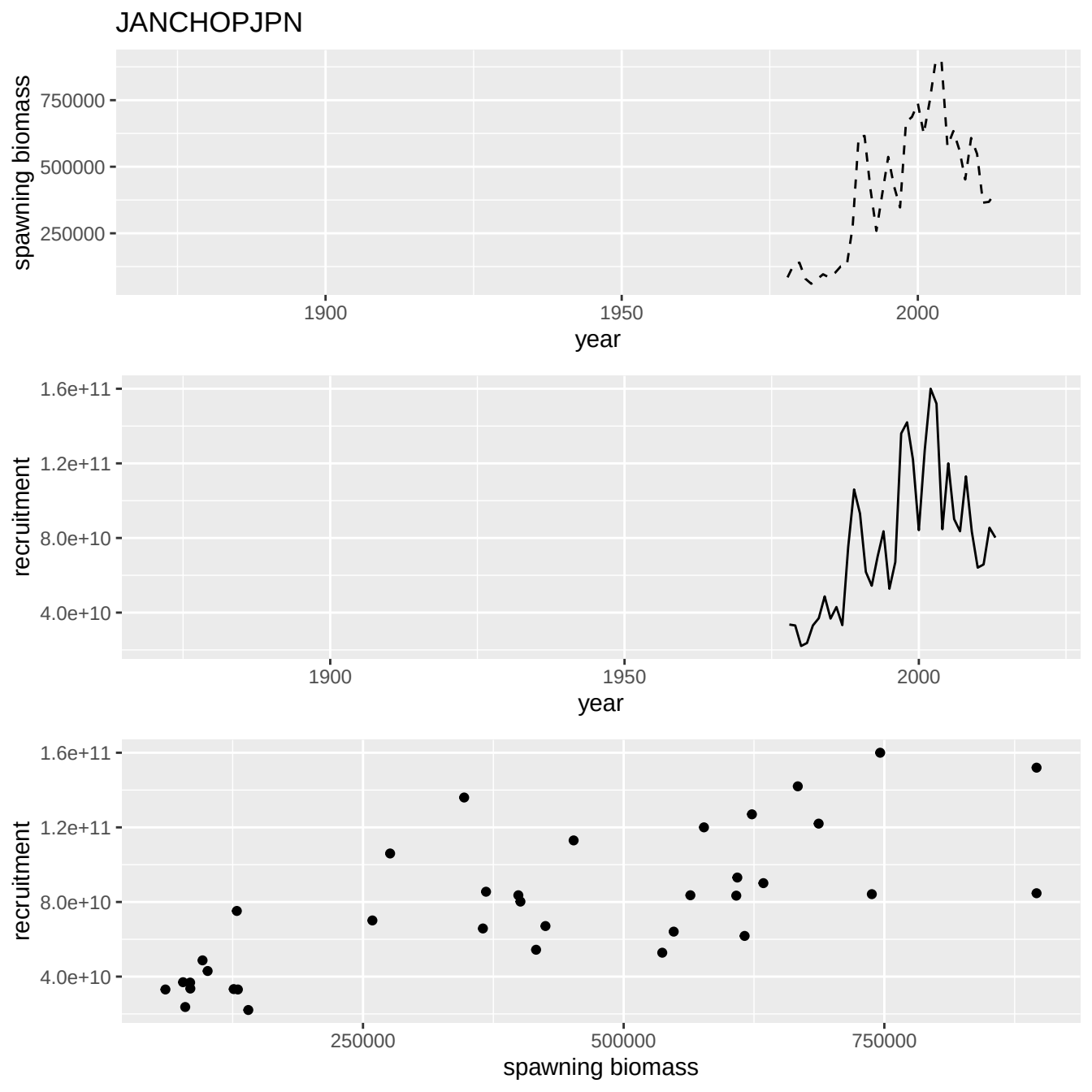
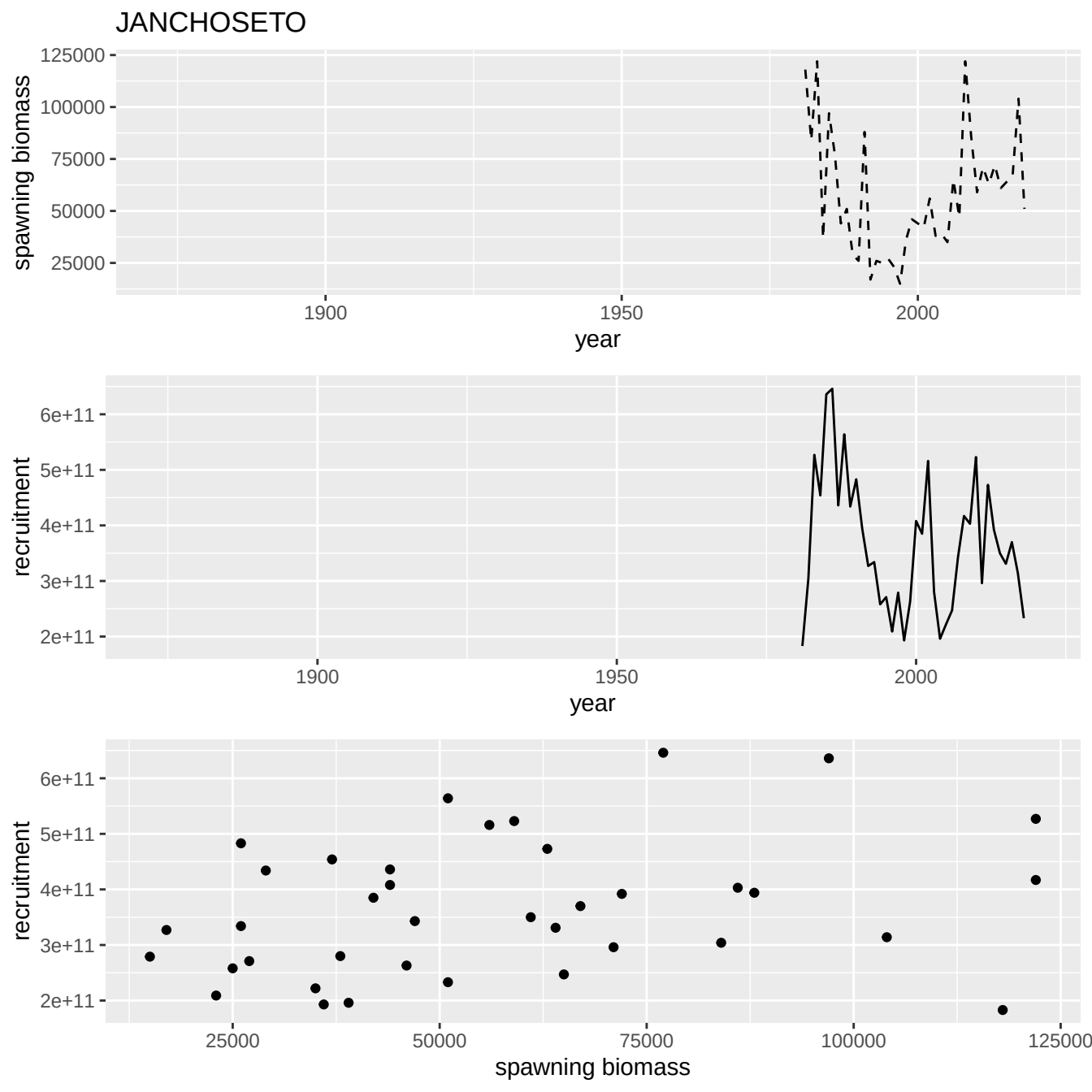
2e+10
0e+00
1e+06
2e+06
3e+06
4e+06
5e+06
spawning biomass

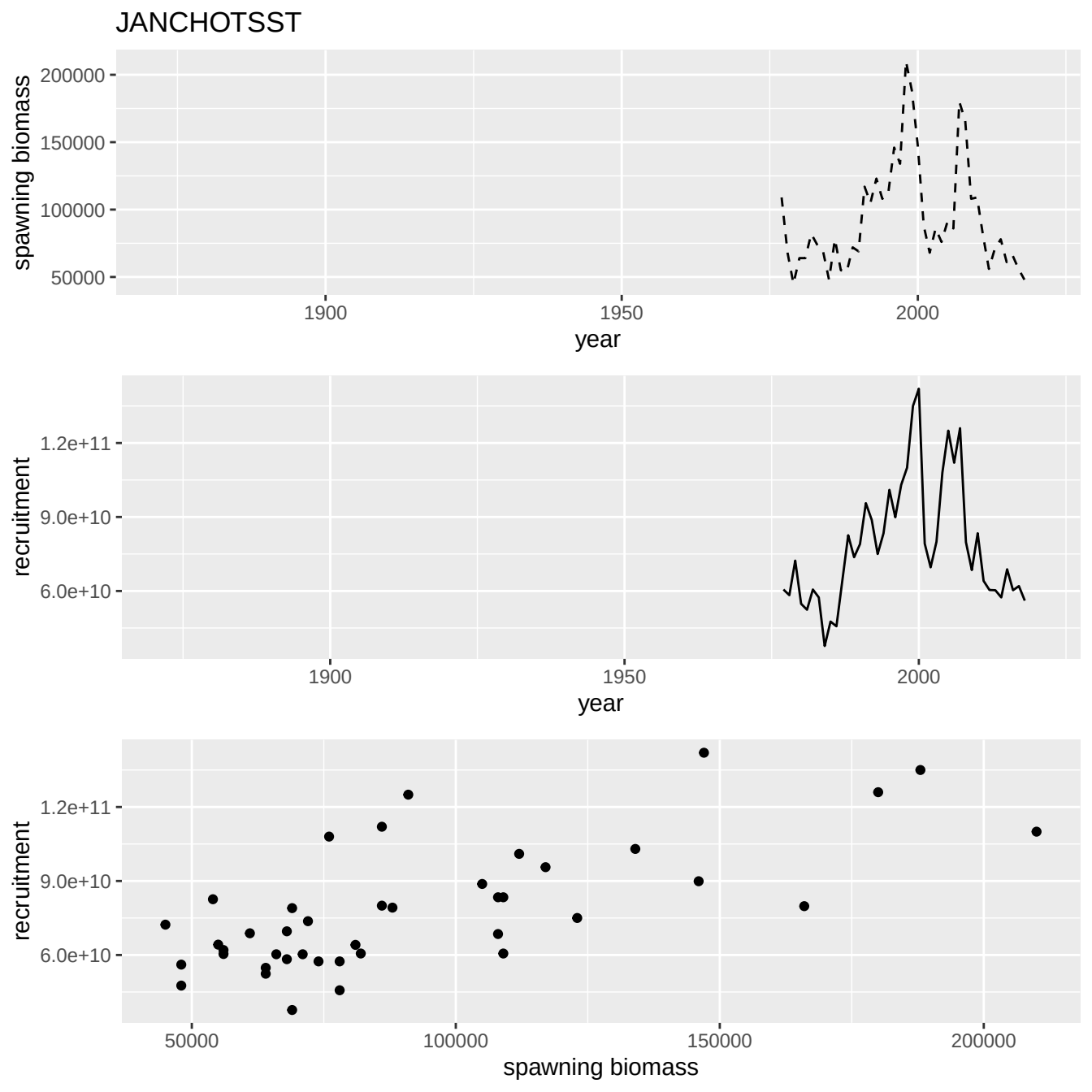

HMACKIXa
spawning biomass
1e+06
8e+05
6e+05
4e+05
1900
1950
2000
year
recruitment
1e+10
5e+09
1900
1950
2000
year
recruitment
1e+10
5e+09
4e+05
6e+05
8e+05
1e+06
spawning biomass

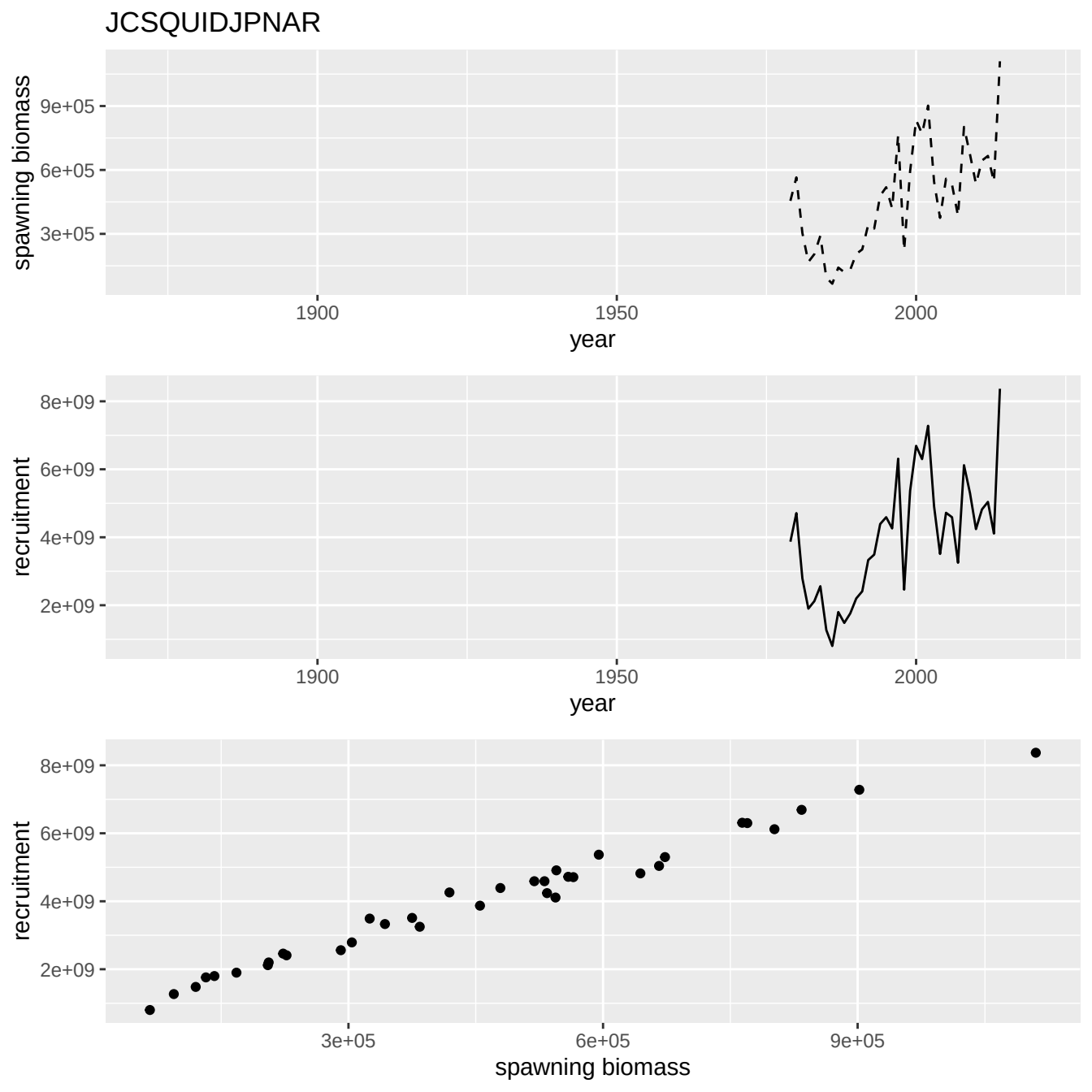

HOKIENZ
spawning biomass
4e+05
3e+05
2e+05
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
1e+09
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
1e+09
2e+05
3e+05
4e+05
spawning biomass

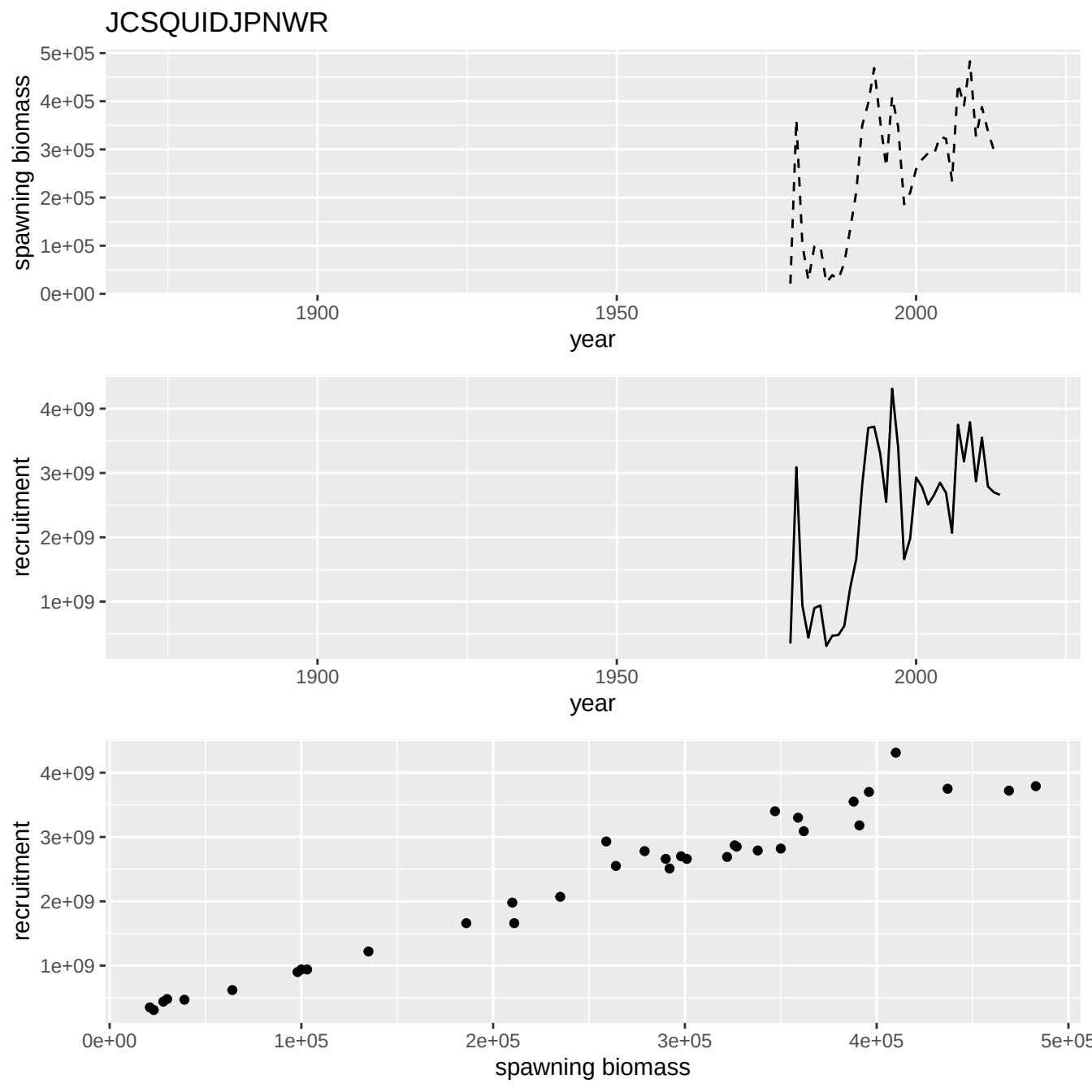

HOKIWNZ
spawning biomass
8e+05
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
7.5e+09
5.0e+09
2.5e+09
0.0e+00
1900
1950
2000
year
recruitment
7.5e+09
5.0e+09
2.5e+09
0.0e+00
2e+05
4e+05
6e+05
8e+05
spawning biomass


JANCHOPJPN
spawning biomass
750000
500000
250000
1900
1950
2000
year
recruitment
1.6e+11
1.2e+11
8.0e+10
4.0e+10
1900
1950
2000
year
recruitment
1.6e+11
1.2e+11
8.0e+10
4.0e+10
250000
500000
750000
spawning biomass


JANCHOSETO
spawning biomass
125000
100000
75000
50000
25000
1900
1950
2000
year
recruitment
6e+11
5e+11
4e+11
3e+11
2e+11
1900
1950
2000
year
recruitment
6e+11
5e+11
4e+11
3e+11
2e+11
25000
50000
75000
100000
125000
spawning biomass


JANCHOTSST
spawning biomass
200000
150000
100000
50000
1900
1950
2000
year
recruitment
1.2e+11
9.0e+10
6.0e+10
1900
1950
2000
year
recruitment
1.2e+11
9.0e+10
6.0e+10
50000
100000
150000
200000
spawning biomass


JCSQUIDJPNAR
spawning biomass
9e+05
6e+05
3e+05
1900
1950
2000
year
recruitment
8e+09
6e+09
4e+09
2e+09
1900
1950
2000
year
recruitment
8e+09
6e+09
4e+09
2e+09
3e+05
6e+05
9e+05
spawning biomass


JCSQUIDJPNWR
spawning biomass
5e+05
4e+05
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
1e+09
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
1e+09
0e+00
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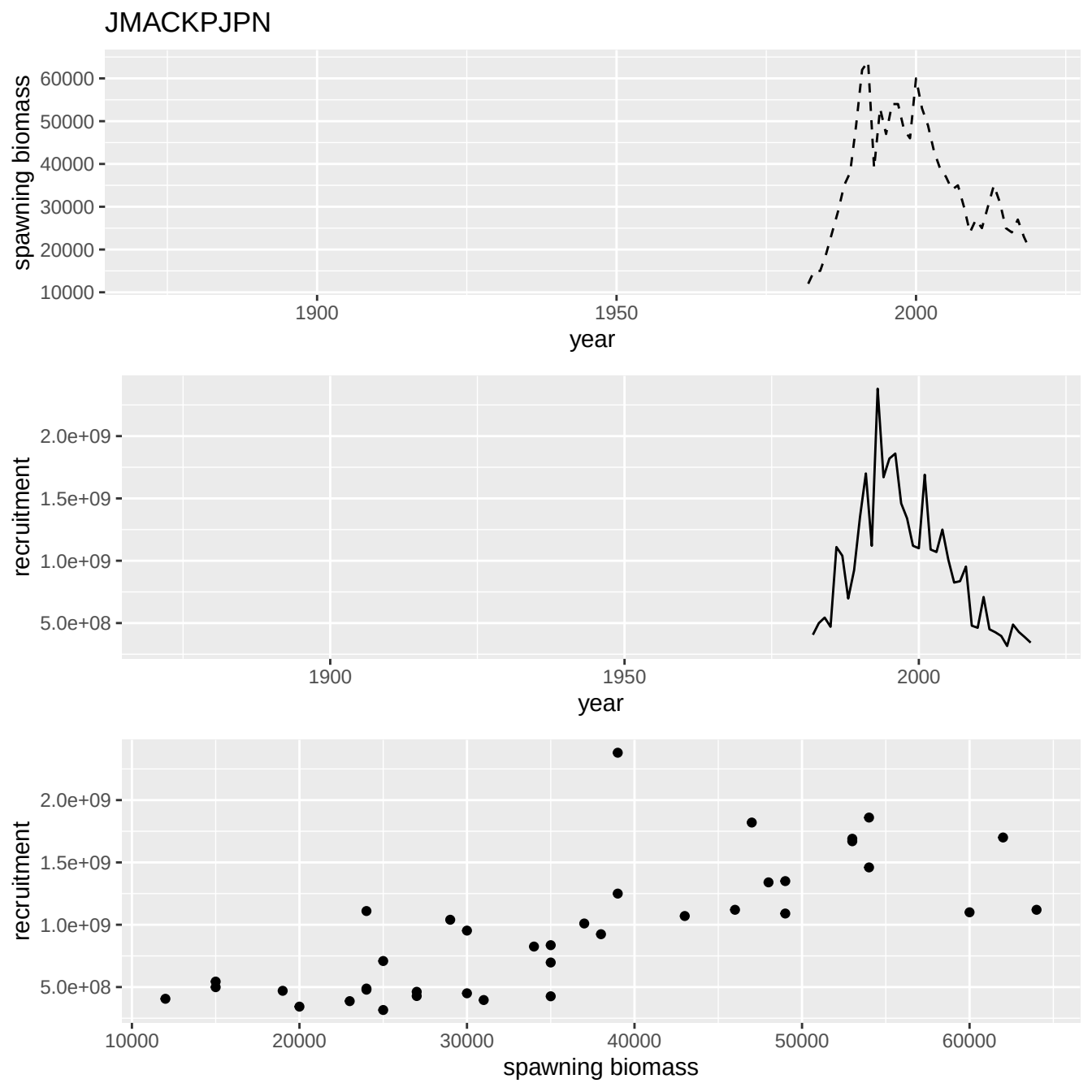
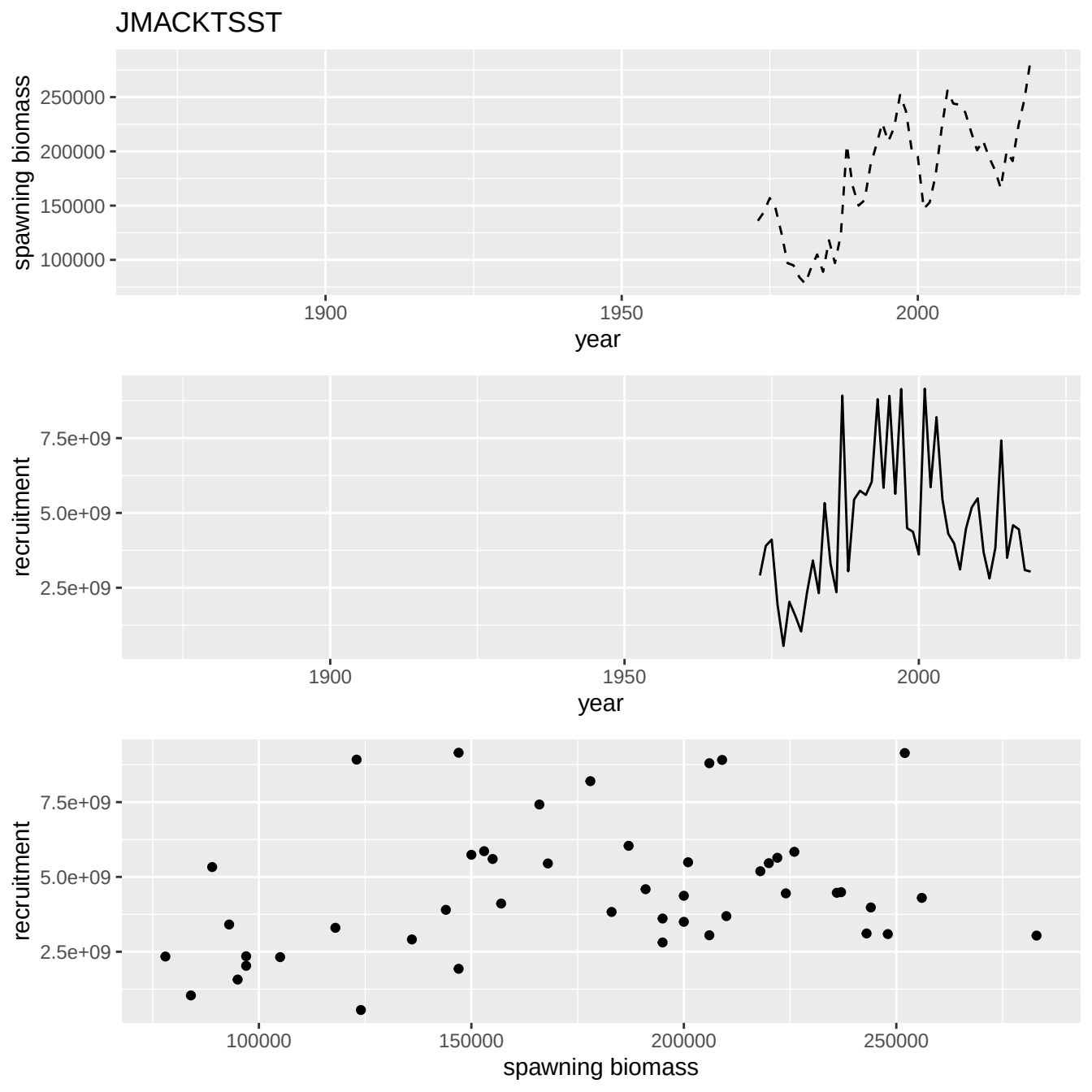
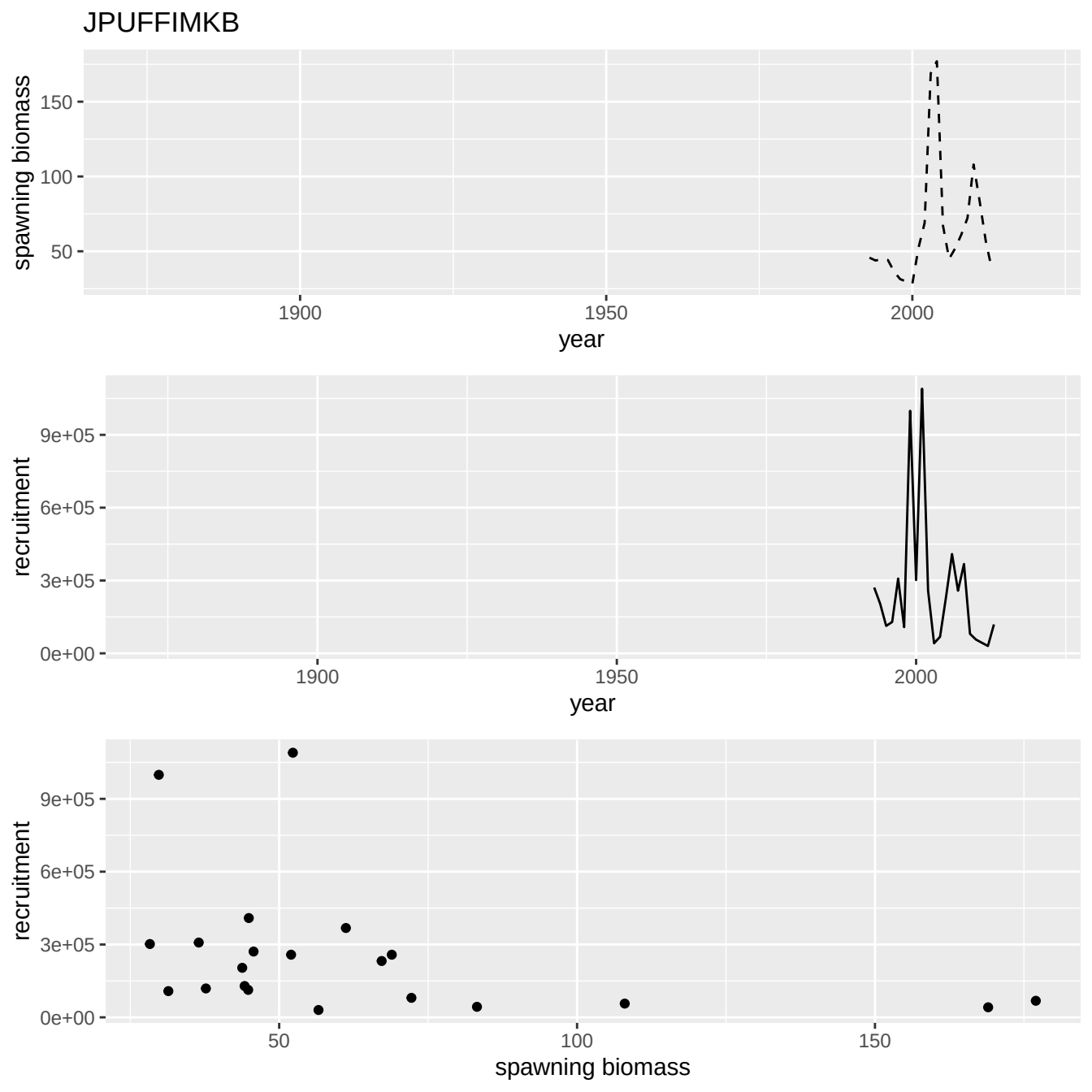
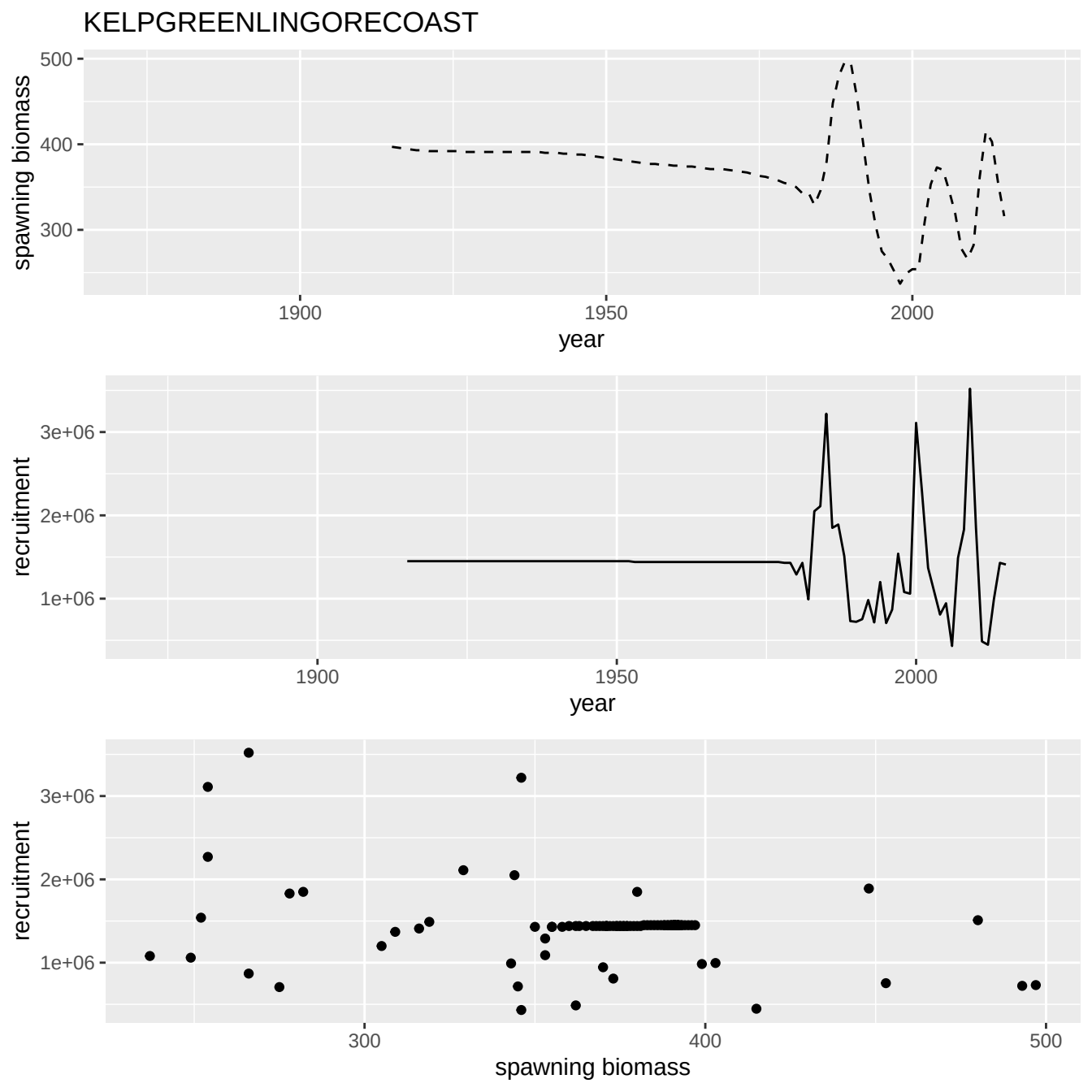
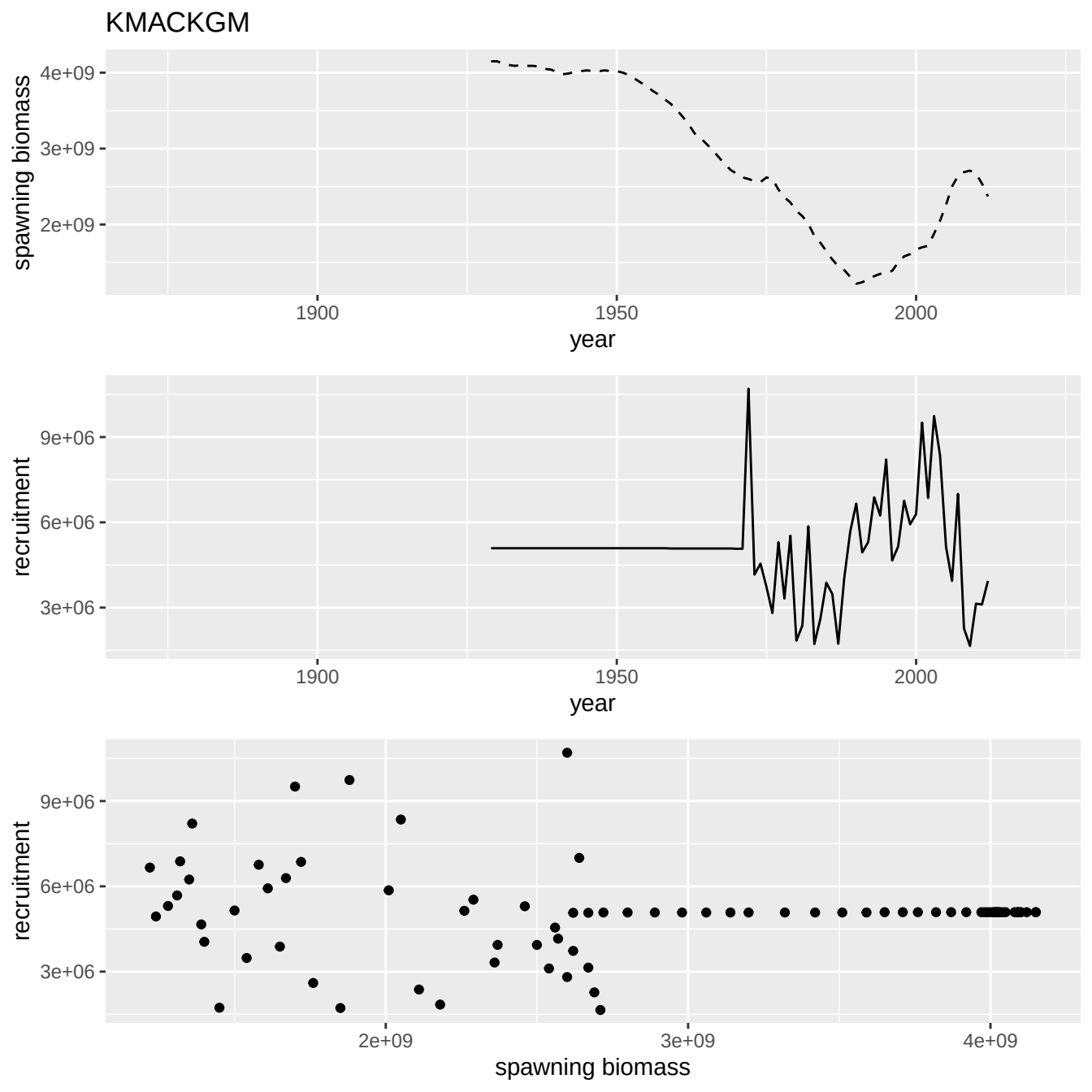
2e+05
3e+05
4e+05
5e+05
spawning biomass

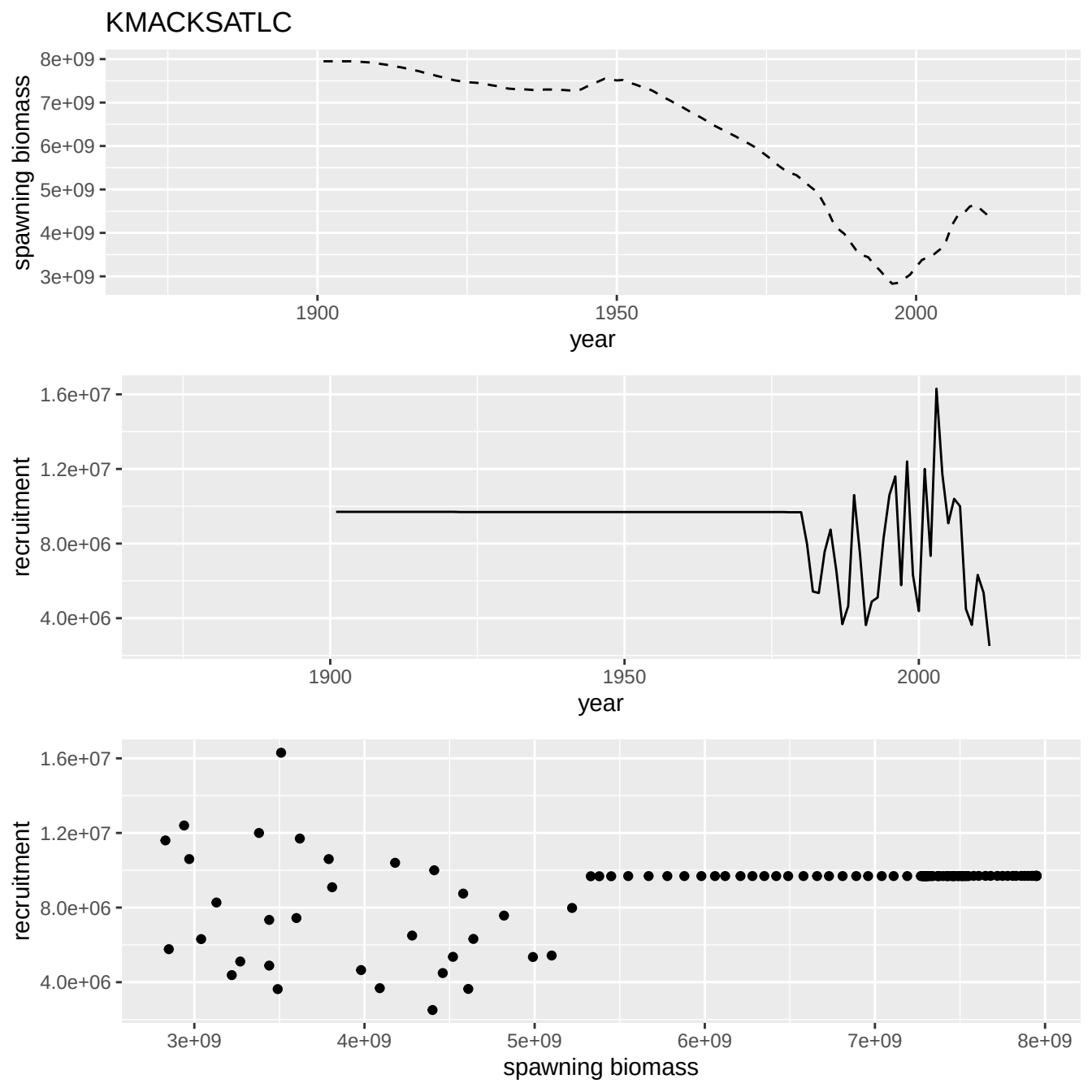

JMACKPJPN
spawning biomass
60000
50000
40000
30000
20000
10000
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
10000
20000
30000
40000
50000
60000
spawning biomass

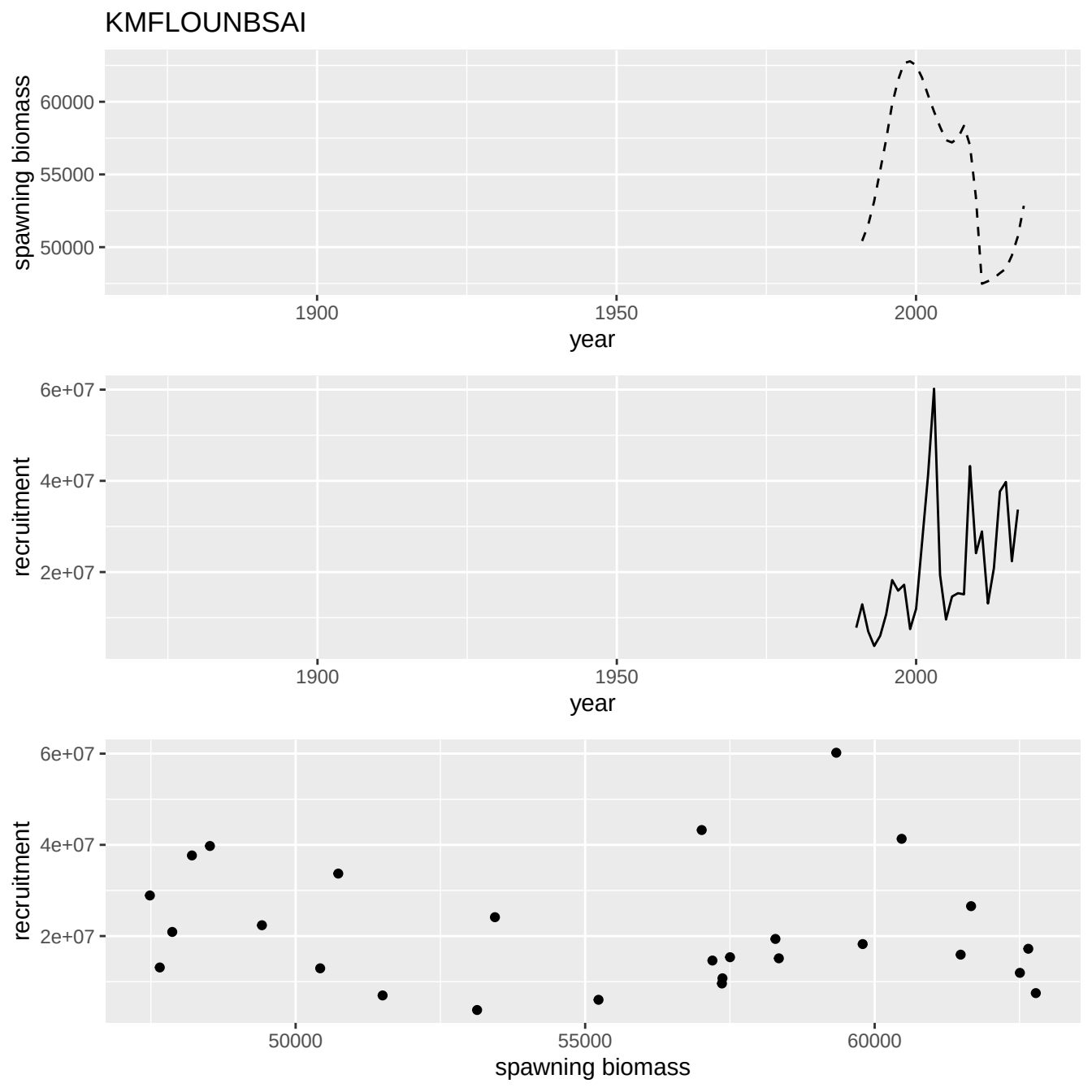

JMACKTSST
spawning biomass
250000
200000
150000
100000
1900
1950
2000
year
recruitment
7.5e+09
5.0e+09
2.5e+09
1900
1950
2000
year
recruitment
7.5e+09
5.0e+09
2.5e+09
100000
150000
200000
250000
spawning biomass

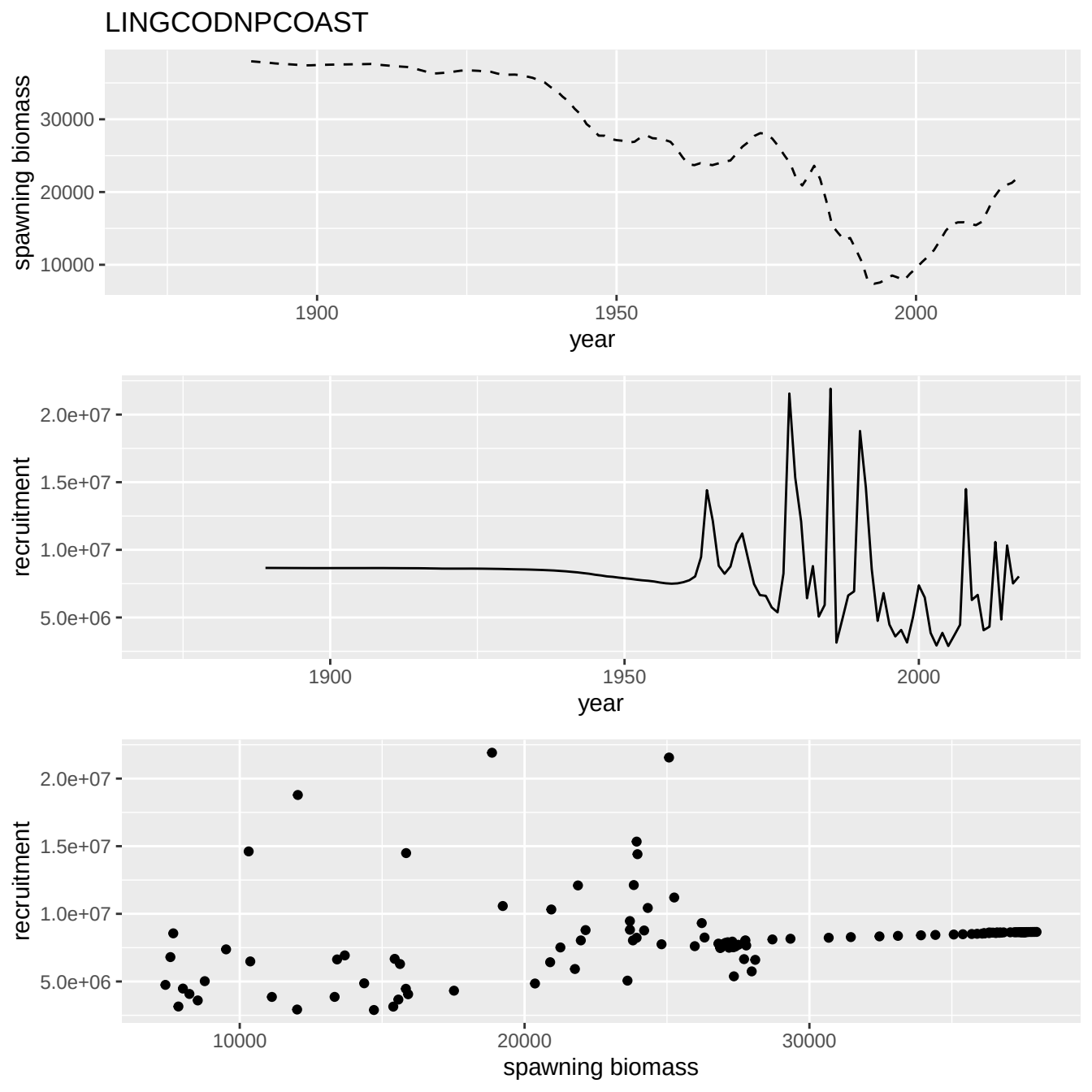

JPUFFIMKB
spawning biomass
150
100
50
1900
1950
2000
year
recruitment
9e+05
6e+05
3e+05
0e+00
1900
1950
2000
year
recruitment
9e+05
6e+05
3e+05
0e+00
50
100
150
spawning biomass

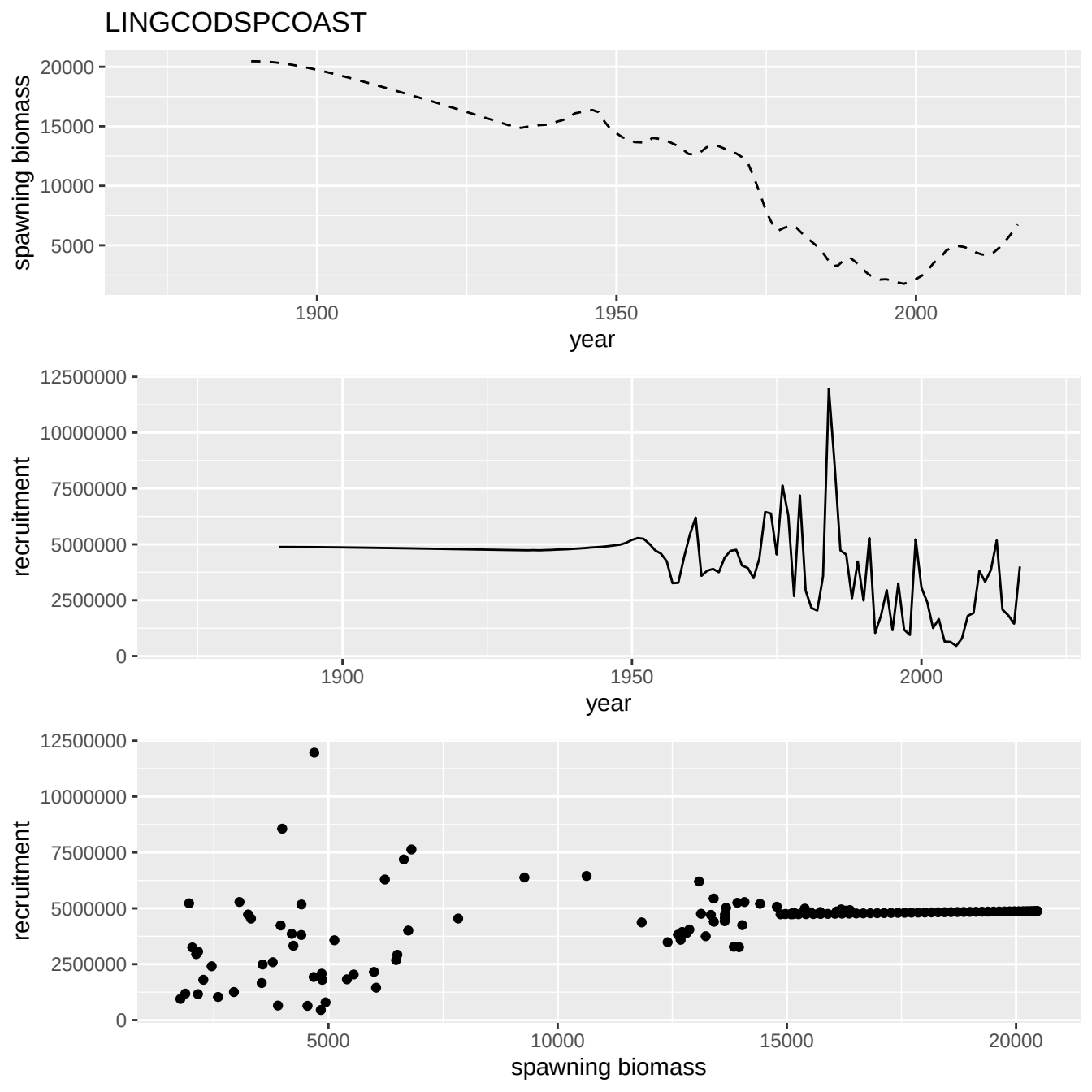

KELPGREENLINGORECOAST
spawning biomass
500
400
300
1900
1950
2000
year
recruitment
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
3e+06
2e+06
1e+06
300
400
500
spawning biomass

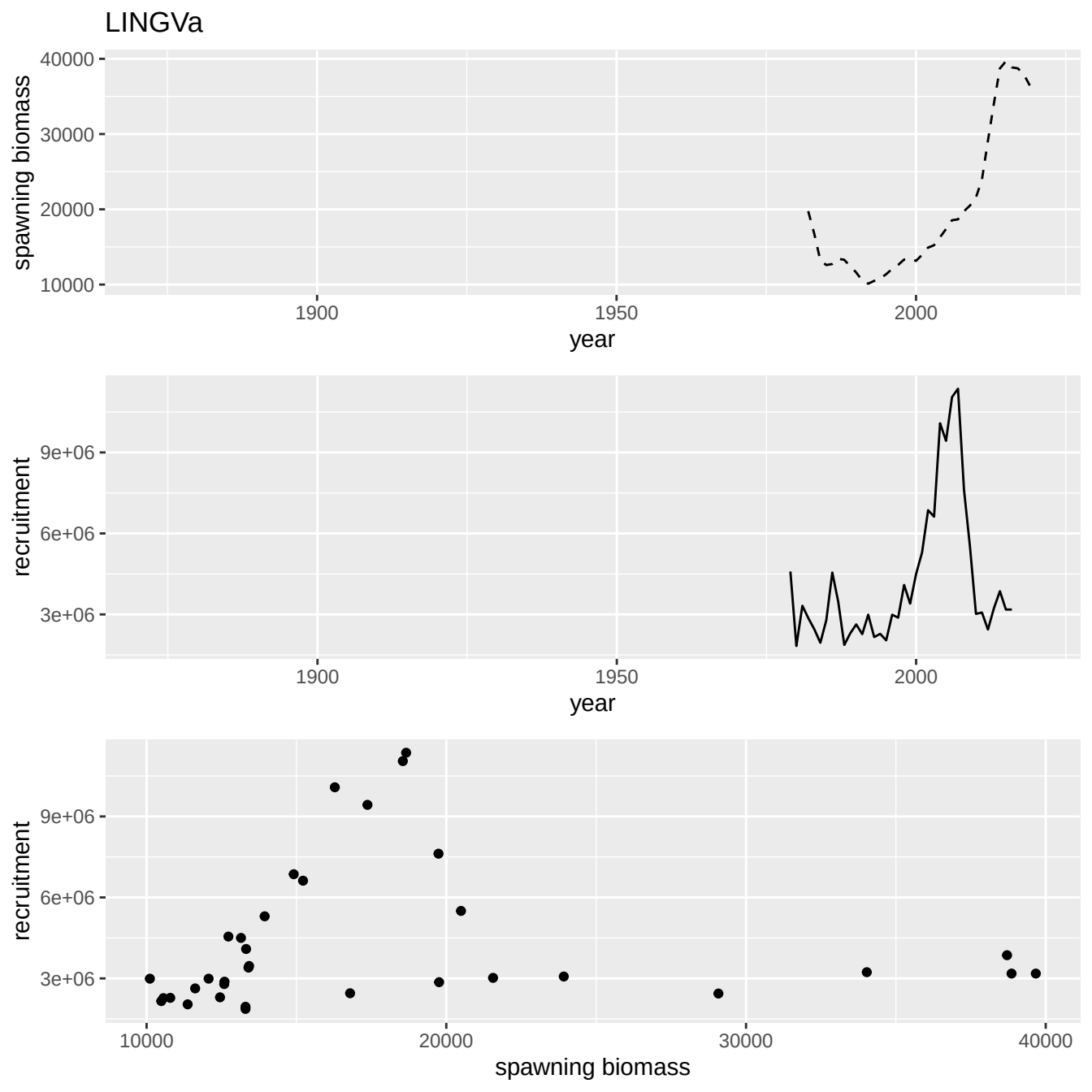

KMACKGM
spawning biomass
4e+09
3e+09
2e+09
1900
1950
2000
year
recruitment
9e+06
6e+06
3e+06
1900
1950
2000
year
recruitment
9e+06
6e+06
3e+06
2e+09
3e+09
4e+09
spawning biomass

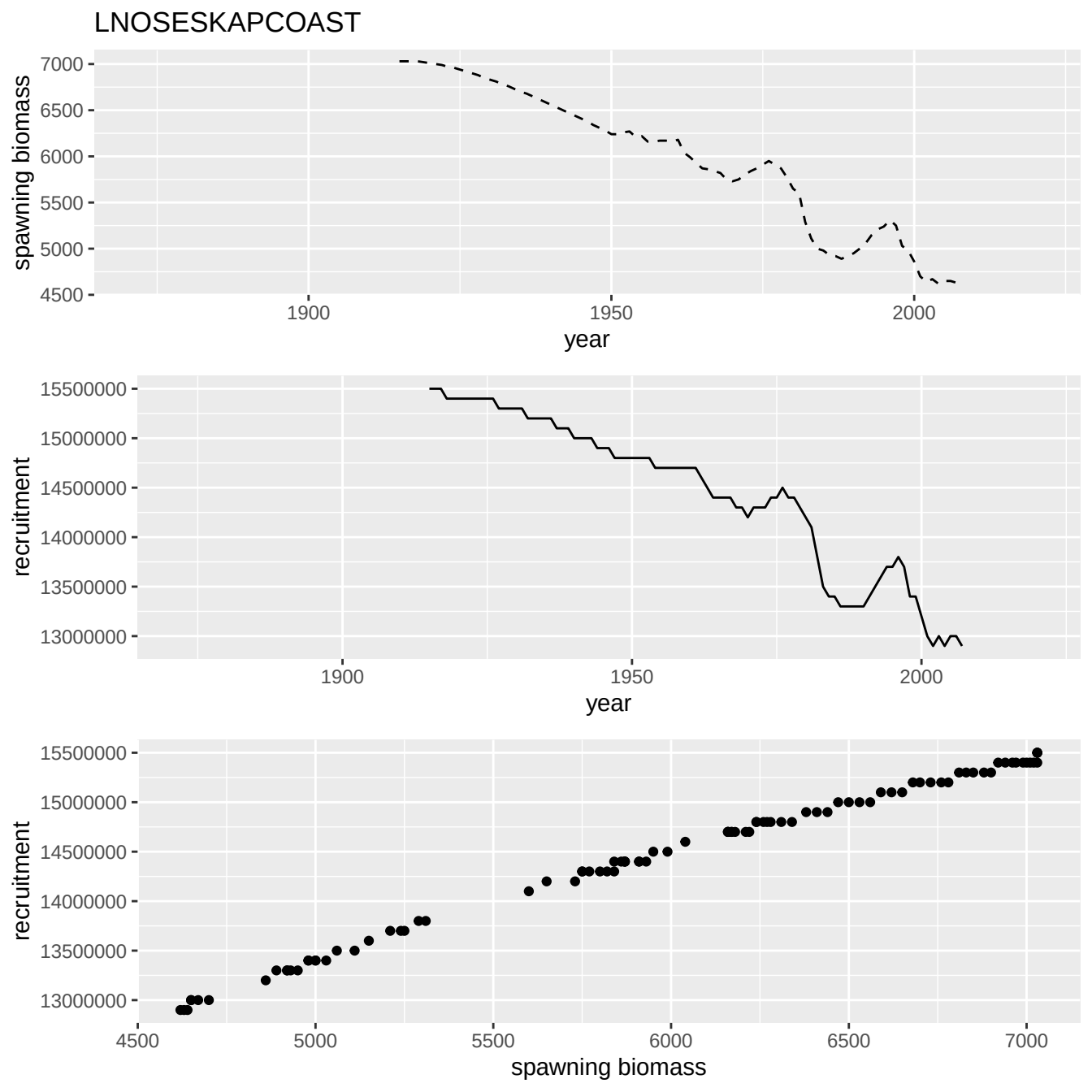

KMACKSATLC
spawning biomass
8e+09
7e+09
6e+09
5e+09
4e+09
3e+09
1900
1950
2000
year
recruitment
1.6e+07
1.2e+07
8.0e+06
4.0e+06
1900
1950
2000
year
recruitment
1.6e+07
1.2e+07
8.0e+06
4.0e+06
3e+09
4e+09
5e+09
6e+09
7e+09
8e+09
spawning biomass

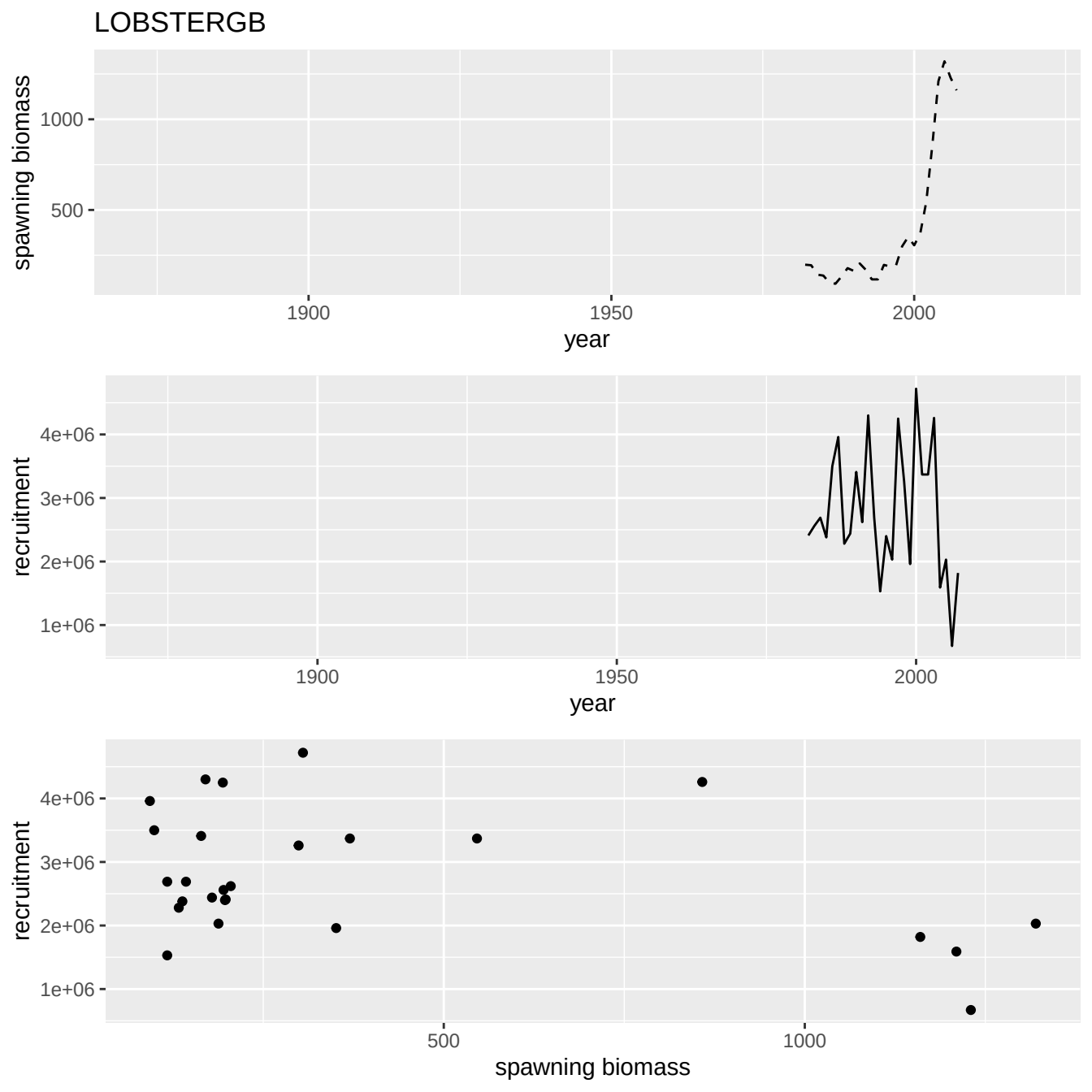

KMFLOUNBSAI
spawning biomass
60000
55000
50000
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
50000
55000
60000
spawning biomass

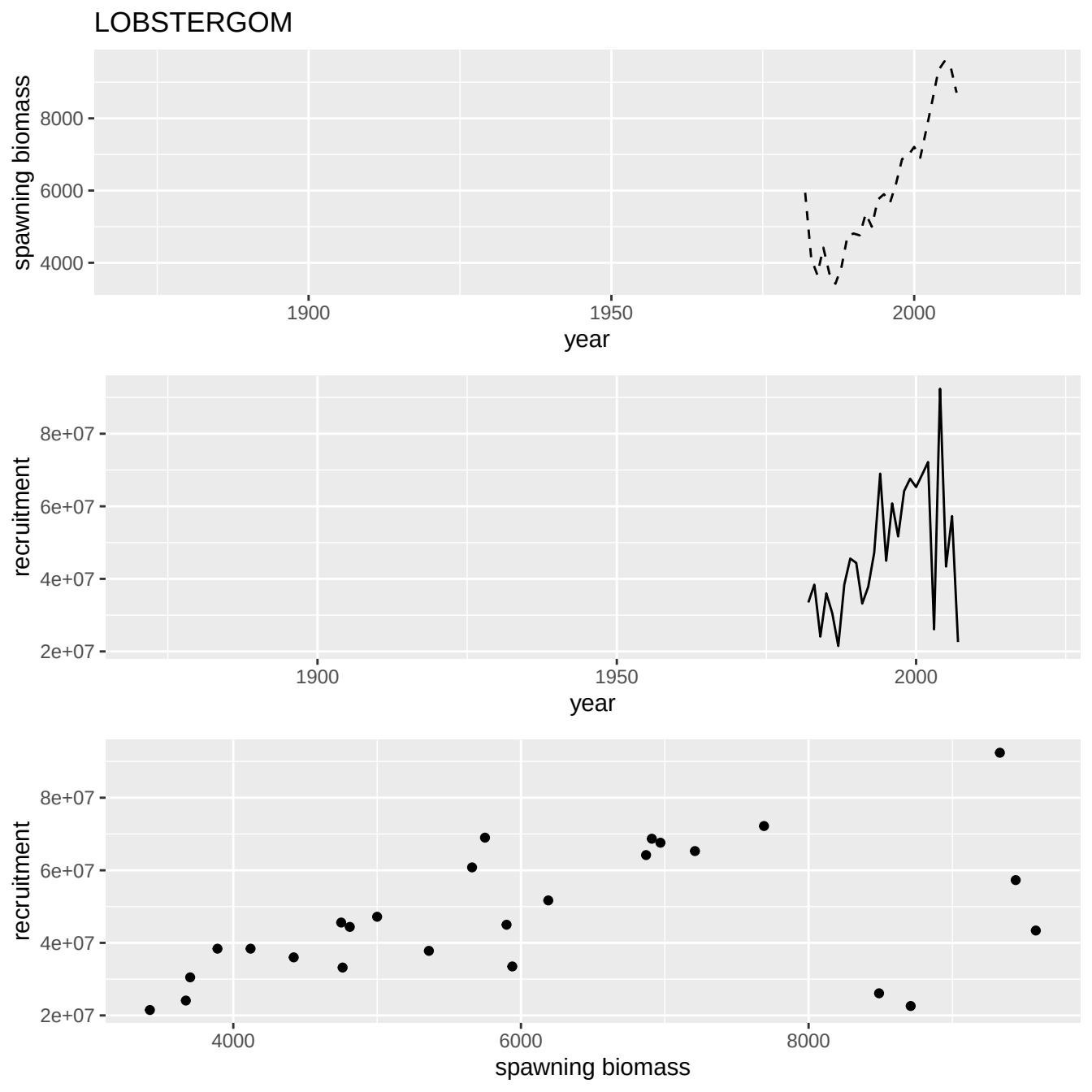

LINGCODNPCOAST
spawning biomass
30000
20000
10000
1900
1950
2000
year
recruitment
2.0e+07
1.5e+07
1.0e+07
5.0e+06
1900
1950
2000
year
recruitment
2.0e+07
1.5e+07
1.0e+07
5.0e+06
10000
20000
30000
spawning biomass

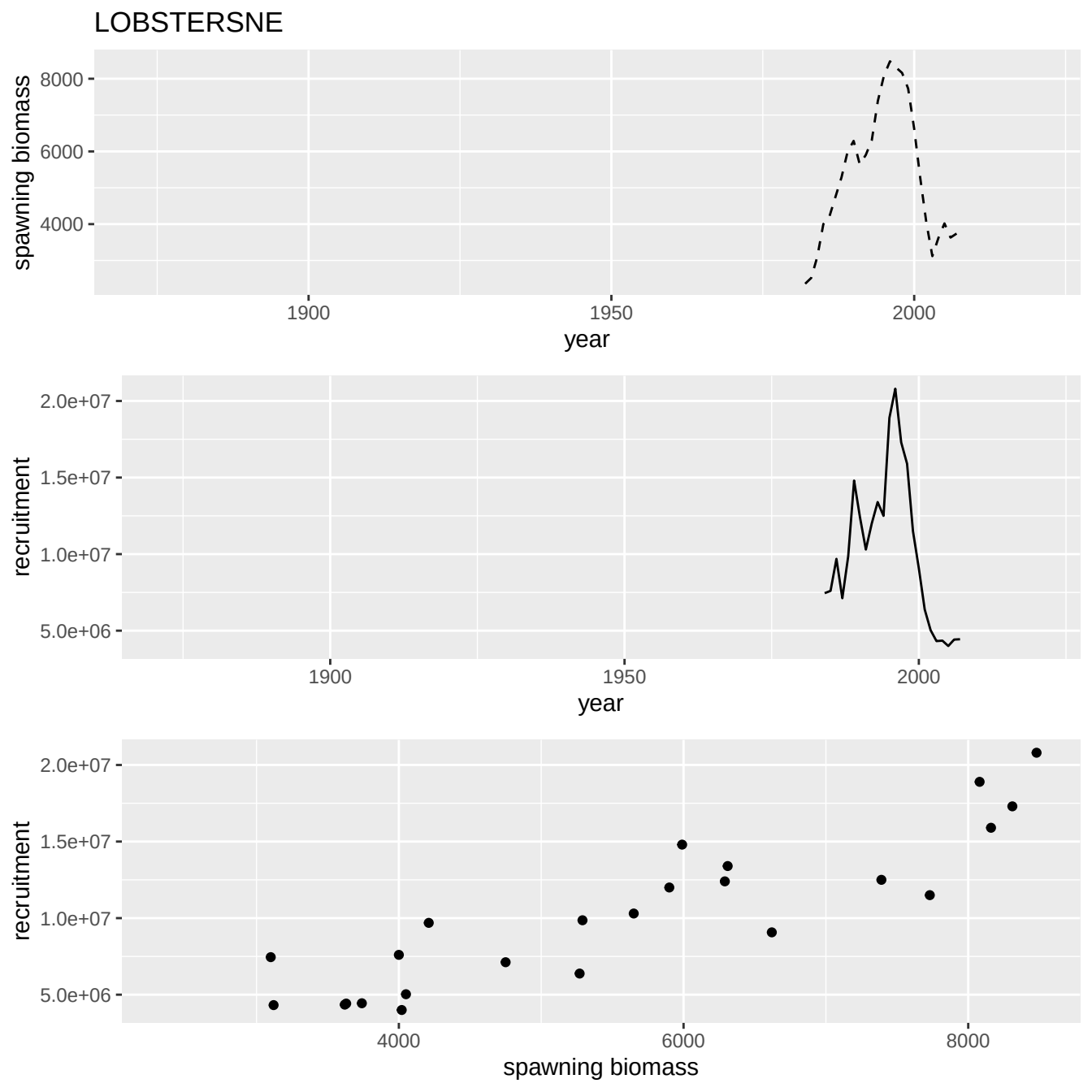

LINGCODSPCOAST
spawning biomass
20000
15000
10000
5000
1900
1950
2000
year
recruitment
12500000
10000000
7500000
5000000
2500000
0
1900
1950
2000
year
recruitment
12500000
10000000
7500000
5000000
2500000
0
5000
10000
15000
20000
spawning biomass

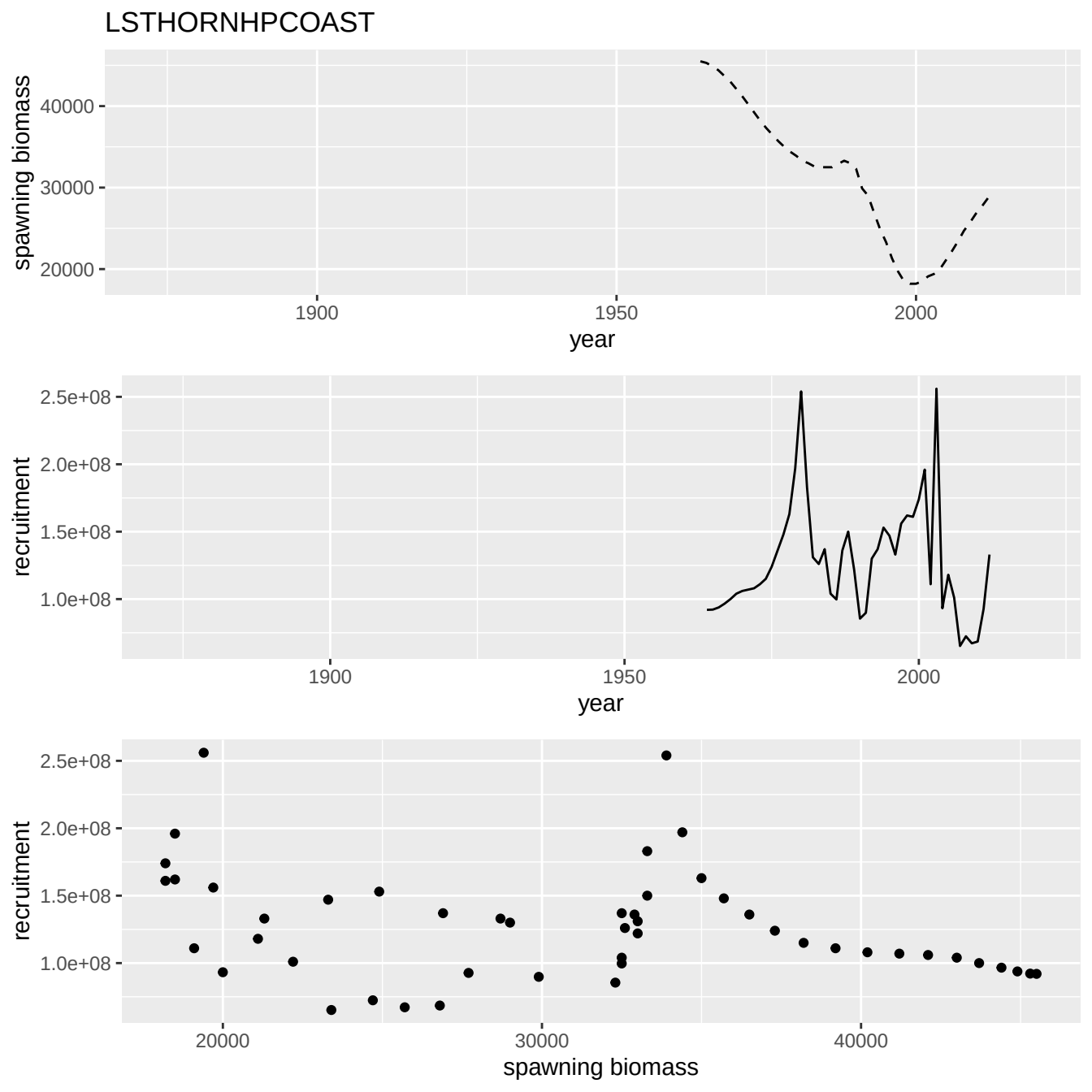

LINGVa
spawning biomass
40000
30000
20000
10000
1900
1950
2000
year
recruitment
9e+06
6e+06
3e+06
1900
1950
2000
year
recruitment
9e+06
6e+06
3e+06
10000
20000
30000
40000
spawning biomass

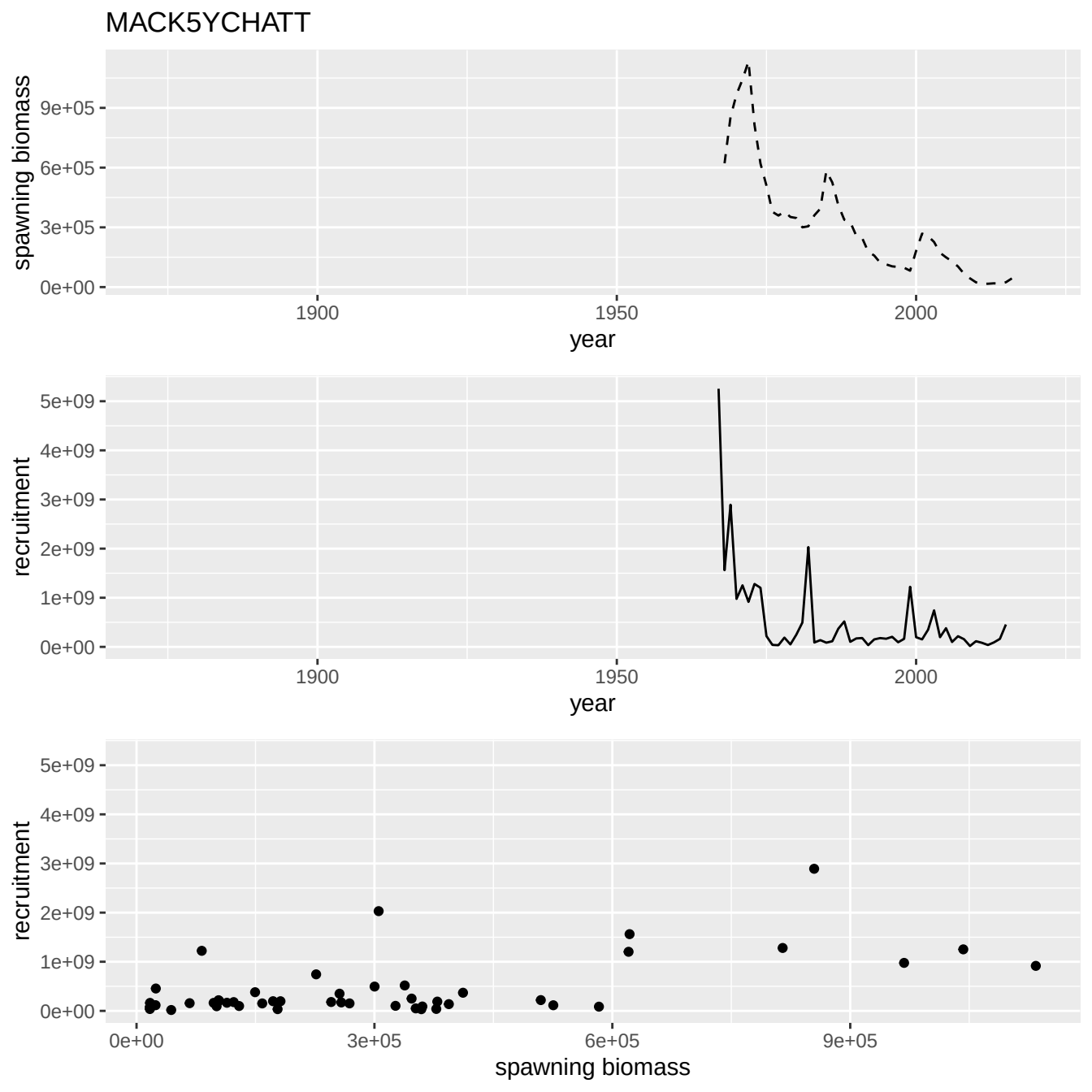

LNOSESKAPCOAST
spawning biomass
7000
6500
6000
5500
5000
4500
1900
1950
2000
year
recruitment
15500000
15000000
14500000
14000000
13500000
13000000
1900
1950
2000
year
recruitment
15500000
15000000
14500000
14000000
13500000
13000000
4500
5000
5500
6000
6500
7000
spawning biomass

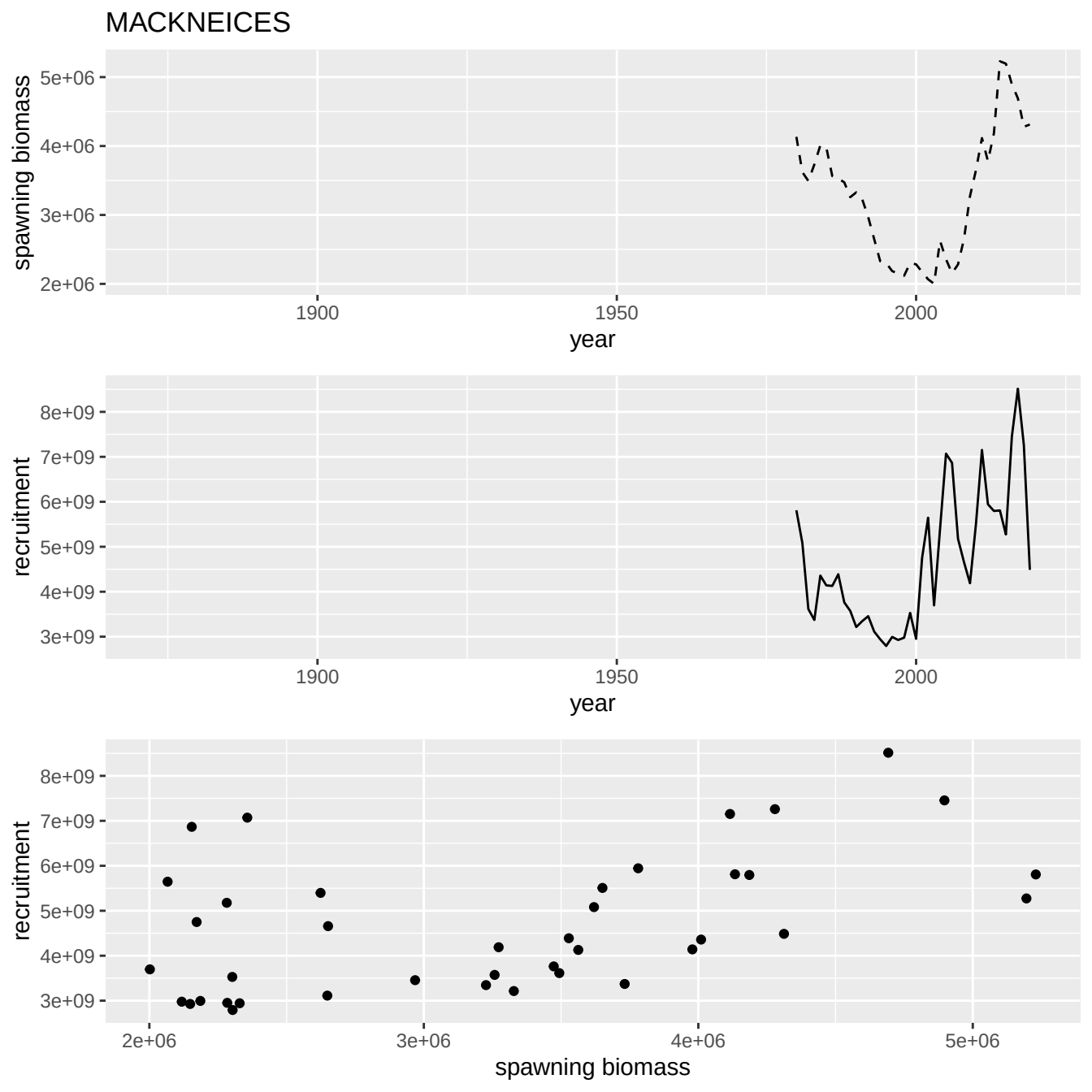

LOBSTERGB
spawning biomass
1000
500
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
500
1000
spawning biomass

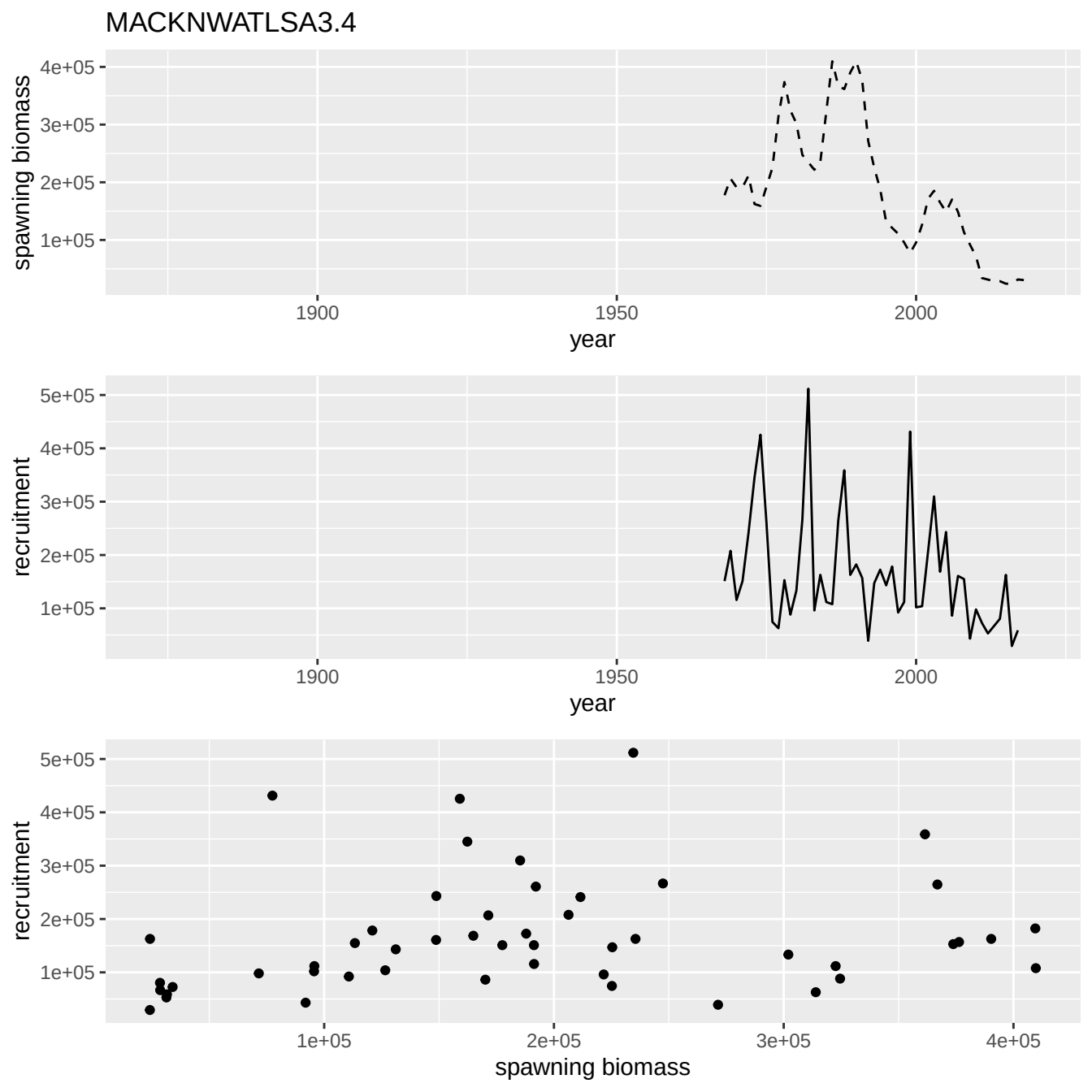

LOBSTERGOM
spawning biomass
8000
6000
4000
1900
1950
2000
year
recruitment
8e+07
6e+07
4e+07
2e+07
1900
1950
2000
year
recruitment
8e+07
6e+07
4e+07
2e+07
4000
6000
8000
spawning biomass

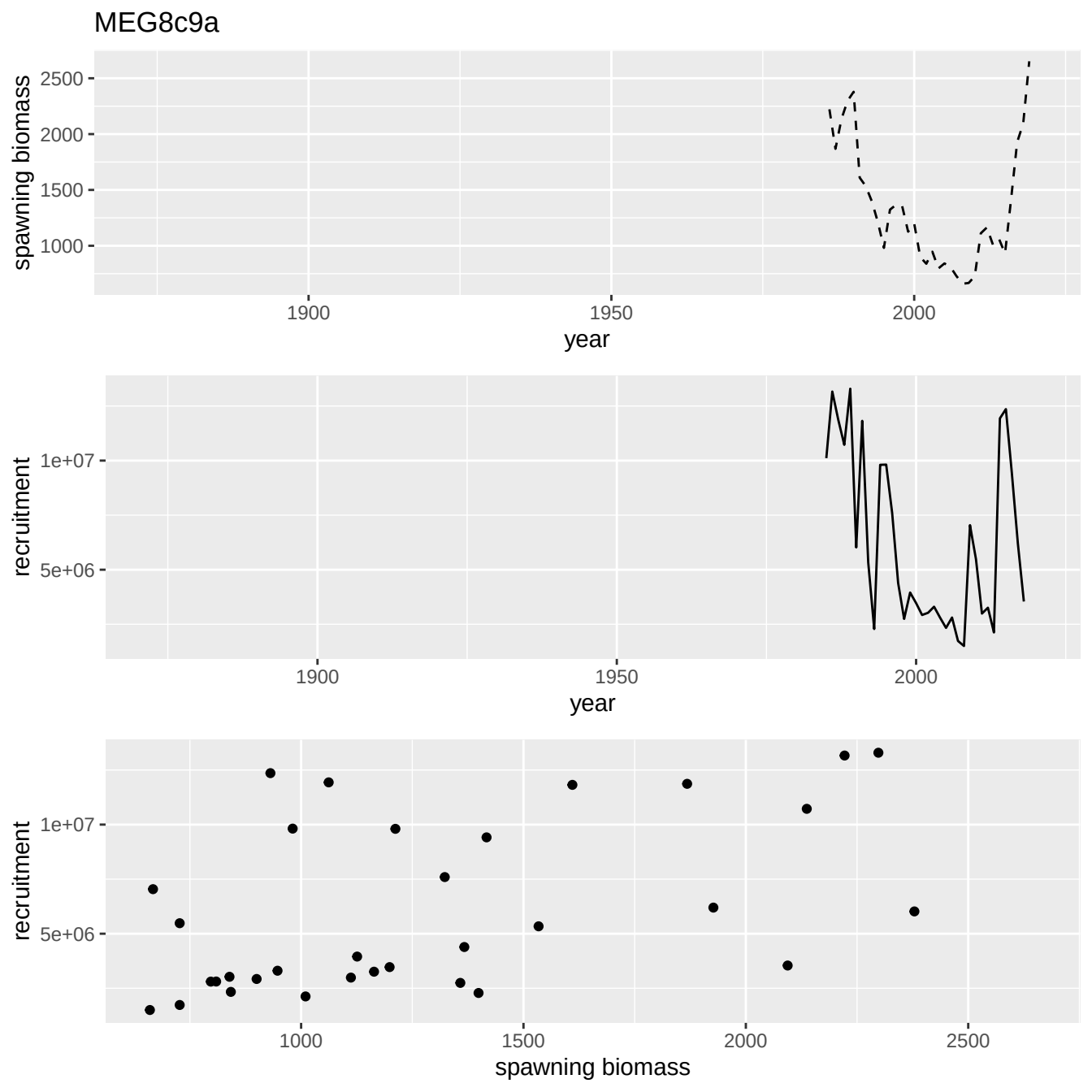

LOBSTERSNE
spawning biomass
8000
6000
4000
1900
1950
2000
year
recruitment
2.0e+07
1.5e+07
1.0e+07
5.0e+06
1900
1950
2000
year
recruitment
2.0e+07
1.5e+07
1.0e+07
5.0e+06
4000
6000
8000
spawning biomass

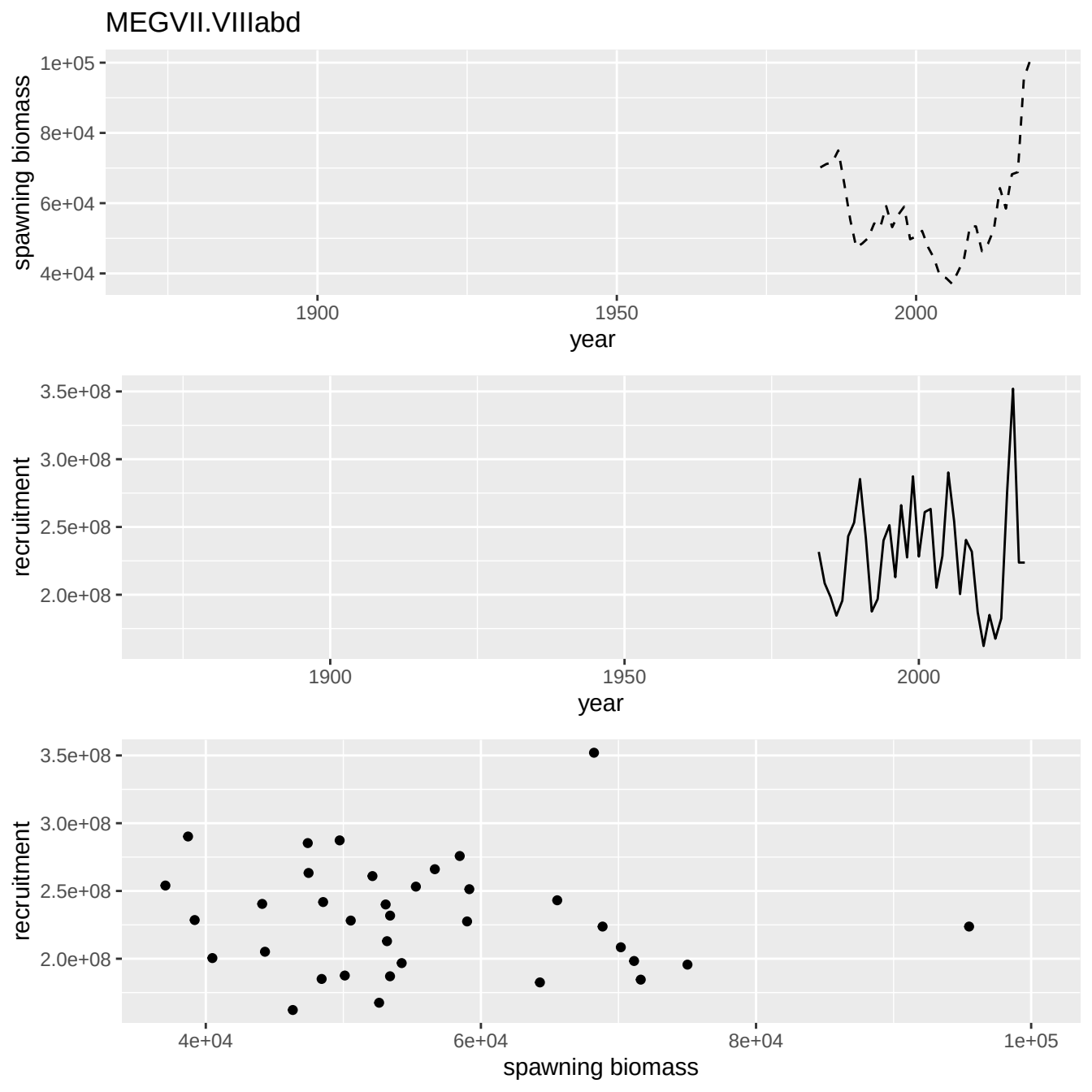

LSTHORNHPCOAST
spawning biomass
40000
30000
20000
1900
1950
2000
year
recruitment
2.5e+08
2.0e+08
1.5e+08
1.0e+08
1900
1950
2000
year
recruitment
2.5e+08
2.0e+08
1.5e+08
1.0e+08
20000
30000
40000
spawning biomass

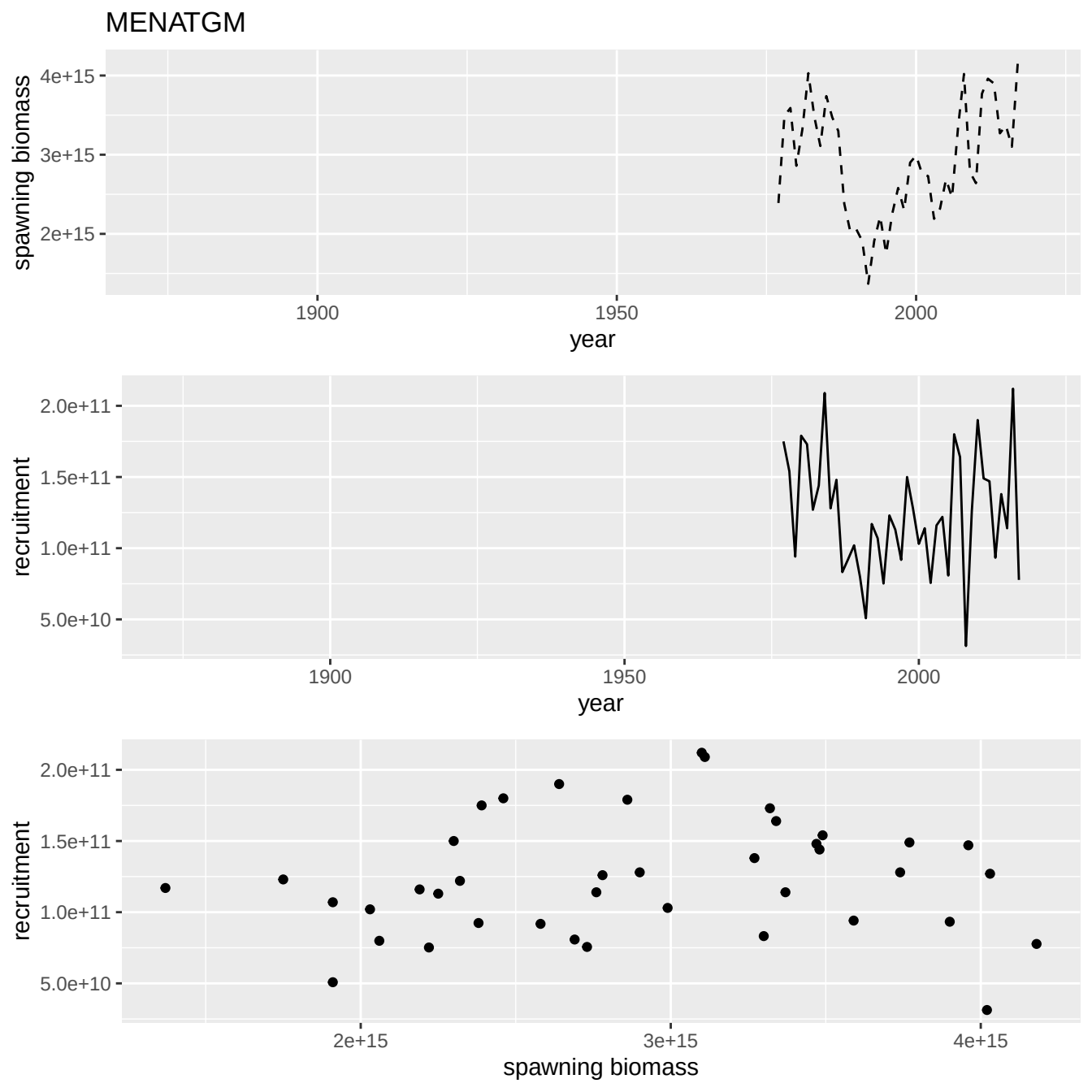

MACK5YCHATT
spawning biomass
9e+05
6e+05
3e+05
0e+00
1900
1950
2000
year
recruitment
5e+09
4e+09
3e+09
2e+09
1e+09
0e+00
1900
1950
2000
year
recruitment
5e+09
4e+09
3e+09
2e+09
1e+09
0e+00
0e+00
3e+05
6e+05
9e+05
spawning biomass

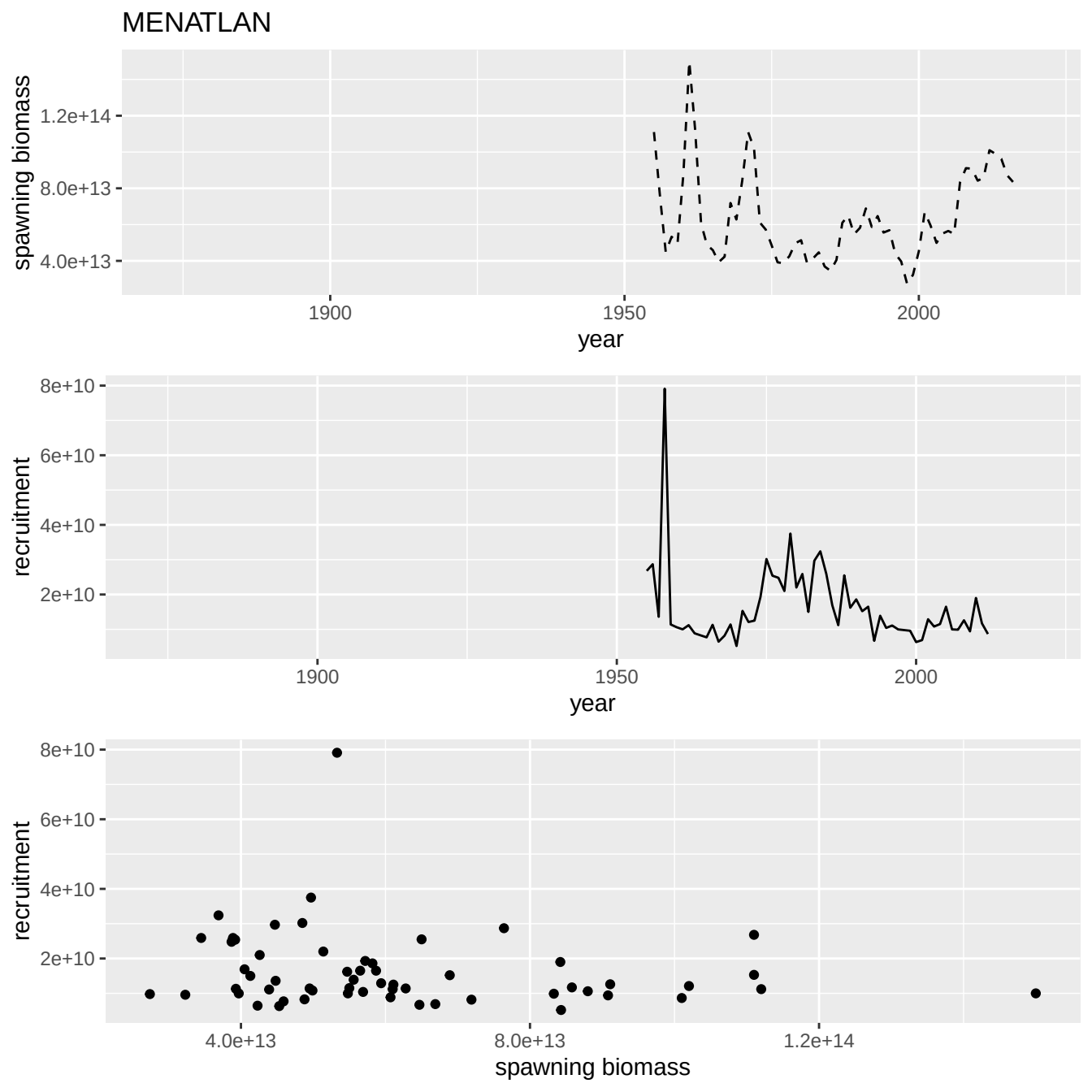

MACKNEICES
spawning biomass
5e+06
4e+06
3e+06
2e+06
1900
1950
2000
year
recruitment
8e+09
7e+09
6e+09
5e+09
4e+09
3e+09
1900
1950
2000
year
recruitment
8e+09
7e+09
6e+09
5e+09
4e+09
3e+09
2e+06
3e+06
4e+06
5e+06
spawning biomass

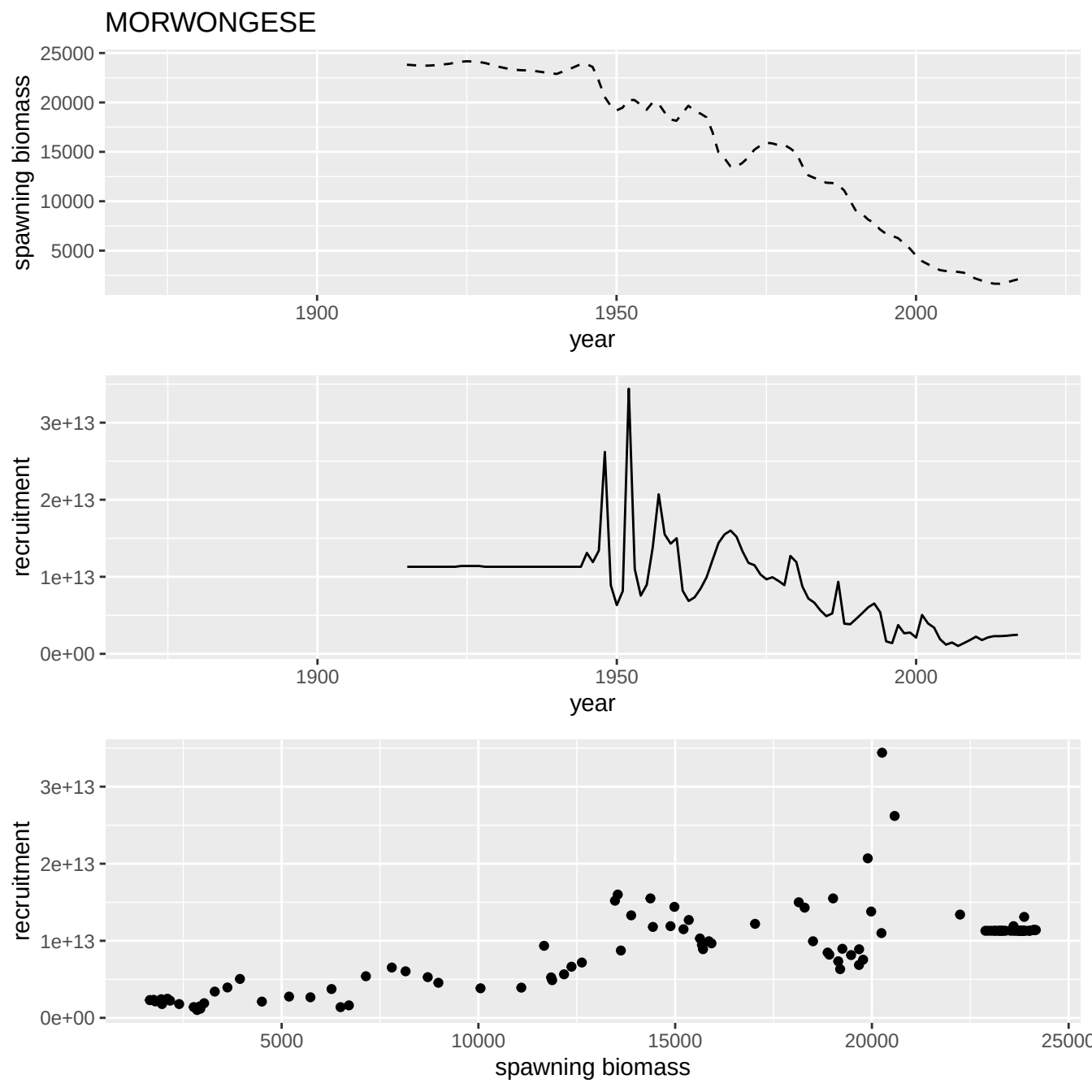

MACKNWATLSA3.4
spawning biomass
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
5e+05
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
5e+05
4e+05
3e+05
2e+05
1e+05
1e+05
2e+05
3e+05
4e+05
spawning biomass

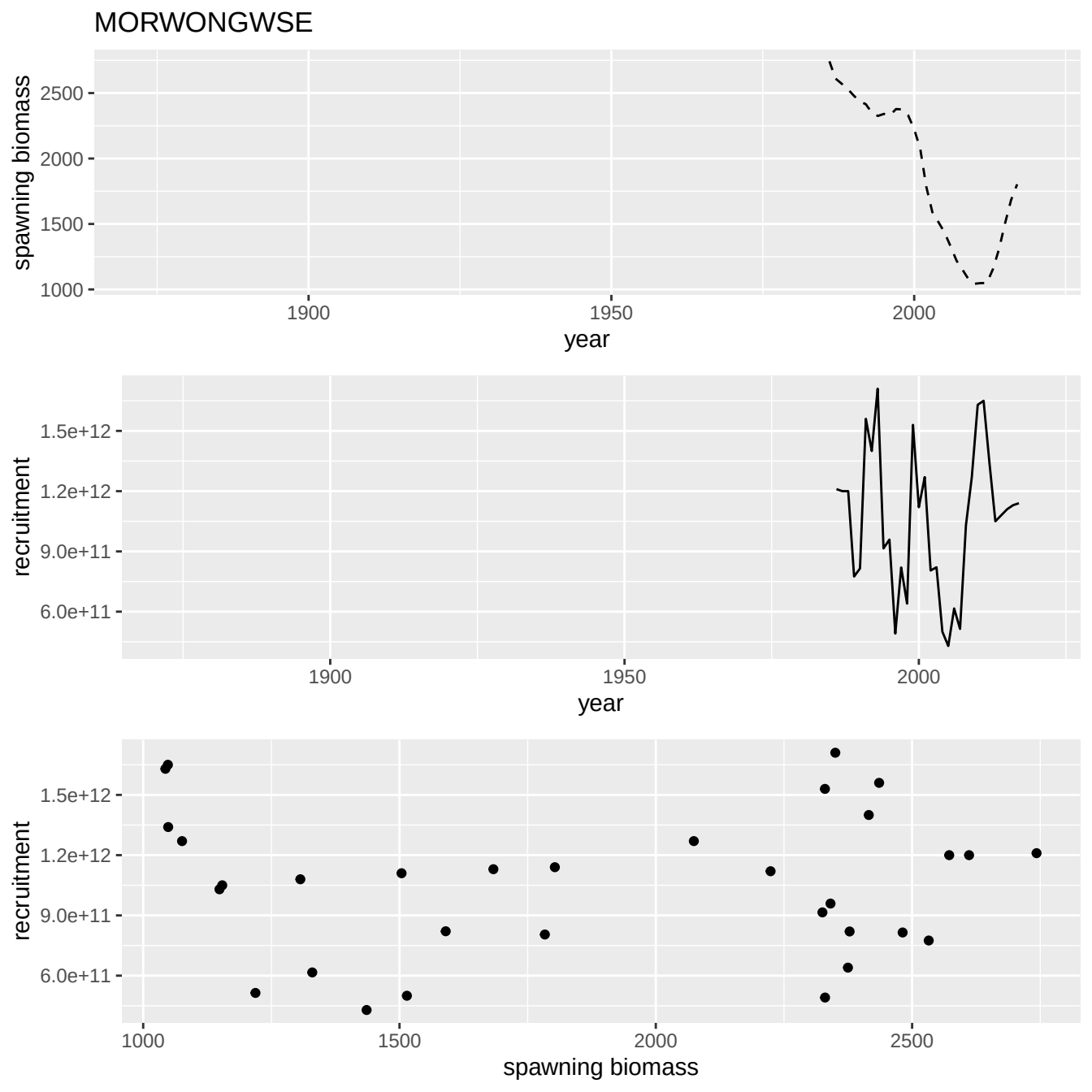

MEG8c9a
spawning biomass
2500
2000
1500
1000
1900
1950
2000
year
recruitment
1e+07
5e+06
1900
1950
2000
year
recruitment
1e+07
5e+06
1000
1500
2000
2500
spawning biomass

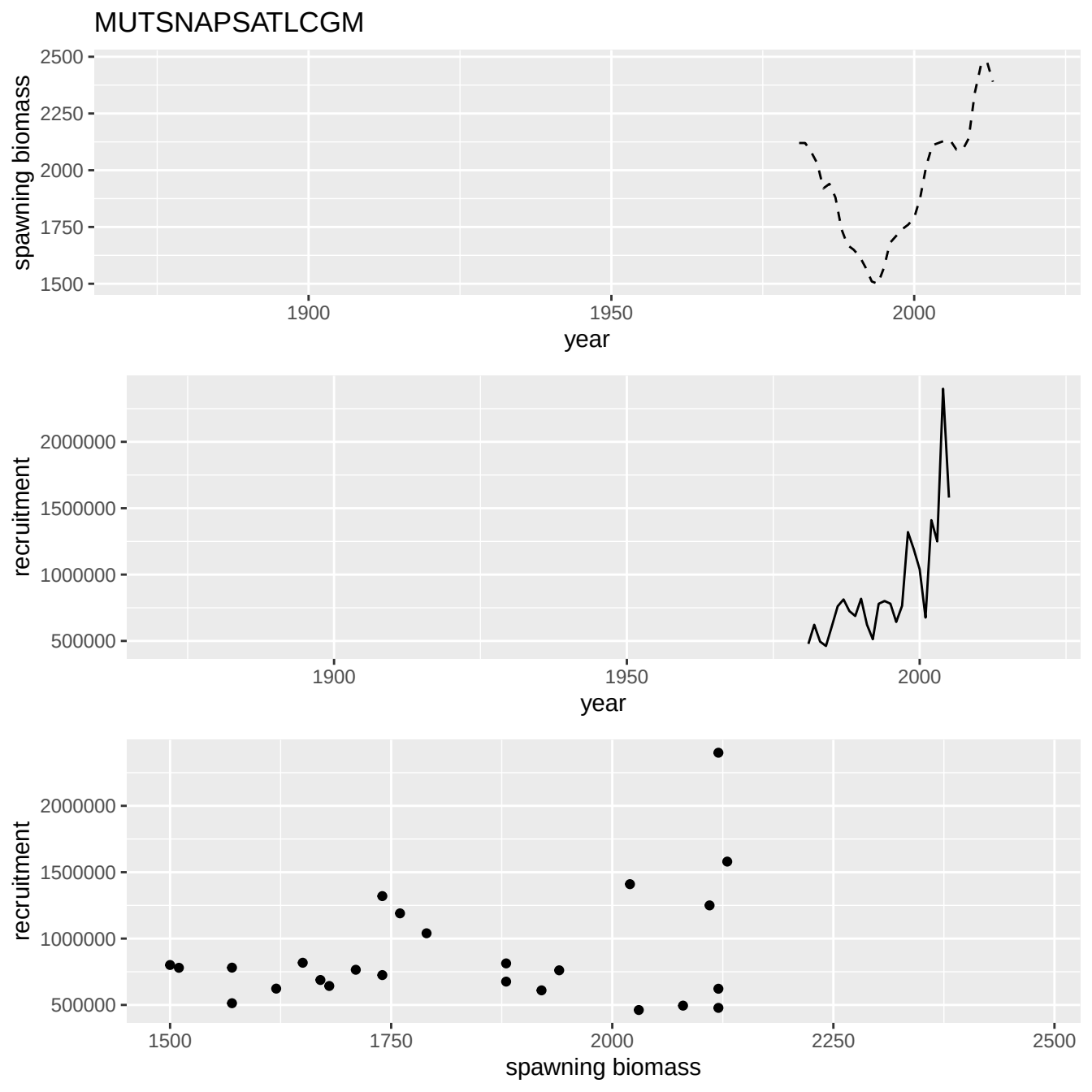

MEGVII.VIIIabd
spawning biomass
1e+05
8e+04
6e+04
4e+04
1900
1950
2000
year
recruitment
3.5e+08
3.0e+08
2.5e+08
2.0e+08
1900
1950
2000
year
recruitment
3.5e+08
3.0e+08
2.5e+08
2.0e+08
4e+04
6e+04
8e+04
1e+05
spawning biomass

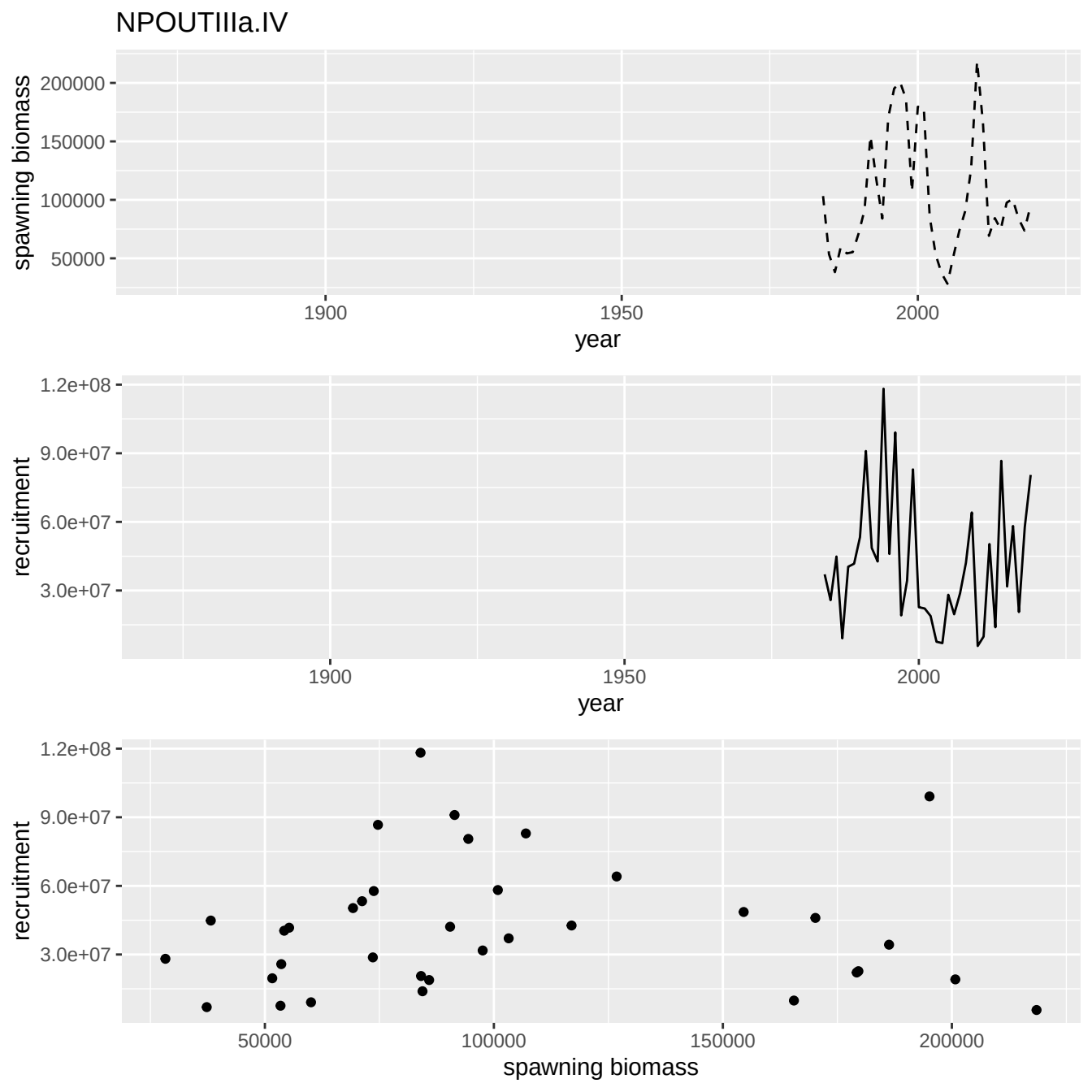

MENATGM
spawning biomass
4e+15
3e+15
2e+15
1900
1950
2000
year
recruitment
2.0e+11
1.5e+11
1.0e+11
5.0e+10
1900
1950
2000
year
recruitment
2.0e+11
1.5e+11
1.0e+11
5.0e+10
2e+15
3e+15
4e+15
spawning biomass

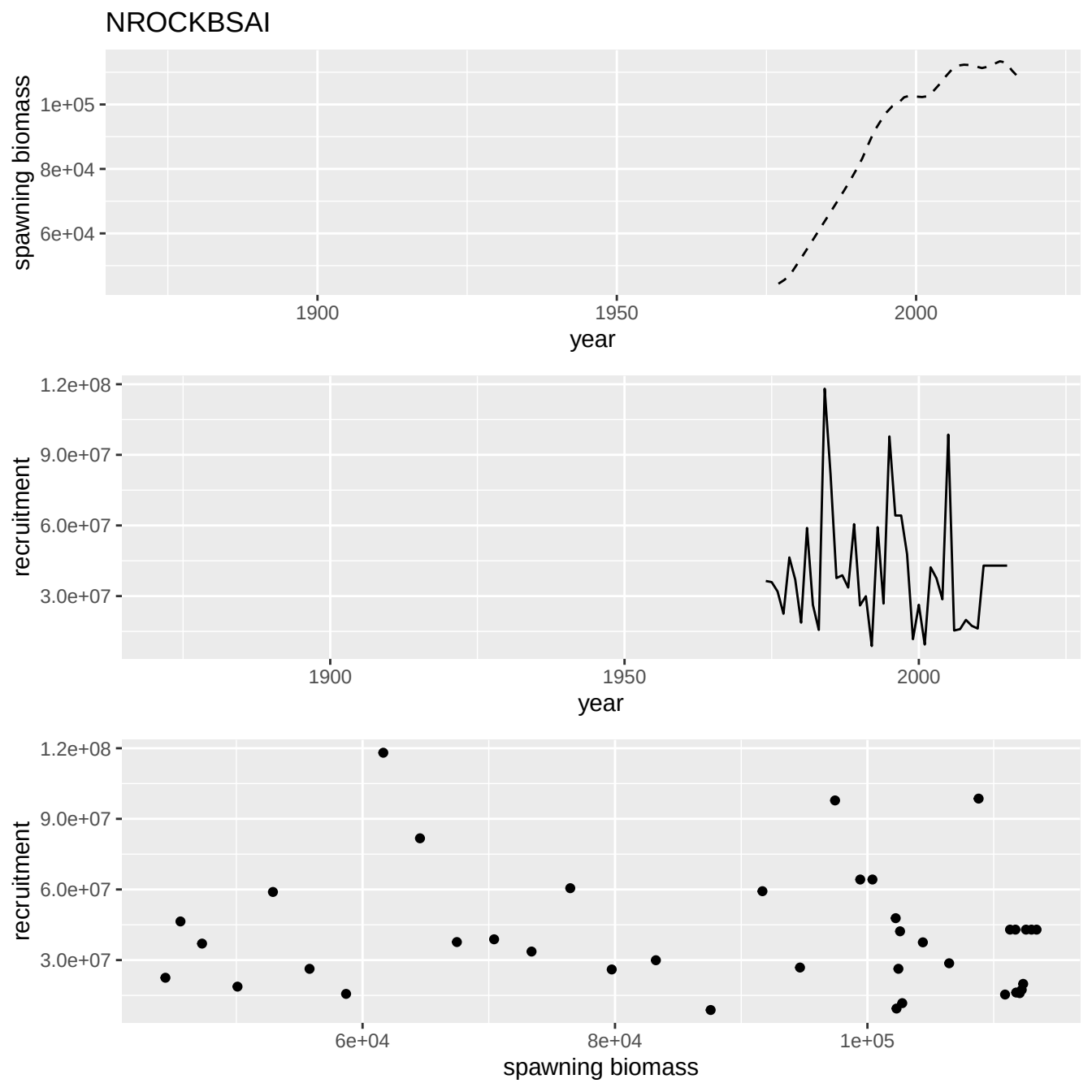

MENATLAN
spawning biomass
1.2e+14
8.0e+13
4.0e+13
1900
1950
2000
year
recruitment
8e+10
6e+10
4e+10
2e+10
1900
1950
2000
year
recruitment
8e+10
6e+10
4e+10
2e+10
4.0e+13
8.0e+13
1.2e+14
spawning biomass

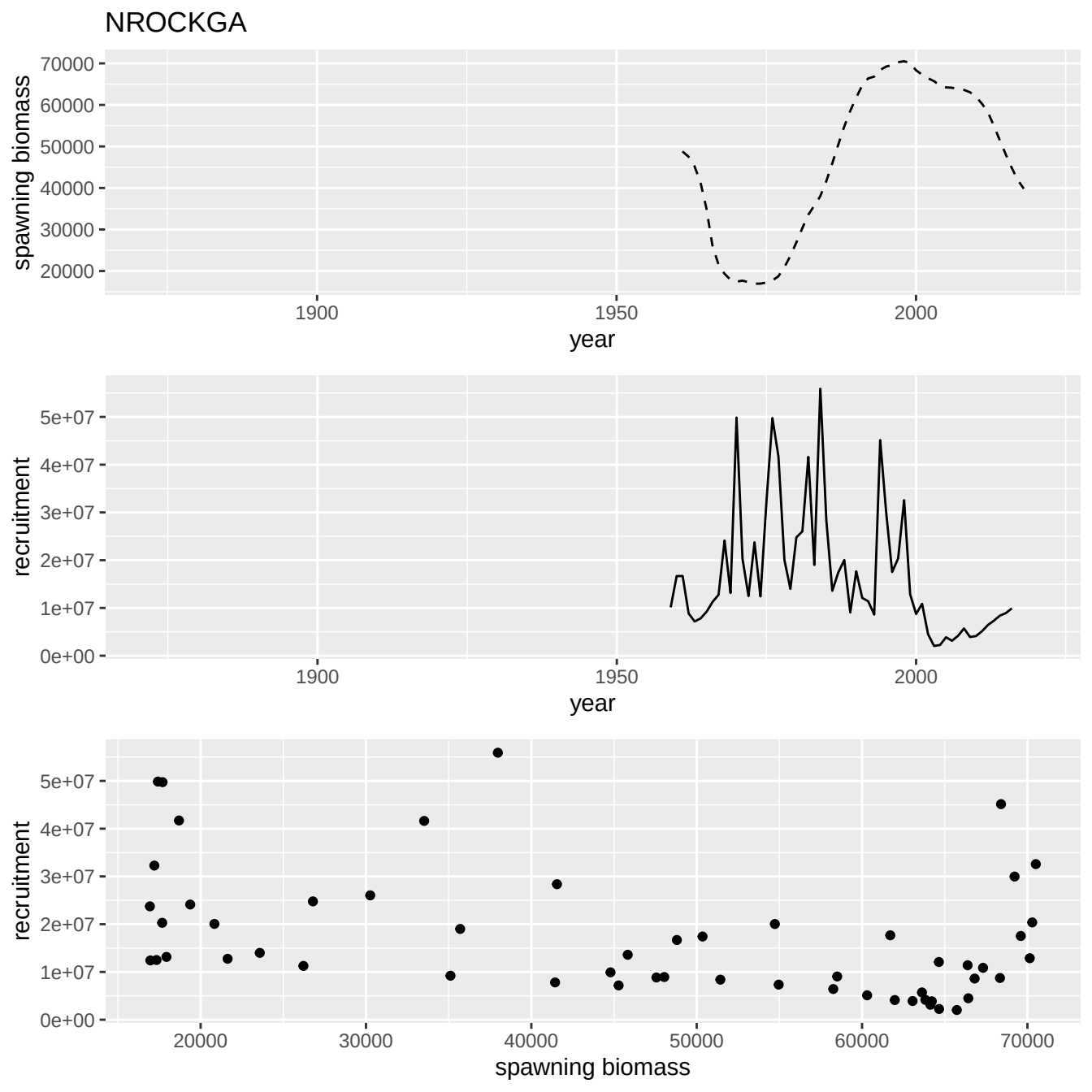

MORWONGESE
spawning biomass
25000
20000
15000
10000
5000
1900
1950
2000
year
recruitment
3e+13
2e+13
1e+13
0e+00
1900
1950
2000
year
recruitment
3e+13
2e+13
1e+13
0e+00
5000
10000
15000
20000
25000
spawning biomass

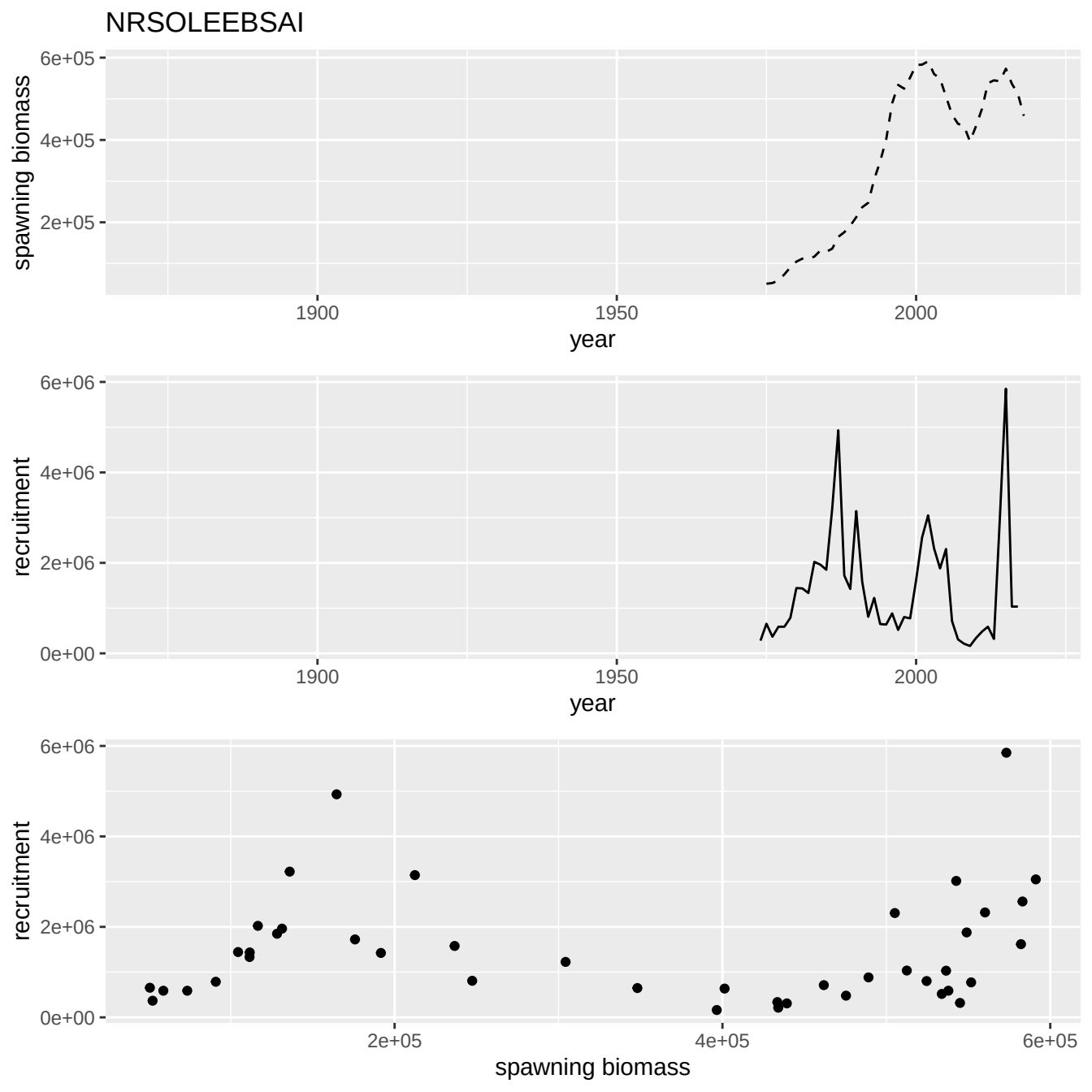

MORWONGWSE
spawning biomass
2500
2000
1500
1000
1900
1950
2000
year
recruitment
1.5e+12
1.2e+12
9.0e+11
6.0e+11
1900
1950
2000
year
recruitment
1.5e+12
1.2e+12
9.0e+11
6.0e+11
1000
1500
2000
2500
spawning biomass

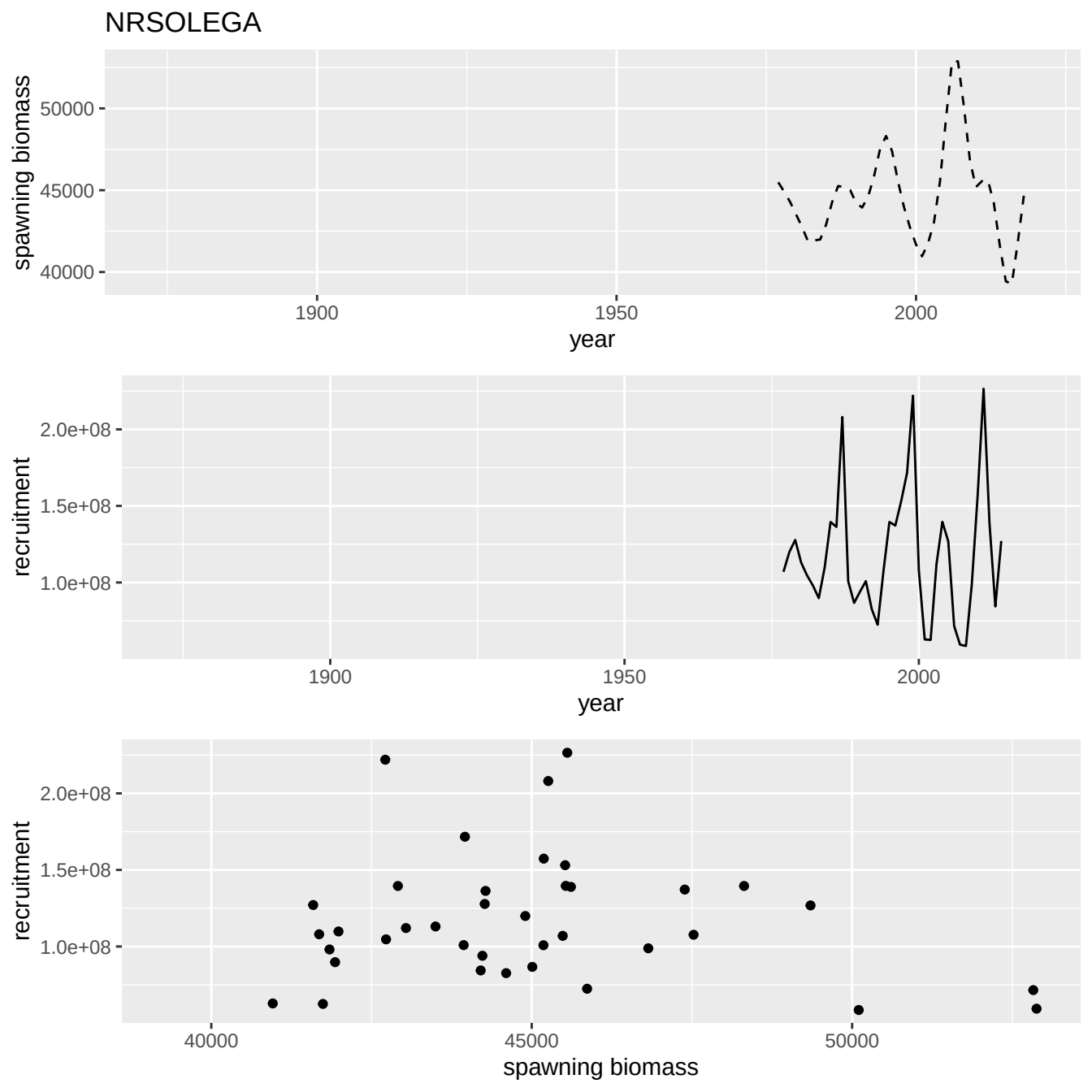

MUTSNAPSATLCGM
spawning biomass
2500
2250
2000
1750
1500
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
1500
1750
2000
2250
2500
spawning biomass

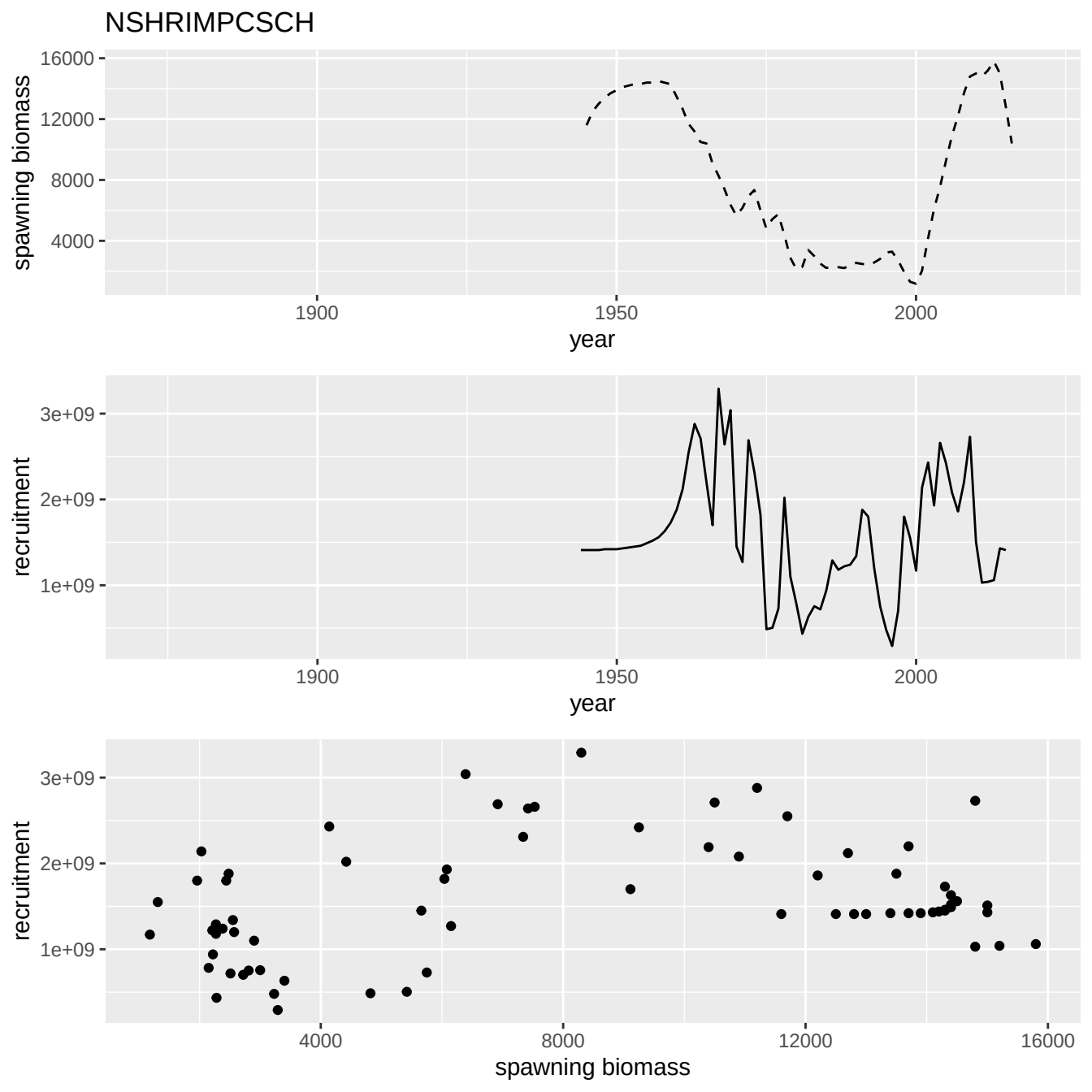

NPOUTIIIa.IV
spawning biomass
200000
150000
100000
50000
1900
1950
2000
year
recruitment
1.2e+08
9.0e+07
6.0e+07
3.0e+07
1900
1950
2000
year
recruitment
1.2e+08
9.0e+07
6.0e+07
3.0e+07
50000
100000
150000
200000
spawning biomass

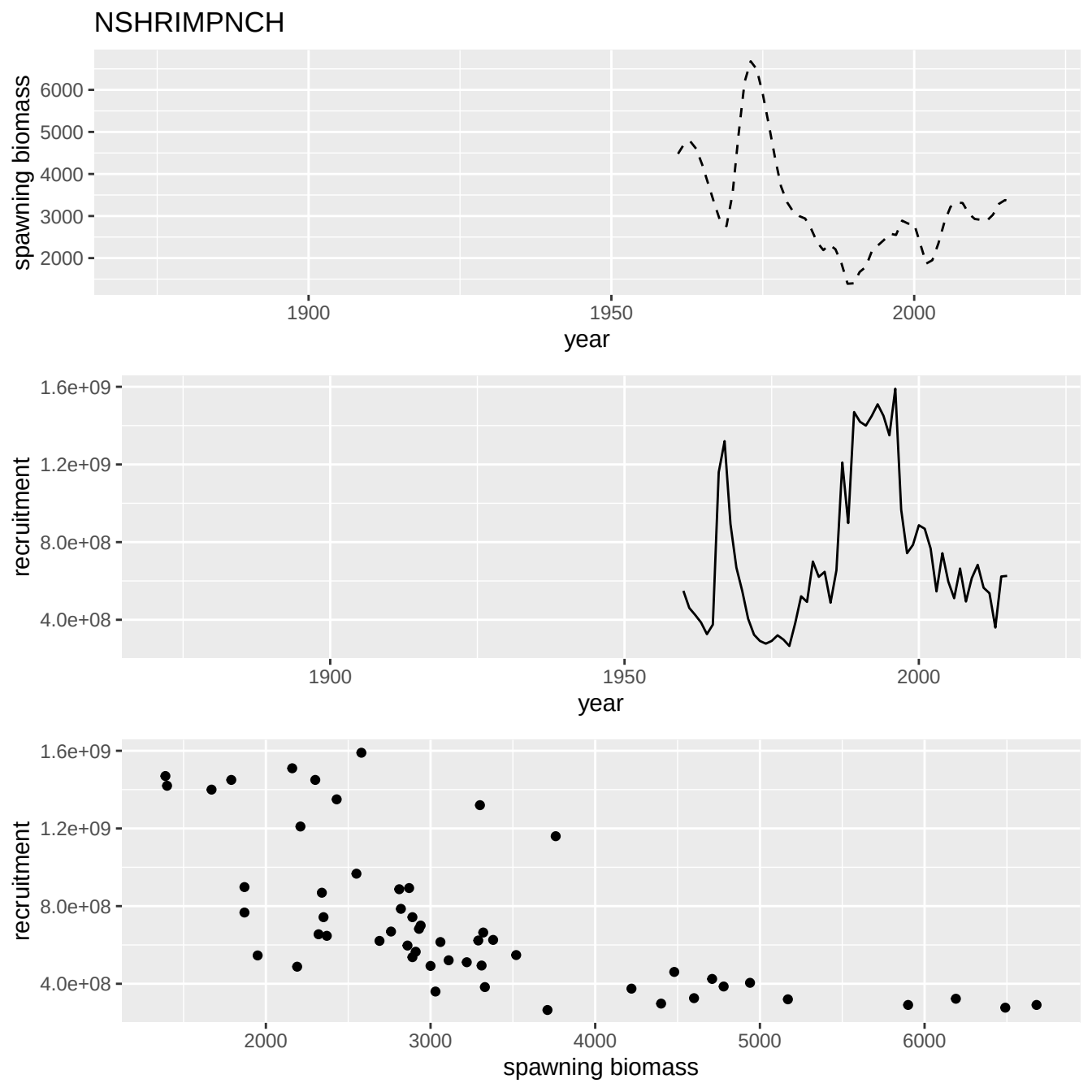

NROCKBSAI
spawning biomass
1e+05
8e+04
6e+04
1900
1950
2000
year
recruitment
1.2e+08
9.0e+07
6.0e+07
3.0e+07
1900
1950
2000
year
recruitment
1.2e+08
9.0e+07
6.0e+07
3.0e+07
6e+04
8e+04
1e+05
spawning biomass

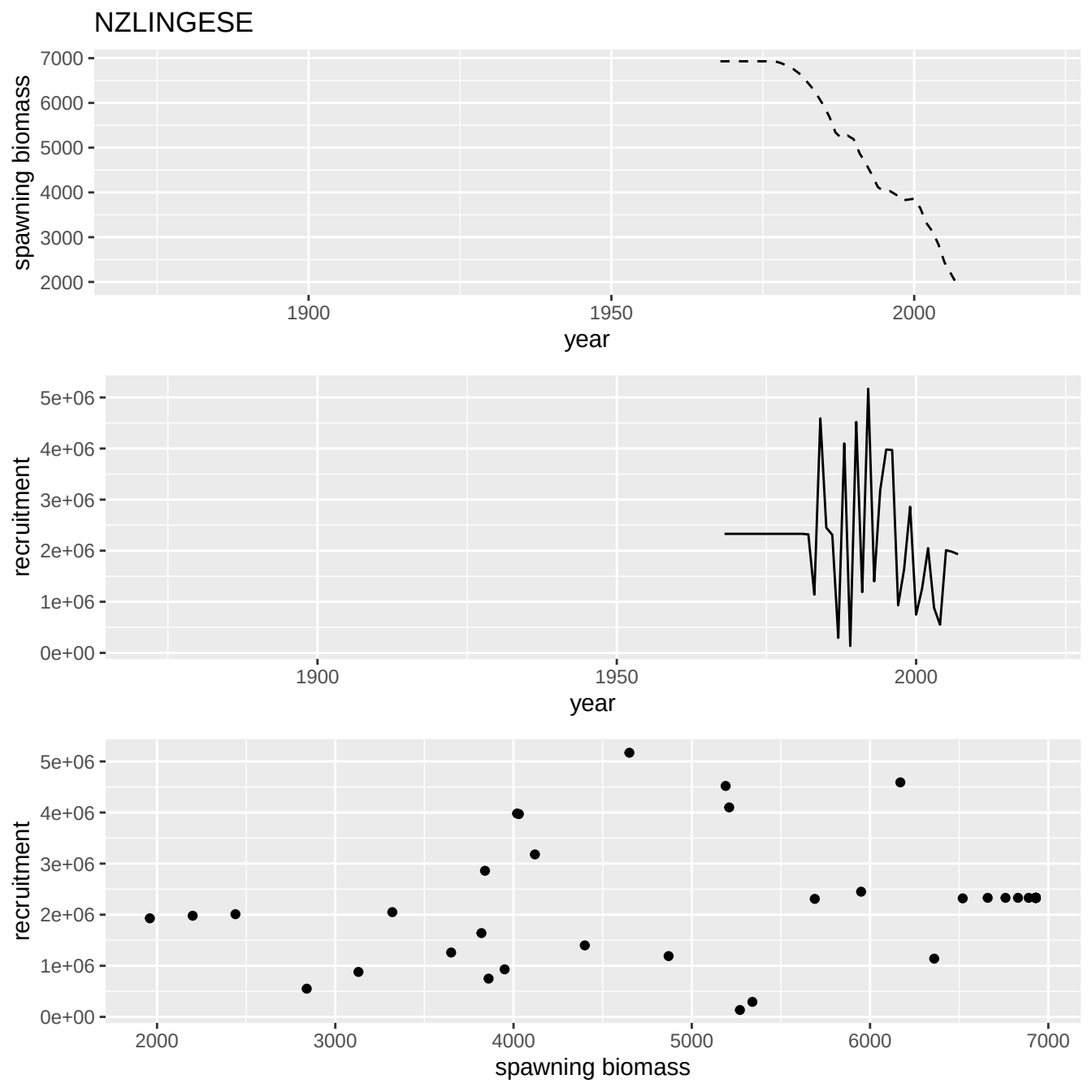

NROCKGA
spawning biomass
70000
60000
50000
40000
30000
20000
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
0e+00
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
0e+00
20000
30000
40000
50000
60000
70000
spawning biomass

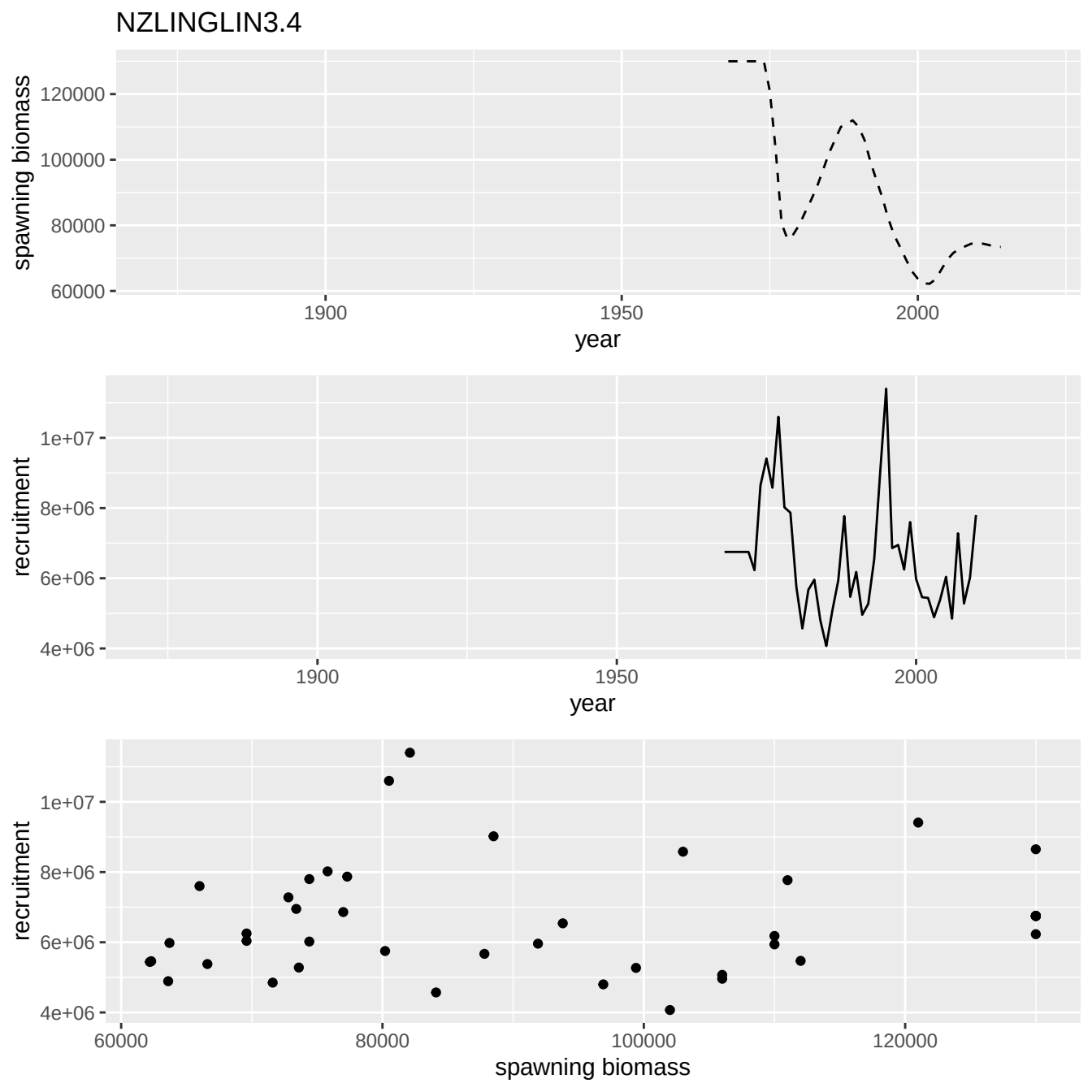

NRSOLEEBSAI
spawning biomass
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
0e+00
2e+05
4e+05
6e+05
spawning biomass

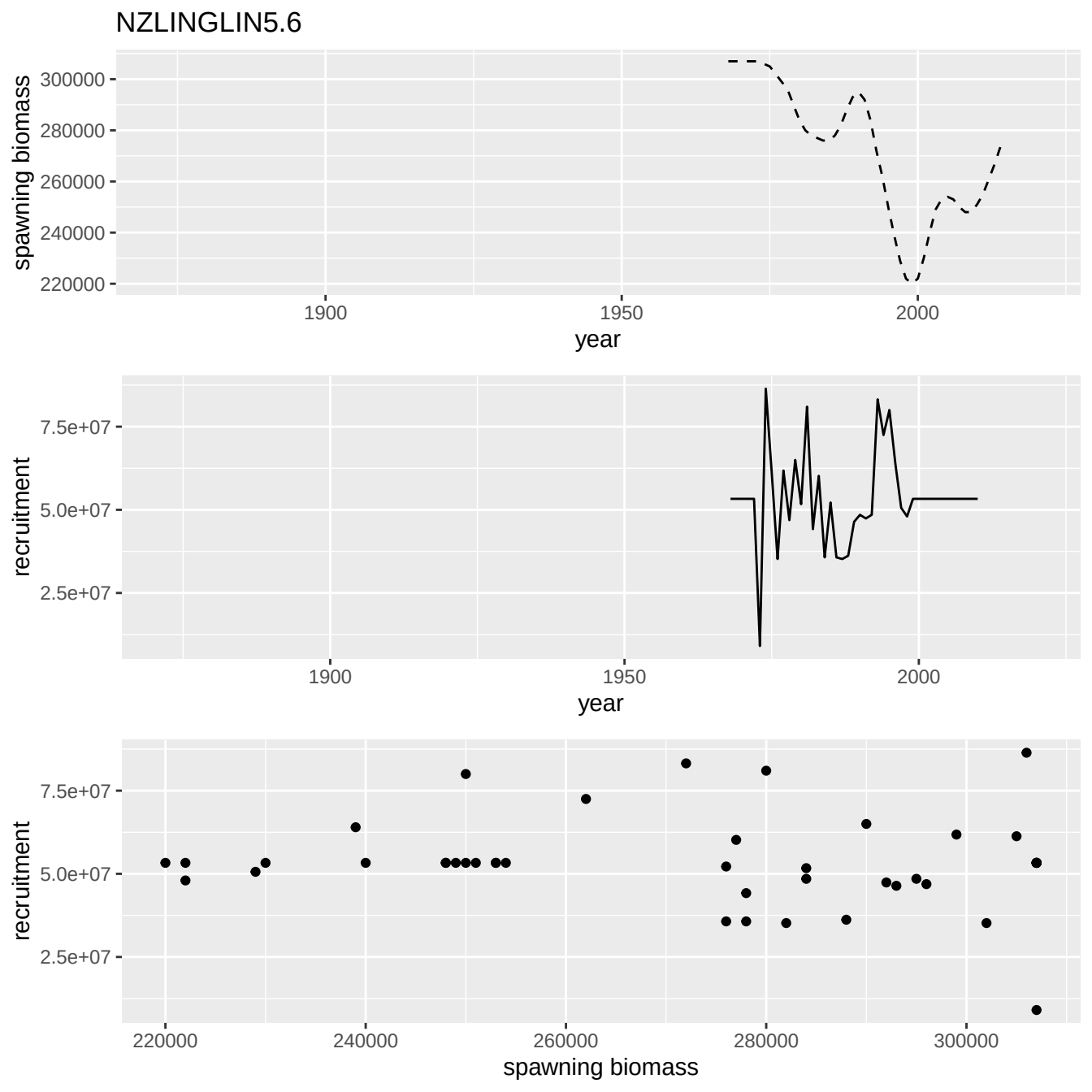

NRSOLEGA
spawning biomass
50000
45000
40000
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
40000
45000
50000
spawning biomass

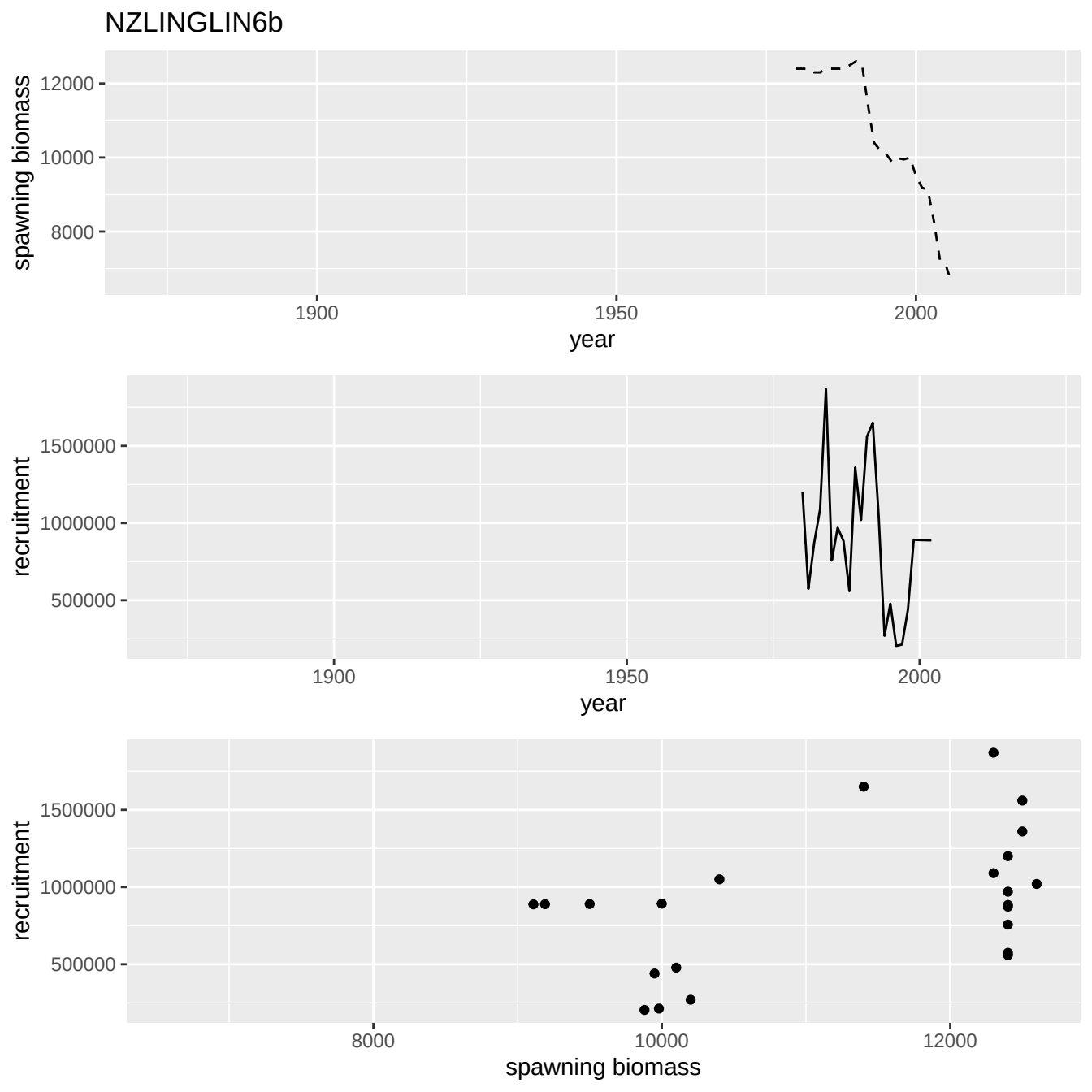

NSHRIMPCSCH
spawning biomass
16000
12000
8000
4000
1900
1950
2000
year
recruitment
3e+09
2e+09
1e+09
1900
1950
2000
year
recruitment
3e+09
2e+09
1e+09
4000
8000
12000
16000
spawning biomass


NSHRIMPNCH
spawning biomass
6000
5000
4000
3000
2000
1900
1950
2000
year
recruitment
1.6e+09
1.2e+09
8.0e+08
4.0e+08
1900
1950
2000
year
recruitment
1.6e+09
1.2e+09
8.0e+08
4.0e+08
2000
3000
4000
5000
6000
spawning biomass

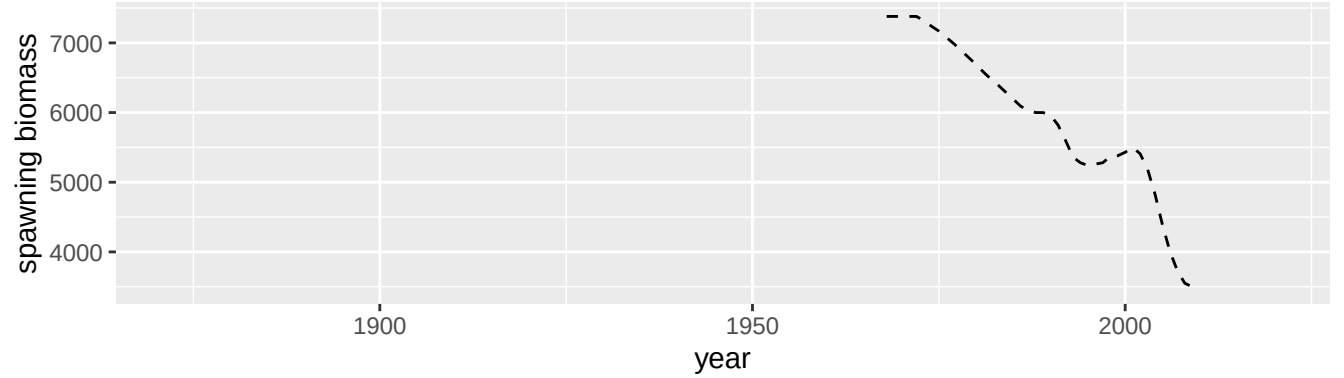

NZLINGESE
spawning biomass
7000
6000
5000
4000
3000
2000
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
0e+00
2000
3000
4000
5000
6000
7000
spawning biomass

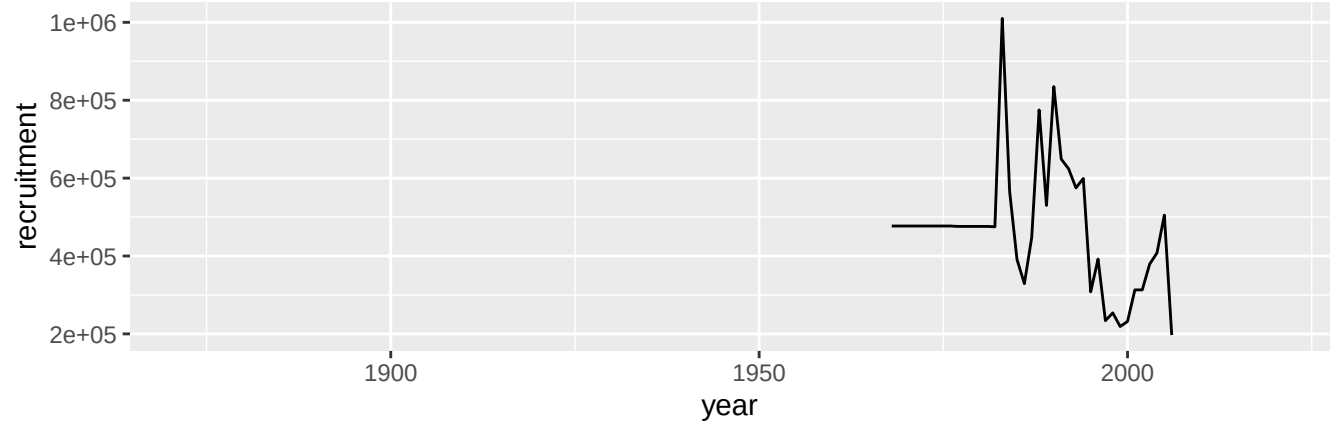

NZLINGLIN3.4
spawning biomass
120000
100000
80000
60000
1900
1950
2000
year
recruitment
1e+07
8e+06
6e+06
4e+06
1900
1950
2000
year
recruitment
1e+07
8e+06
6e+06
4e+06
60000
80000
100000
120000
spawning biomass

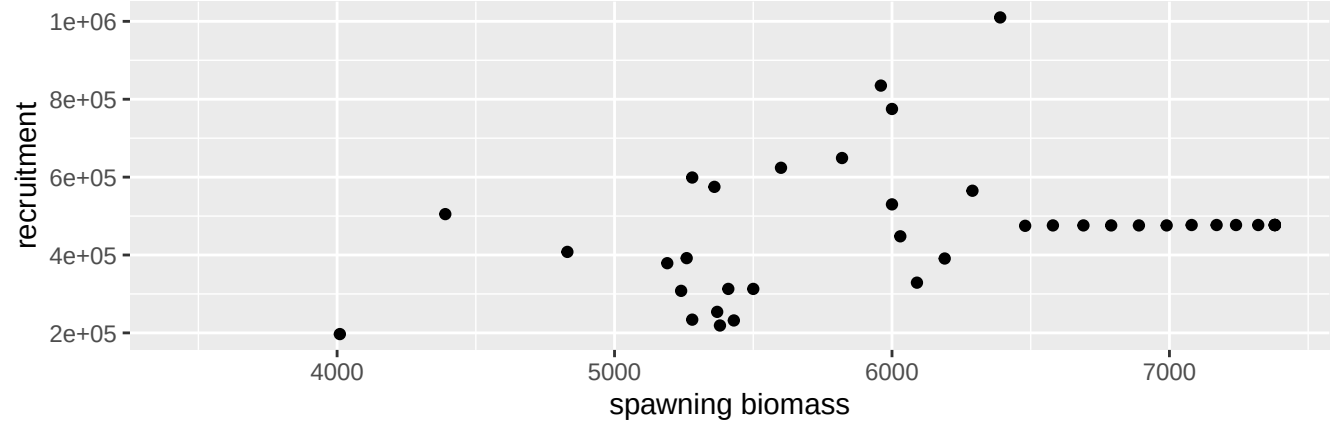

NZLINGLIN5.6
spawning biomass
300000
280000
260000
240000
220000
1900
1950
2000
year
recruitment
7.5e+07
5.0e+07
2.5e+07
1900
1950
2000
year
recruitment
7.5e+07
5.0e+07
2.5e+07
220000
240000
260000
280000
300000
spawning biomass

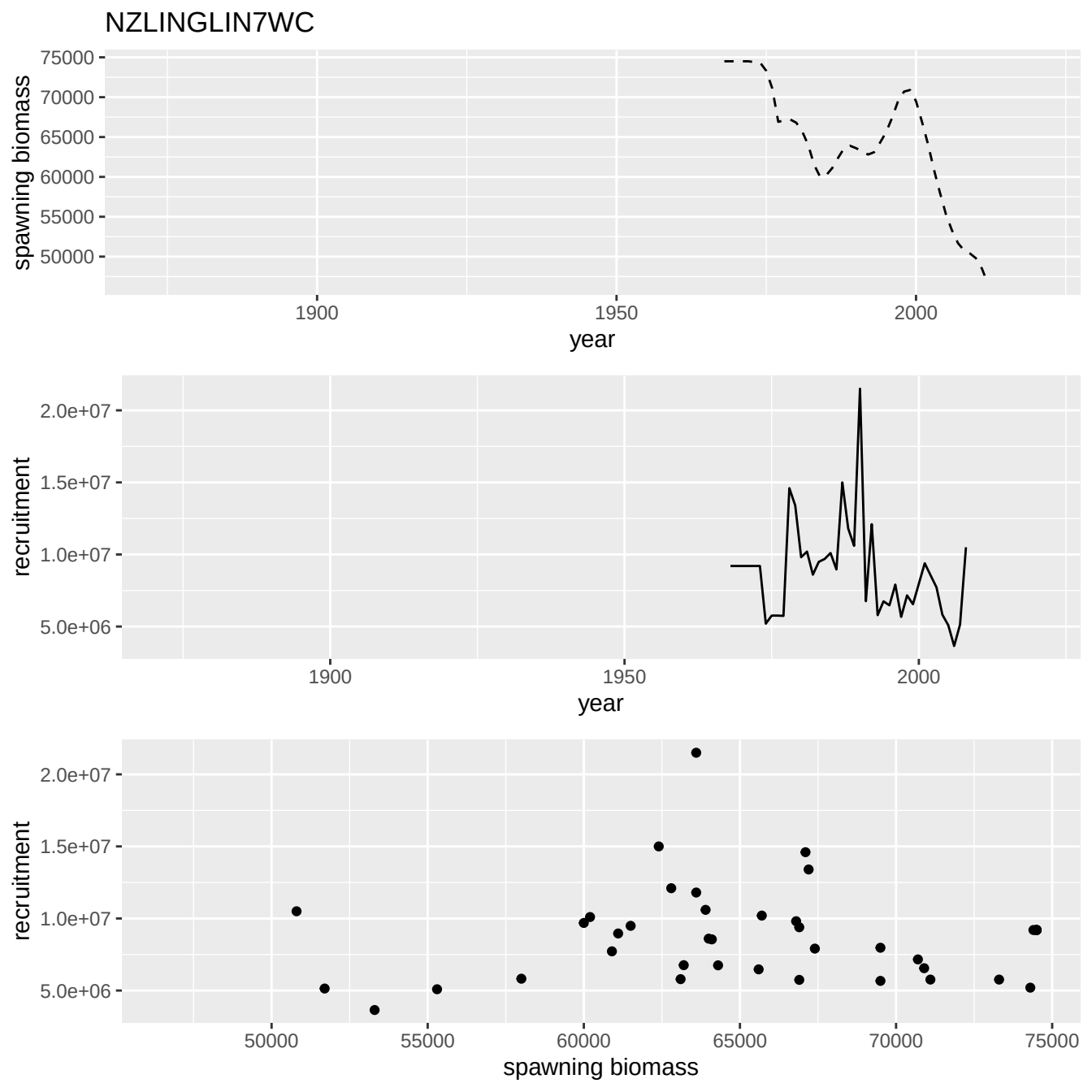

NZLINGLIN6b
spawning biomass
12000
10000
8000
1900
1950
2000
year
recruitment
1500000
1000000
500000
1900
1950
2000
year
recruitment
1500000
1000000
500000
8000
10000
12000
spawning biomass

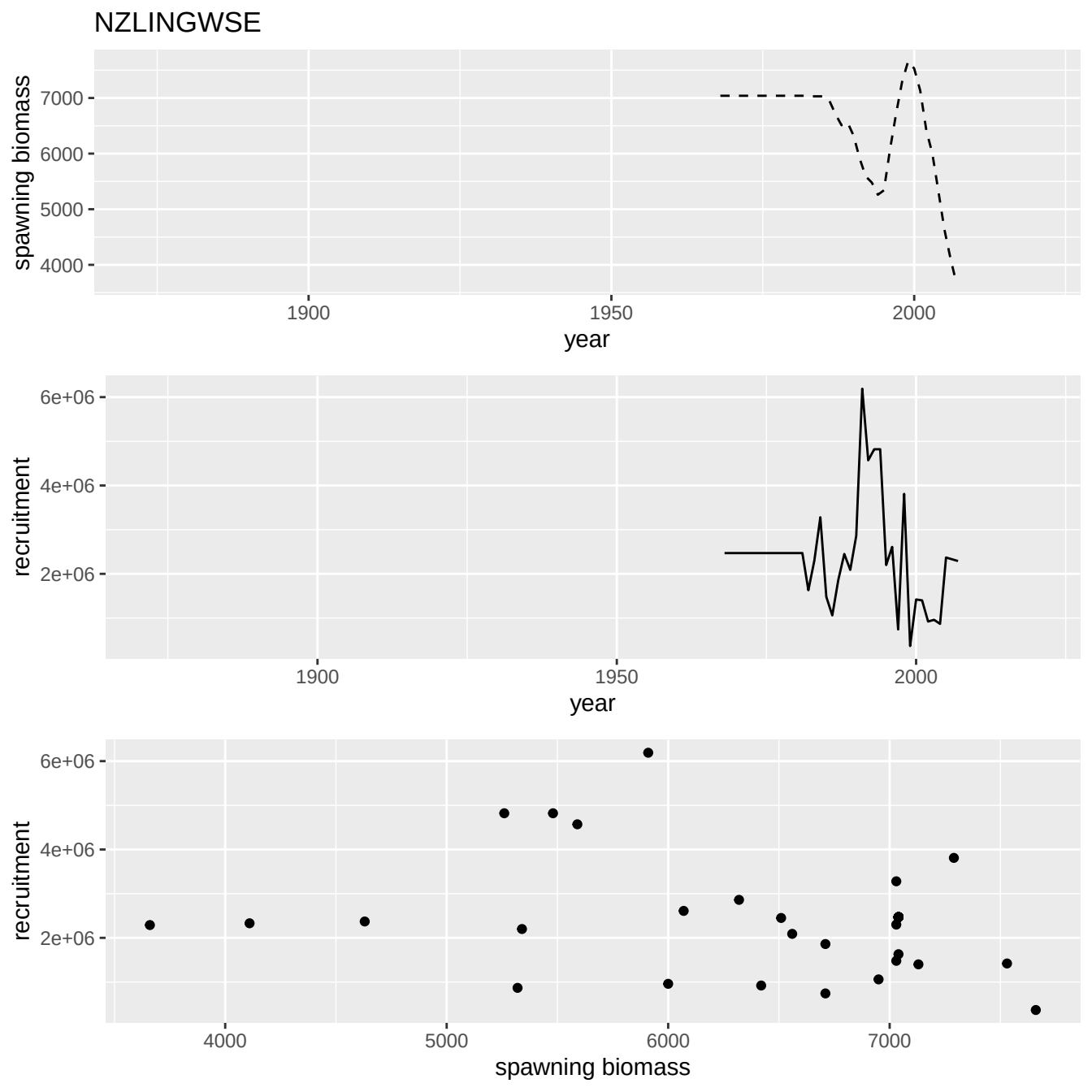
NZLINGLIN72

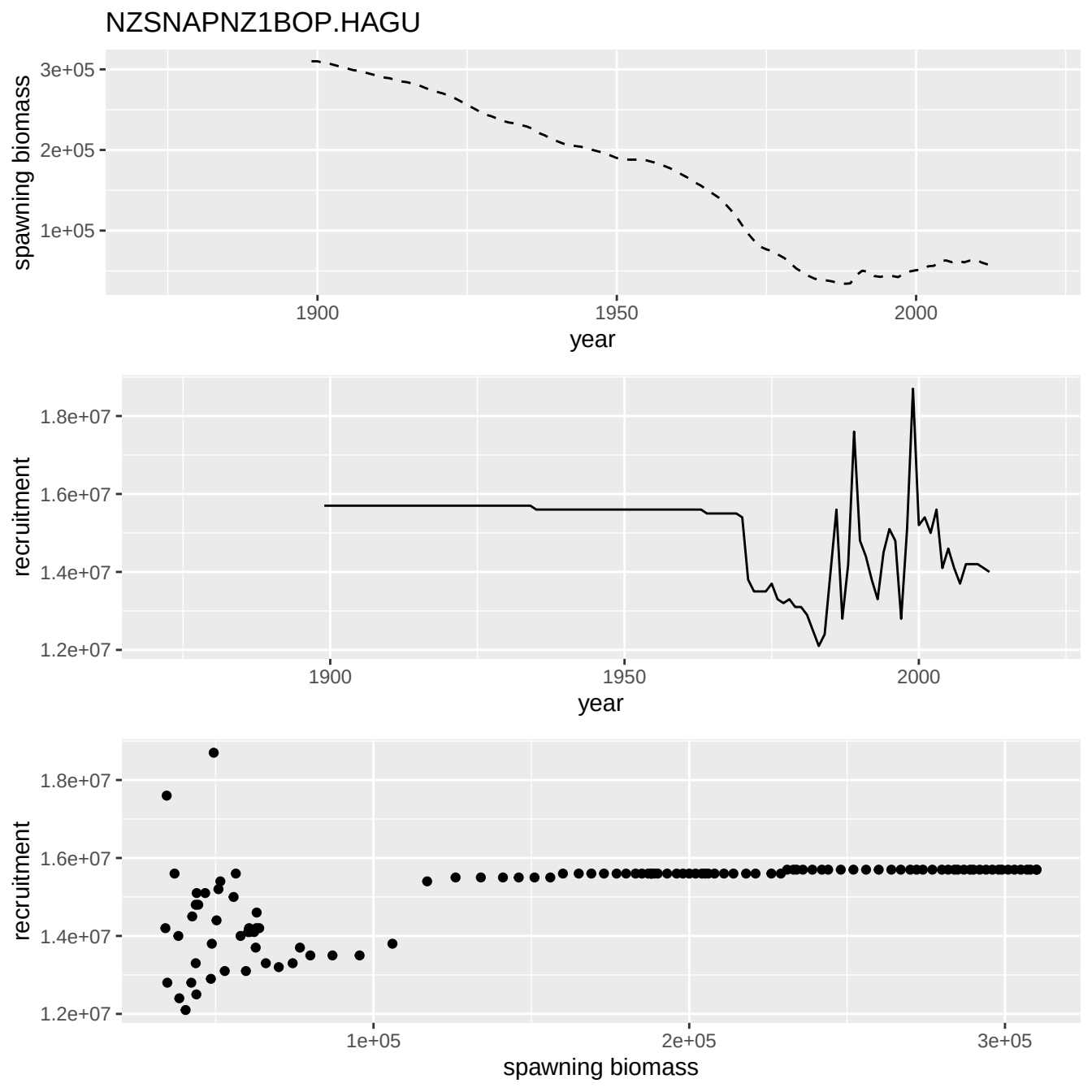


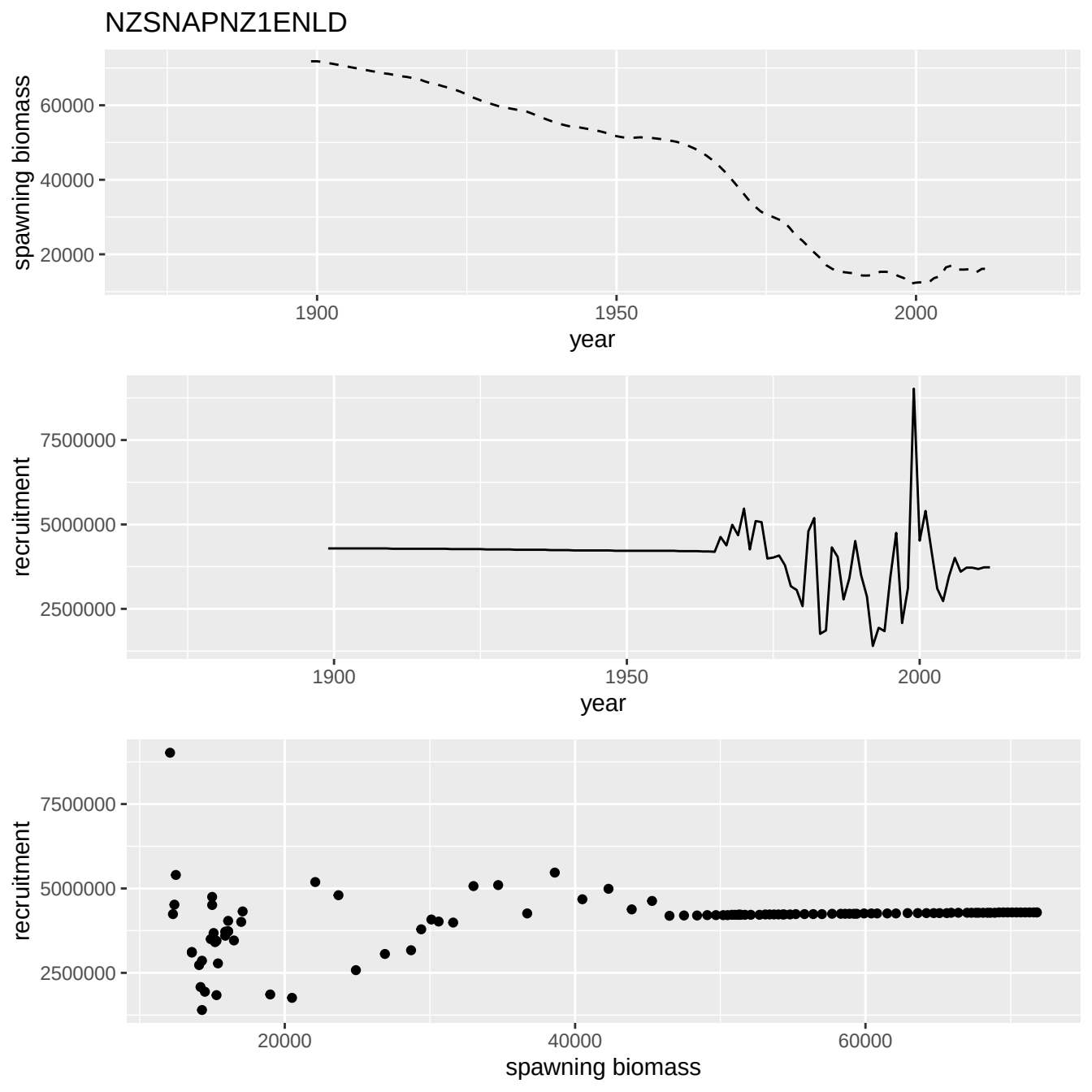


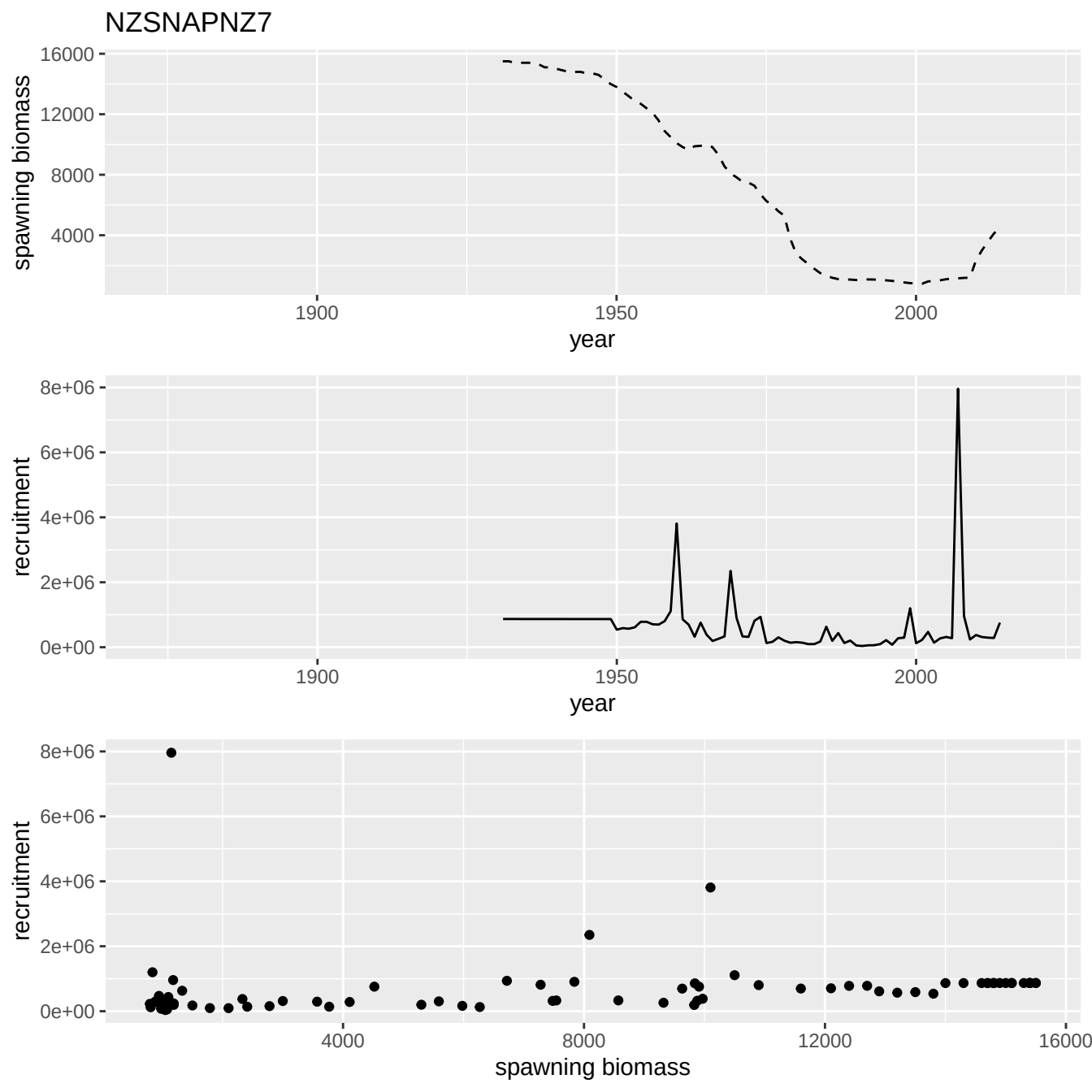


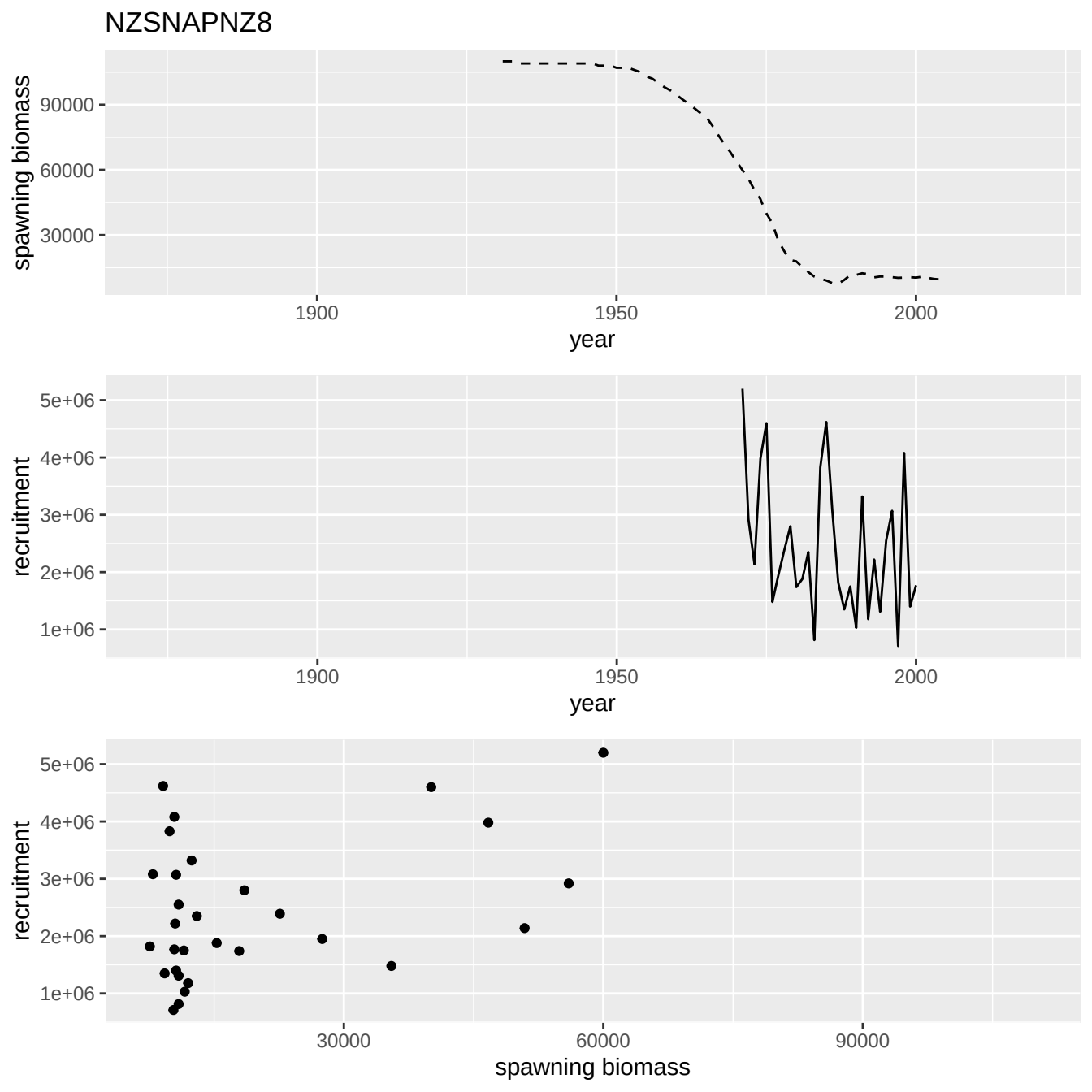

NZLINGLIN7WC
spawning biomass
75000
70000
65000
60000
55000
50000
1900
1950
2000
year
recruitment
2.0e+07
1.5e+07
1.0e+07
5.0e+06
1900
1950
2000
year
recruitment
2.0e+07
1.5e+07
1.0e+07
5.0e+06
50000
55000
60000
65000
70000
75000
spawning biomass

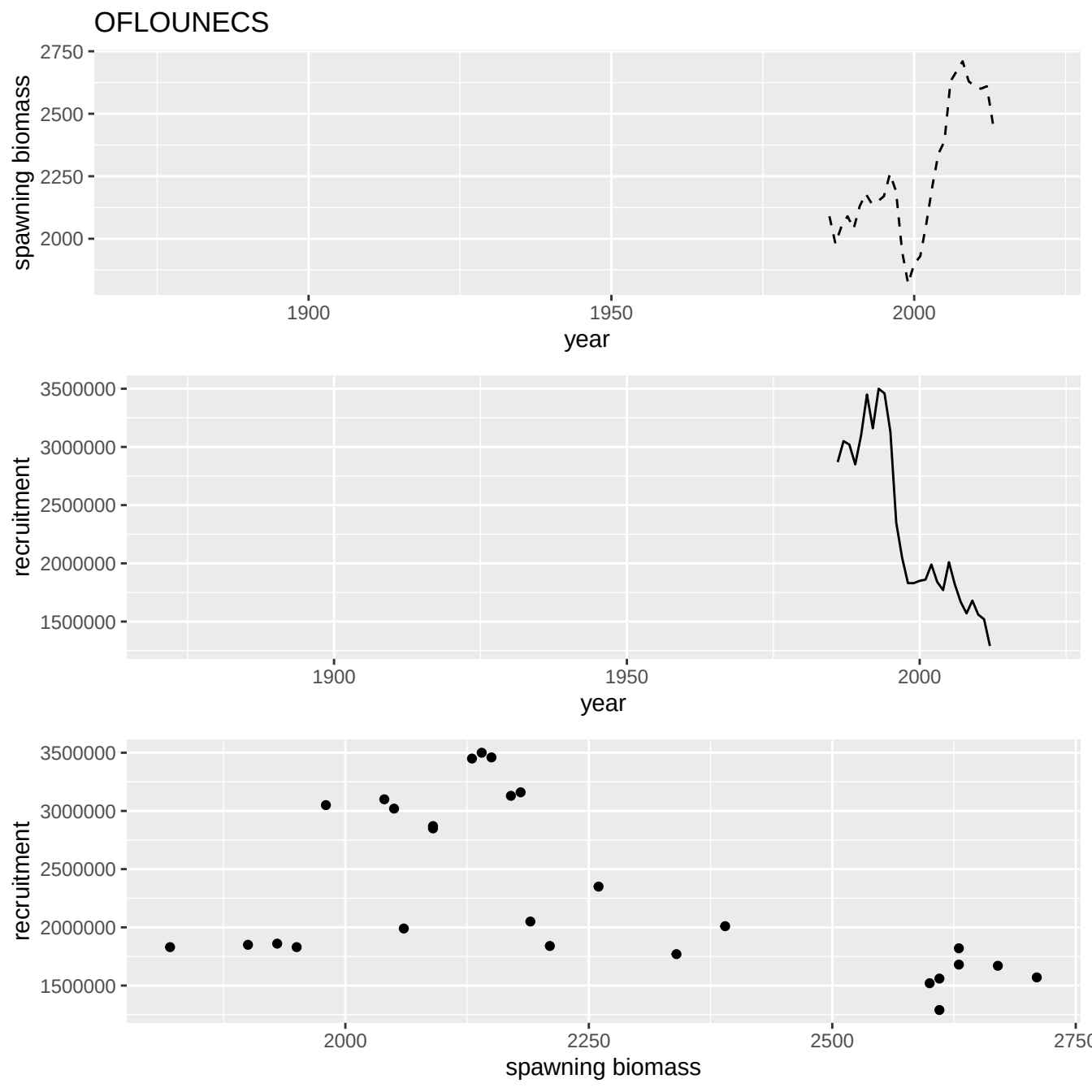

NZLINGWSE
spawning biomass
7000
6000
5000
4000
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
4000
5000
6000
7000
spawning biomass

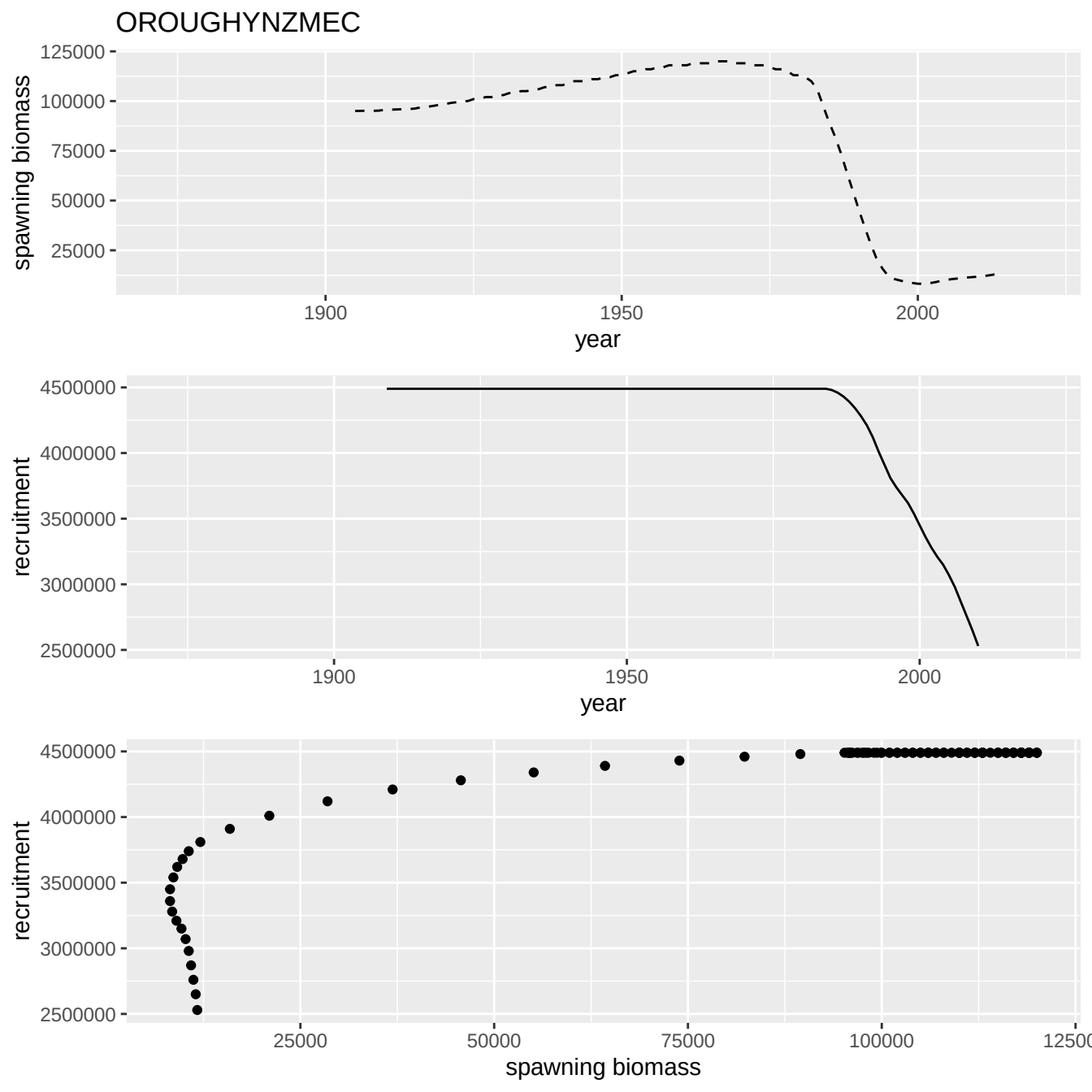

NZSNAPNZ1BOP.HAGU
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
1.8e+07
1.6e+07
1.4e+07
1.2e+07
1900
1950
2000
year
recruitment
1.8e+07
1.6e+07
1.4e+07
1.2e+07
1e+05
2e+05
3e+05
spawning biomass

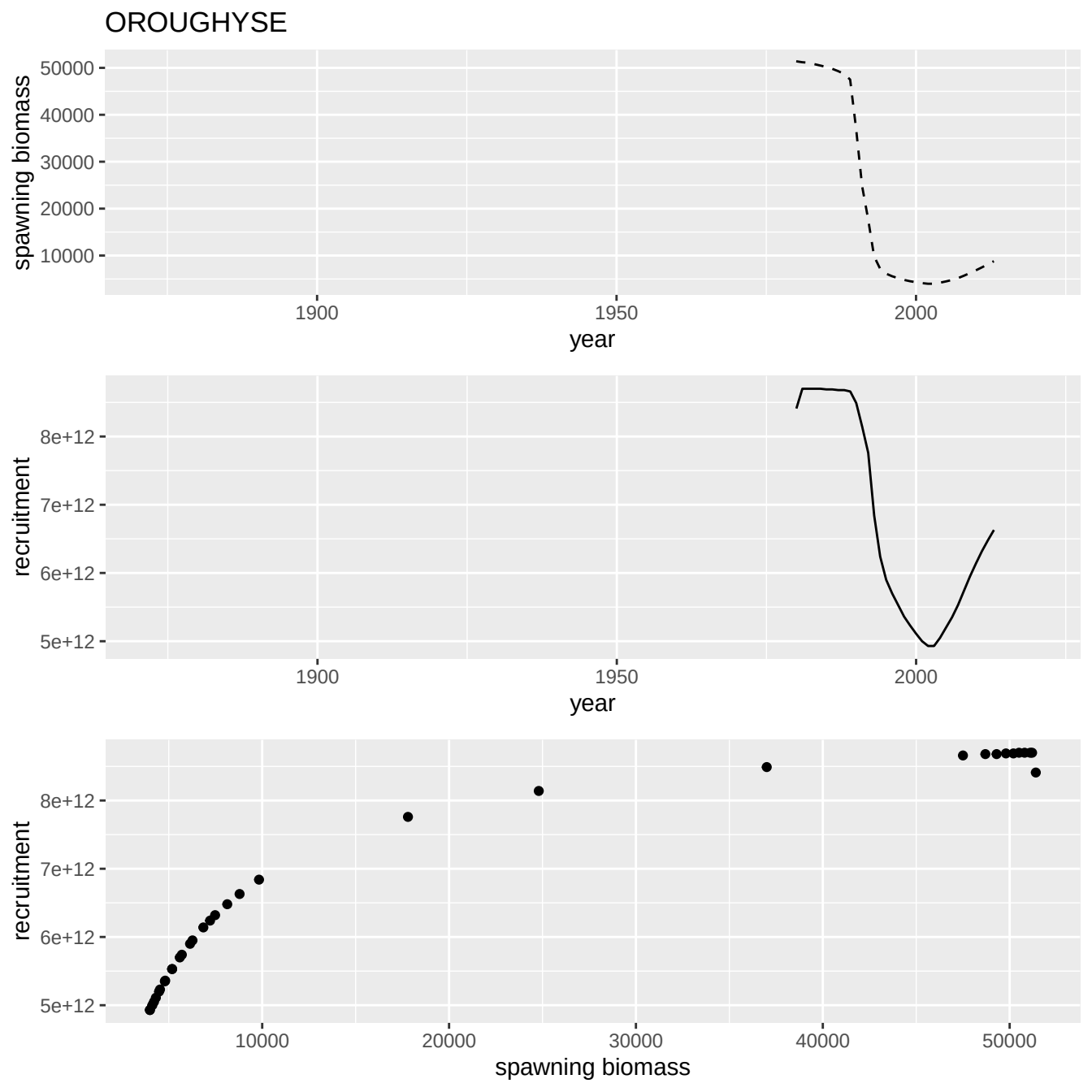

NZSNAPNZ1ENLD
spawning biomass
60000
40000
20000
1900
1950
2000
year
recruitment
7500000
5000000
2500000
1900
1950
2000
year
recruitment
7500000
5000000
2500000
20000
40000
60000
spawning biomass

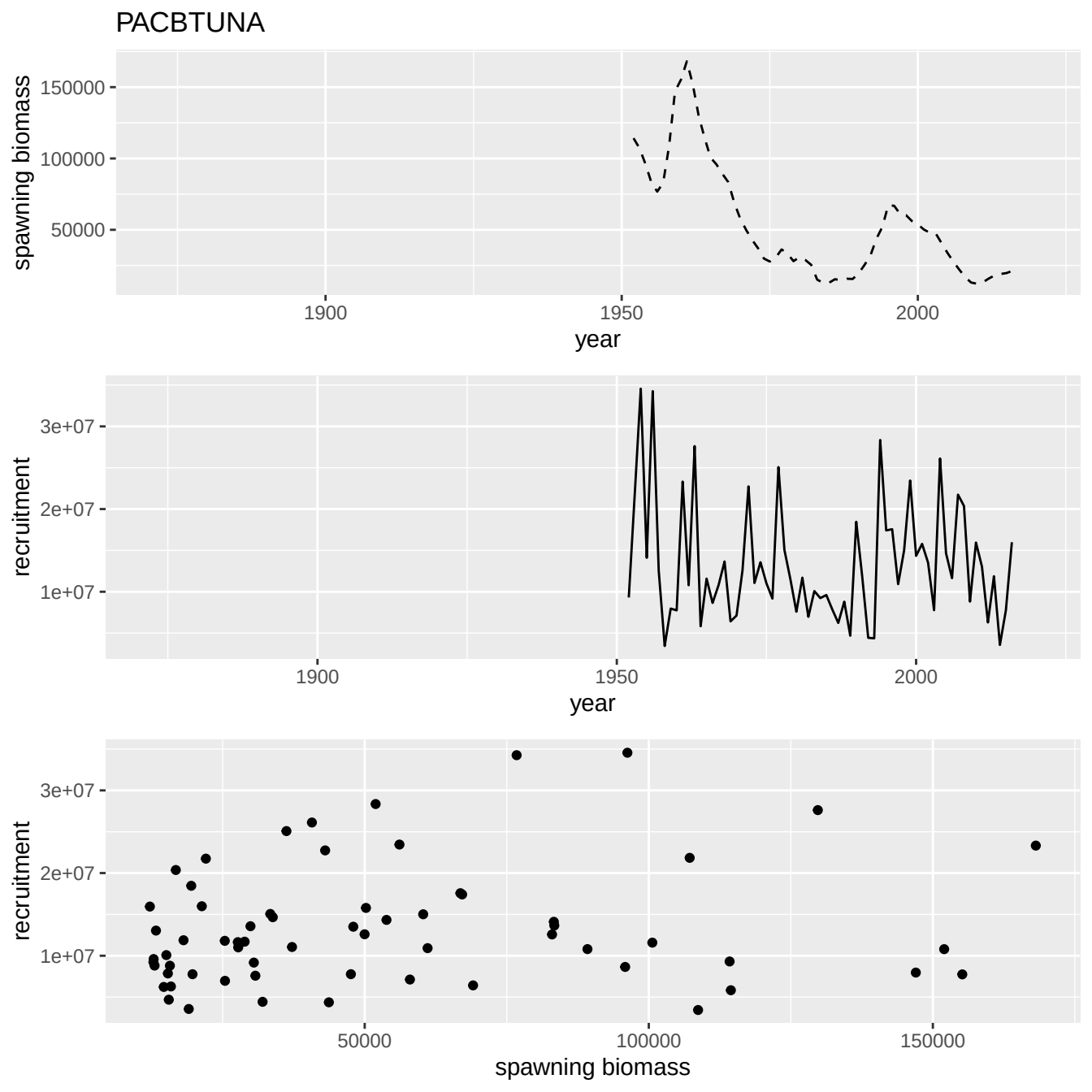

NZSNAPNZ7
spawning biomass
16000
12000
8000
4000
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
0e+00
4000
8000
12000
16000
spawning biomass

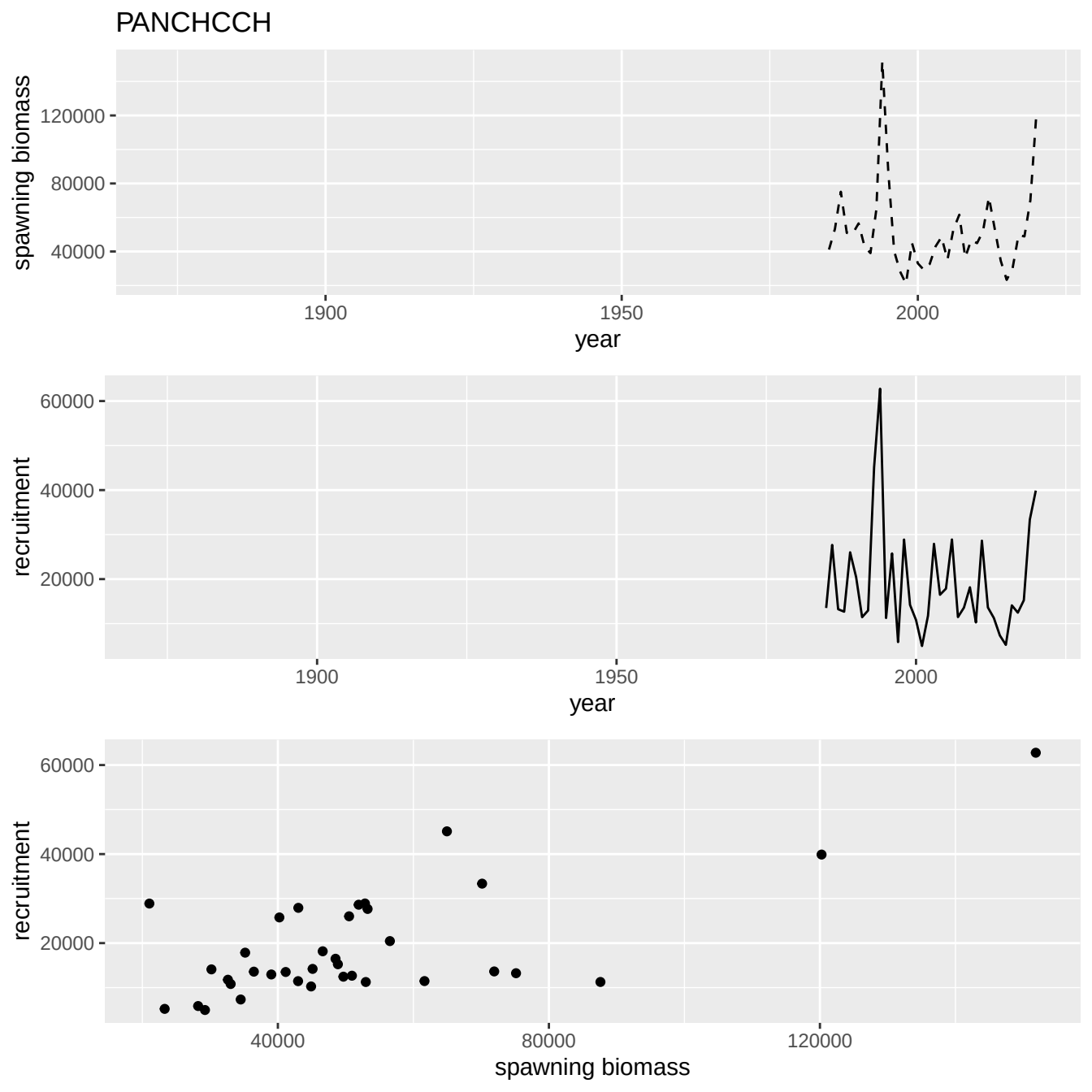

NZSNAPNZ8
spawning biomass
90000
60000
30000
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
30000
60000
90000
spawning biomass

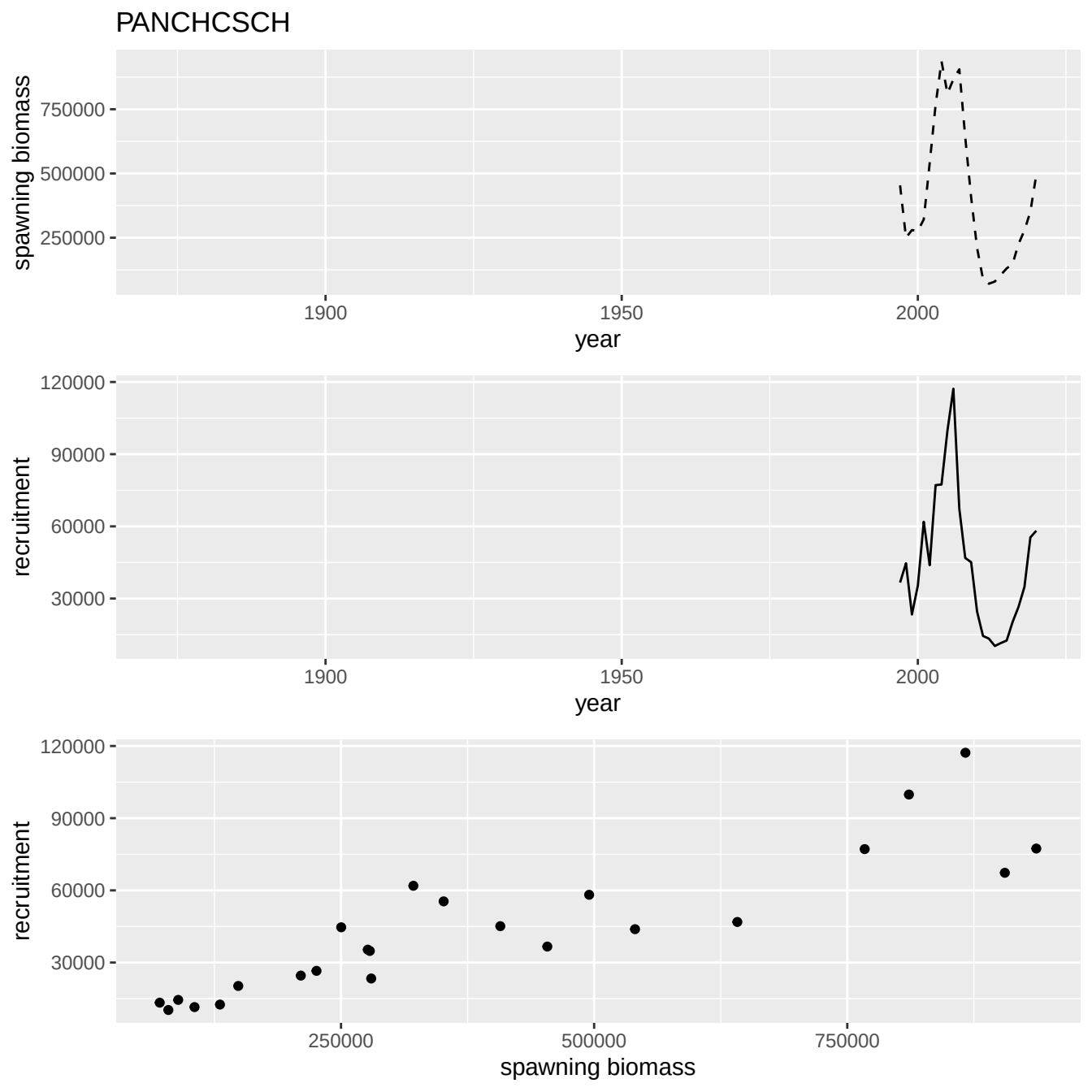

OFLOUNECS
spawning biomass
2750
2500
2250
2000
1900
1950
2000
year
recruitment
3500000
3000000
2500000
2000000
1500000
1900
1950
2000
year
recruitment
3500000
3000000
2500000
2000000
1500000
2000
2250
2500
spawning biomass

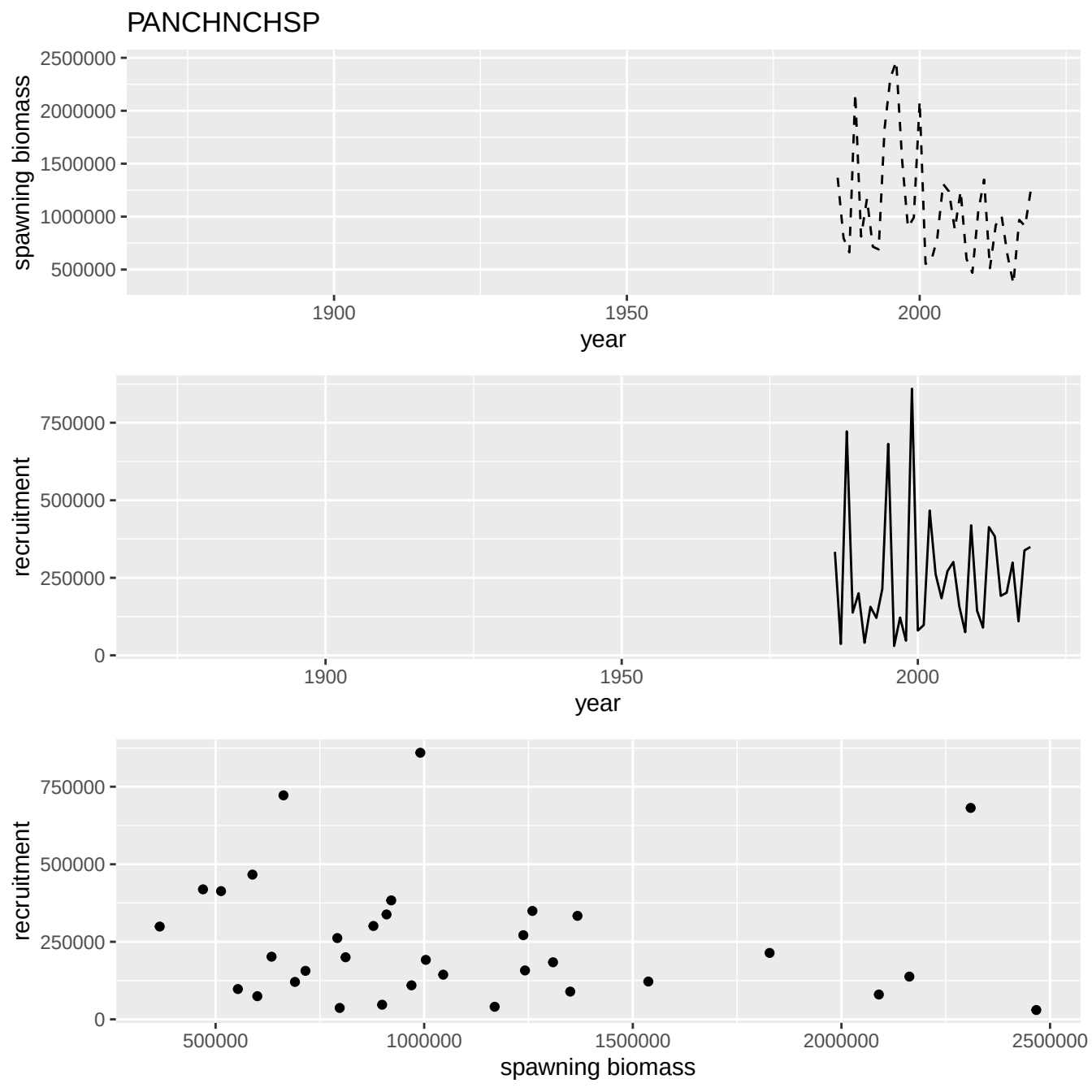

OROUGHYNZMEC
spawning biomass
125000
100000
75000
50000
25000
1900
1950
2000
year
recruitment
4500000
4000000
3500000
3000000
2500000
1900
1950
2000
year
recruitment
4500000
4000000
3500000
3000000
2500000
25000
50000
75000
100000
125000
spawning biomass

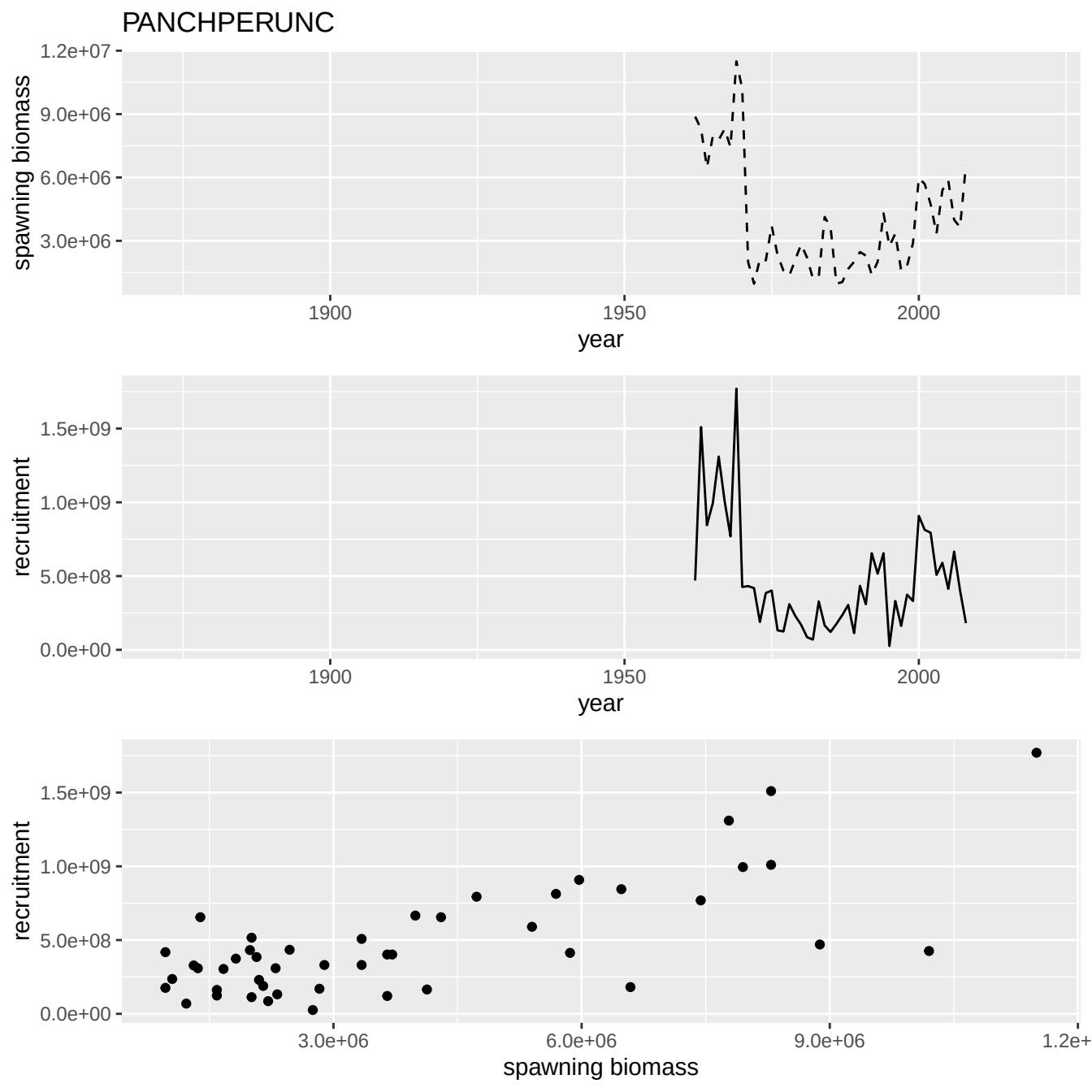

OROUGHYSE
spawning biomass
50000
40000
30000
20000
10000
1900
1950
2000
year
recruitment
8e+12
7e+12
6e+12
5e+12
1900
1950
2000
year
recruitment
8e+12
7e+12
6e+12
5e+12
10000
20000
30000
40000
50000
spawning biomass

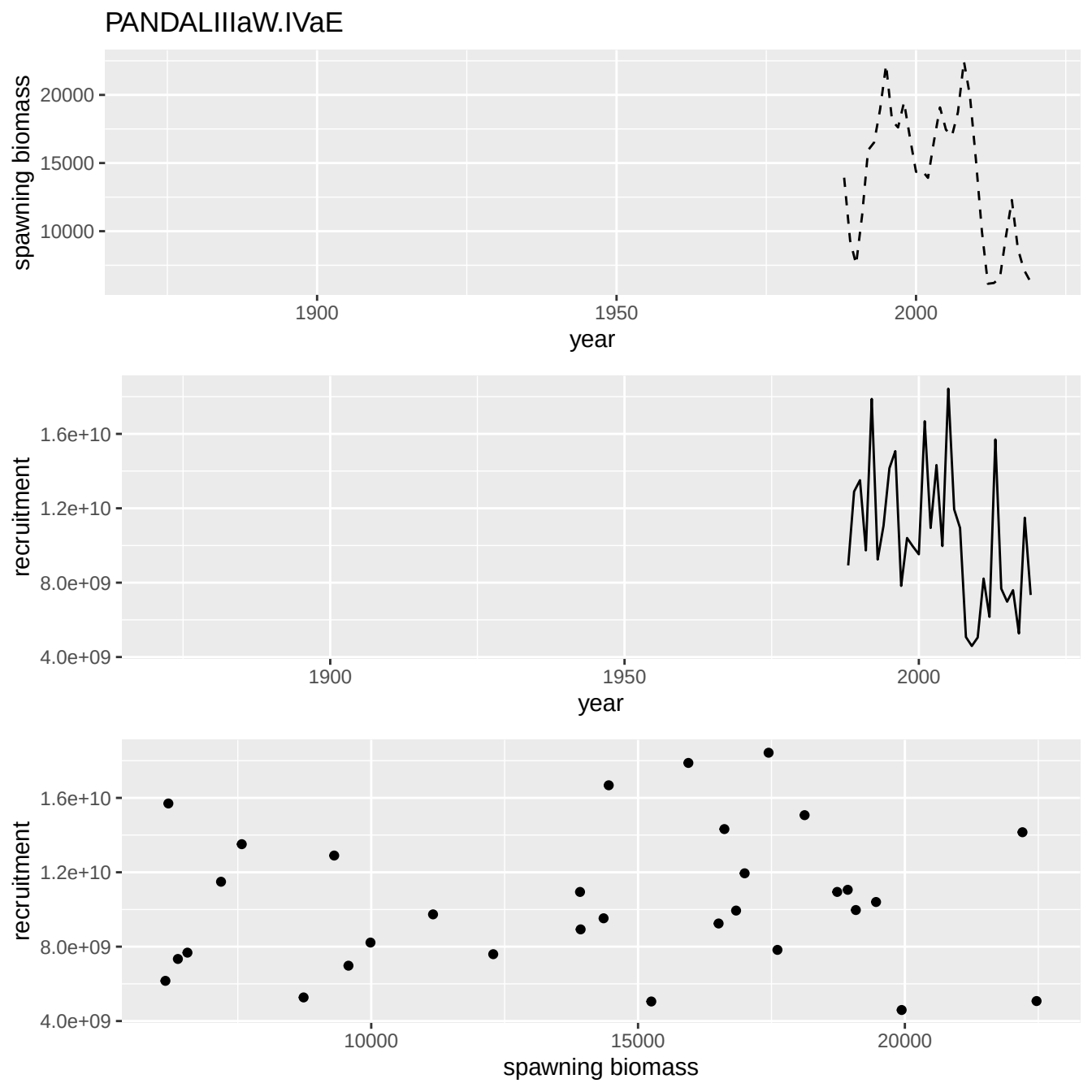

PACBTUNA
spawning biomass
150000
100000
50000
1900
1950
2000
year
recruitment
3e+07
2e+07
1e+07
1900
1950
2000
year
recruitment
3e+07
2e+07
1e+07
50000
100000
150000
spawning biomass


PANCHCCH
spawning biomass
120000
80000
40000
1900
1950
2000
year
recruitment
60000
40000
20000
1900
1950
2000
year
recruitment
60000
40000
20000
40000
80000
120000
spawning biomass

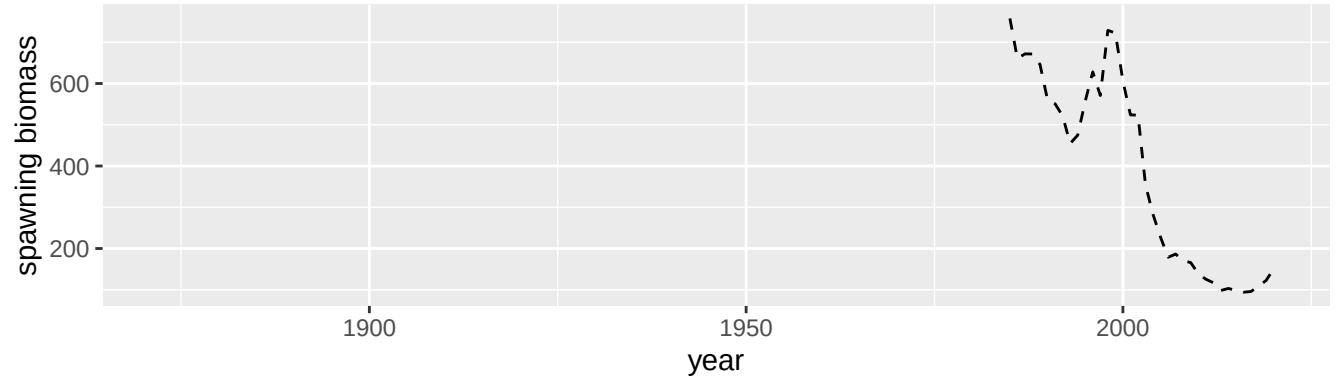

PANCHCSCH
spawning biomass
750000
500000
250000
1900
1950
2000
year
recruitment
120000
90000
60000
30000
1900
1950
2000
year
recruitment
120000
90000
60000
30000
250000
500000
750000
spawning biomass

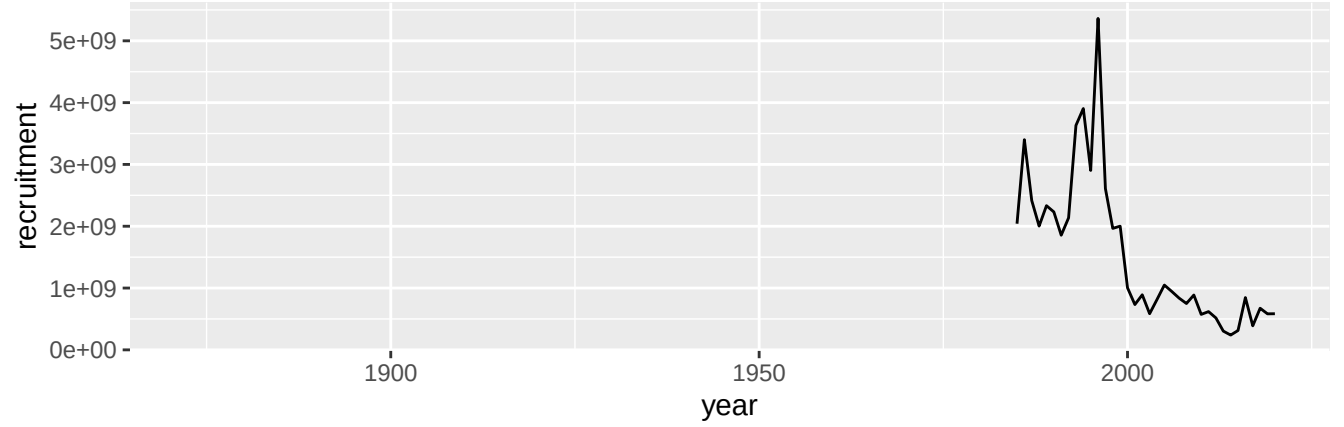

PANCHNCHSP
spawning biomass
2500000
2000000
1500000
1000000
500000
1900
1950
2000
year
recruitment
750000
500000
250000
0
1900
1950
2000
year
recruitment
750000
500000
250000
0
500000
1000000
1500000
2000000
2500000
spawning biomass

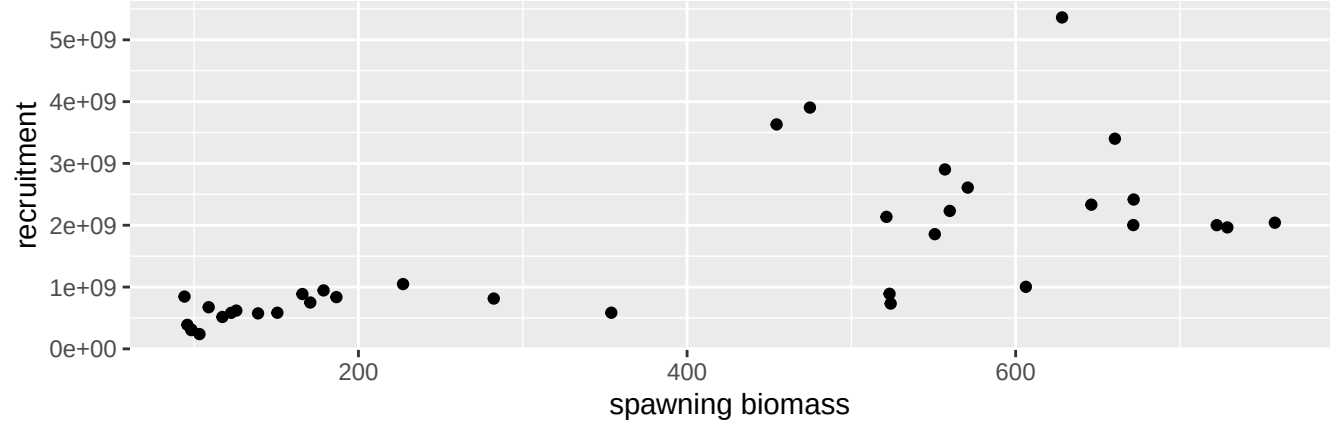

PANCHPERUNC
spawning biomass
1.2e+07
9.0e+06
6.0e+06
3.0e+06
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
3.0e+06
6.0e+06
9.0e+06
1.2e+
spawning biomass

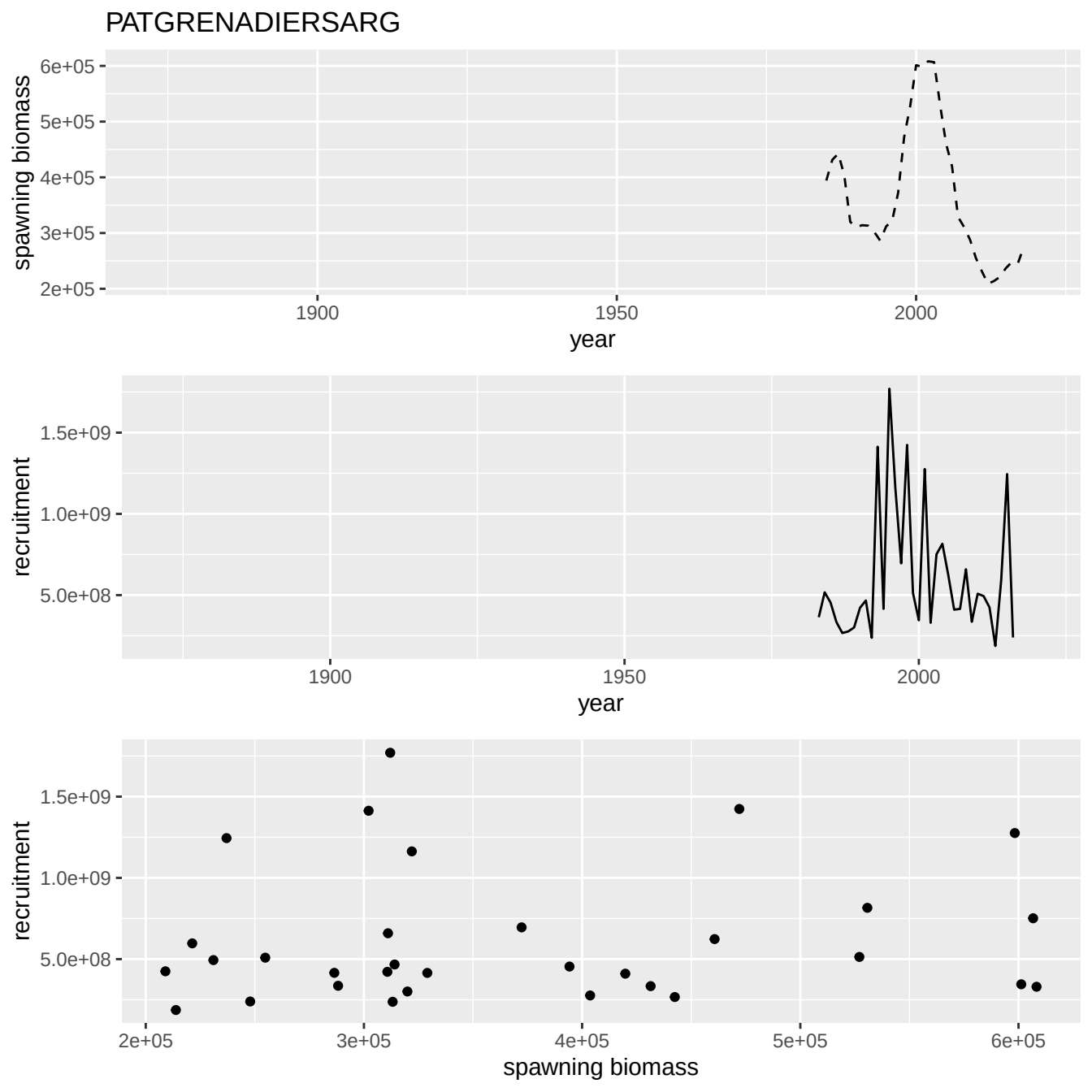

PANDALIIIaW.IVaE
spawning biomass
20000
15000
10000
1900
1950
2000
year
recruitment
1.6e+10
1.2e+10
8.0e+09
4.0e+09
1900
1950
2000
year
recruitment
1.6e+10
1.2e+10
8.0e+09
4.0e+09
10000
15000
20000
spawning biomass

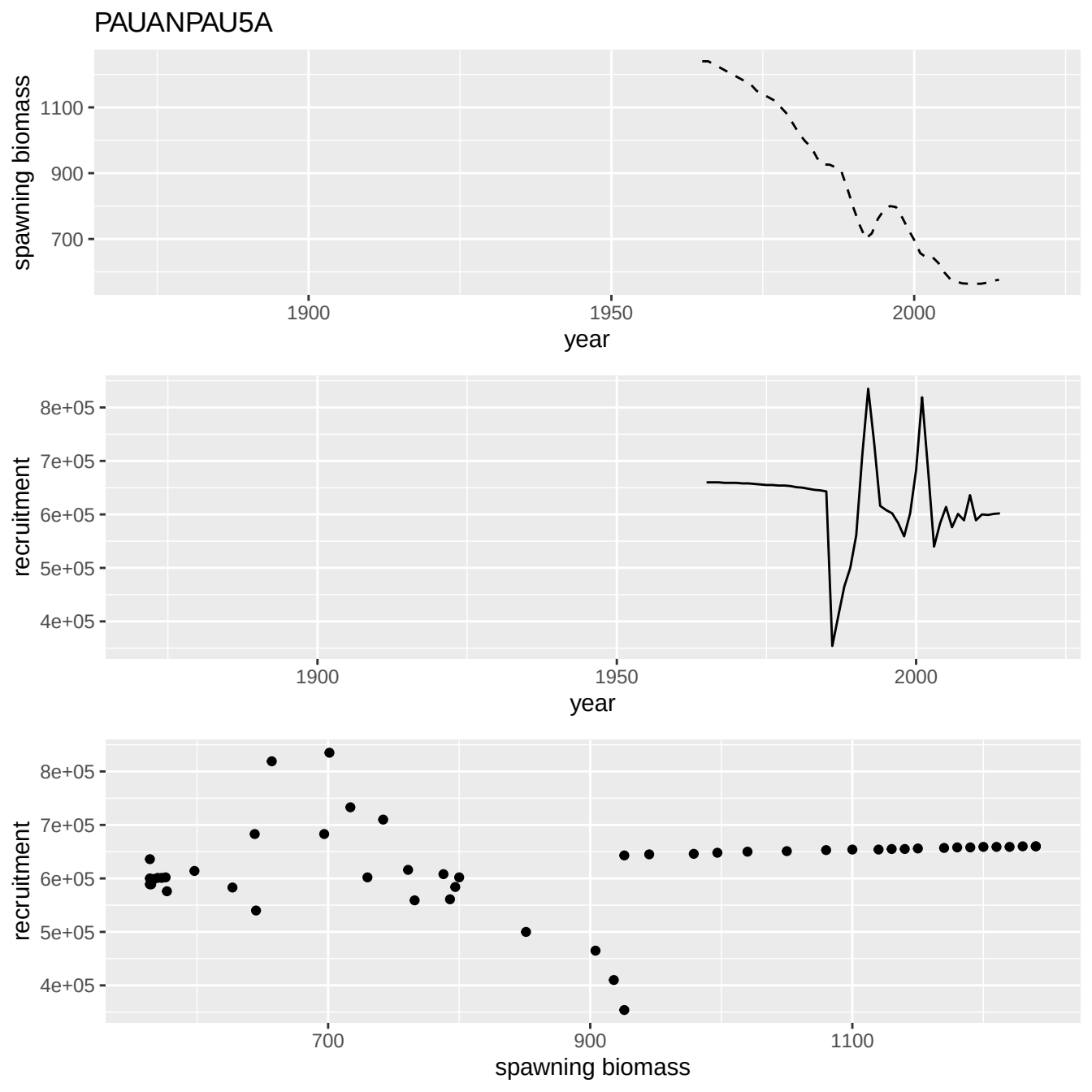
PATGRENADIERCH

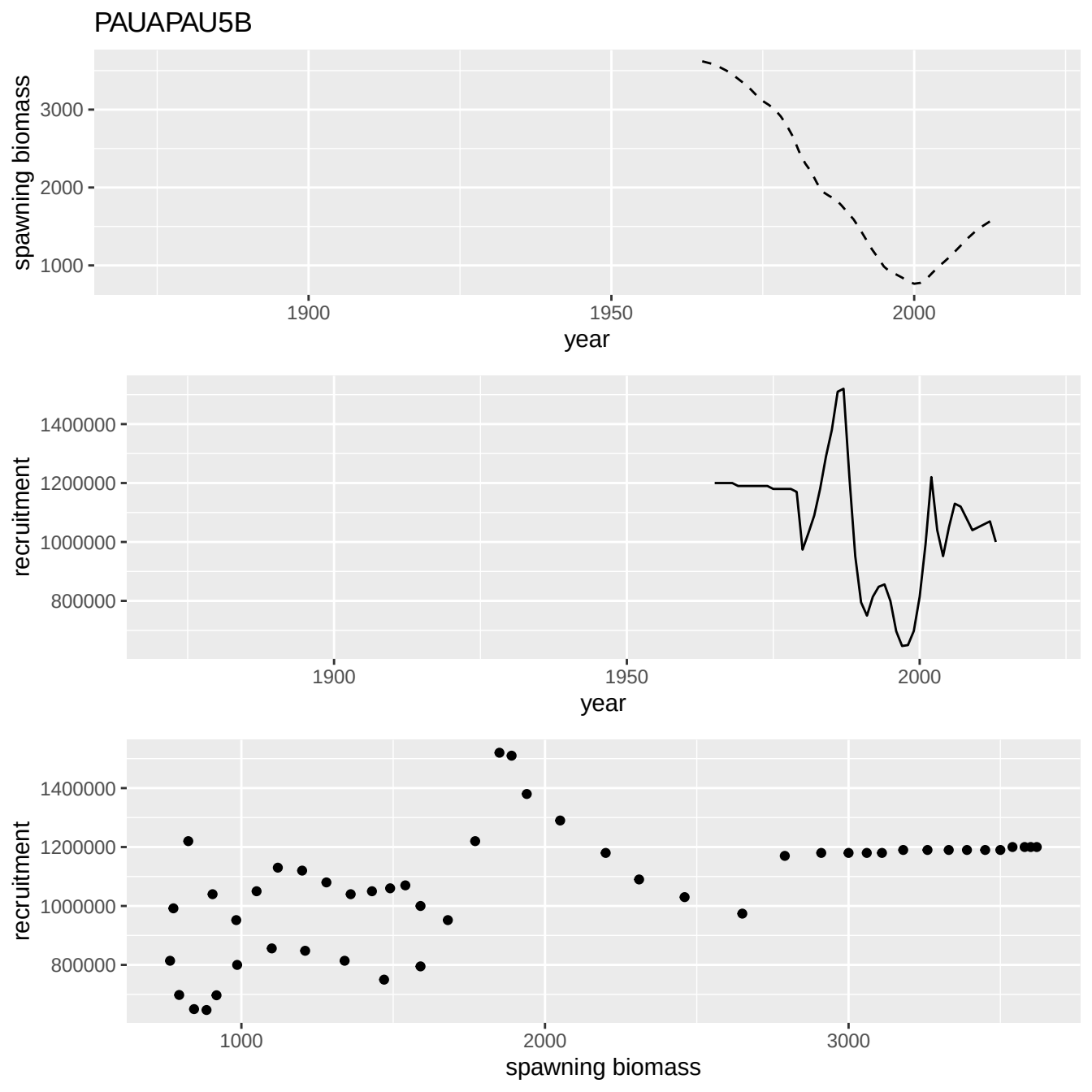


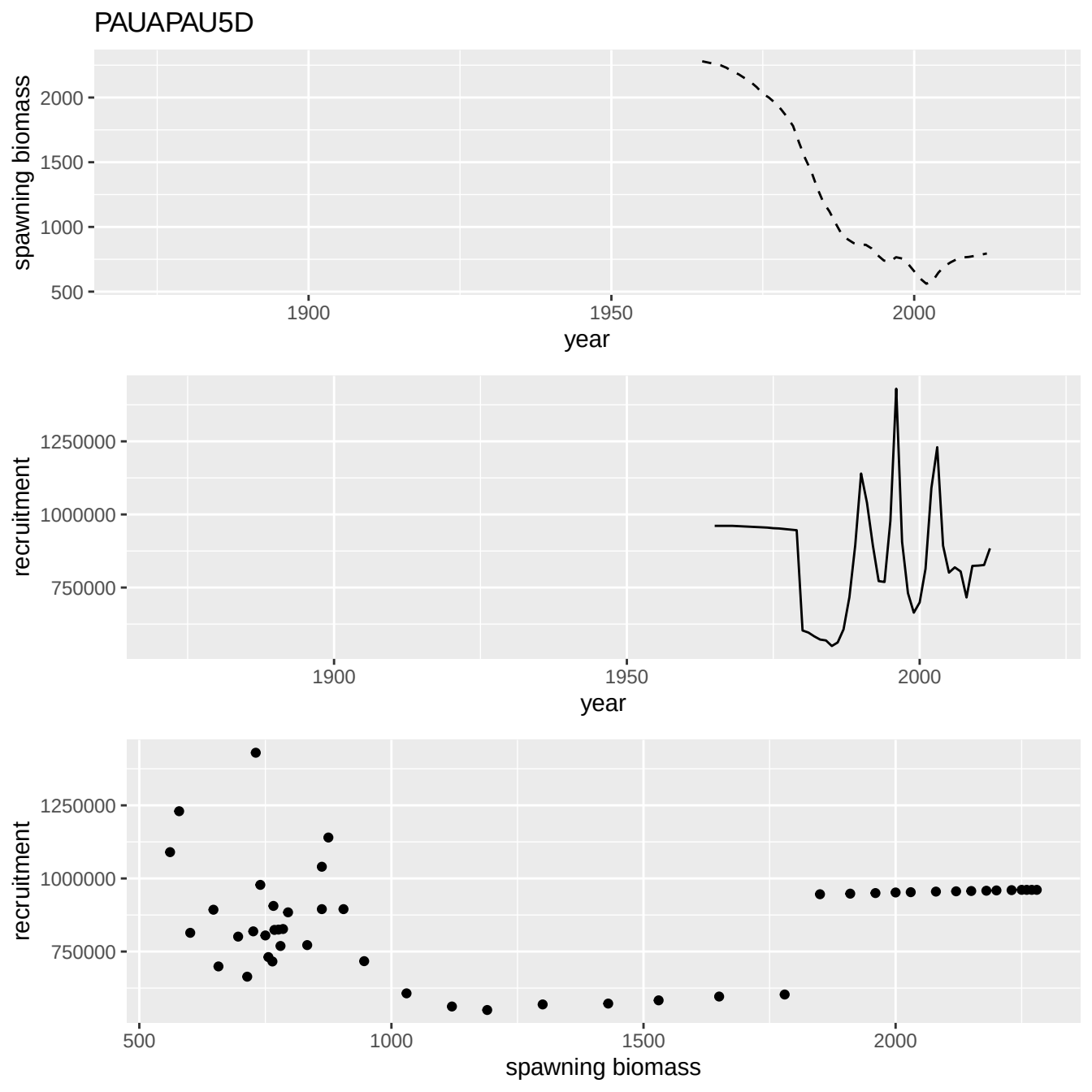


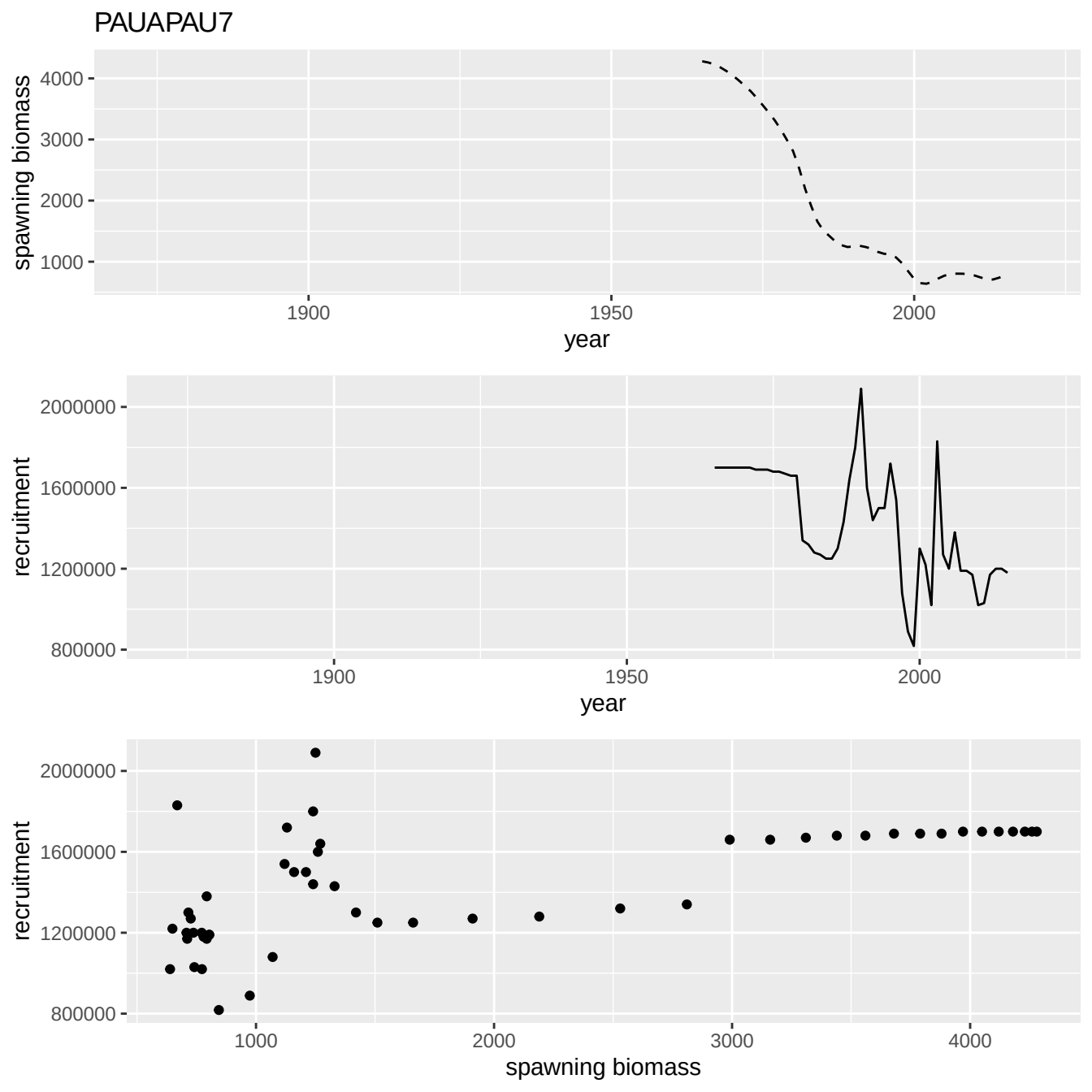


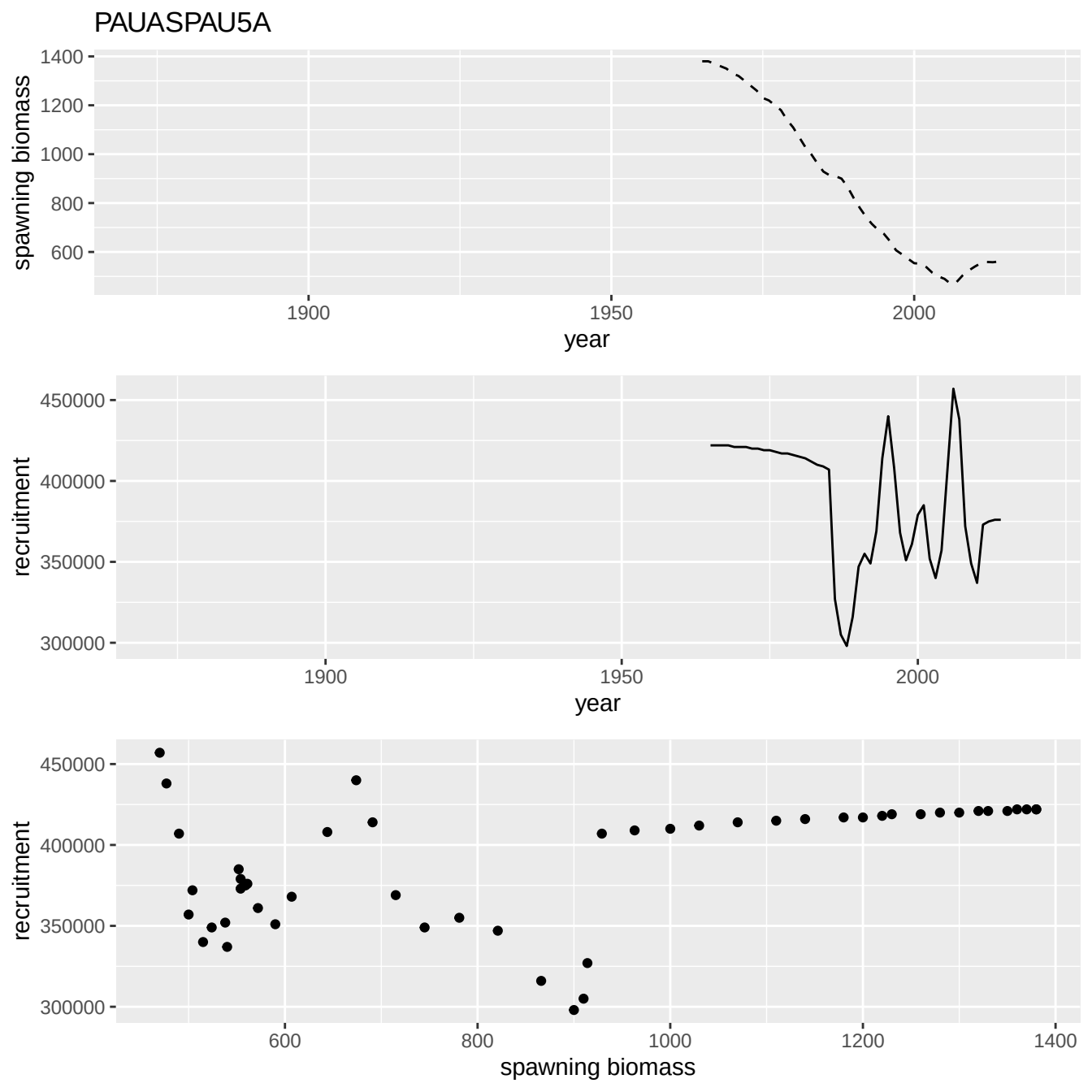

PATGRENADIERSARG
spawning biomass
6e+05
5e+05
4e+05
3e+05
2e+05
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
2e+05
3e+05
4e+05
5e+05
6e+05
spawning biomass

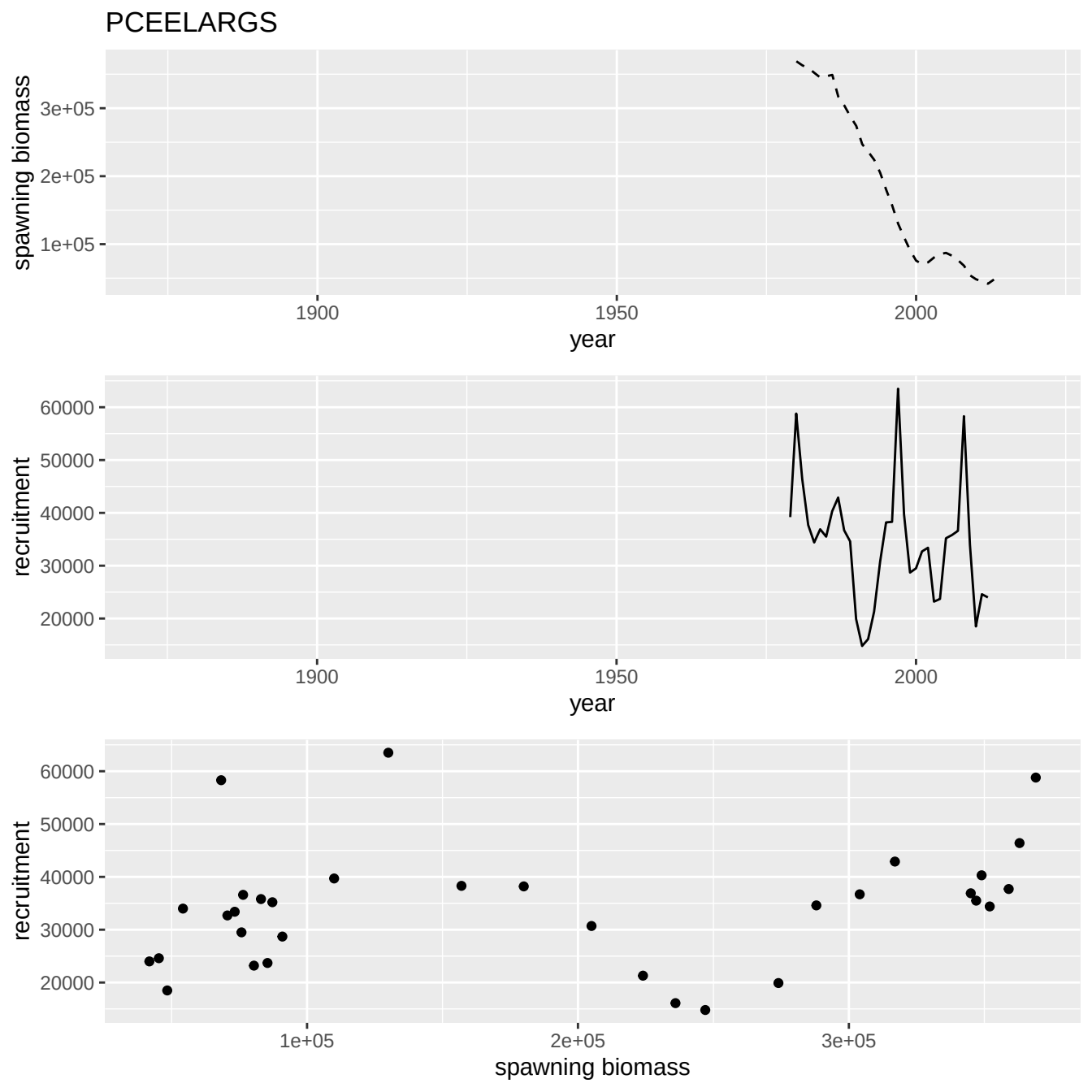

PAUANPAU5A
spawning biomass
1100
900
700
1900
1950
2000
year
recruitment
8e+05
7e+05
6e+05
5e+05
4e+05
1900
1950
2000
year
recruitment
8e+05
7e+05
6e+05
5e+05
4e+05
700
900
1100
spawning biomass

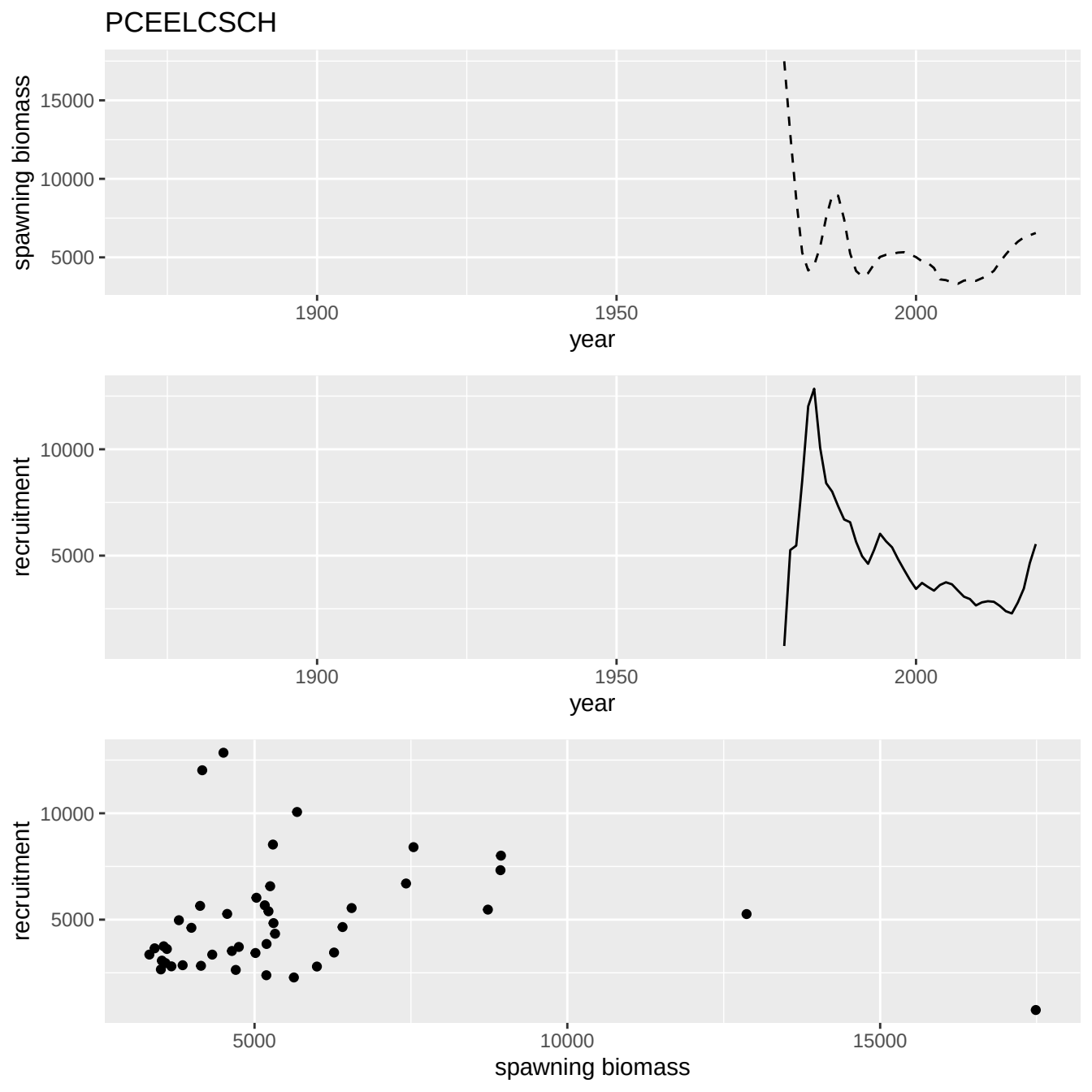

PAUAPAU5B
spawning biomass
3000
2000
1000
1900
1950
2000
year
recruitment
1400000
1200000
1000000
800000
1900
1950
2000
year
recruitment
1400000
1200000
1000000
800000
1000
2000
3000
spawning biomass

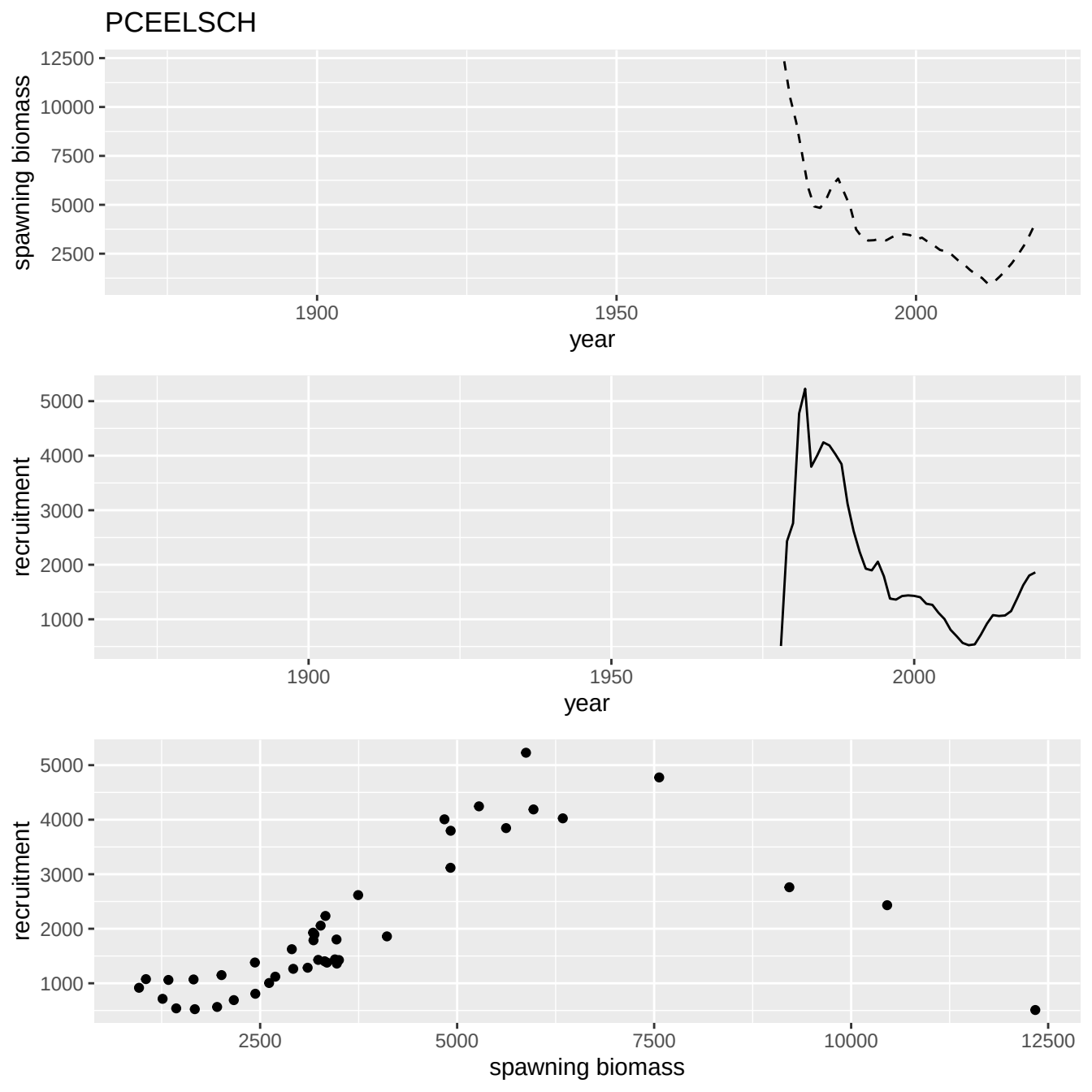

PAUAPAU5D
spawning biomass
2000
1500
1000
500
1900
1950
2000
year
recruitment
1250000
1000000
750000
1900
1950
2000
year
recruitment
1250000
1000000
750000
500
1000
1500
2000
spawning biomass

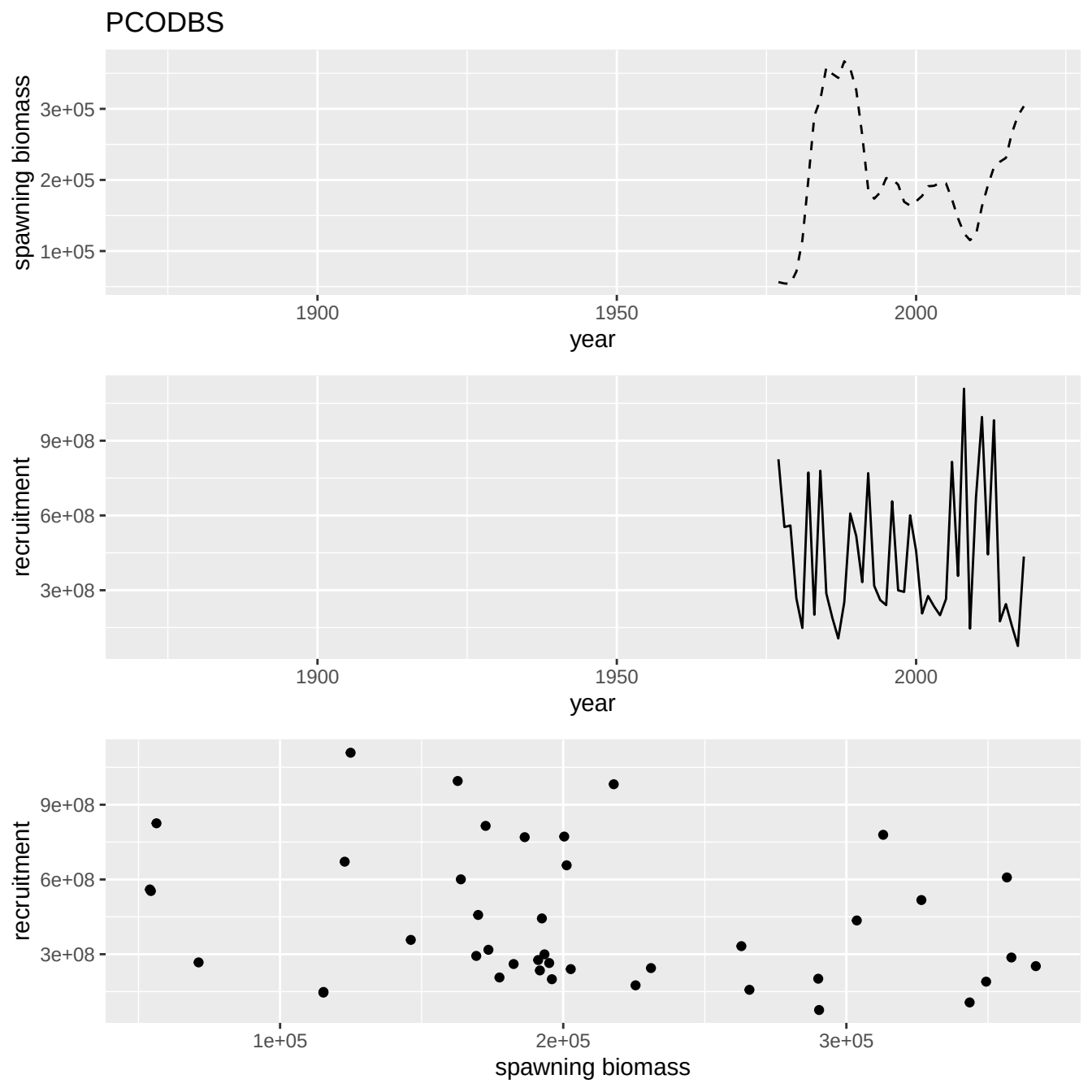

PAUAPAU7
spawning biomass
4000
3000
2000
1000
1900
1950
2000
year
recruitment
2000000
1600000
1200000
800000
1900
1950
2000
year
recruitment
2000000
1600000
1200000
800000
1000
2000
3000
4000
spawning biomass

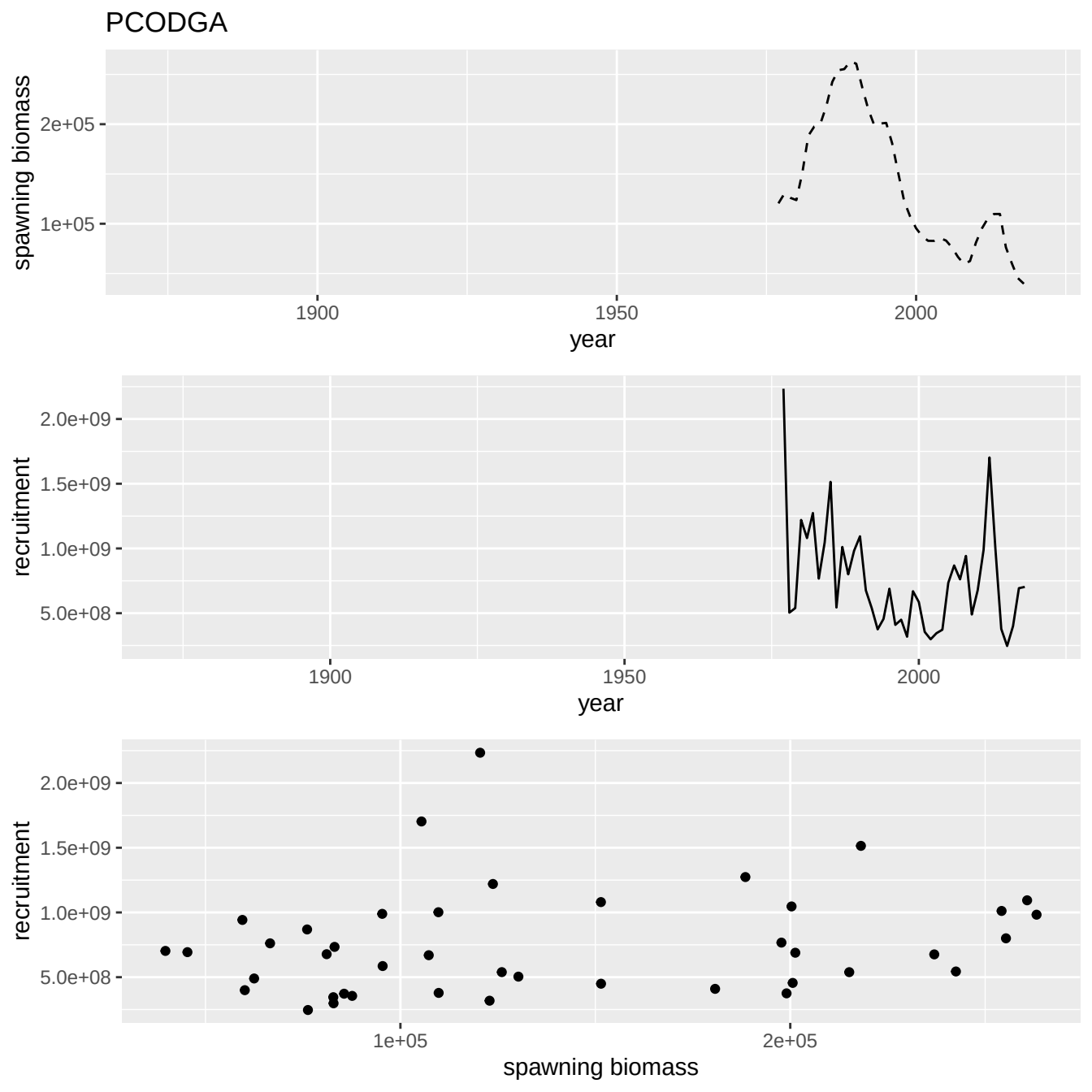

PAUASPAU5A
spawning biomass
1400
1200
1000
800
600
1900
1950
2000
year
recruitment
450000
400000
350000
300000
1900
1950
2000
year
recruitment
450000
400000
350000
300000
600
800
1000
1200
1400
spawning biomass

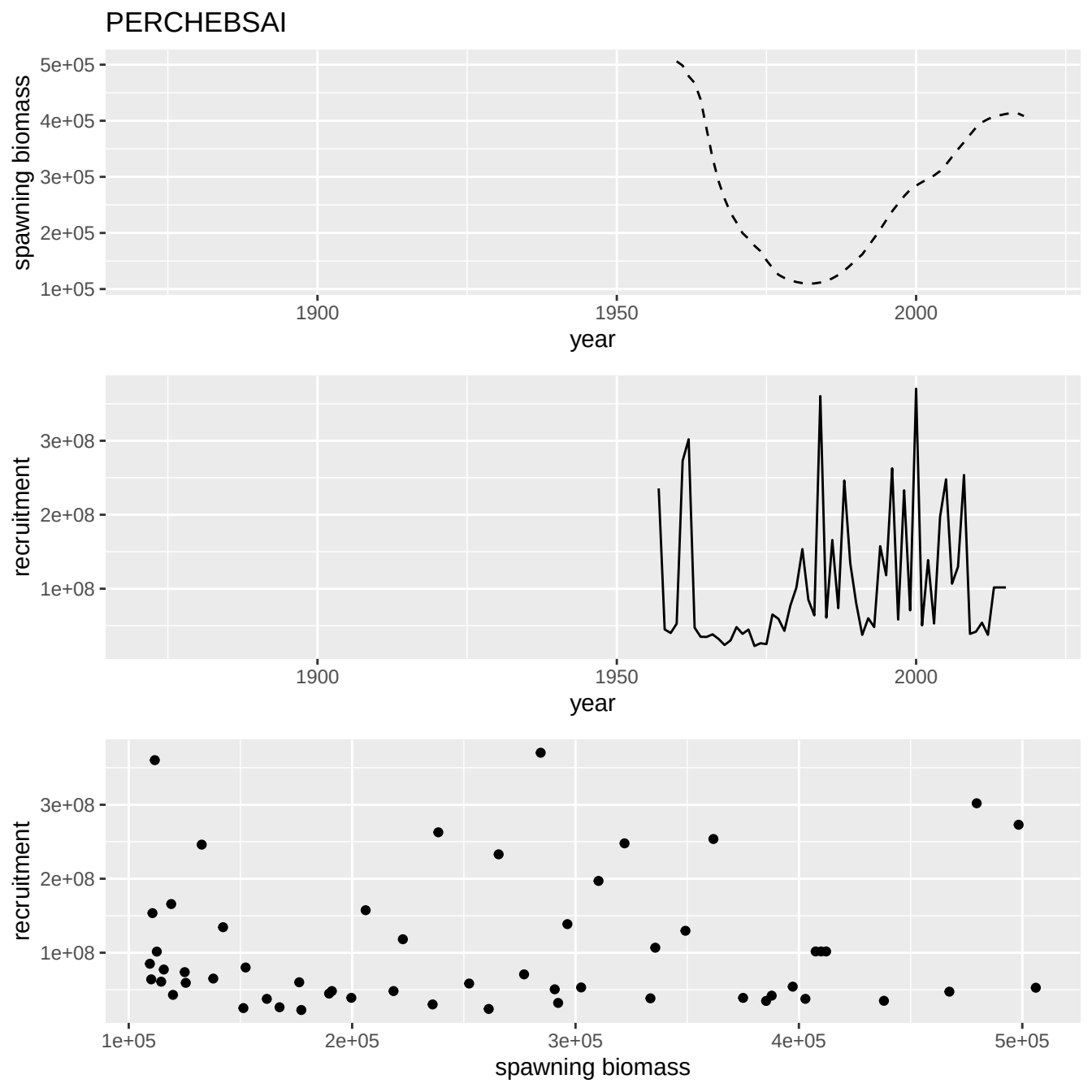

PCEELARGS
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
60000
50000
40000
30000
20000
1900
1950
2000
year
recruitment
60000
50000
40000
30000
20000
1e+05
2e+05
3e+05
spawning biomass

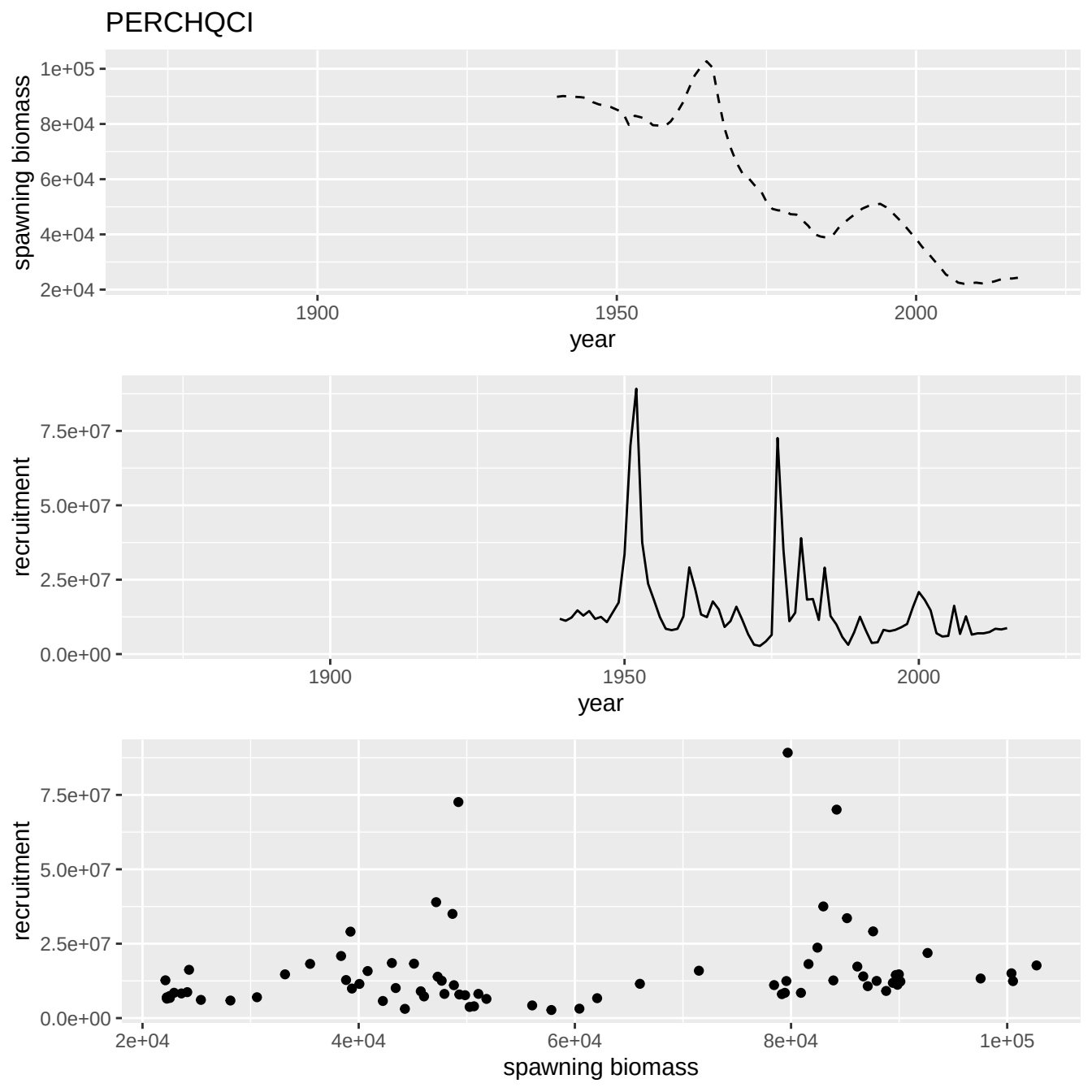

PCEELCSCH
spawning biomass
15000
10000
5000
1900
1950
2000
year
recruitment
10000
5000
1900
1950
2000
year
recruitment
10000
5000
5000
10000
15000
spawning biomass

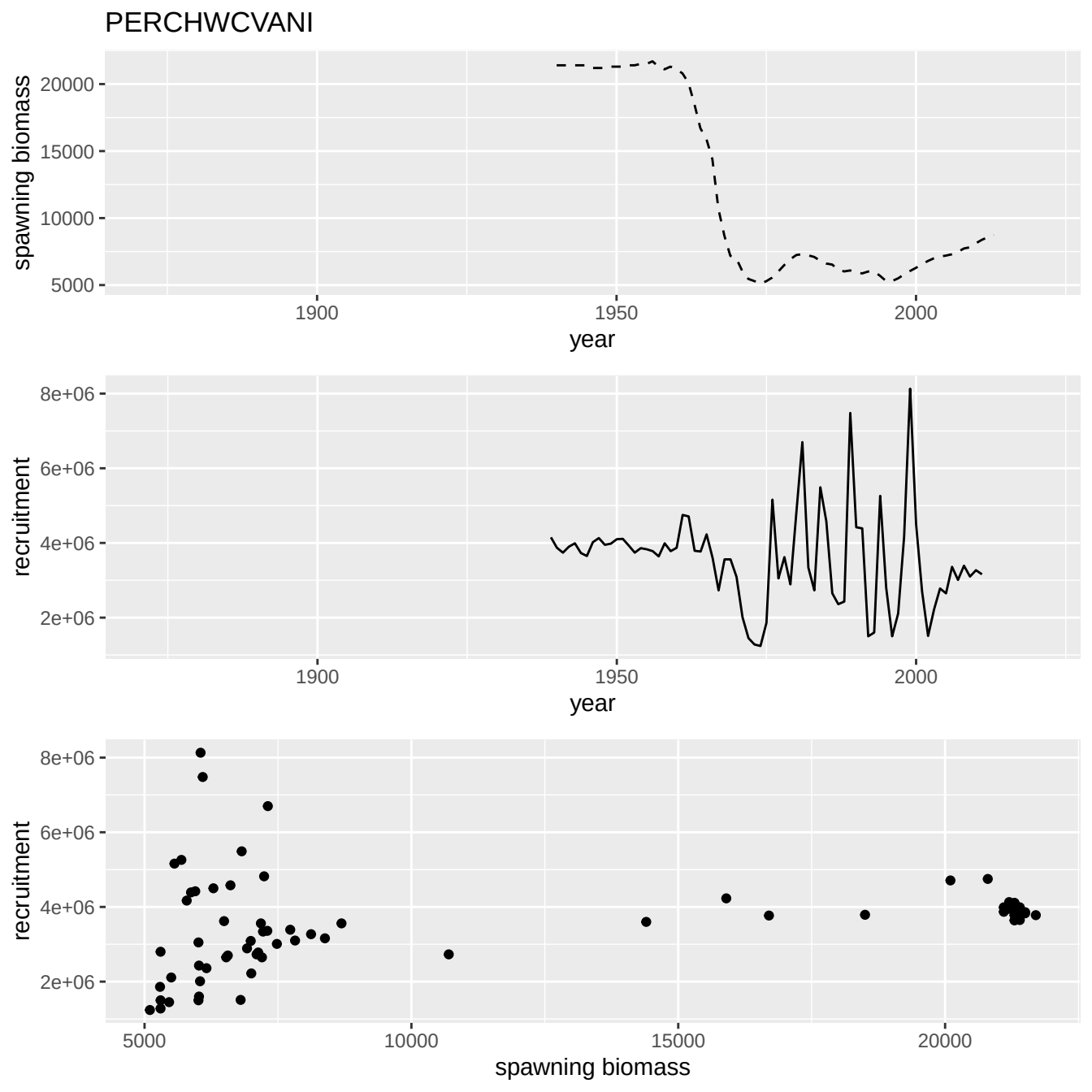

PCEELSCH
spawning biomass
12500
10000
7500
5000
2500
1900
1950
2000
year
recruitment
5000
4000
3000
2000
1000
1900
1950
2000
year
recruitment
5000
4000
3000
2000
1000
2500
5000
7500
10000
12500
spawning biomass

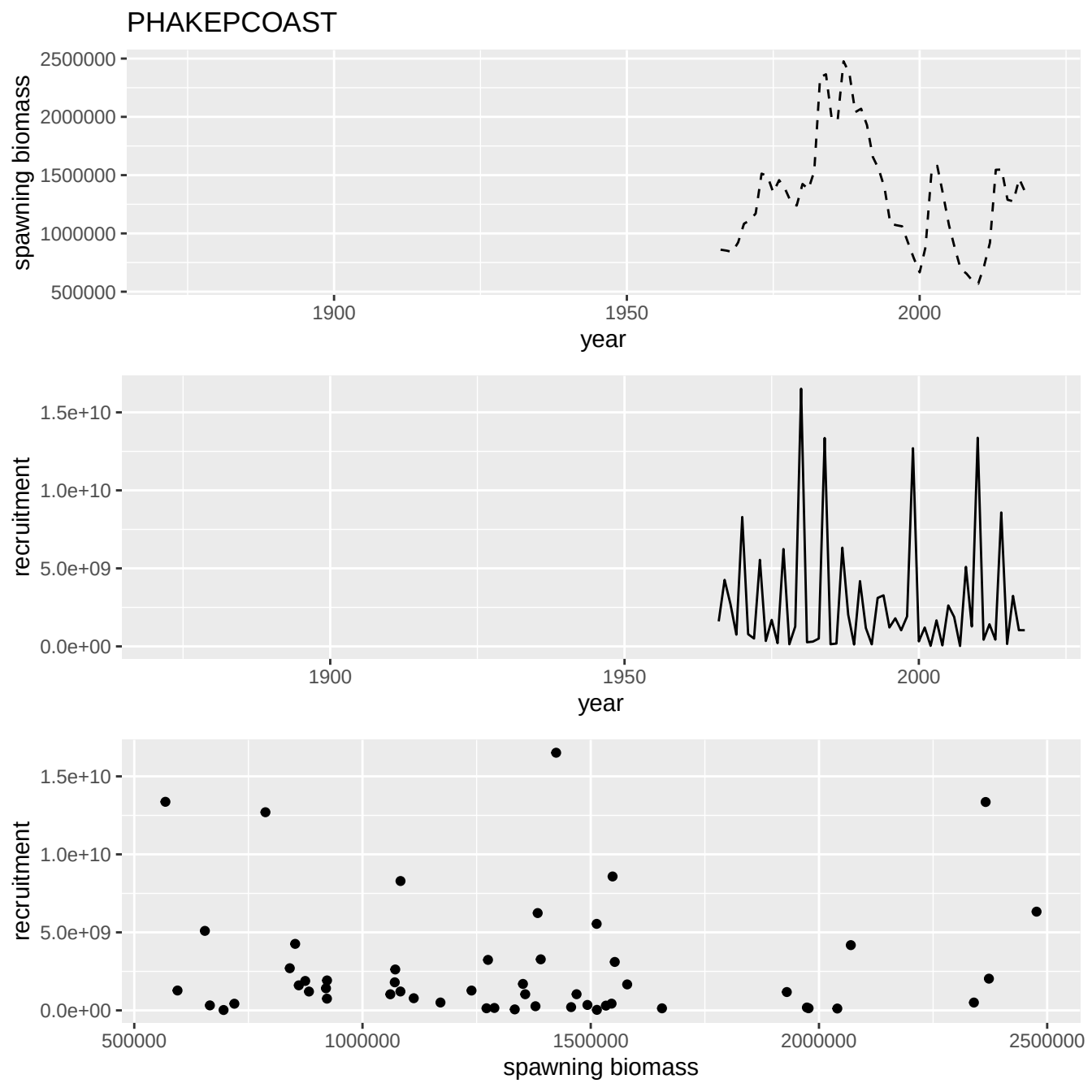

PCODBS
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
9e+08
6e+08
3e+08
1900
1950
2000
year
recruitment
9e+08
6e+08
3e+08
1e+05
2e+05
3e+05
spawning biomass

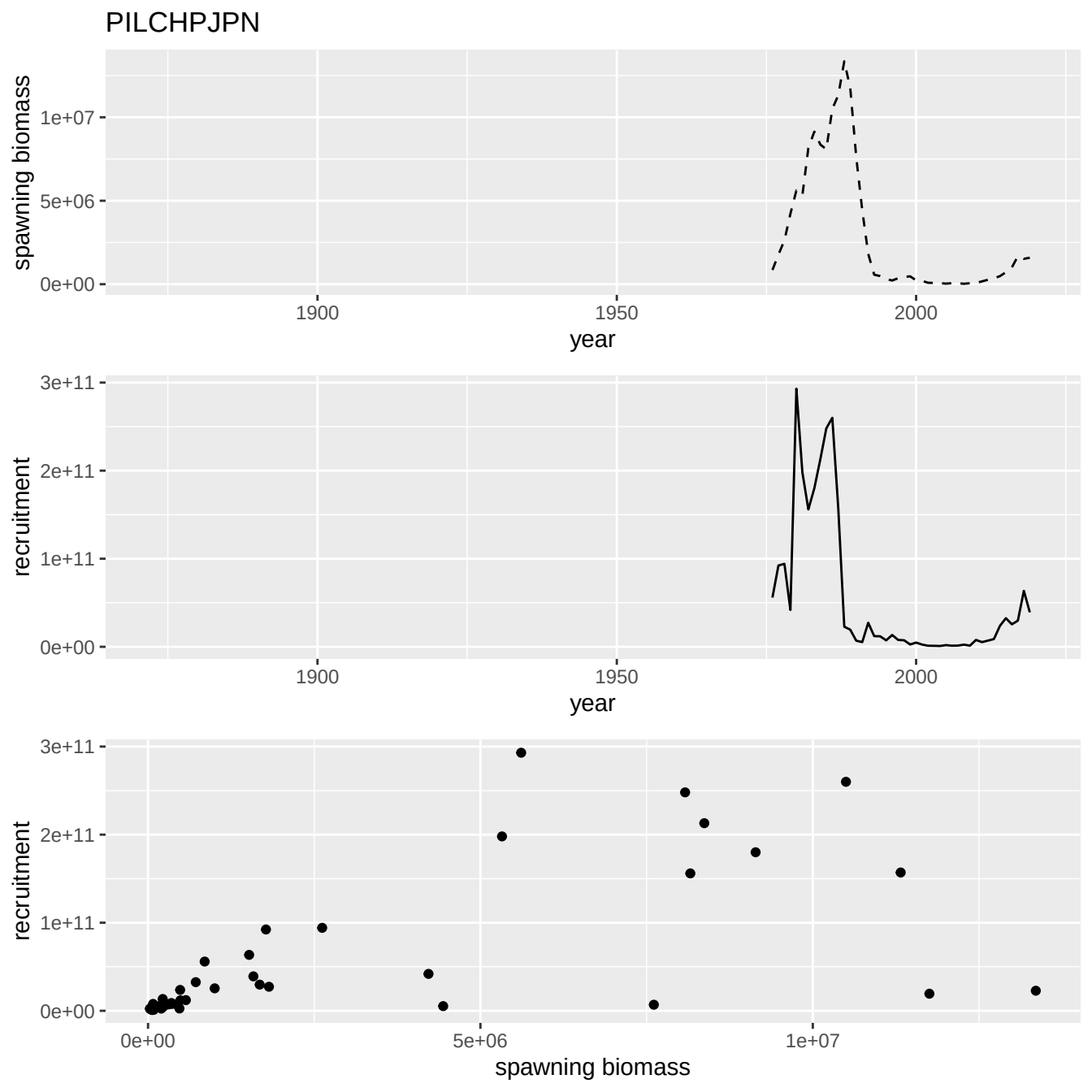

PCODGA
spawning biomass
2e+05
1e+05
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
1e+05
2e+05
spawning biomass

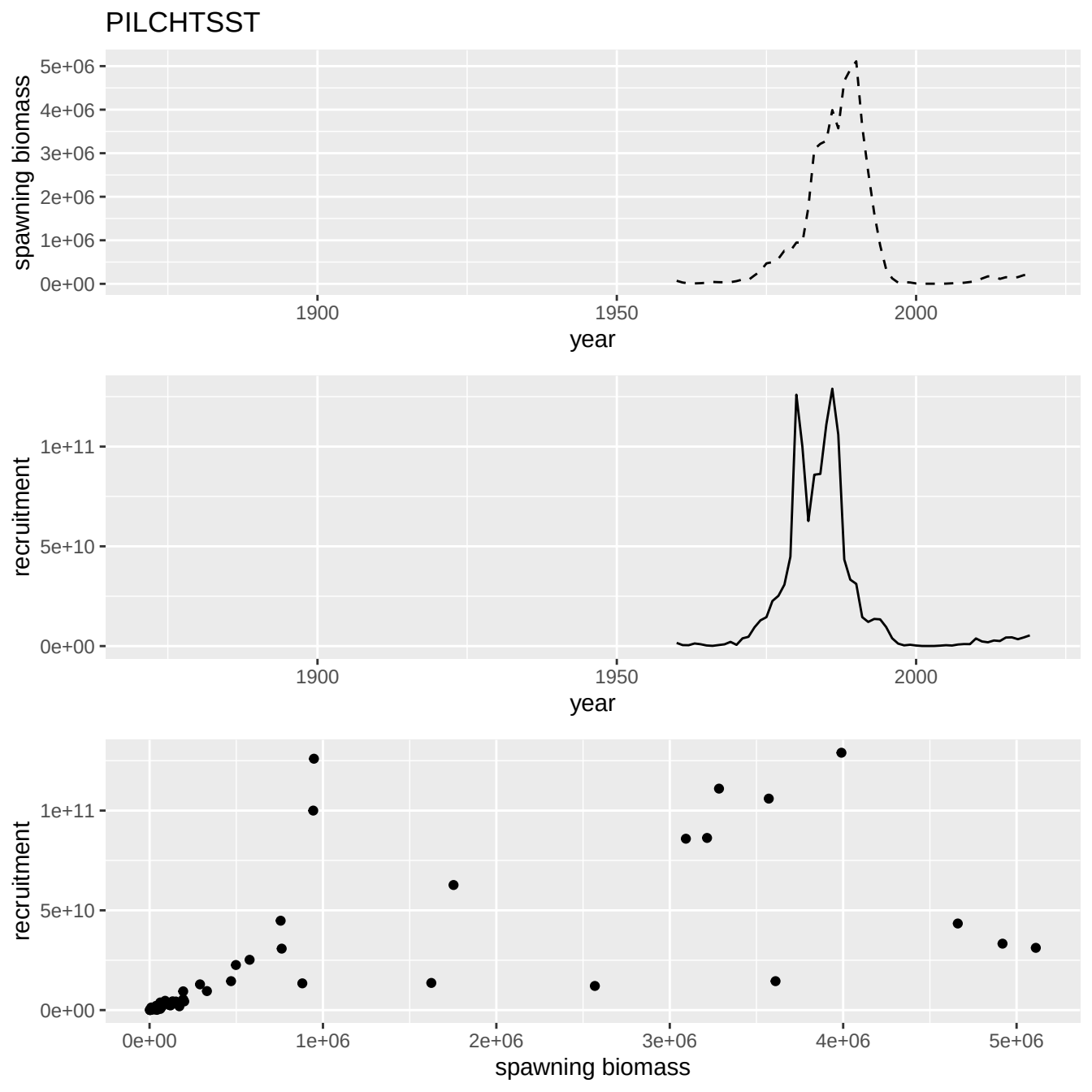

PERCHEBSAI
spawning biomass
5e+05
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
1e+05
2e+05
3e+05
4e+05
5e+05
spawning biomass

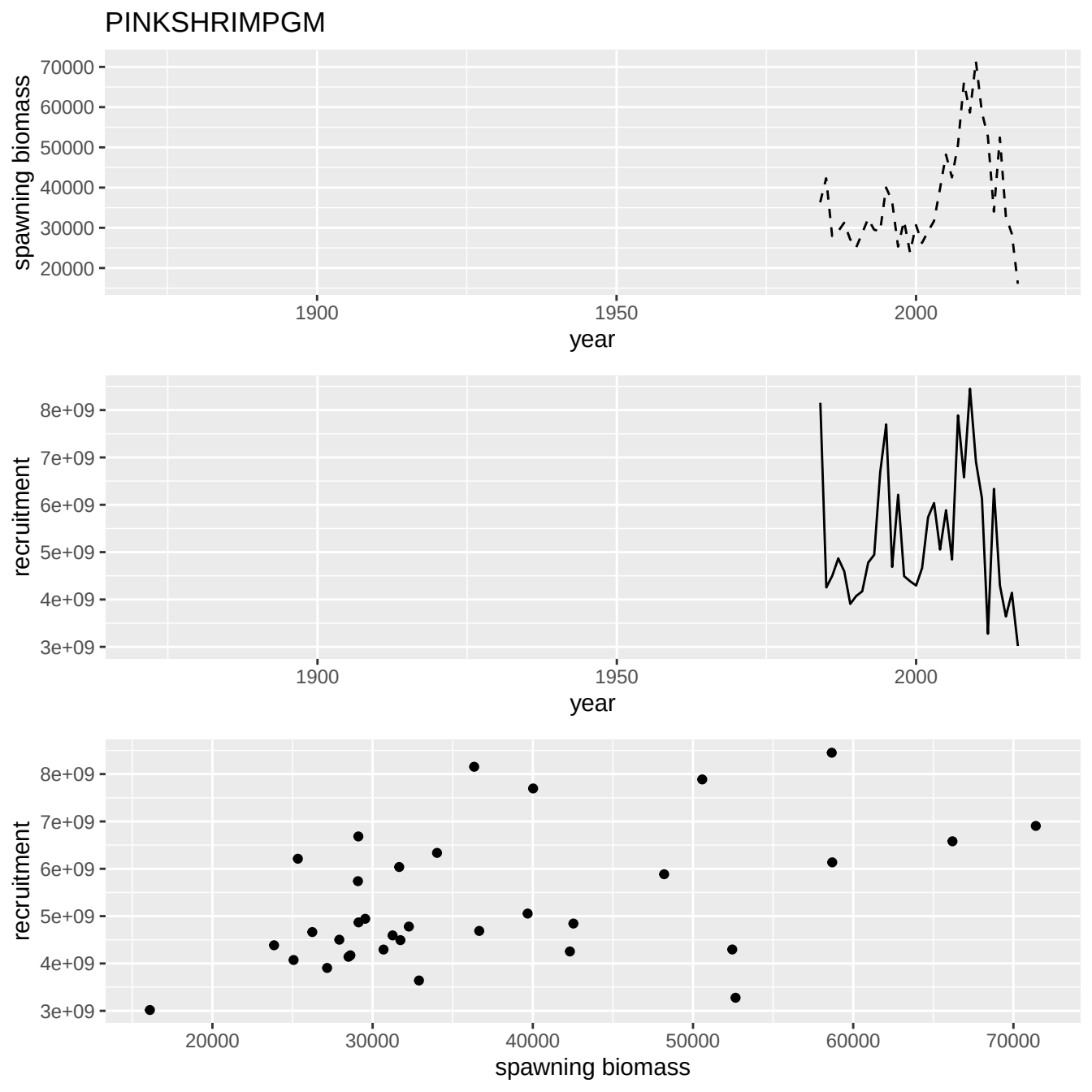

PERCHQCI
spawning biomass
1e+05
8e+04
6e+04
4e+04
2e+04
1900
1950
2000
year
recruitment
7.5e+07
5.0e+07
2.5e+07
0.0e+00
1900
1950
2000
year
recruitment
7.5e+07
5.0e+07
2.5e+07
0.0e+00
2e+04
4e+04
6e+04
8e+04
1e+05
spawning biomass

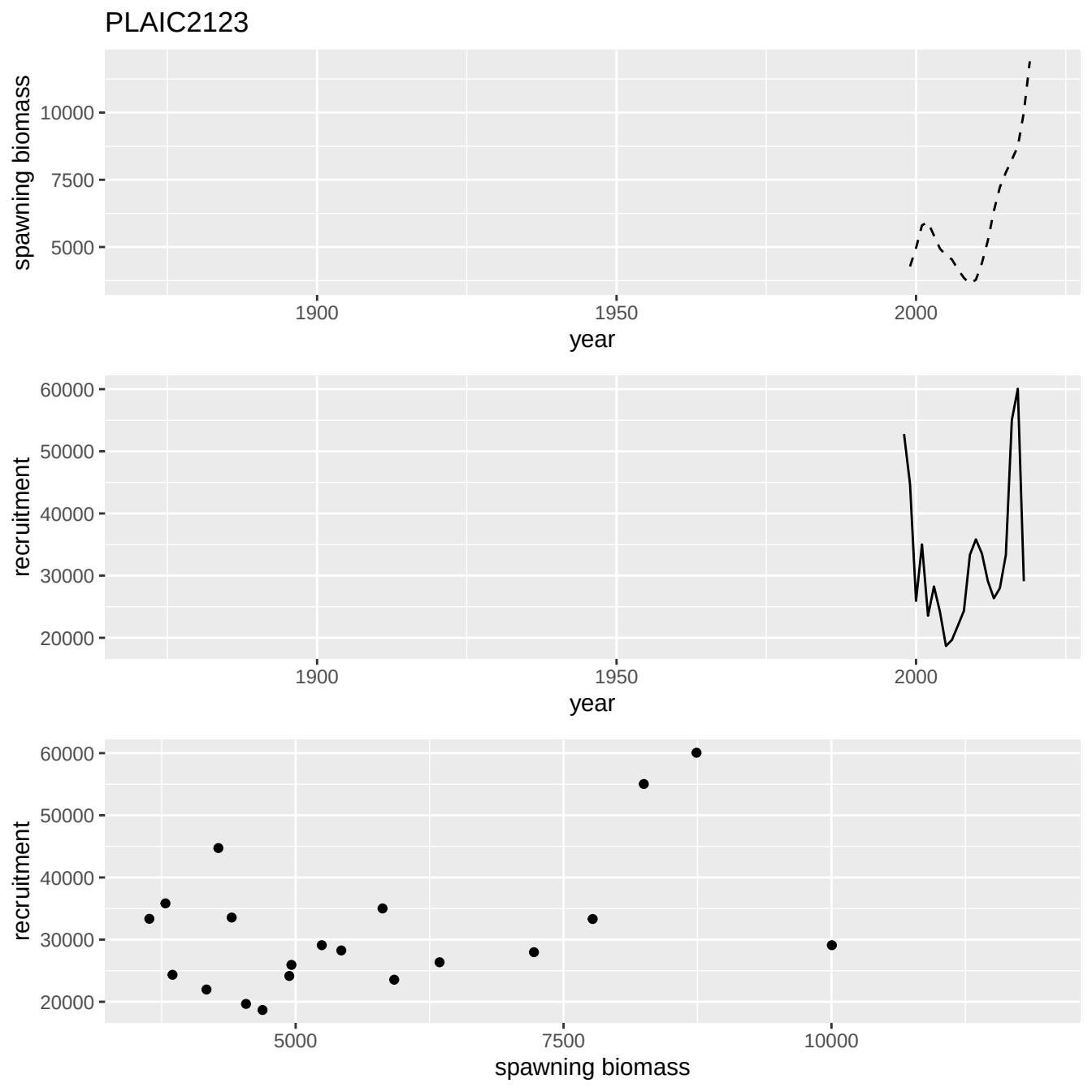

PERCHWCVANI
spawning biomass
20000
15000
10000
5000
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
5000
10000
15000
20000
spawning biomass

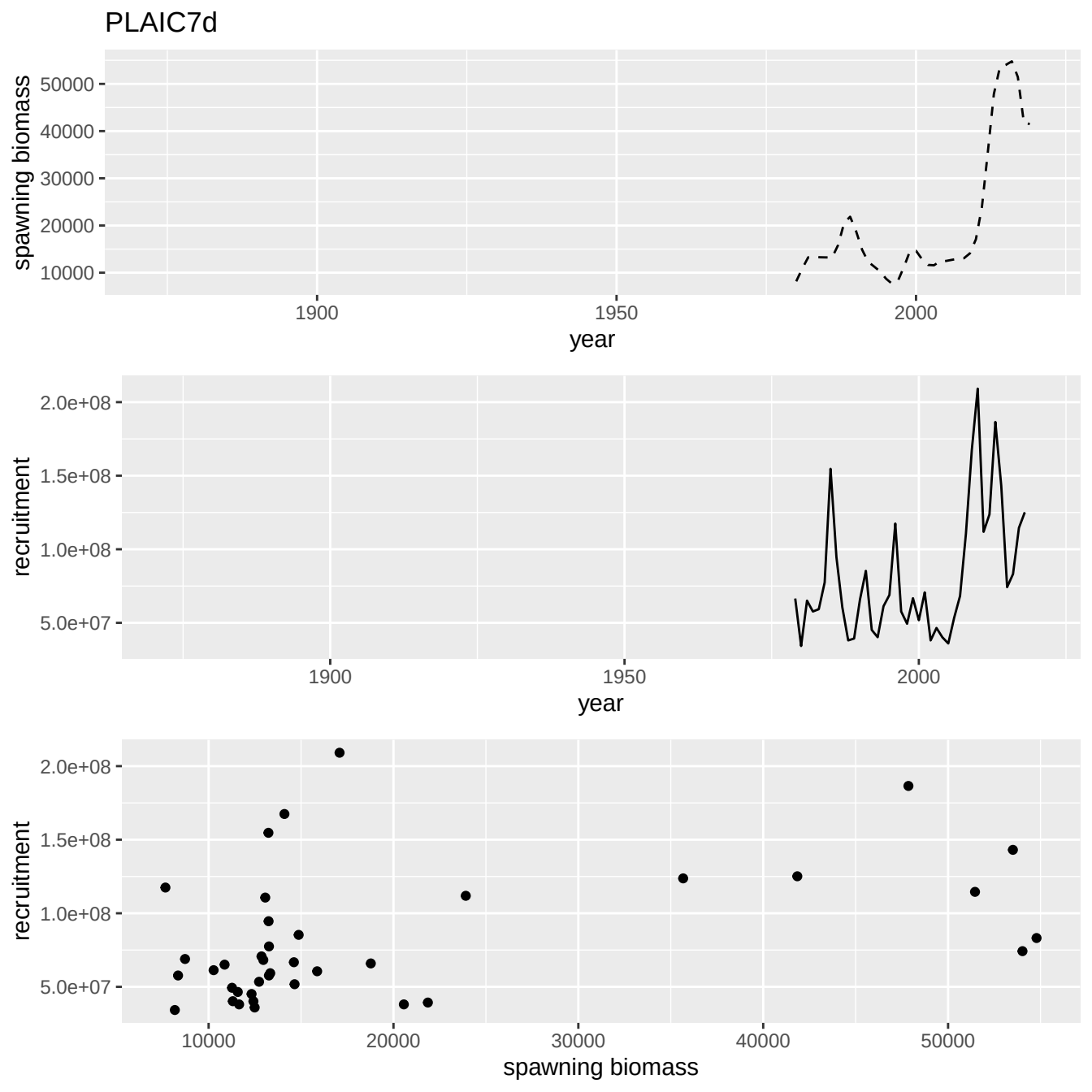

PHAKEPCOAST
spawning biomass
2500000
2000000
1500000
1000000
500000
1900
1950
2000
year
recruitment
1.5e+10
1.0e+10
5.0e+09
0.0e+00
1900
1950
2000
year
recruitment
1.5e+10
1.0e+10
5.0e+09
0.0e+00
500000
1000000
1500000
2000000
2500000
spawning biomass

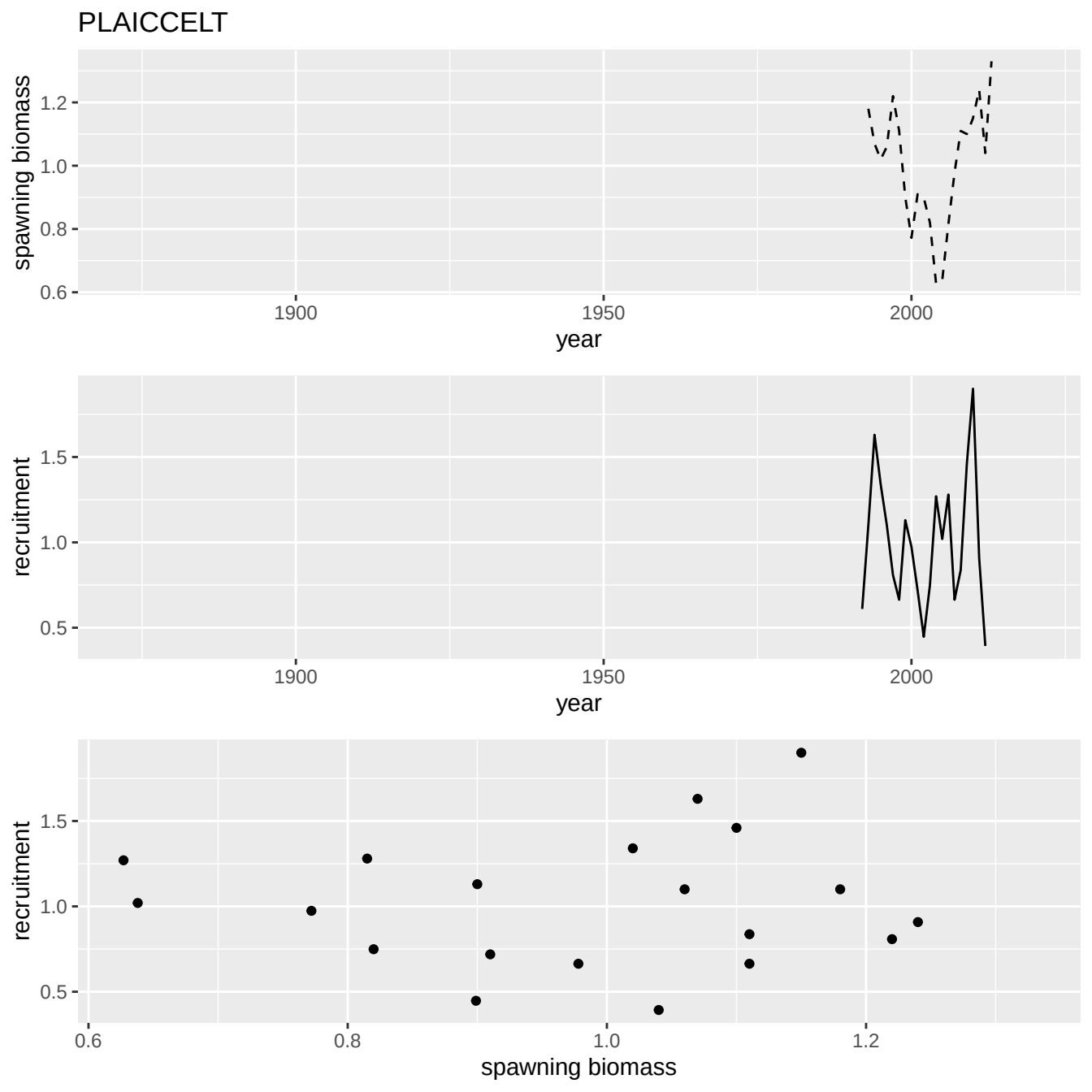

PILCHPJPN
spawning biomass
1e+07
5e+06
0e+00
1900
1950
2000
year
recruitment
3e+11
2e+11
1e+11
0e+00
1900
1950
2000
year
recruitment
3e+11
2e+11
1e+11
0e+00
0e+00
5e+06
1e+07
spawning biomass

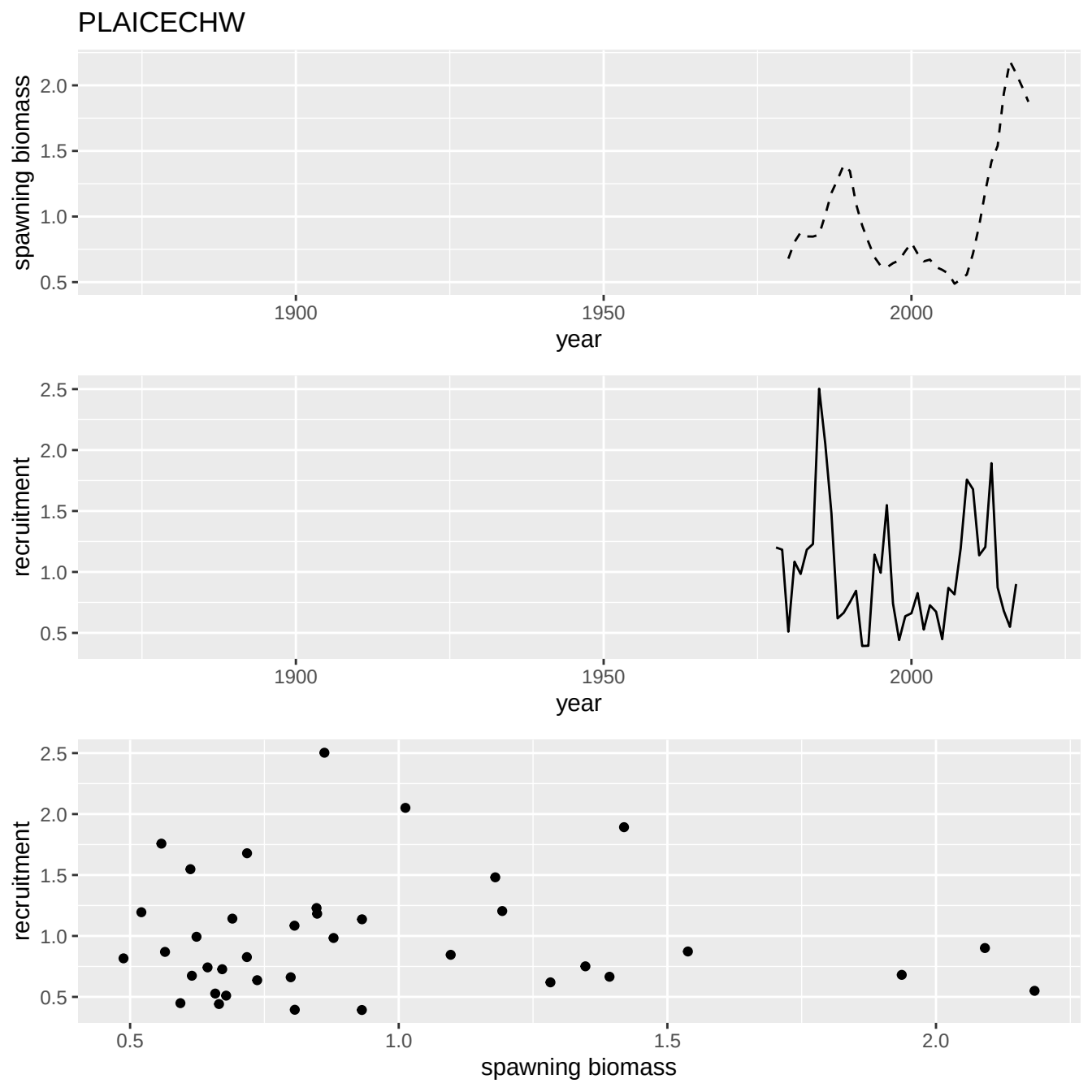

PILCHTSST
spawning biomass
5e+06
4e+06
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
1e+11
5e+10
0e+00
1900
1950
2000
year
recruitment
1e+11
5e+10
0e+00
0e+00
1e+06
2e+06
3e+06
4e+06
5e+06
spawning biomass

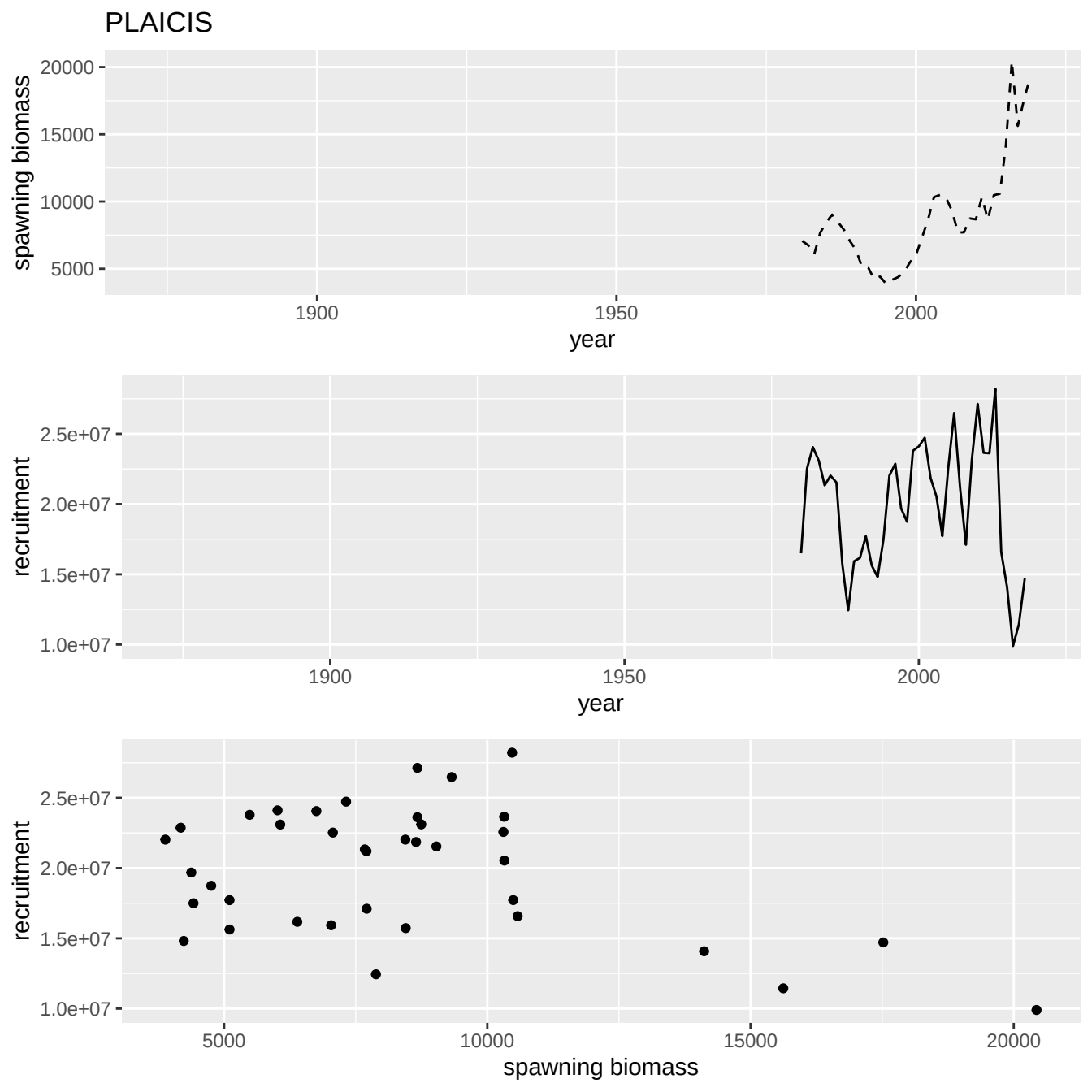

PINKSHRIMPGM
spawning biomass
70000
60000
50000
40000
30000
20000
1900
1950
2000
year
recruitment
8e+09
7e+09
6e+09
5e+09
4e+09
3e+09
1900
1950
2000
year
recruitment
8e+09
7e+09
6e+09
5e+09
4e+09
3e+09
20000
30000
40000
50000
60000
70000
spawning biomass

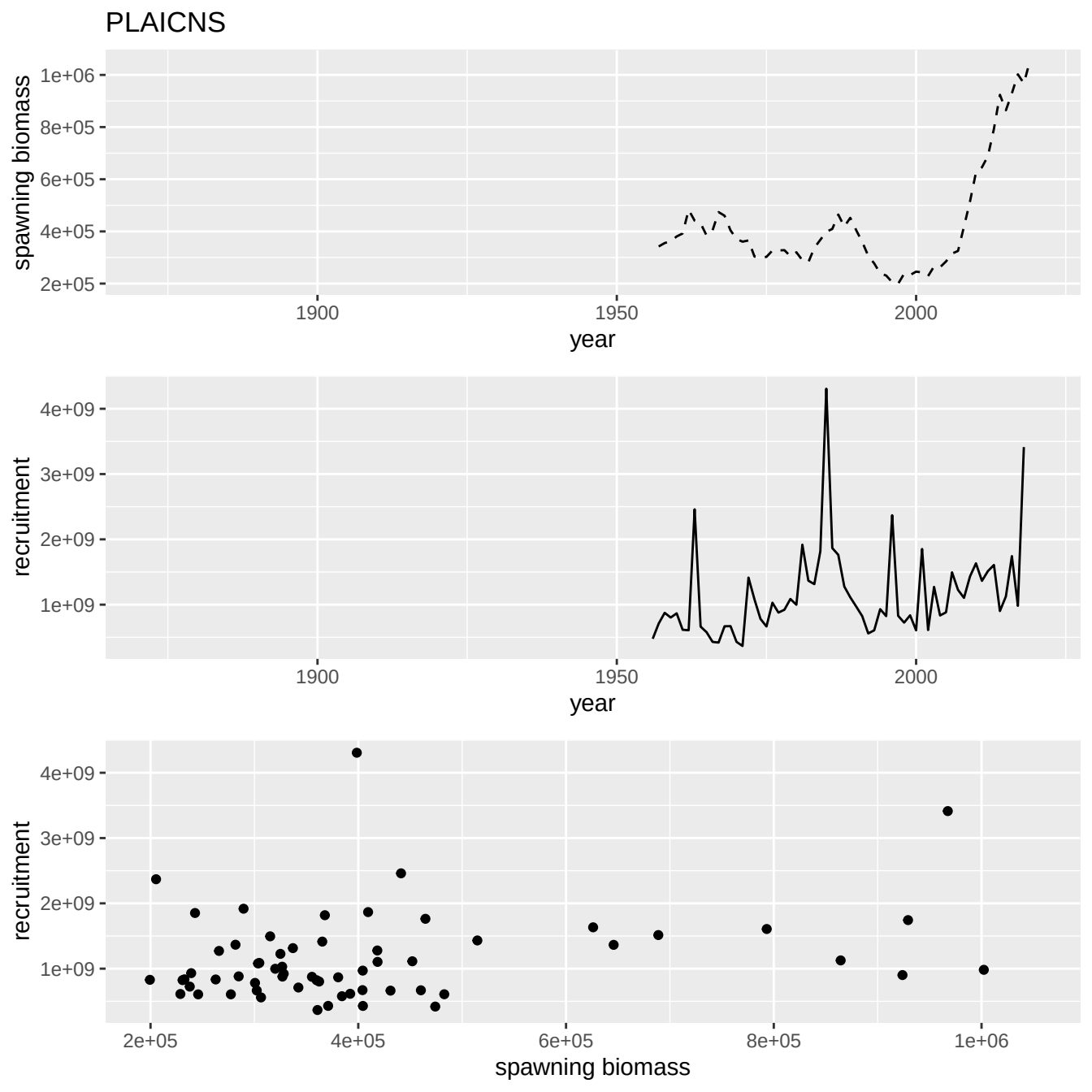

PLAIC2123
spawning biomass
10000
7500
5000
1900
1950
2000
year
recruitment
60000
50000
40000
30000
20000
1900
1950
2000
year
recruitment
60000
50000
40000
30000
20000
5000
7500
10000
spawning biomass

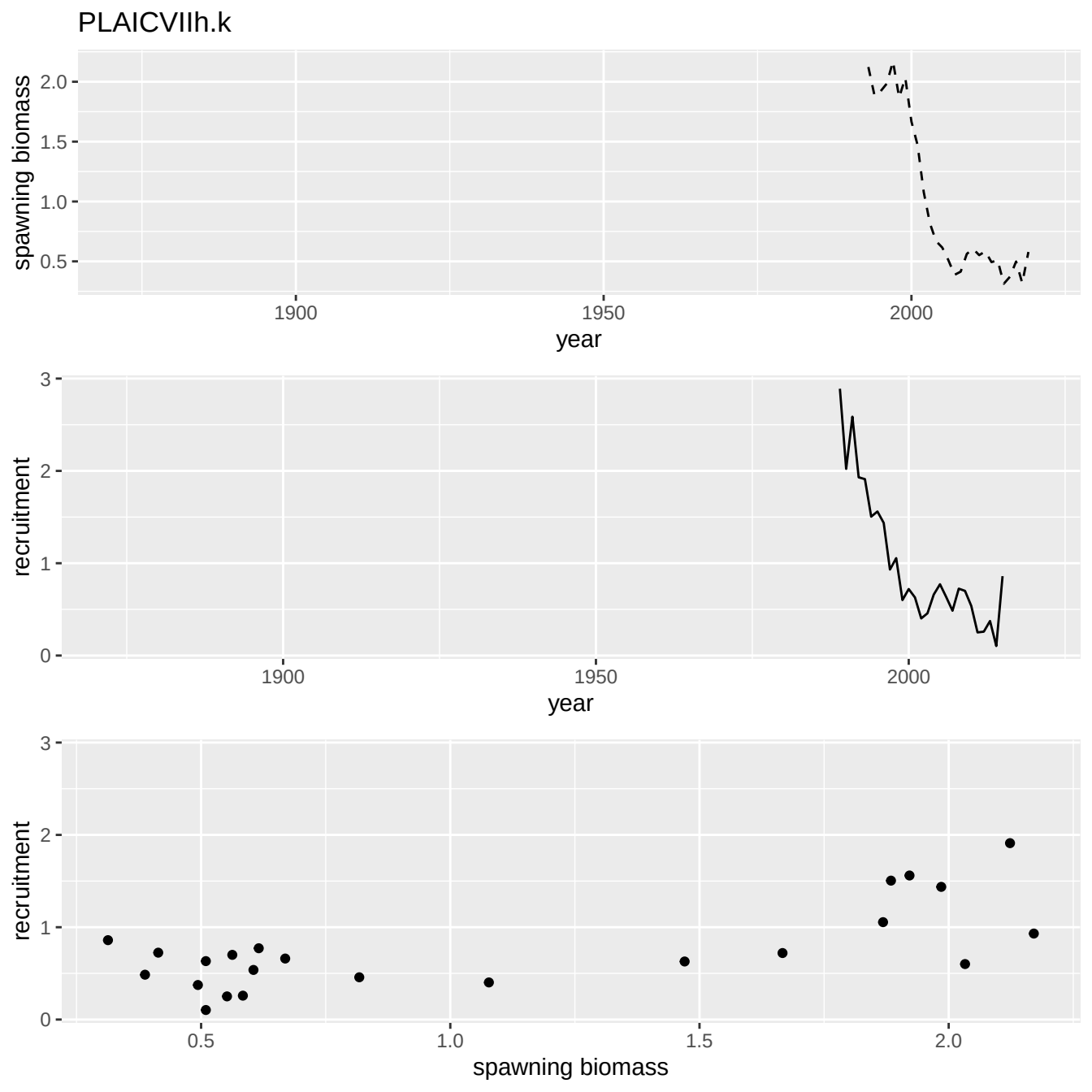

PLAIC7d
spawning biomass
50000
40000
30000
20000
10000
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
5.0e+07
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
5.0e+07
10000
20000
30000
40000
50000
spawning biomass

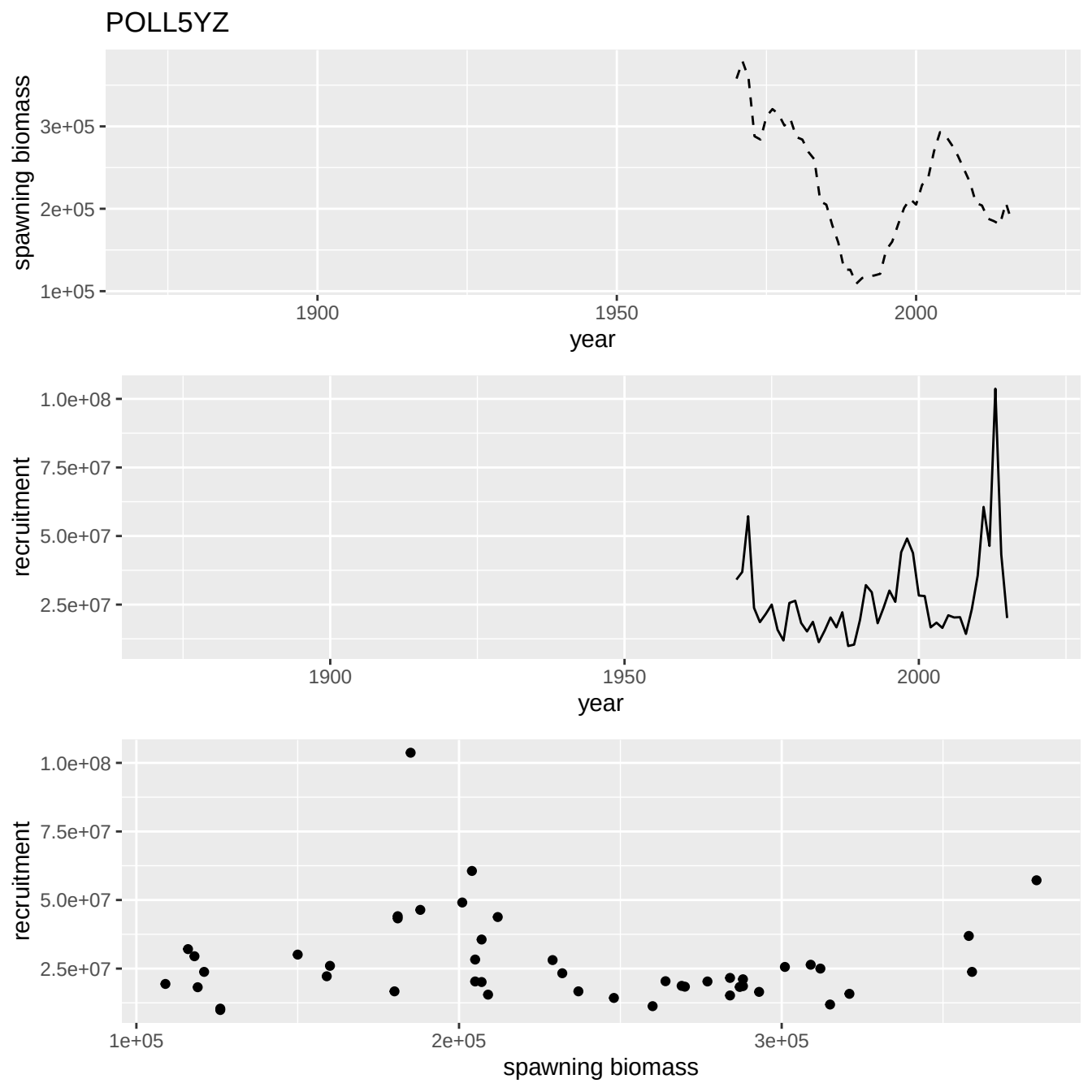

PLAICCELT
spawning biomass
1.2
1.0
0.8
0.6
1900
1950
2000
year
recruitment
1.5
1.0
0.5
1900
1950
2000
year
recruitment
1.5
1.0
0.5
0.6
0.8
1.0
1.2
spawning biomass

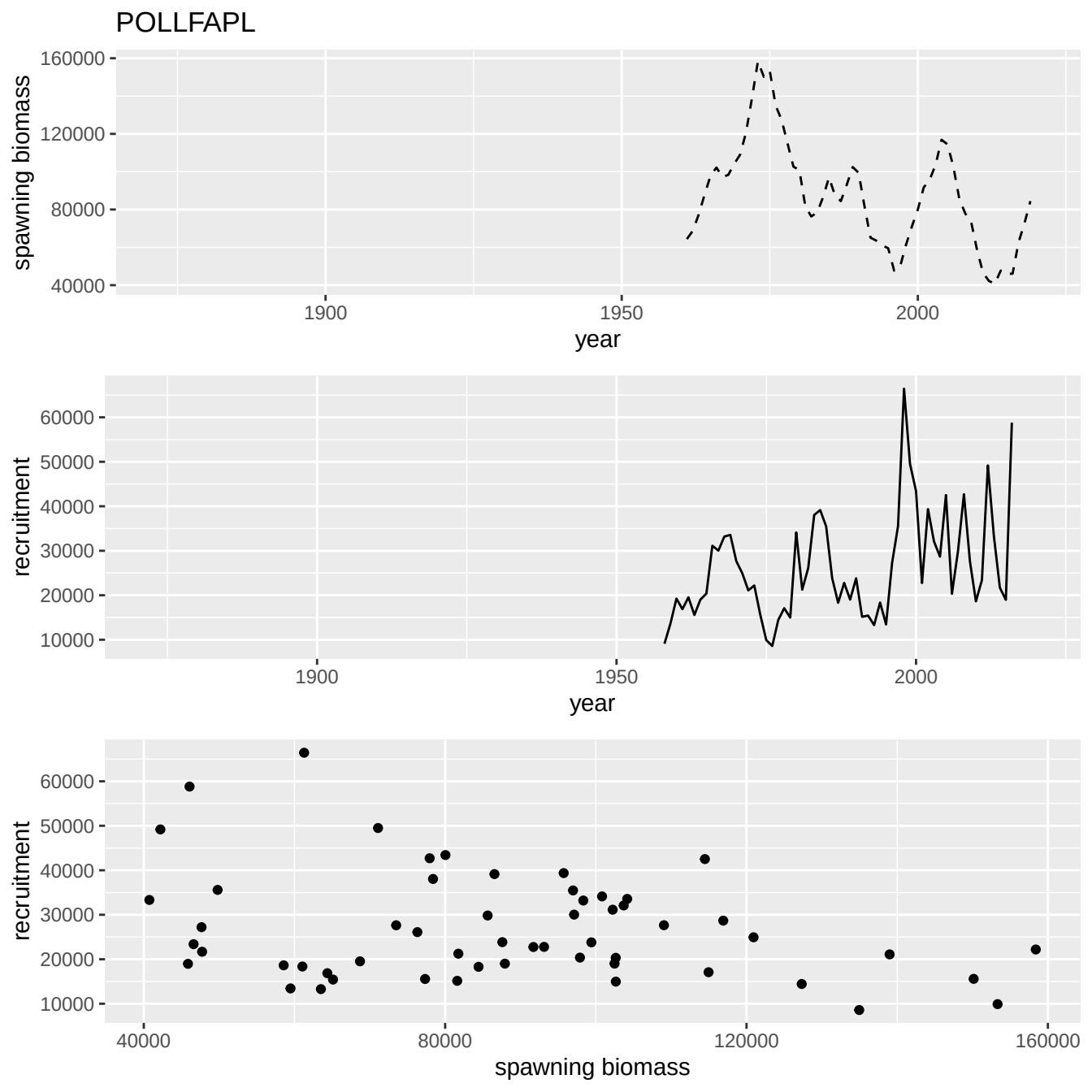

PLAICECHW
spawning biomass
2.0
1.5
1.0
0.5
1900
1950
2000
year
recruitment
2.5
2.0
1.5
1.0
0.5
1900
1950
2000
year
recruitment
2.5
2.0
1.5
1.0
0.5
0.5
1.0
1.5
2.0
spawning biomass

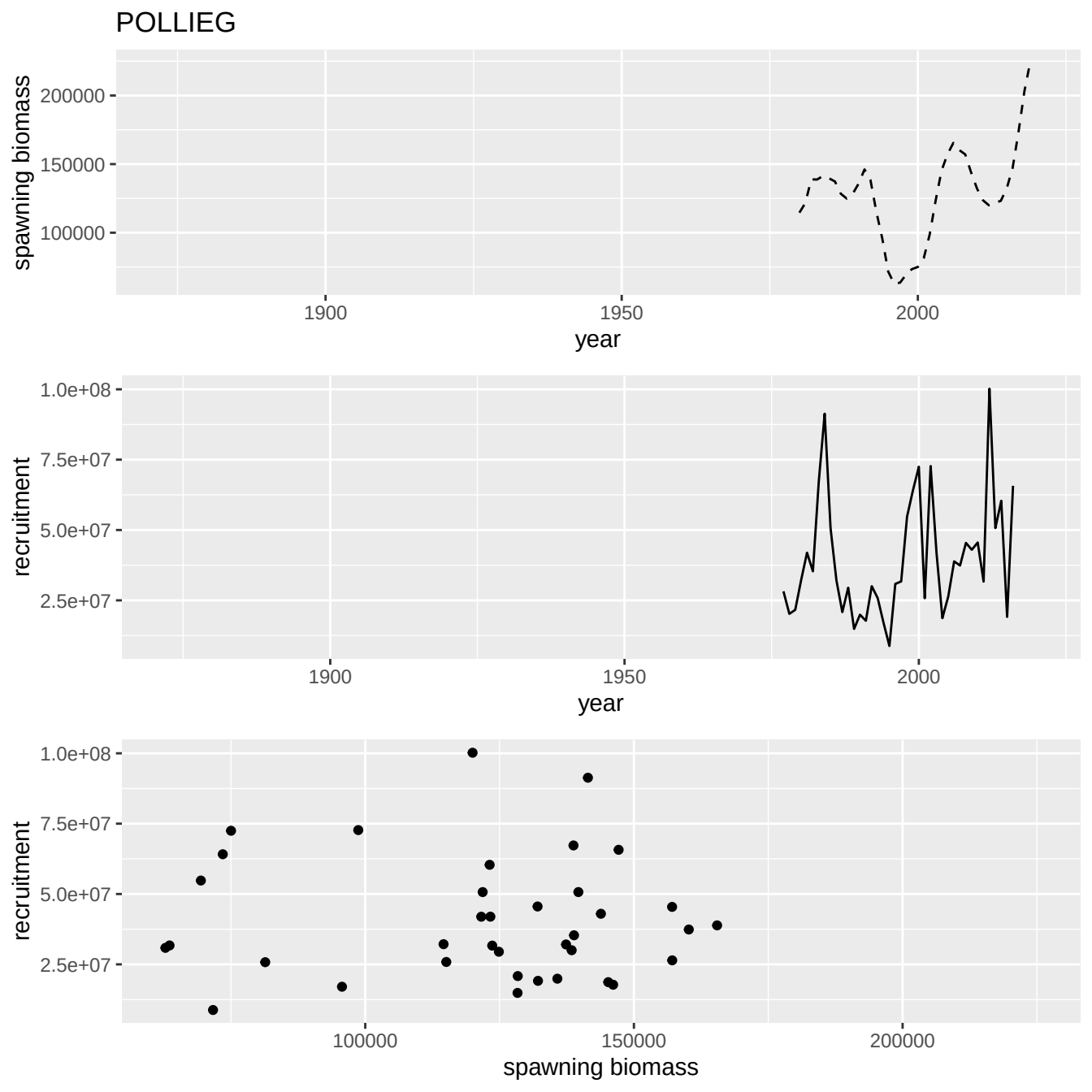

PLAICIS
spawning biomass
20000
15000
10000
5000
1900
1950
2000
year
recruitment
2.5e+07
2.0e+07
1.5e+07
1.0e+07
1900
1950
2000
year
recruitment
2.5e+07
2.0e+07
1.5e+07
1.0e+07
5000
10000
15000
20000
spawning biomass

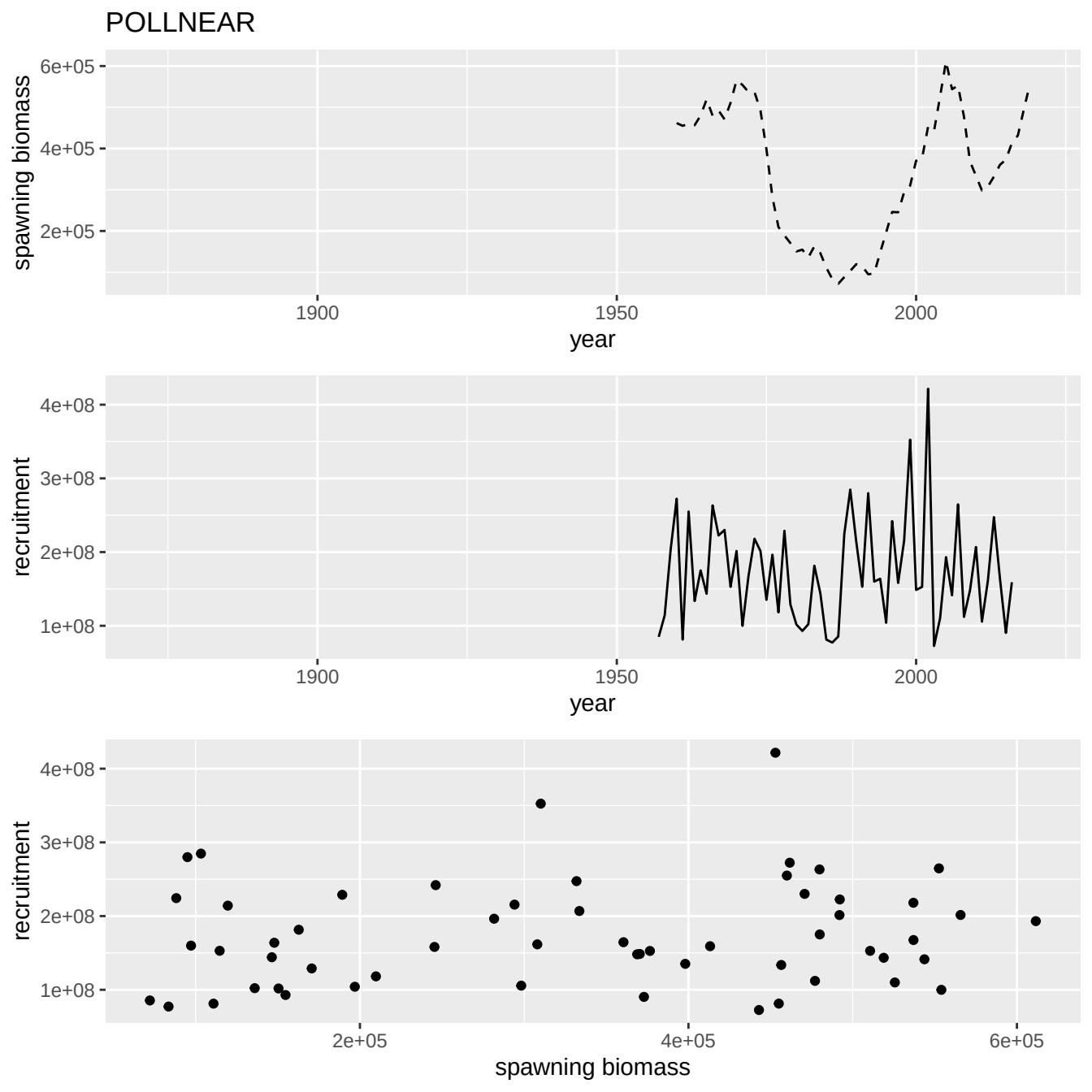

PLAICNS
spawning biomass
1e+06
8e+05
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
1e+09
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
1e+09
2e+05
4e+05
6e+05
8e+05
1e+06
spawning biomass

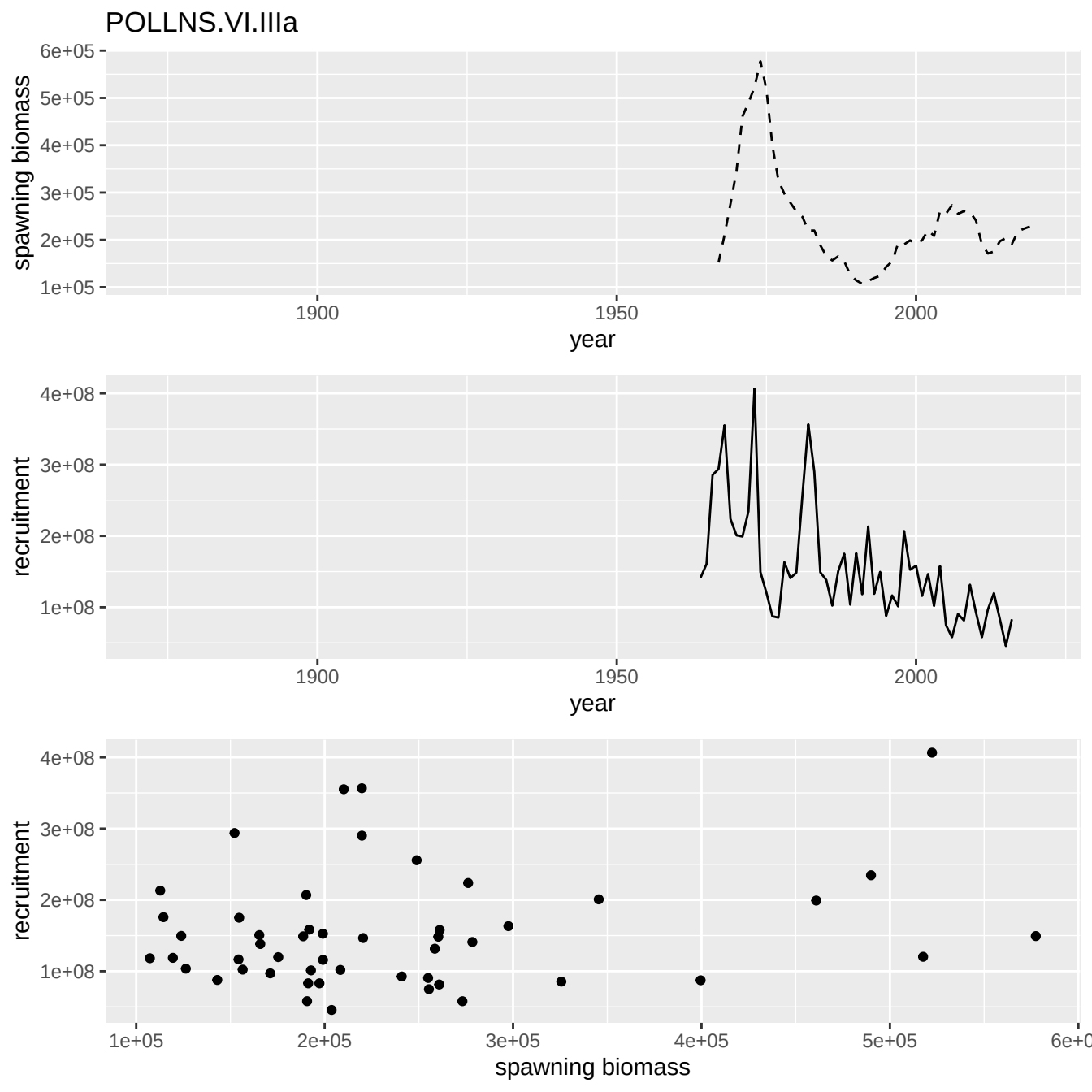

PLAICVIIh.k
spawning biomass
2.0
1.5
1.0
0.5
1900
1950
2000
year
recruitment
3
2
1
0
1900
1950
2000
year
recruitment
3
2
1
0
0.5
1.0
1.5
2.0
spawning biomass

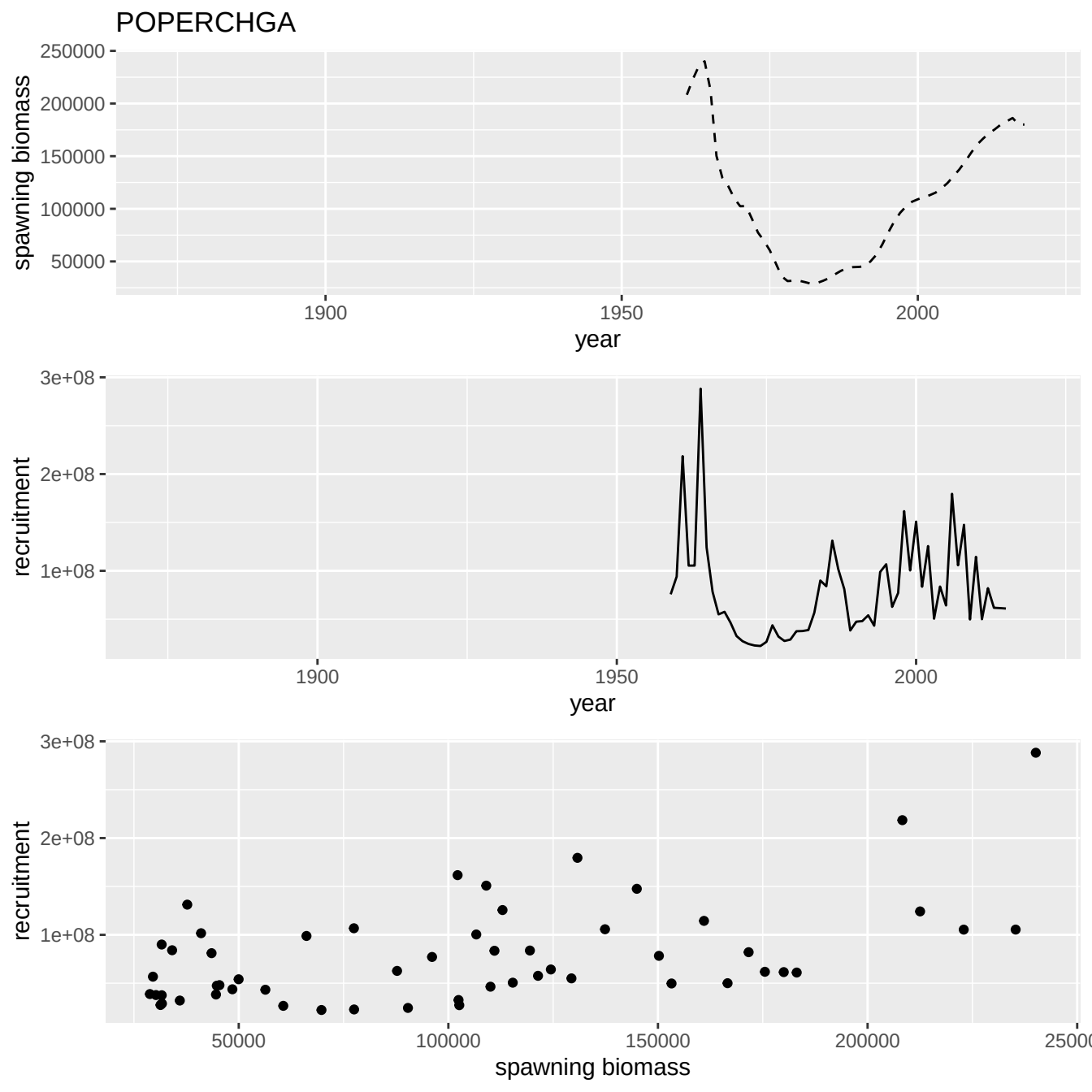

POLL5YZ
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
1.0e+08
7.5e+07
5.0e+07
2.5e+07
1900
1950
2000
year
recruitment
1.0e+08
7.5e+07
5.0e+07
2.5e+07
1e+05
2e+05
3e+05
spawning biomass

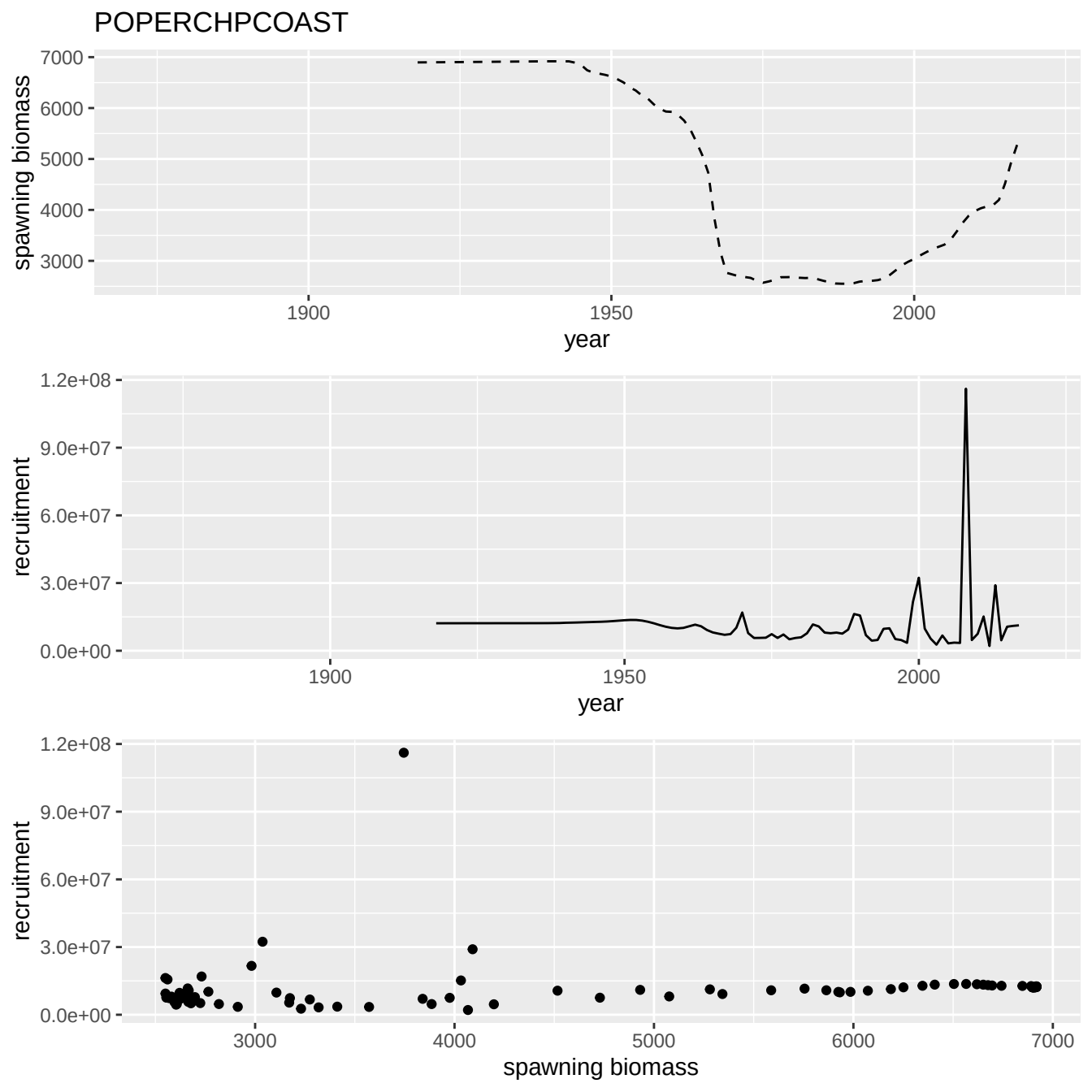

POLLFAPL
spawning biomass
160000
120000
80000
40000
1900
1950
2000
year
recruitment
60000
50000
40000
30000
20000
10000
1900
1950
2000
year
recruitment
60000
50000
40000
30000
20000
10000
40000
80000
120000
160000
spawning biomass

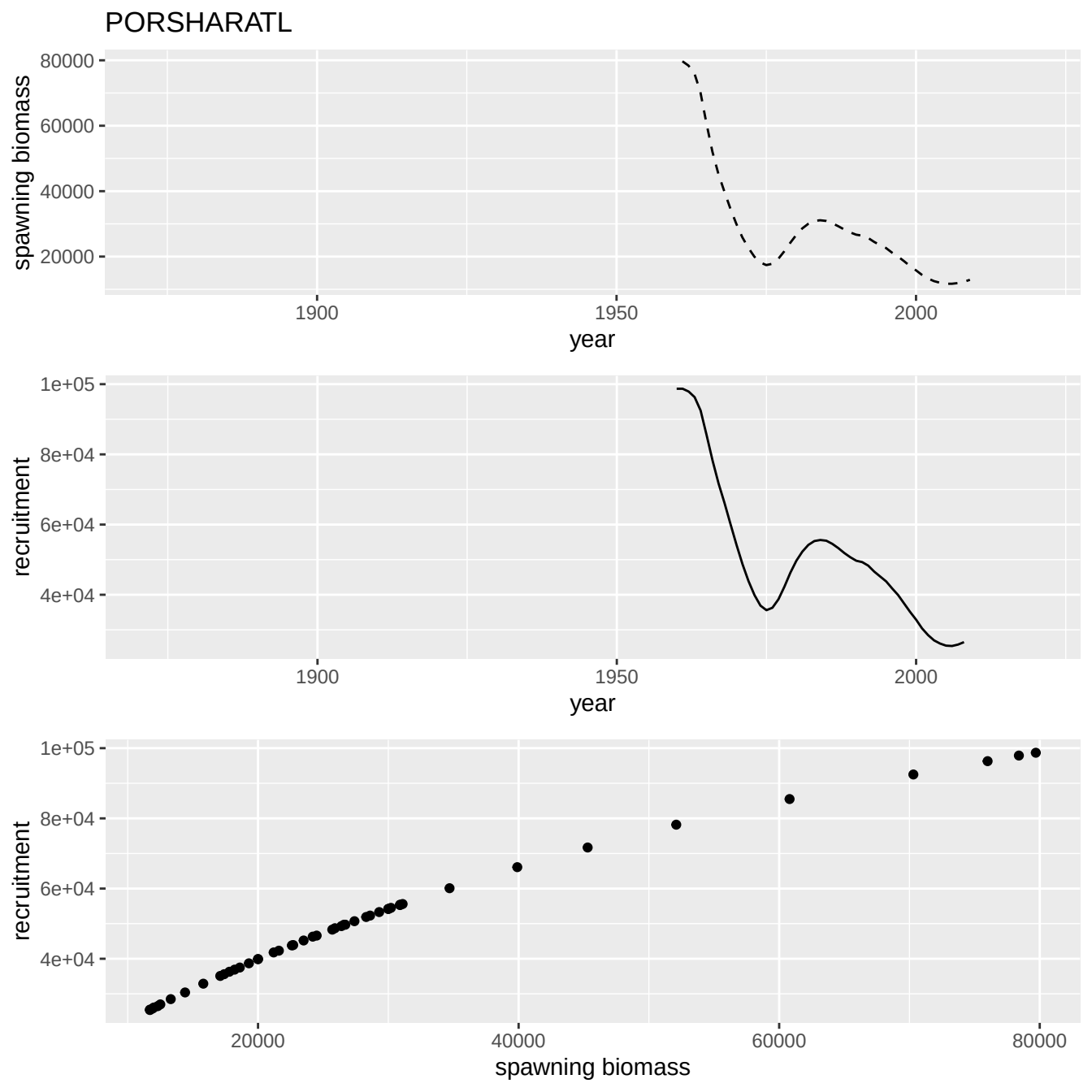

POLLIEG
spawning biomass
200000
150000
100000
1900
1950
2000
year
recruitment
1.0e+08
7.5e+07
5.0e+07
2.5e+07
1900
1950
2000
year
recruitment
1.0e+08
7.5e+07
5.0e+07
2.5e+07
100000
150000
200000
spawning biomass

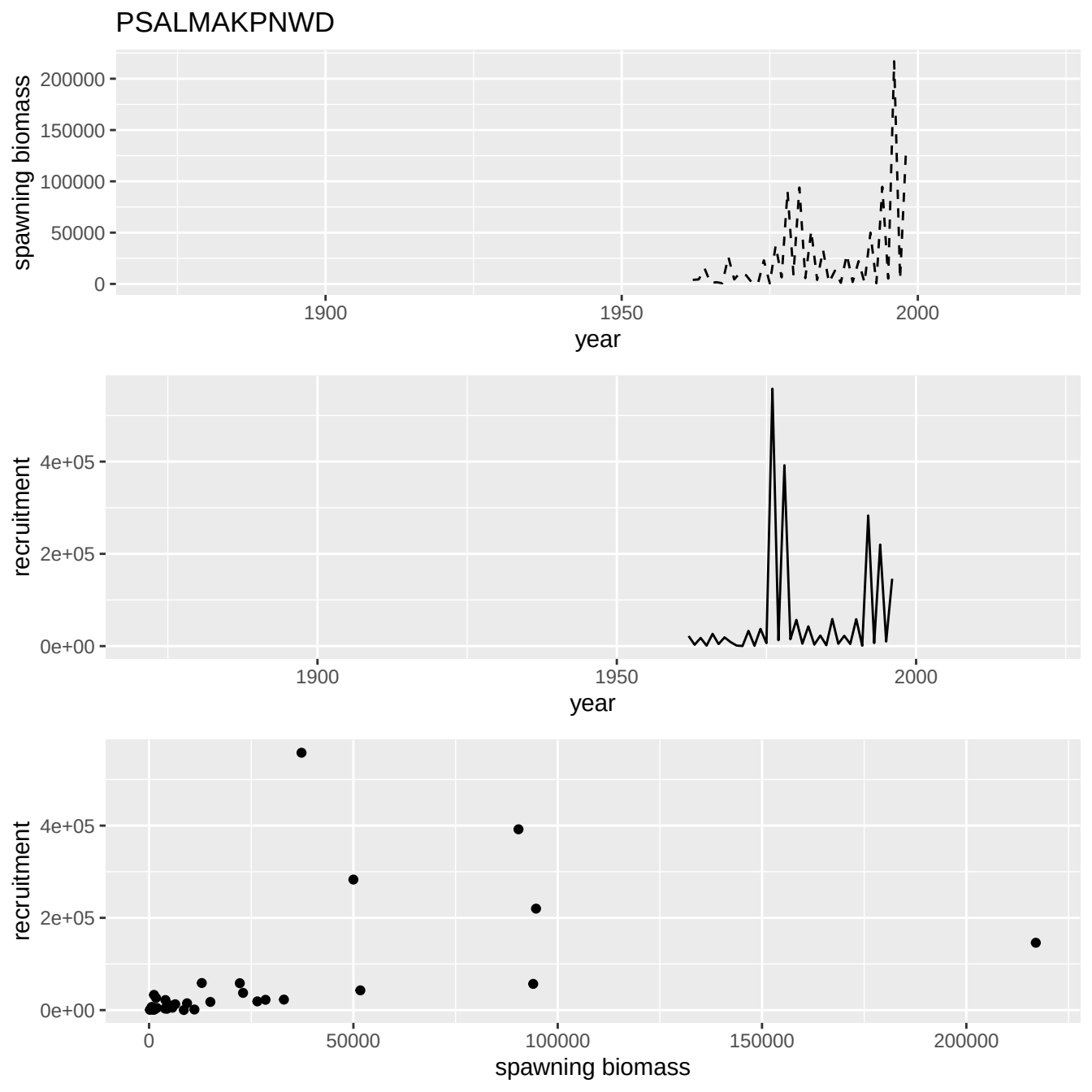

POLLNEAR
spawning biomass
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
2e+05
4e+05
6e+05
spawning biomass

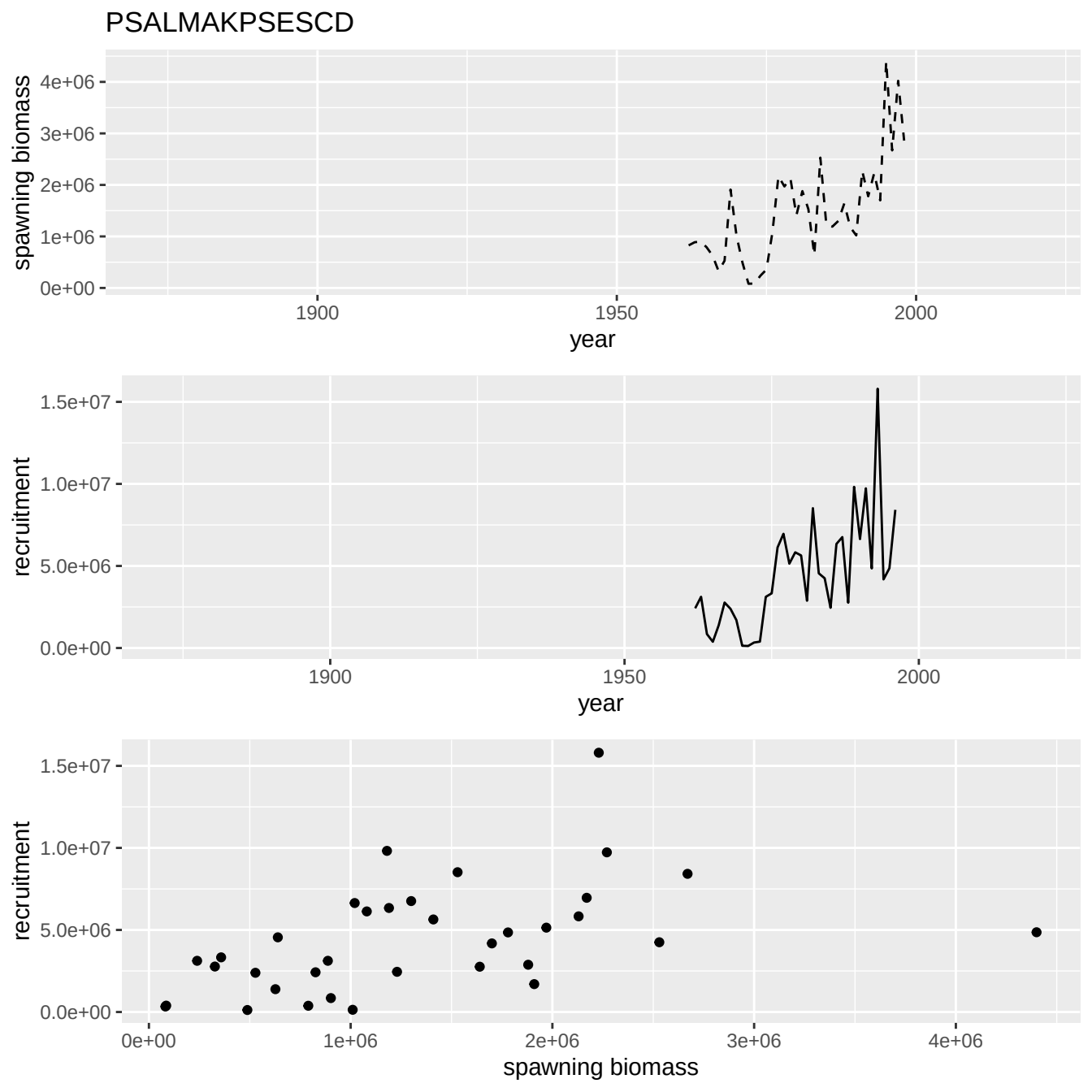

POLLNS.VI.IIIa
spawning biomass
6e+05
5e+05
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
1e+05
2e+05
3e+05
4e+05
5e+05
6e+0
spawning biomass


POPERCHGA
spawning biomass
250000
200000
150000
100000
50000
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
1900
1950
2000
year
recruitment
3e+08
2e+08
1e+08
50000
100000
150000
200000
spawning biomass


POPERCHPCOAST
spawning biomass
7000
6000
5000
4000
3000
1900
1950
2000
year
recruitment
1.2e+08
9.0e+07
6.0e+07
3.0e+07
0.0e+00
1900
1950
2000
year
recruitment
1.2e+08
9.0e+07
6.0e+07
3.0e+07
0.0e+00
3000
4000
5000
6000
7000
spawning biomass


PORSHARATL
spawning biomass
80000
60000
40000
20000
1900
1950
2000
year
recruitment
1e+05
8e+04
6e+04
4e+04
1900
1950
2000
year
recruitment
1e+05
8e+04
6e+04
4e+04
20000
40000
60000
80000
spawning biomass


PSALMAKPNWD
spawning biomass
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
4e+05
2e+05
0e+00
0
50000
100000
150000
200000
spawning biomass


PSALMAKPSESCD
spawning biomass
4e+06
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
0.0e+00
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
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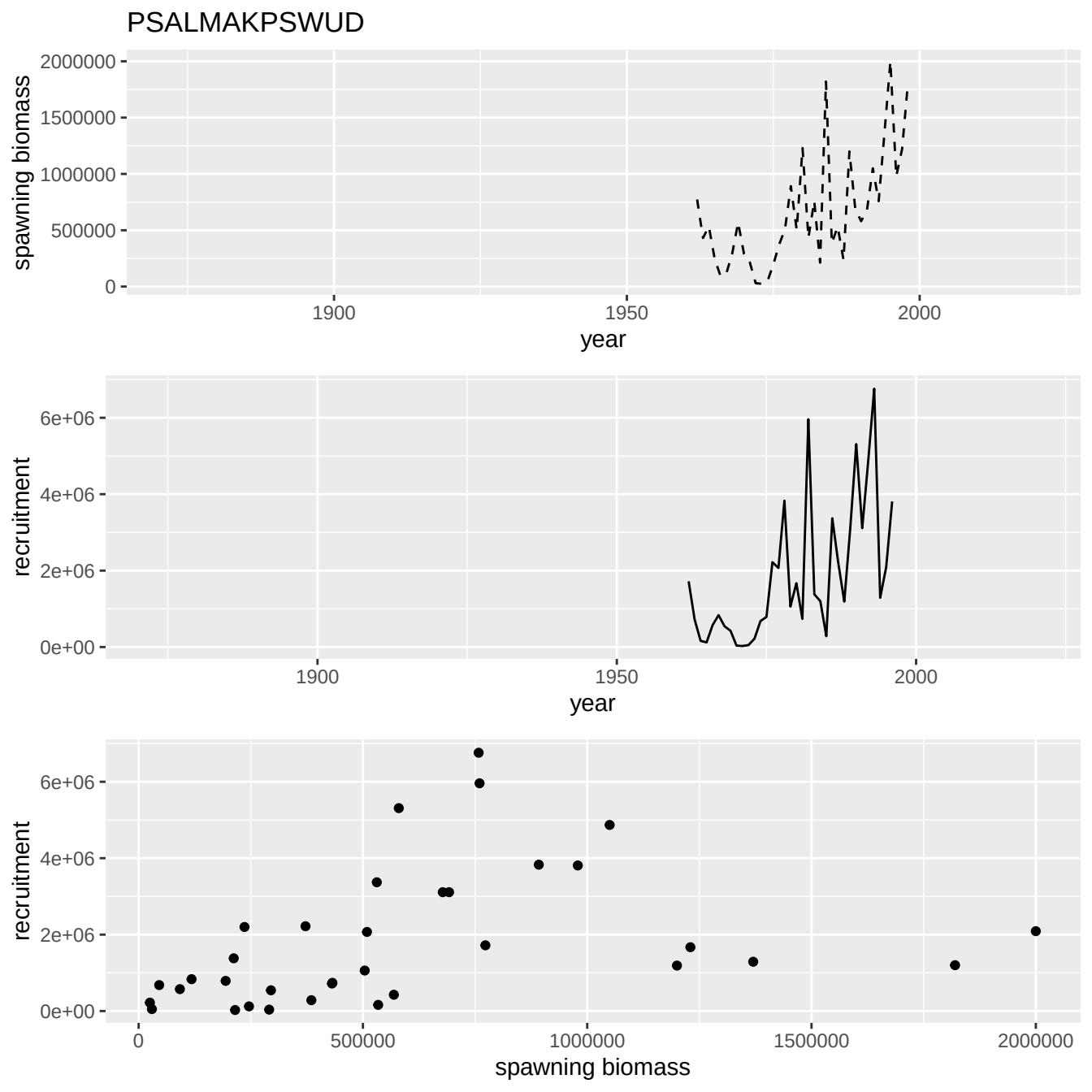
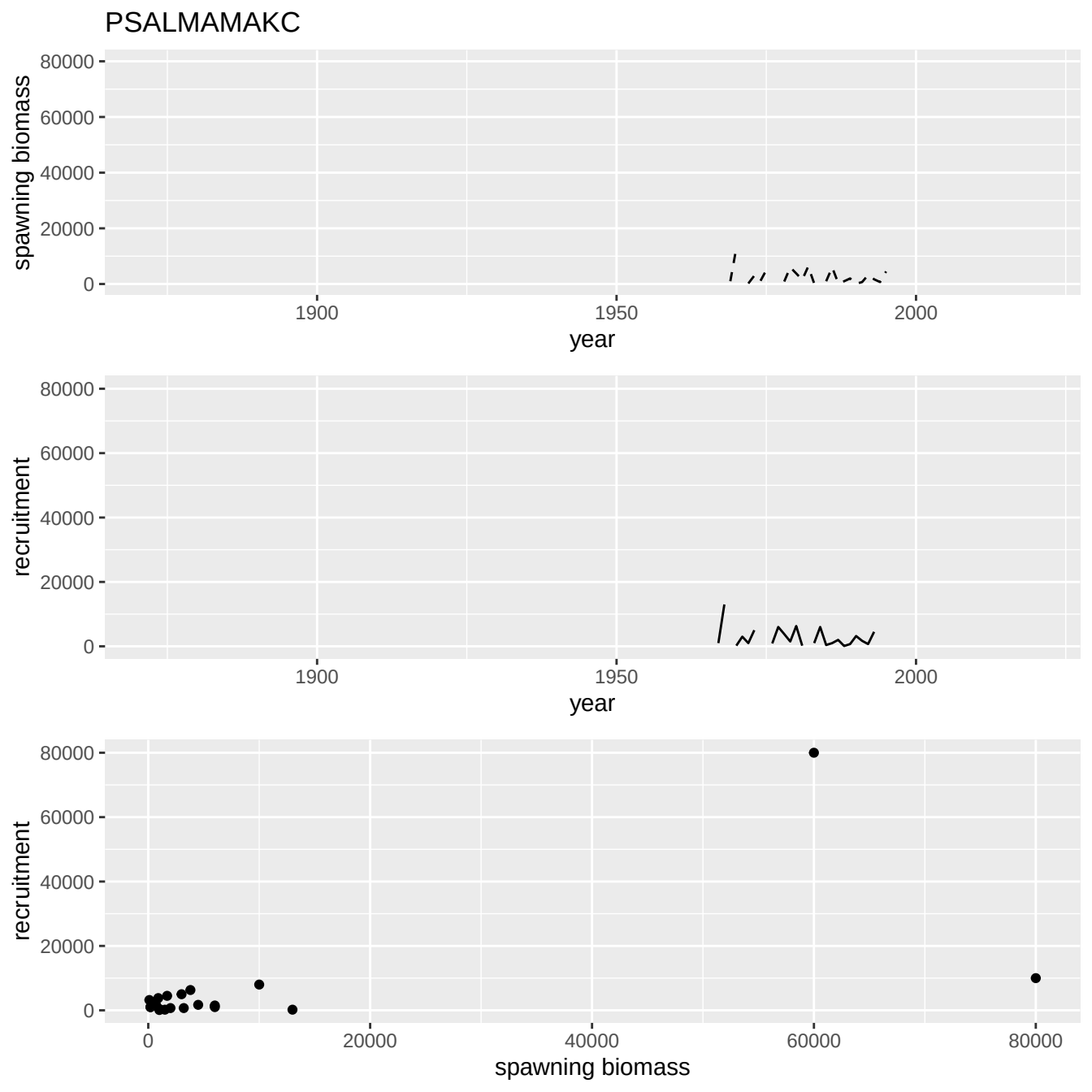
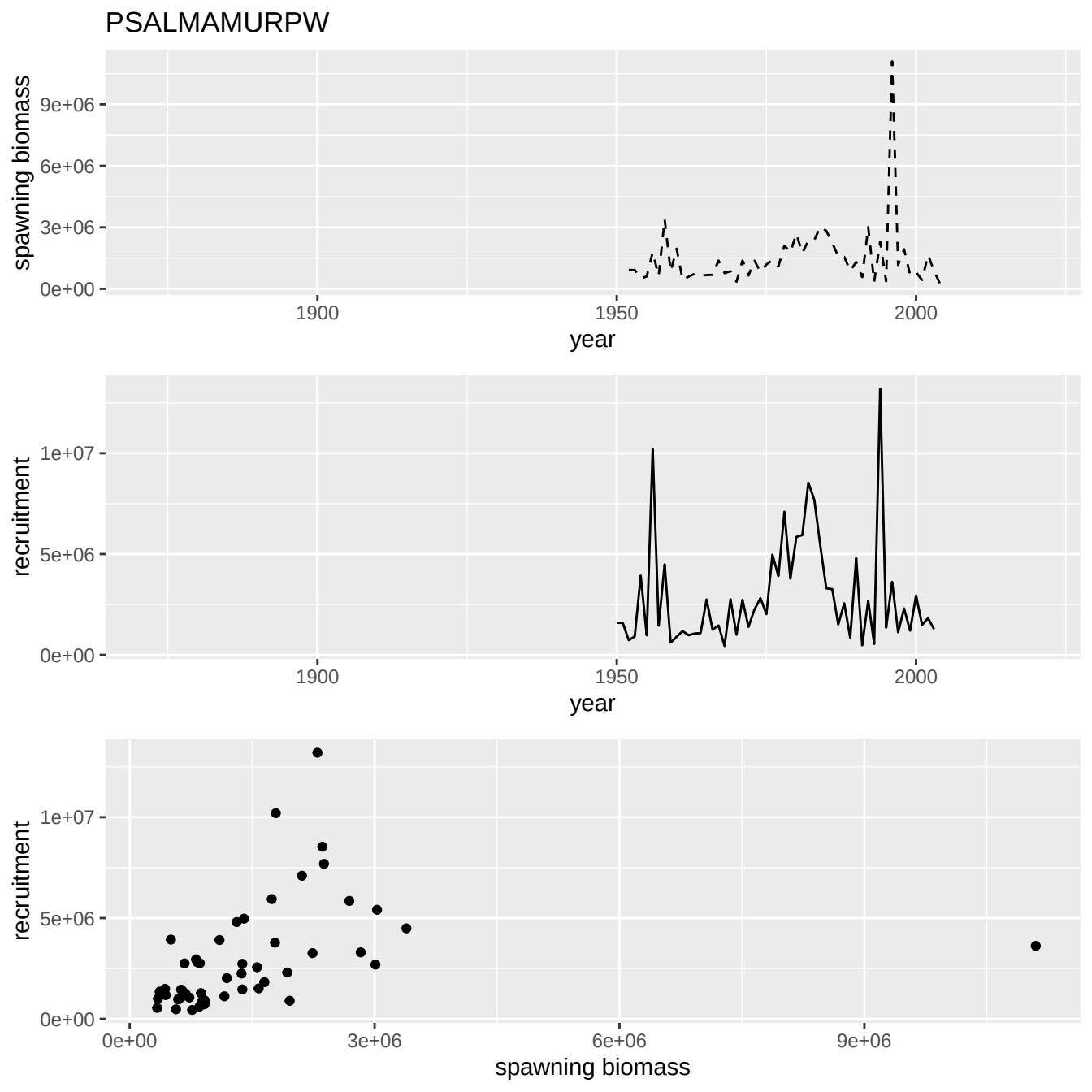
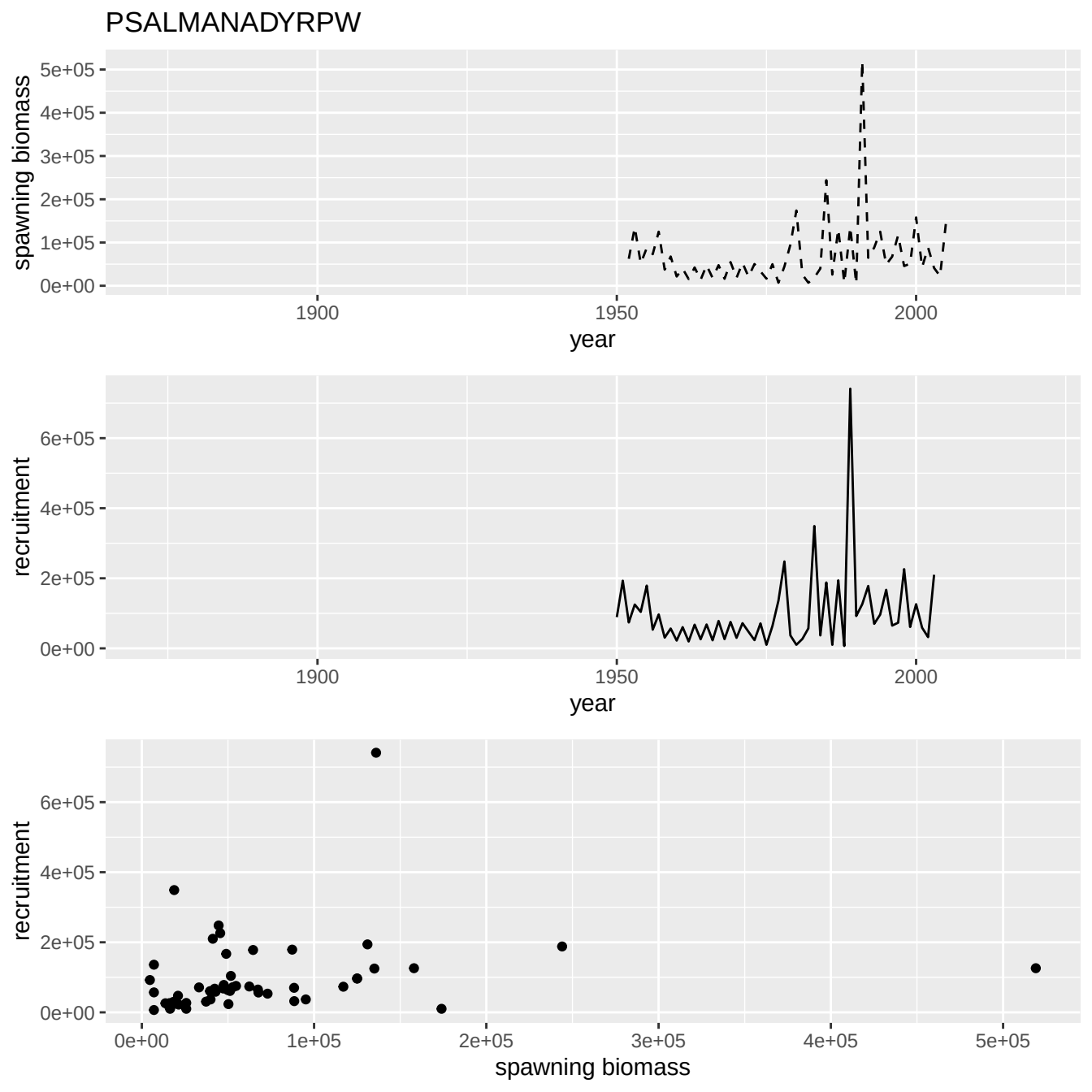
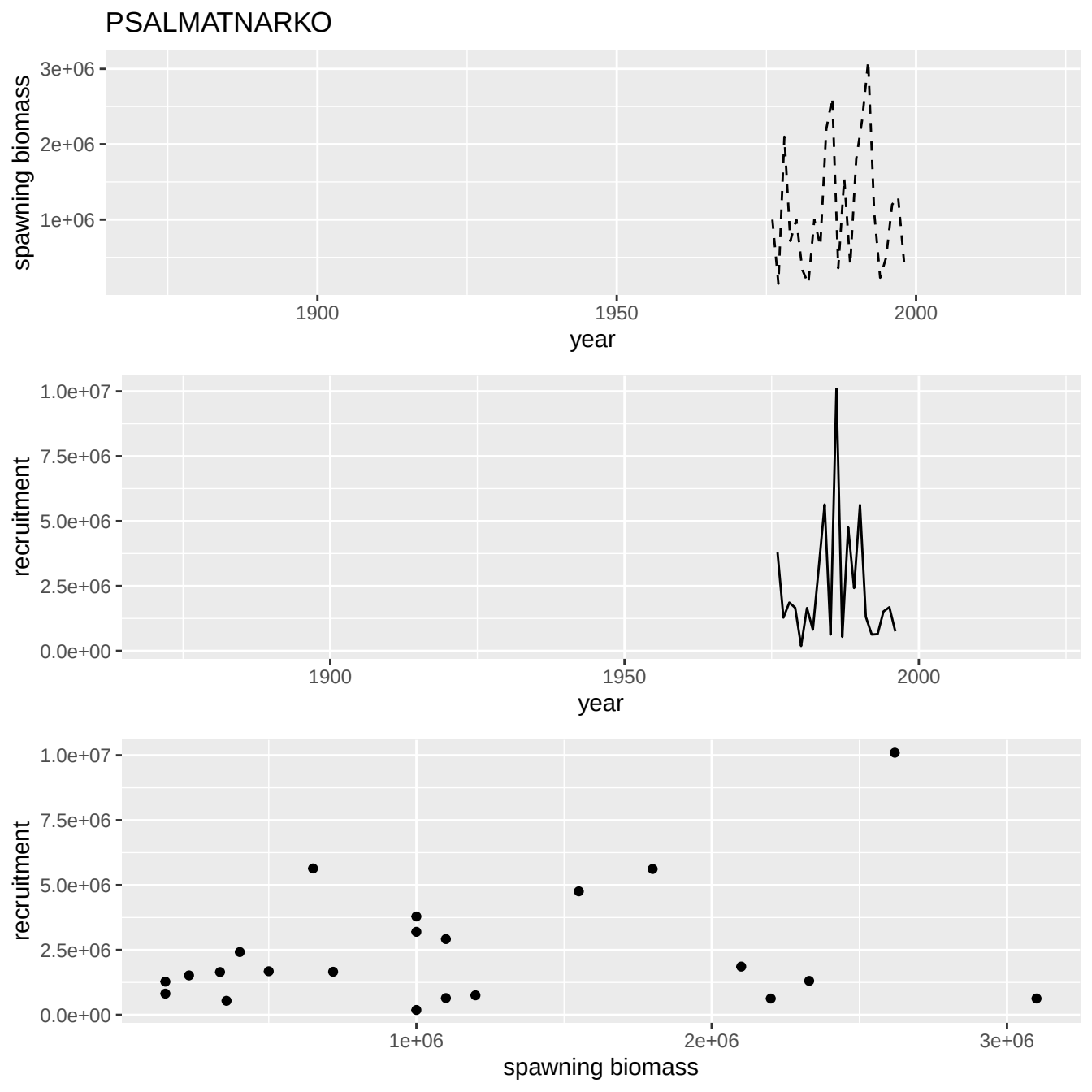
0e+00
1e+06
2e+06
3e+06
4e+06
spawning biomass

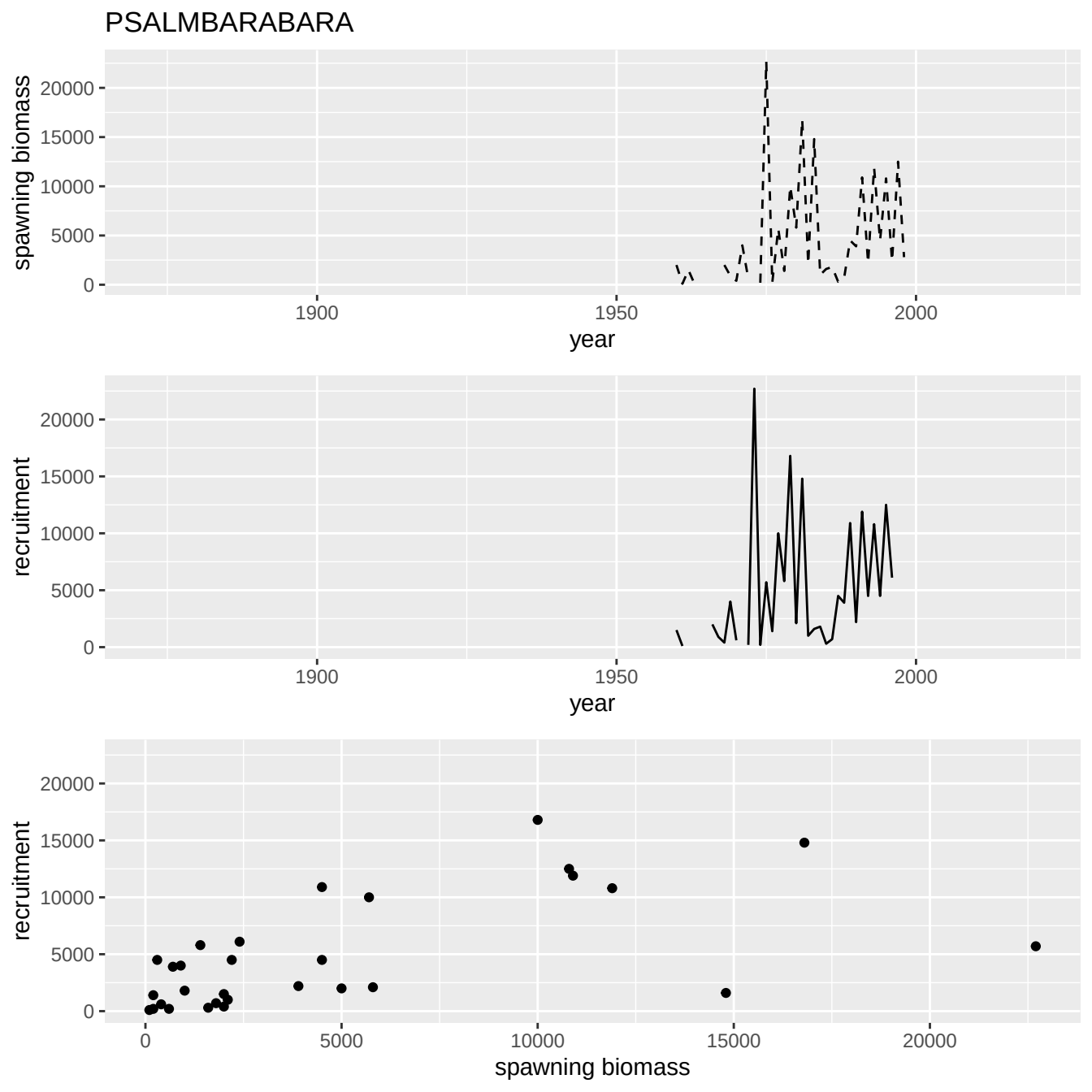

PSALMAKPSWUD
spawning biomass
2000000
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
0e+00
0
500000
1000000
1500000
2000000
spawning biomass

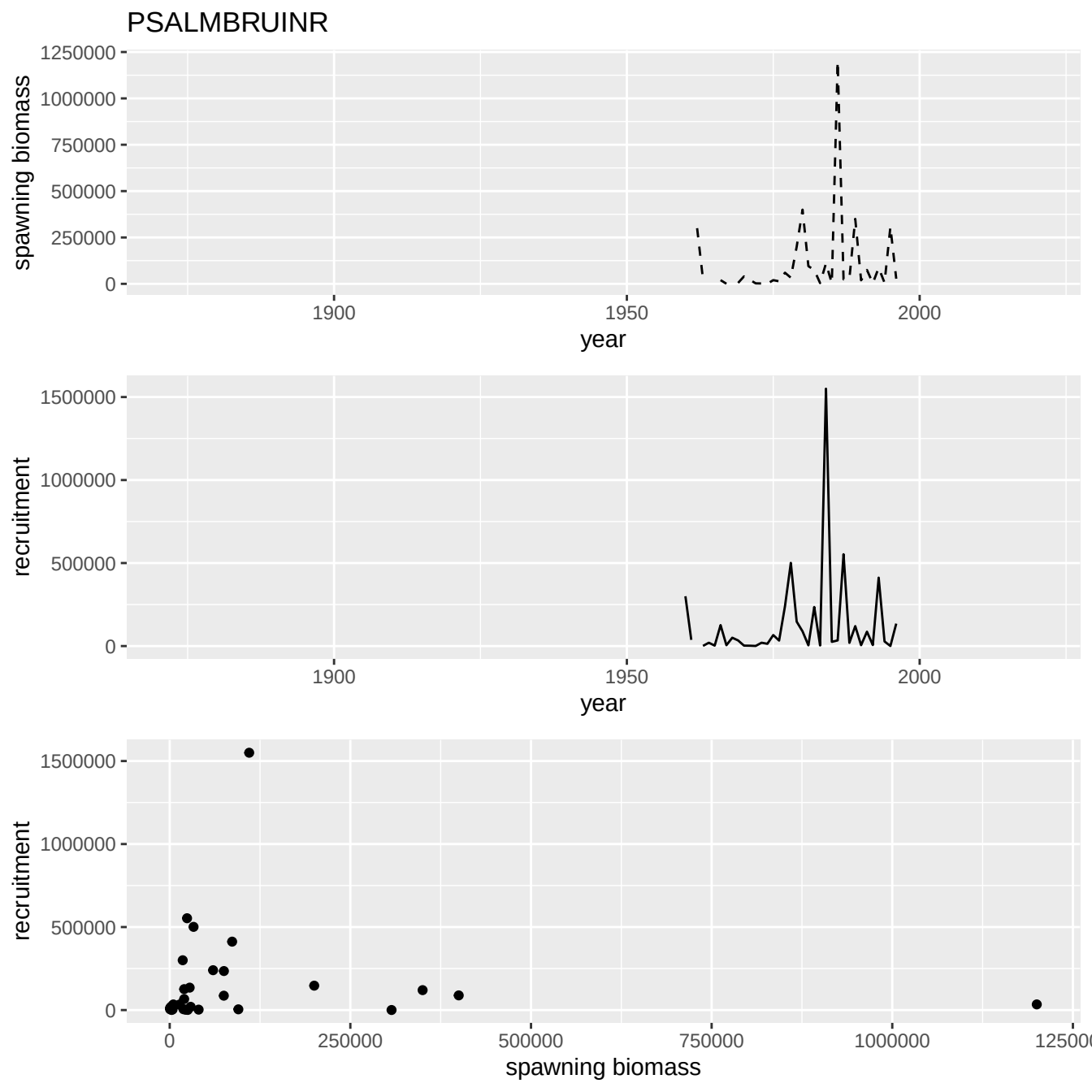

PSALMAMAKC
spawning biomass
80000
60000
40000
20000
0
1900
1950
2000
year
recruitment
80000
60000
40000
20000
0
1900
1950
2000
year
recruitment
80000
60000
40000
20000
0
0
20000
40000
60000
80000
spawning biomass


PSALMAMURPW
spawning biomass
9e+06
6e+06
3e+06
0e+00
1900
1950
2000
year
recruitment
1e+07
5e+06
0e+00
1900
1950
2000
year
recruitment
1e+07
5e+06
0e+00
0e+00
3e+06
6e+06
9e+06
spawning biomass


PSALMANADYRPW
spawning biomass
5e+05
4e+05
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
0e+00
0e+00
1e+05
2e+05
3e+05
4e+05
5e+05
spawning biomass


PSALMATNARKO
spawning biomass
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
1.0e+07
7.5e+06
5.0e+06
2.5e+06
0.0e+00
1900
1950
2000
year
recruitment
1.0e+07
7.5e+06
5.0e+06
2.5e+06
0.0e+00
1e+06
2e+06
3e+06
spawning biomass


PSALMBARABARA
spawning biomass
20000
15000
10000
5000
0
1900
1950
2000
year
recruitment
20000
15000
10000
5000
0
1900
1950
2000
year
recruitment
20000
15000
10000
5000
0
0
5000
10000
15000
20000
spawning biomass


PSALMBRUINR
spawning biomass
1250000
1000000
750000
500000
250000
0
1900
1950
2000
year
recruitment
1500000
1000000
500000
0
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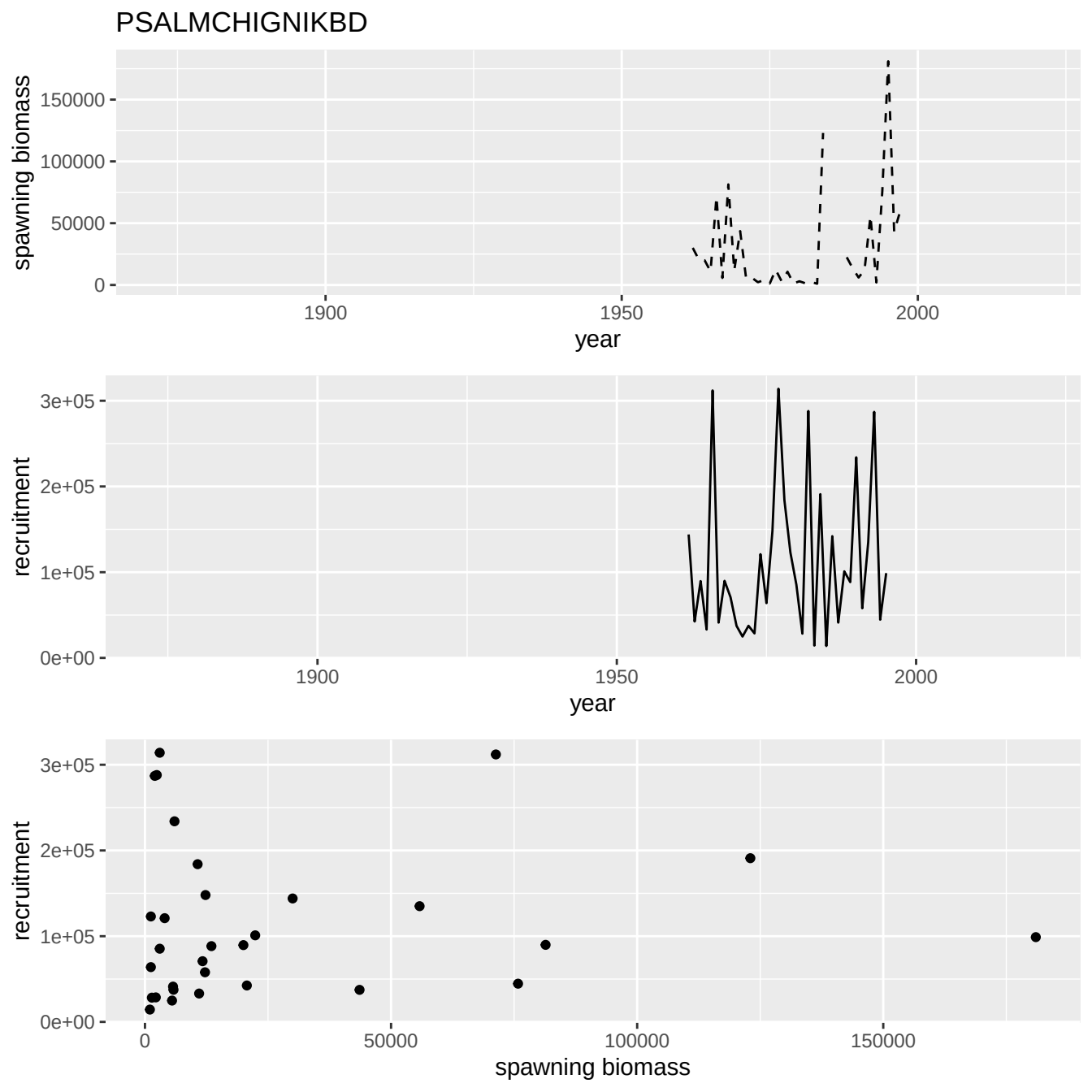
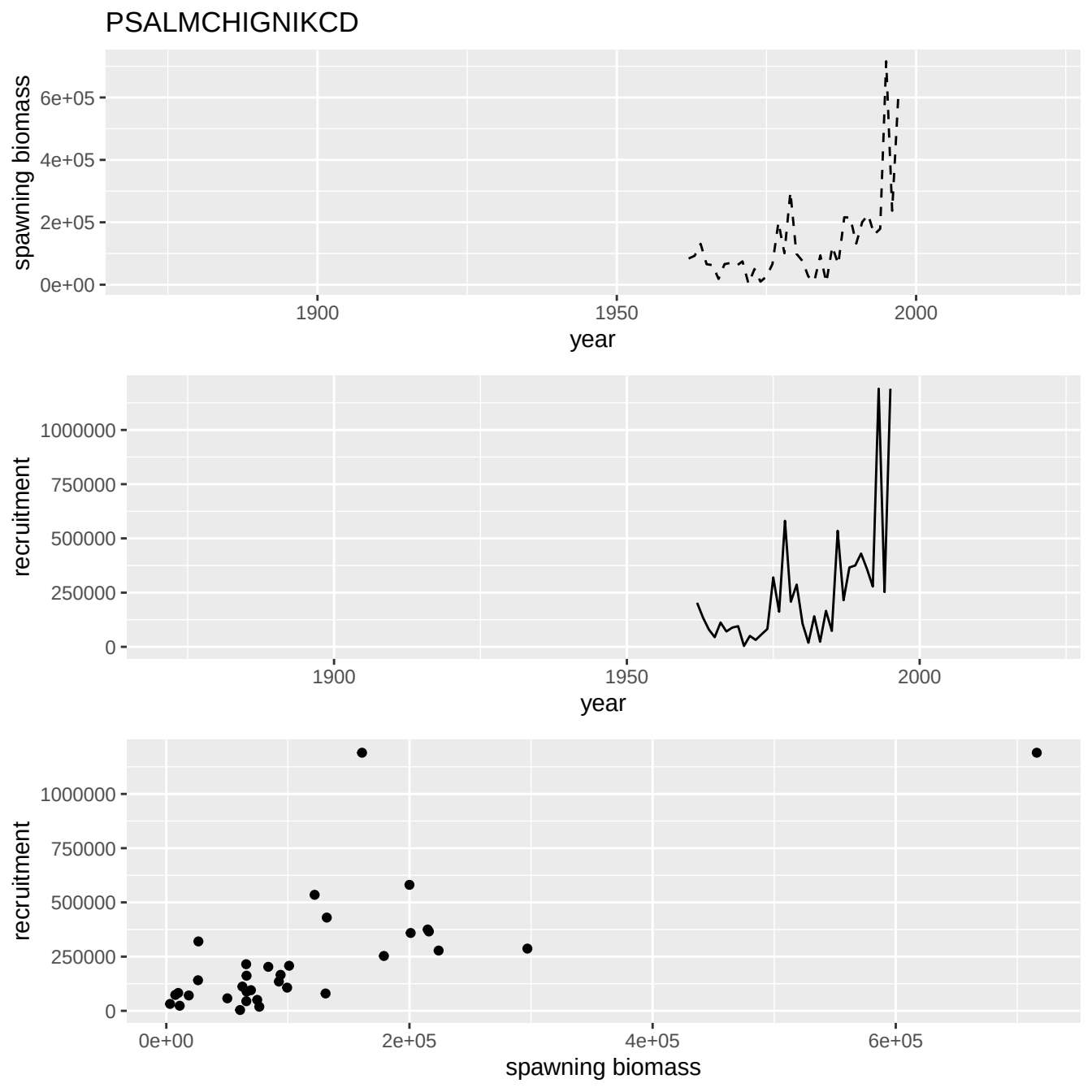
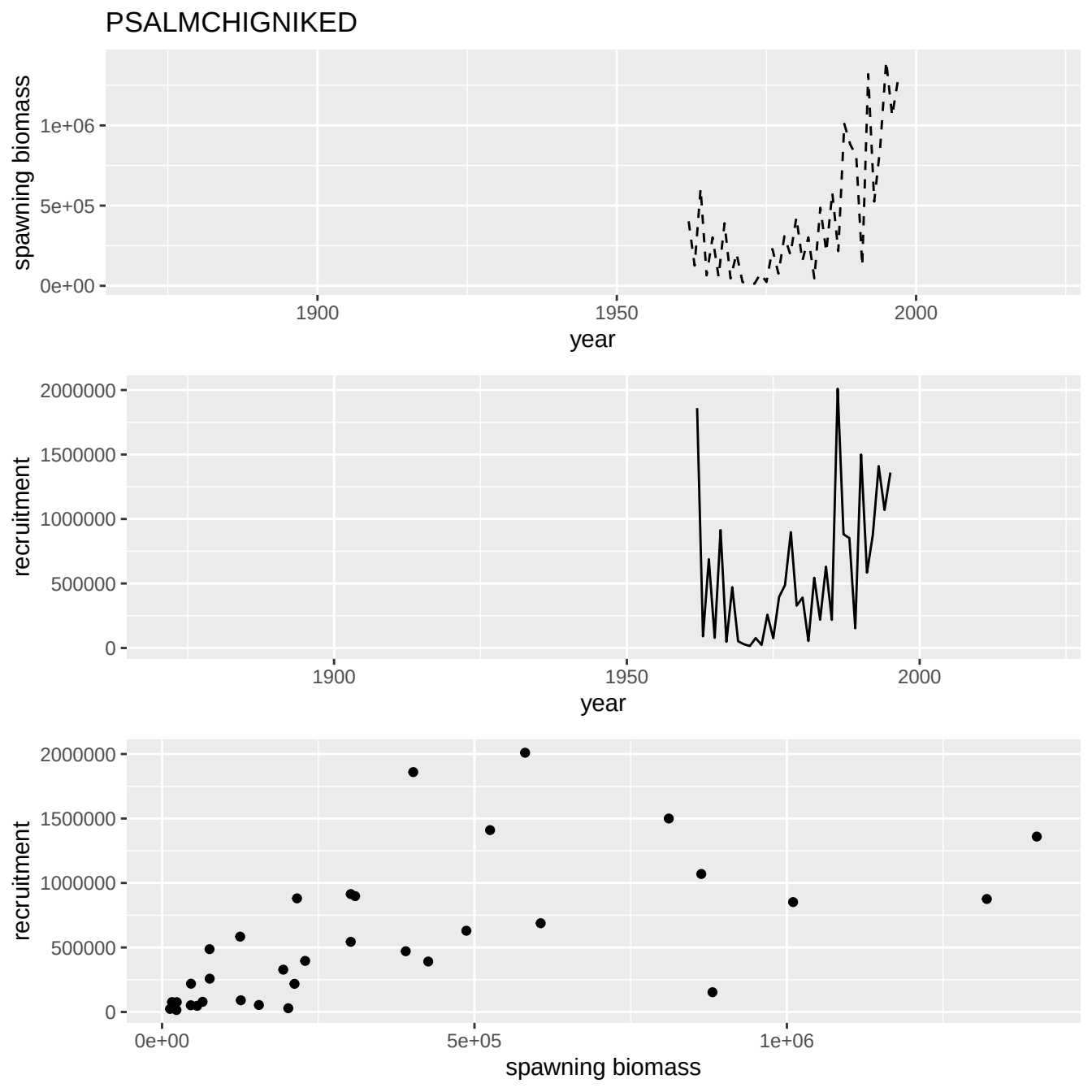
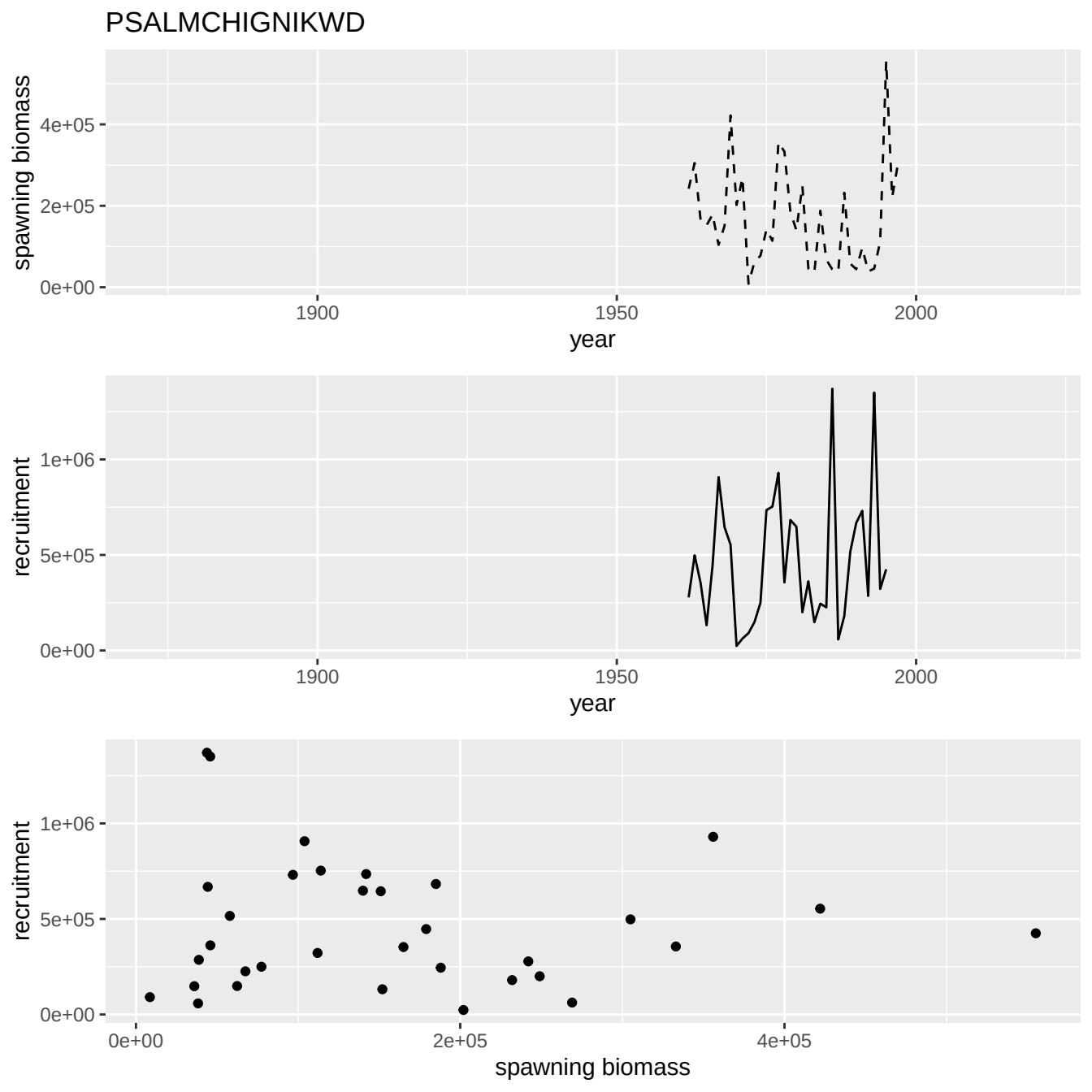
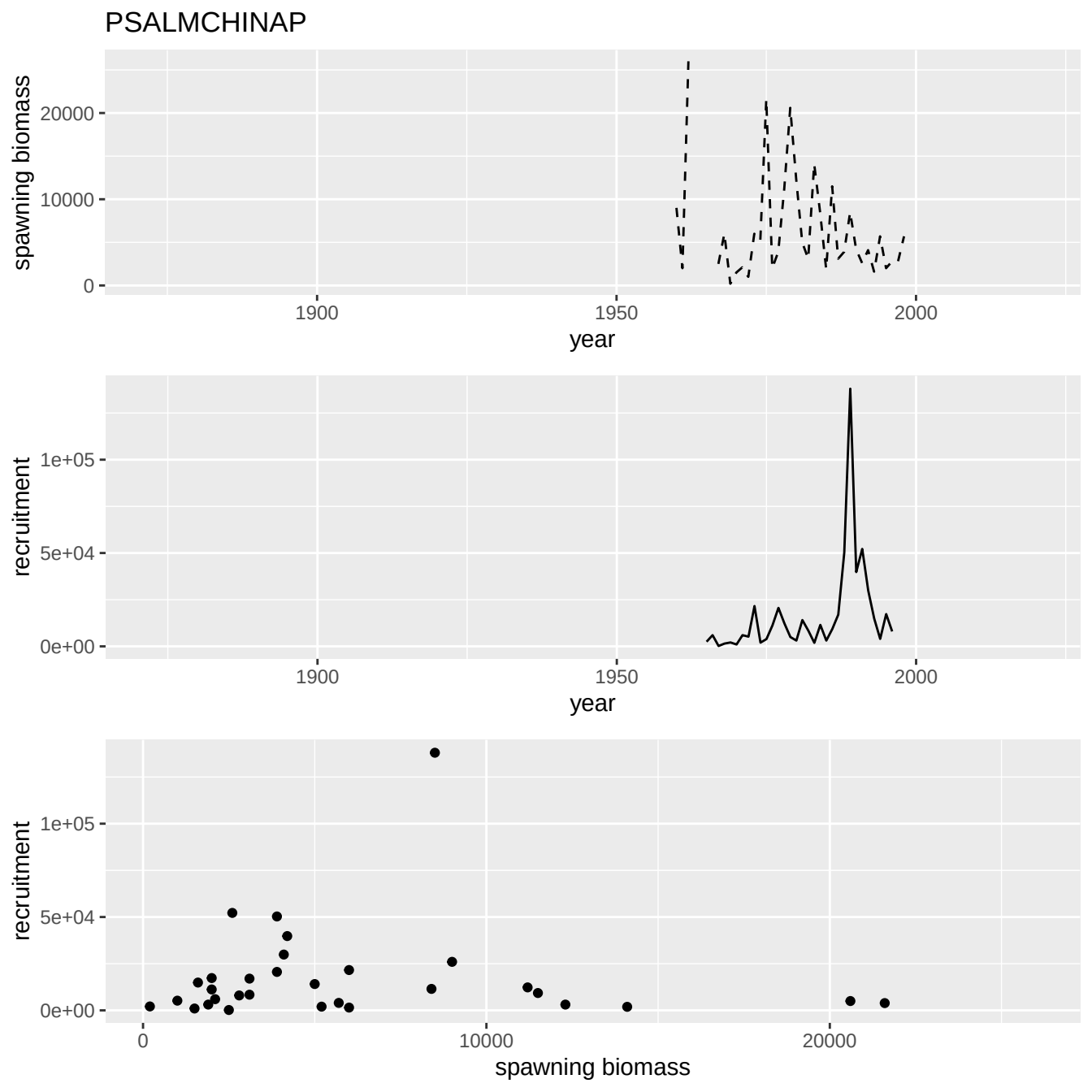
1950
2000
year
recruitment
1500000
1000000
500000
0
0
250000
500000
750000
1000000
spawning biomass

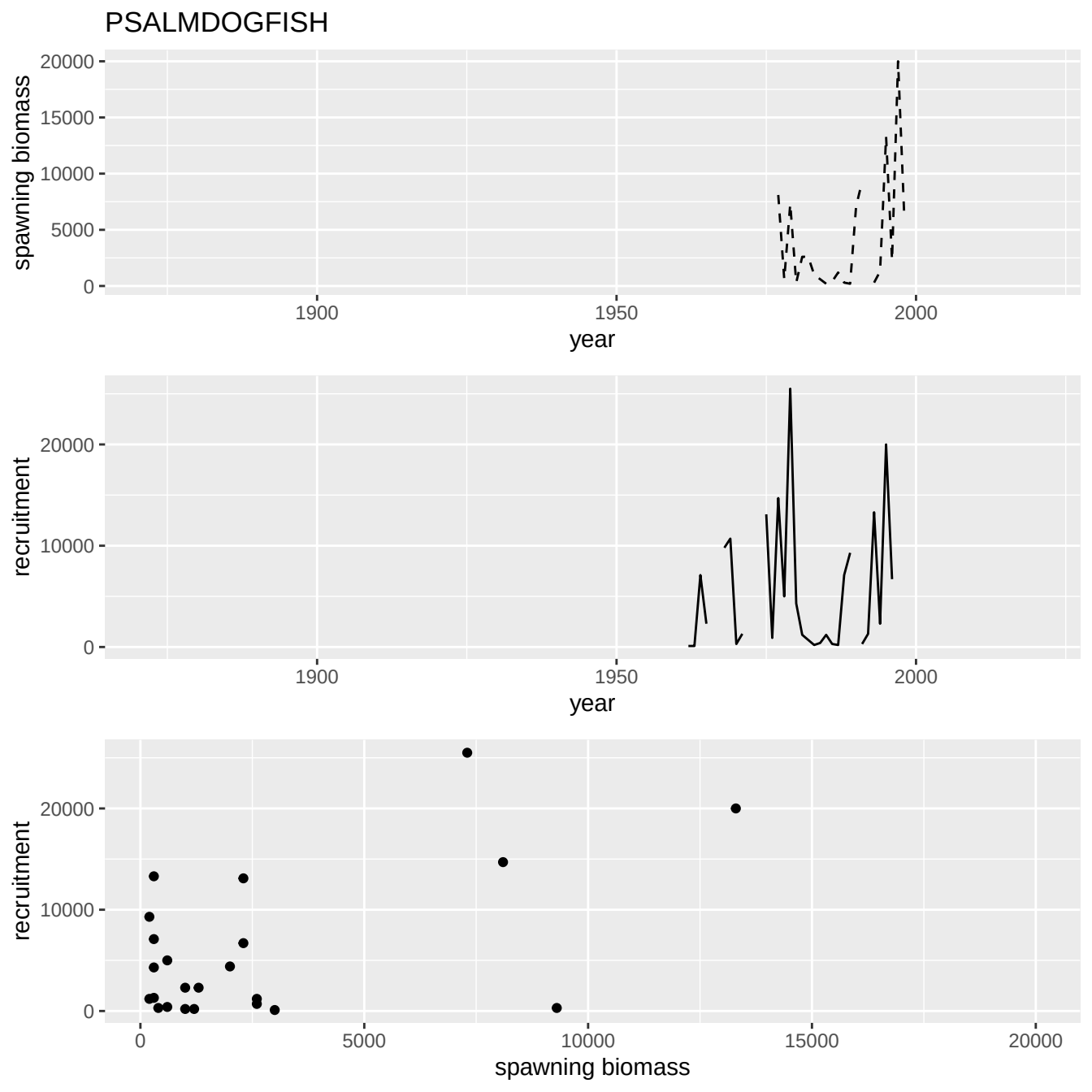

PSALMCHIGNIKBD
spawning biomass
150000
100000
50000
0
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
0
50000
100000
150000
spawning biomass

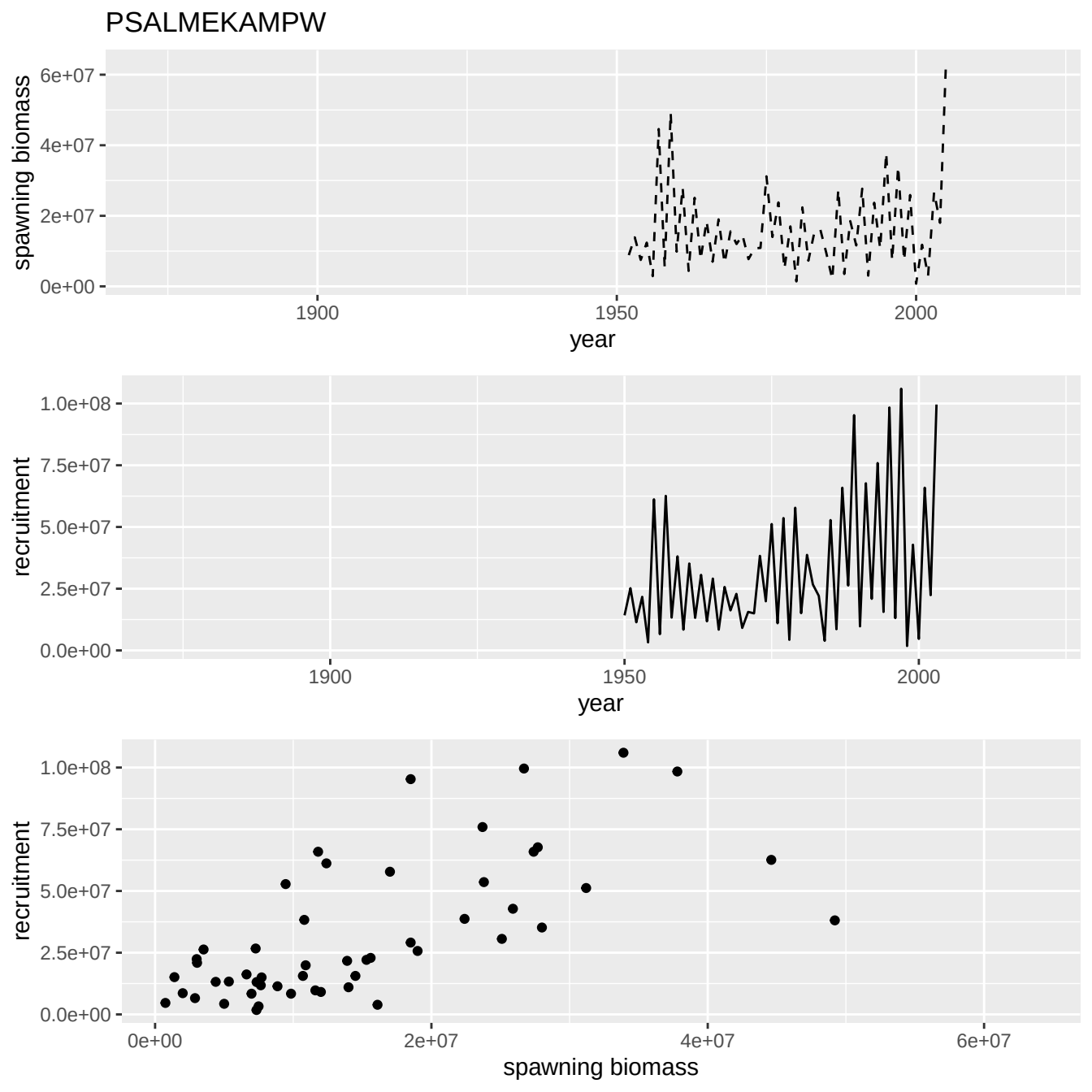

PSALMCHIGNIKCD
spawning biomass
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
1000000
750000
500000
250000
0
1900
1950
2000
year
recruitment
1000000
750000
500000
250000
0
0e+00
2e+05
4e+05
6e+05
spawning biomass

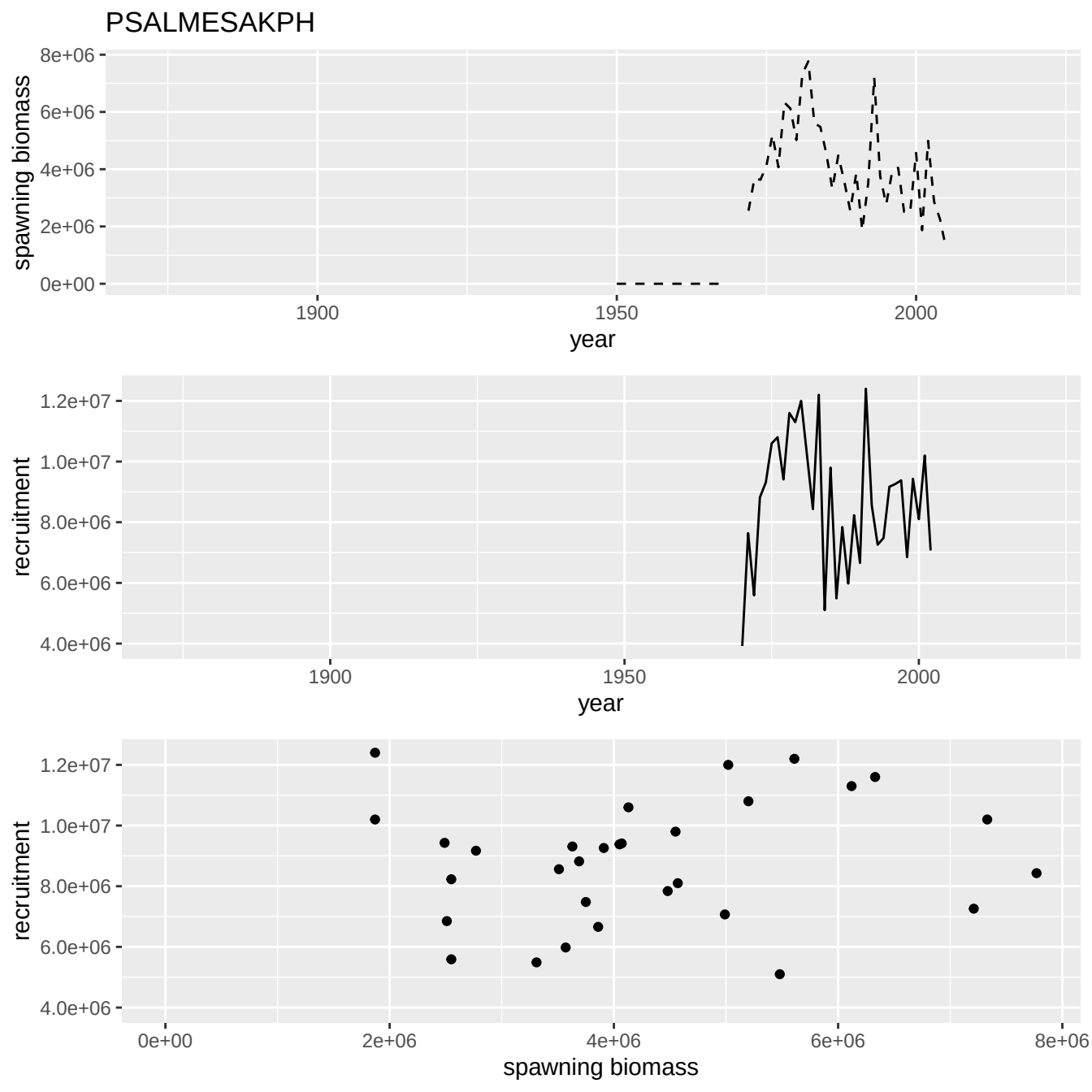

PSALMCHIGNIKED
spawning biomass
1e+06
5e+05
0e+00
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
0
0e+00
5e+05
1e+06
spawning biomass

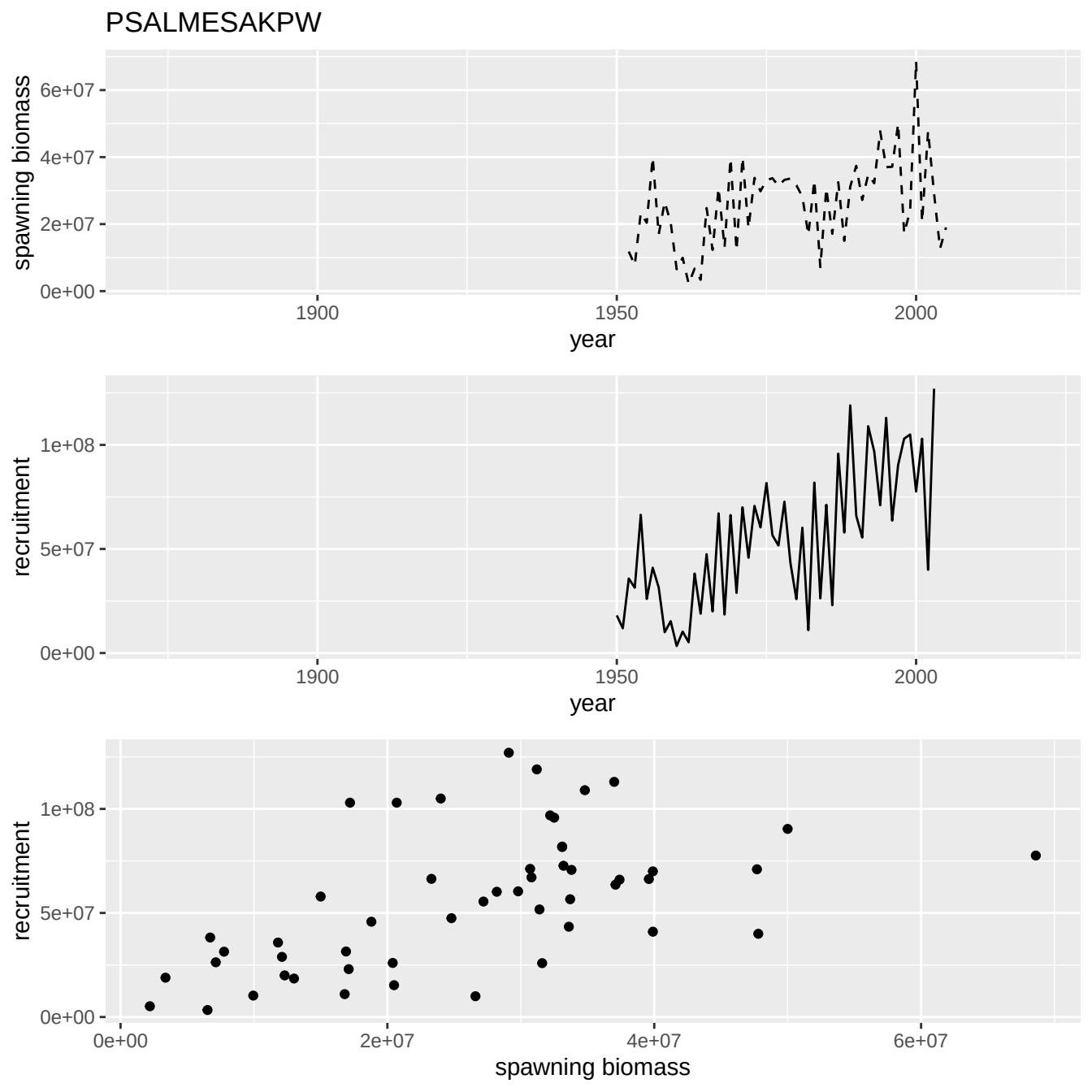

PSALMCHIGNIKWD
spawning biomass
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
1e+06
5e+05
0e+00
1900
1950
2000
year
recruitment
1e+06
5e+05
0e+00
0e+00
2e+05
4e+05
spawning biomass

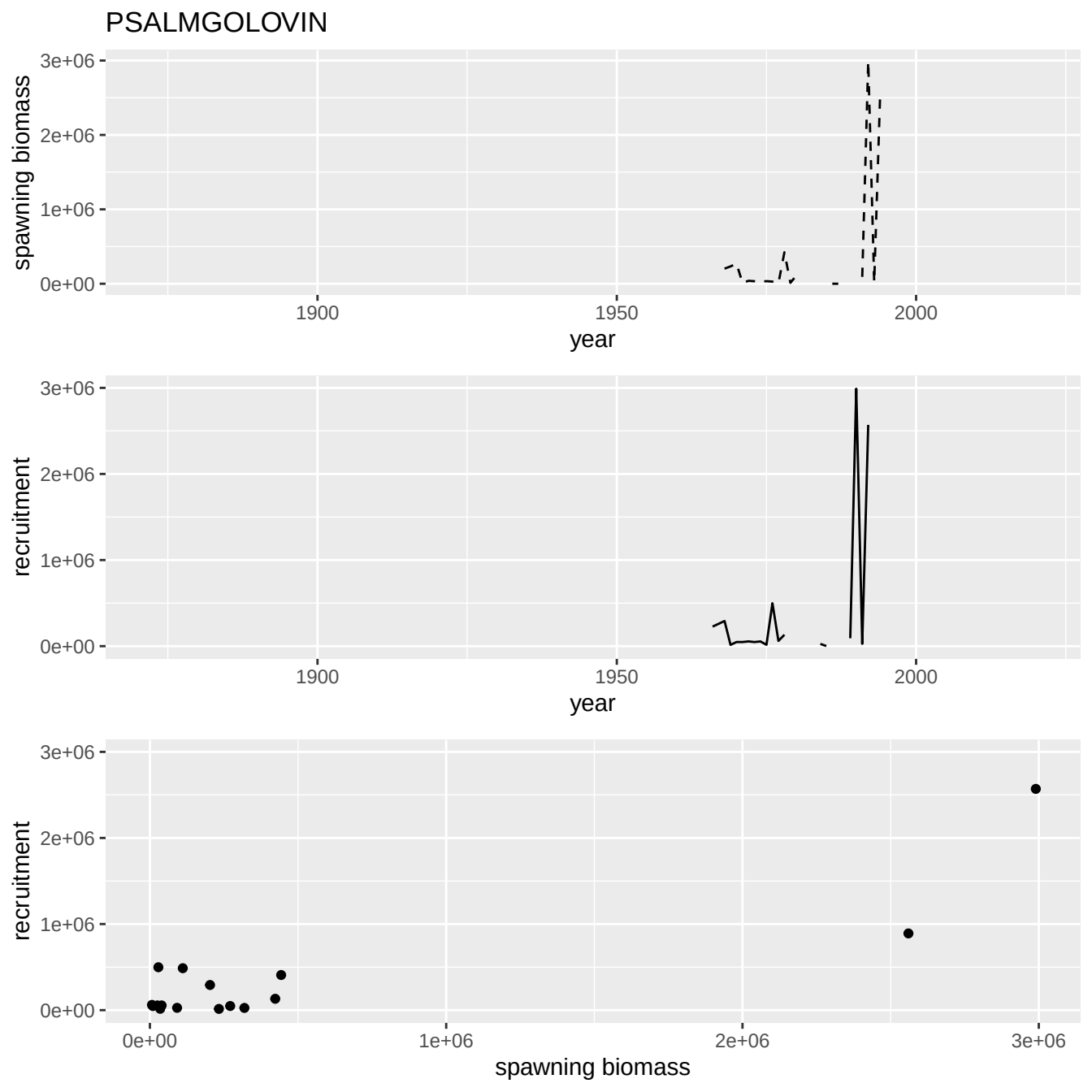

PSALMCHINAP
spawning biomass
20000
10000
0
1900
1950
2000
year
recruitment
1e+05
5e+04
0e+00
1900
1950
2000
year
recruitment
1e+05
5e+04
0e+00
0
10000
20000
spawning biomass

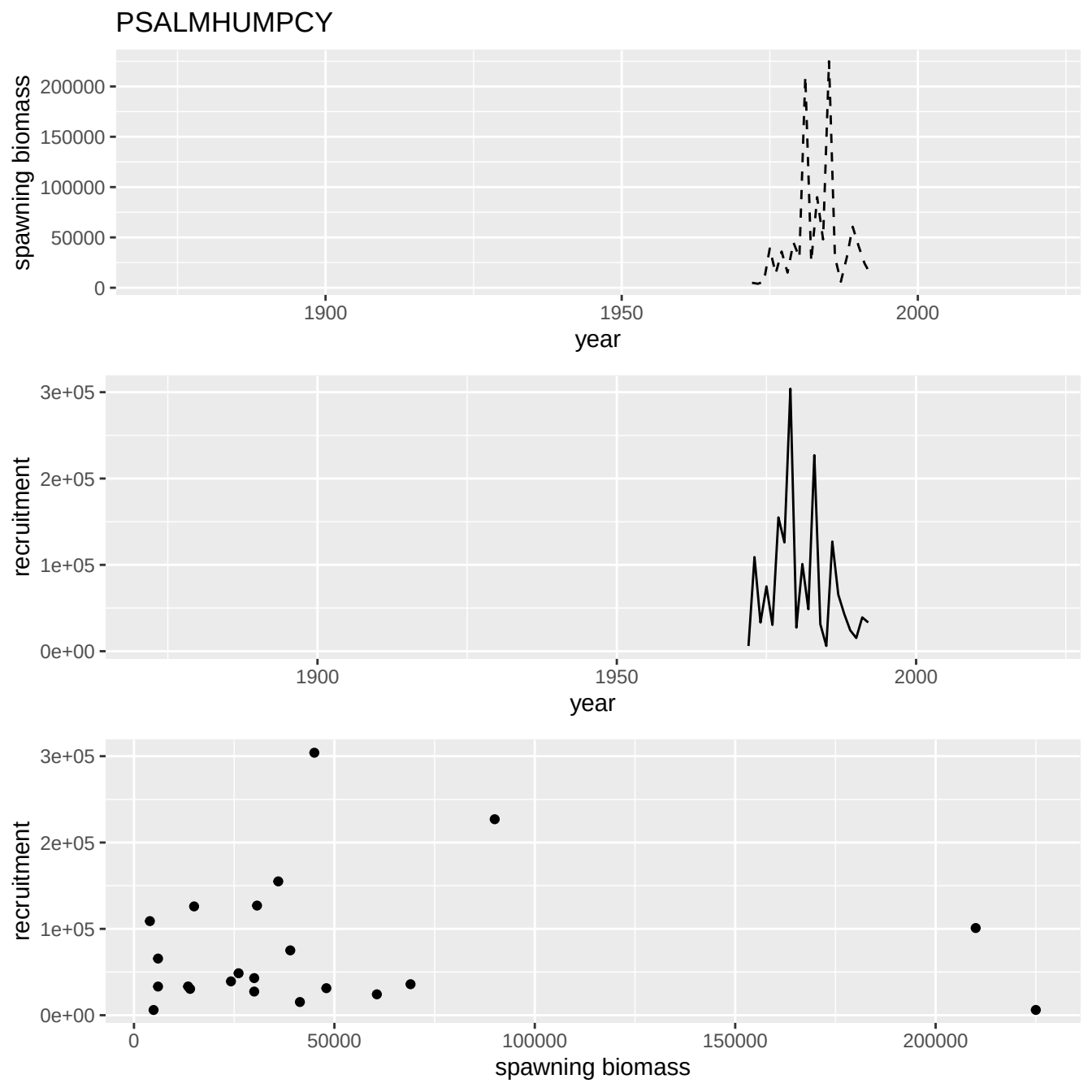

PSALMDOGFISH
spawning biomass
20000
15000
10000
5000
0
1900
1950
2000
year
recruitment
20000
10000
0
1900
1950
2000
year
recruitment
20000
10000
0
0
5000
10000
15000
20000
spawning biomass

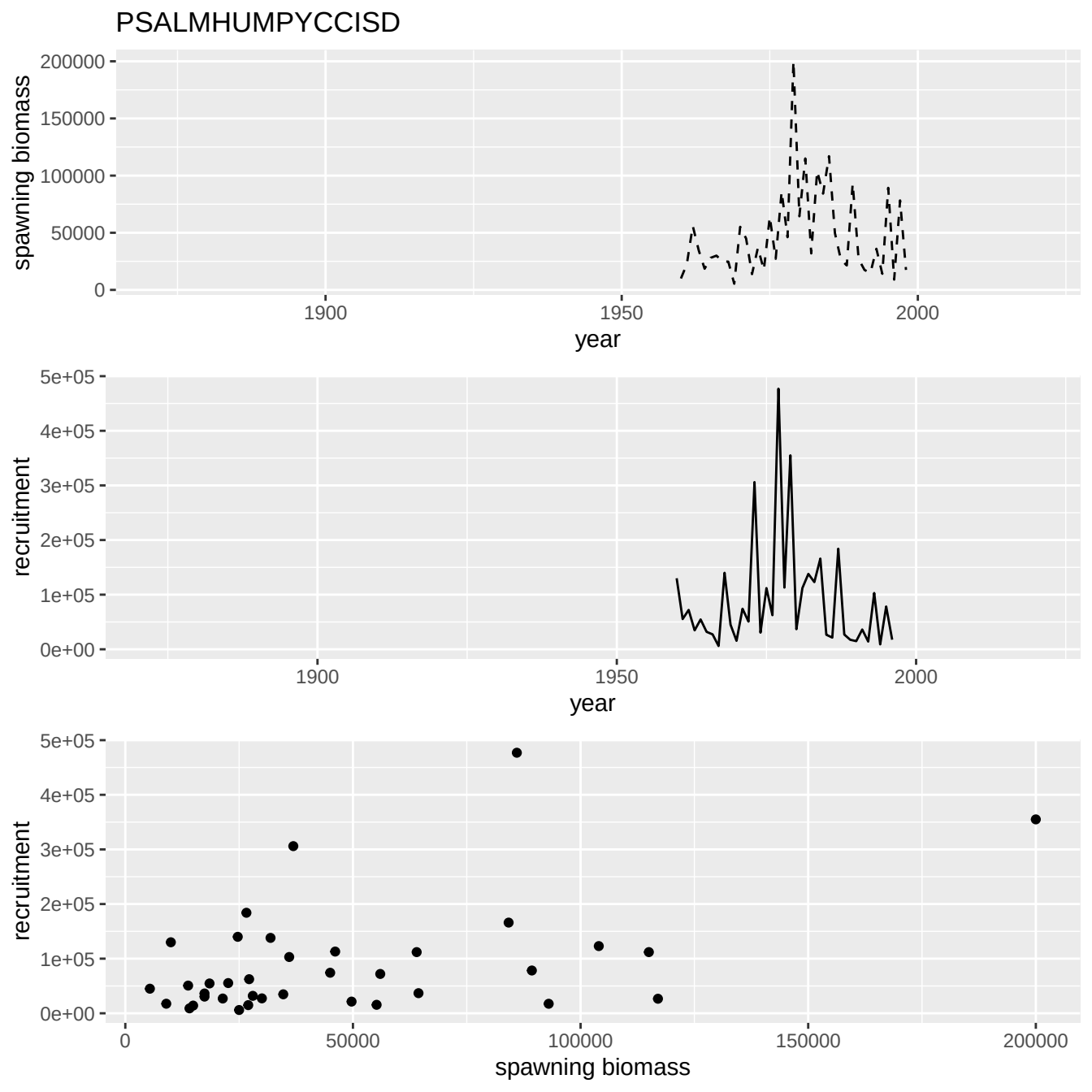

PSALMEKAMPW
spawning biomass
6e+07
4e+07
2e+07
0e+00
1900
1950
2000
year
recruitment
1.0e+08
7.5e+07
5.0e+07
2.5e+07
0.0e+00
1900
1950
2000
year
recruitment
1.0e+08
7.5e+07
5.0e+07
2.5e+07
0.0e+00
0e+00
2e+07
4e+07
6e+07
spawning biomass

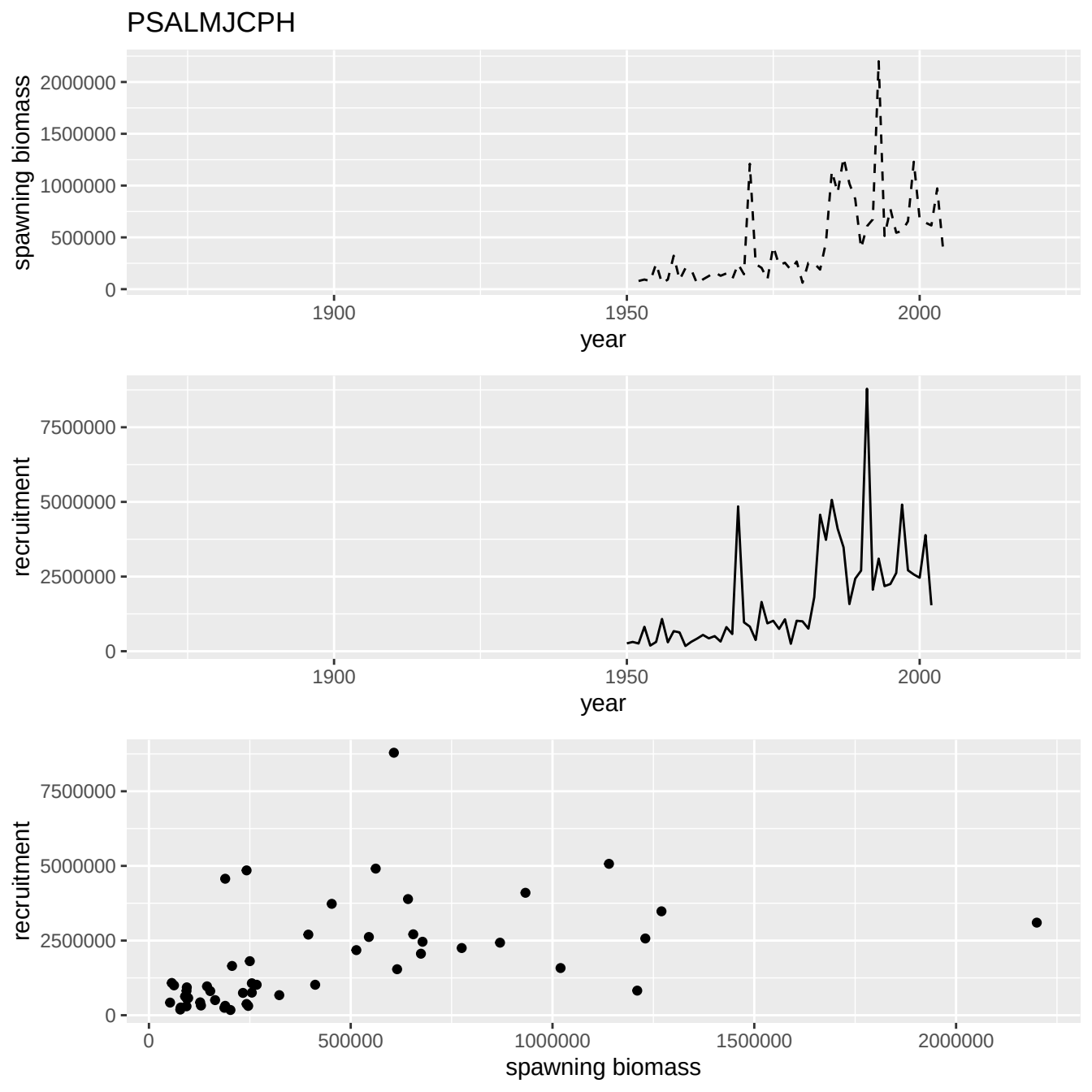

PSALMESAKPH
spawning biomass
8e+06
6e+06
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
1.2e+07
1.0e+07
8.0e+06
6.0e+06
4.0e+06
1900
1950
2000
year
recruitment
1.2e+07
1.0e+07
8.0e+06
6.0e+06
4.0e+06
0e+00
2e+06
4e+06
6e+06
8e+06
spawning biomass


PSALMESAKPW
spawning biomass
6e+07
4e+07
2e+07
0e+00
1900
1950
2000
year
recruitment
1e+08
5e+07
0e+00
1900
1950
2000
year
recruitment
1e+08
5e+07
0e+00
0e+00
2e+07
4e+07
6e+07
spawning biomass


PSALMGOLOVIN
spawning biomass
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
3e+06
2e+06
1e+06
0e+00
0e+00
1e+06
2e+06
3e+06
spawning biomass


PSALMHUMPCY
spawning biomass
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
0
50000
100000
150000
200000
spawning biomass


PSALMHUMPYCCISD
spawning biomass
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
5e+05
4e+05
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
5e+05
4e+05
3e+05
2e+05
1e+05
0e+00
0
50000
100000
150000
200000
spawning biomass


PSALMJCPH
spawning biomass
2000000
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
7500000
5000000
2500000
0
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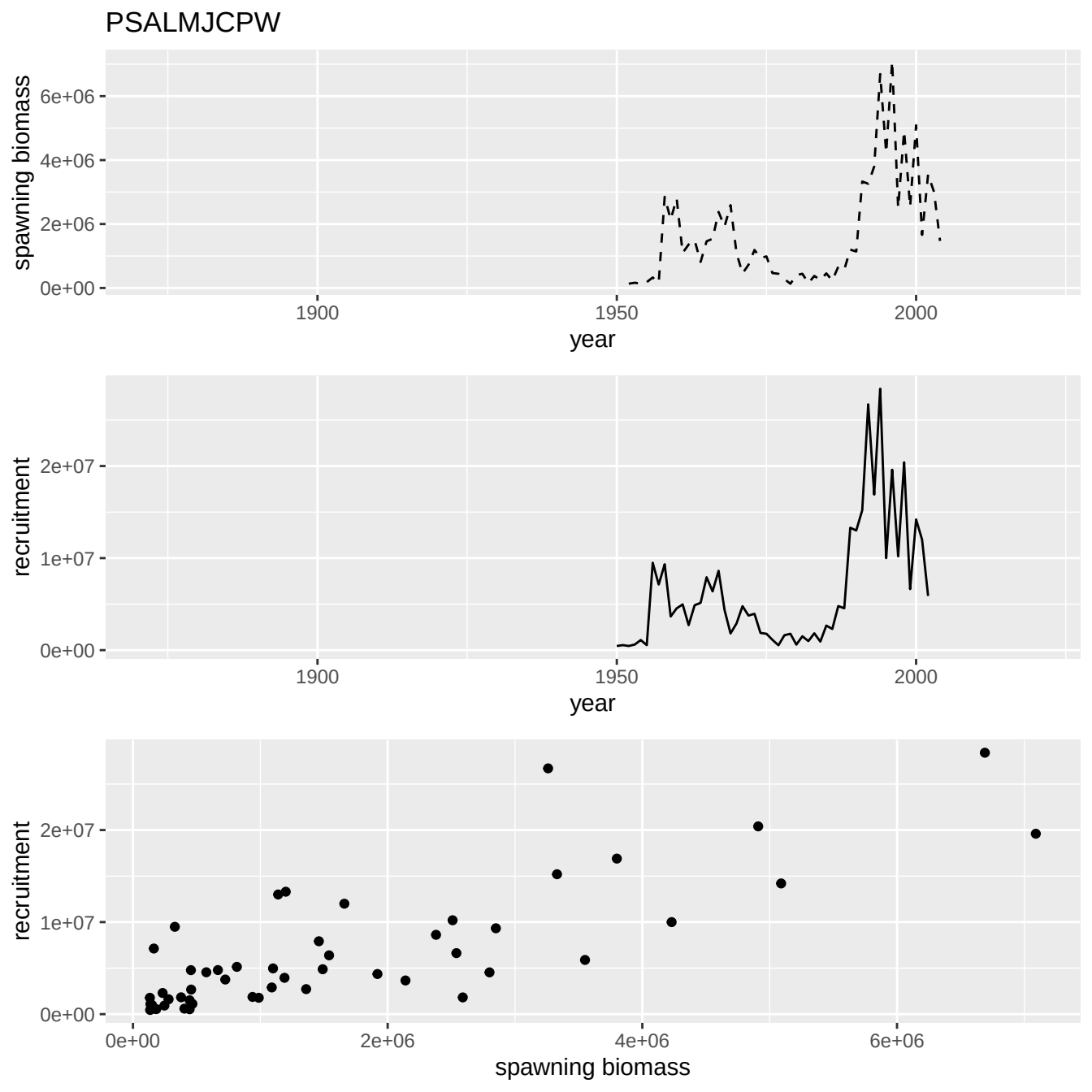
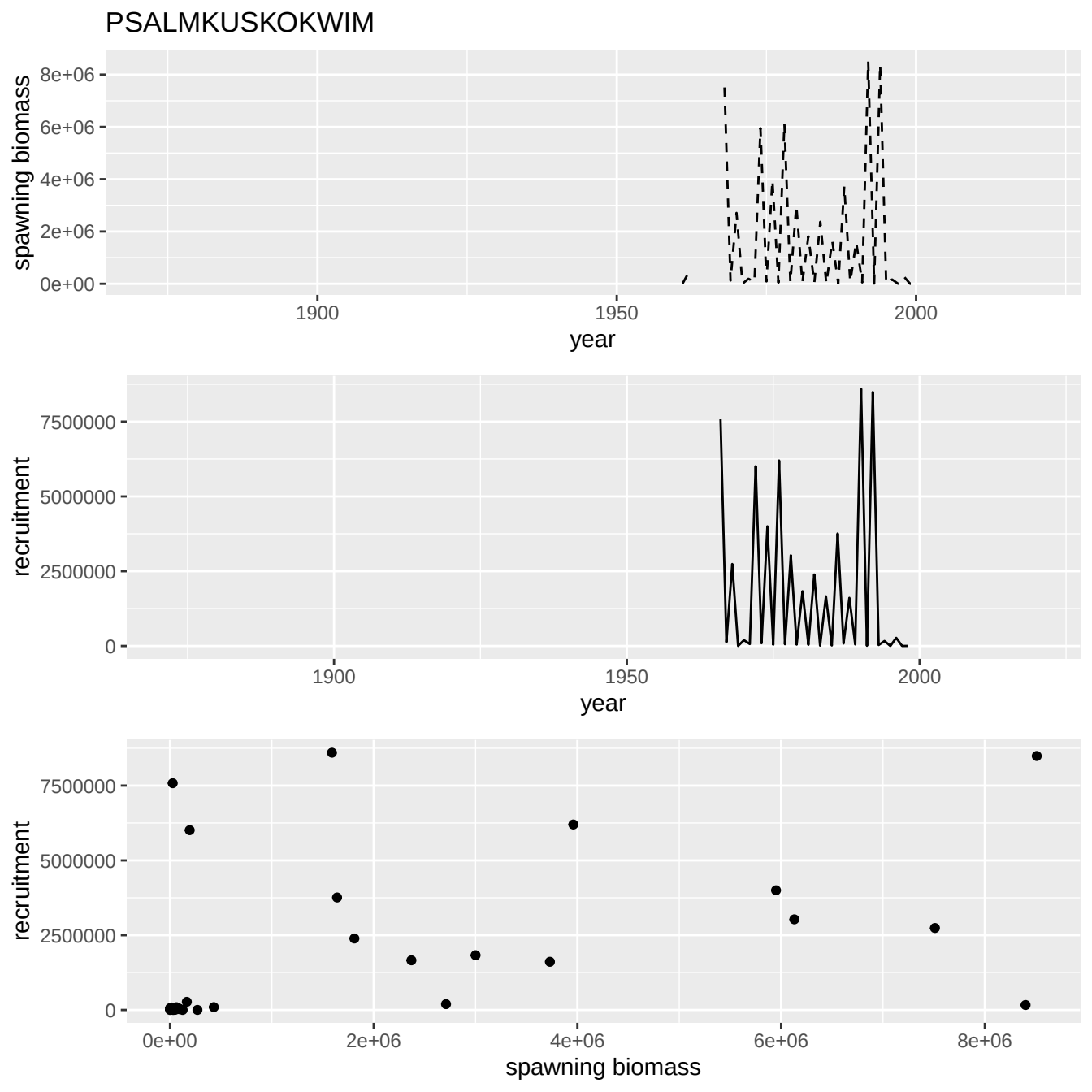
1950
2000
year
recruitment
7500000
5000000
2500000
0
0
500000
1000000
1500000
2000000
spawning biomass


PSALMJCPW
spawning biomass
6e+06
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
2e+07
1e+07
0e+00
1900
1950
2000
year
recruitment
2e+07
1e+07
0e+00
0e+00
2e+06
4e+06
6e+06
spawning biomass


PSALMKUSKOKWIM
spawning biomass
8e+06
6e+06
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
7500000
5000000
2500000
0
1900
1950
2000
year
recruitment
7500000
5000000
2500000
0
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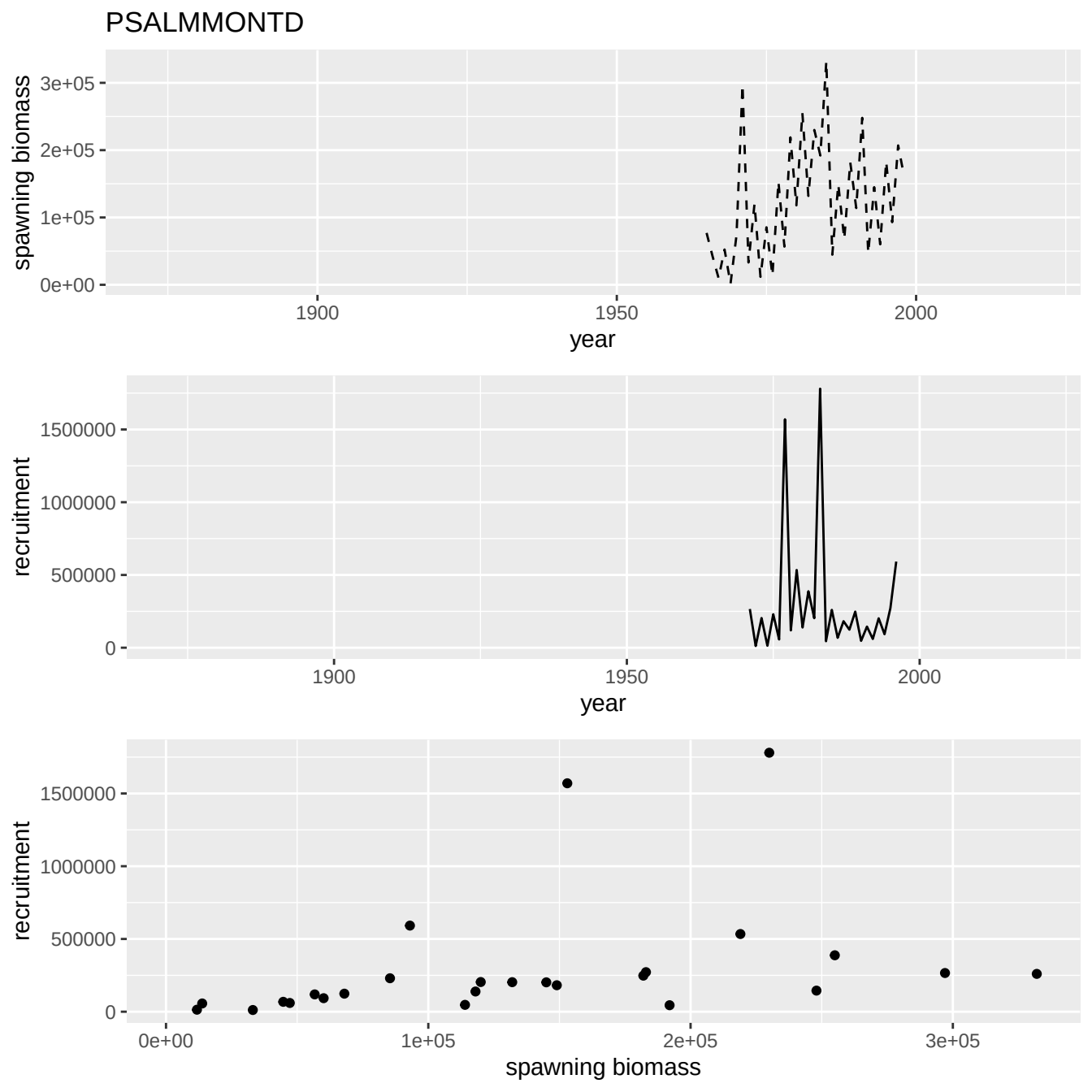
2e+06
4e+06
6e+06
8e+06
spawning biomass


PSALMMONTD
spawning biomass
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
1500000
1000000
500000
0
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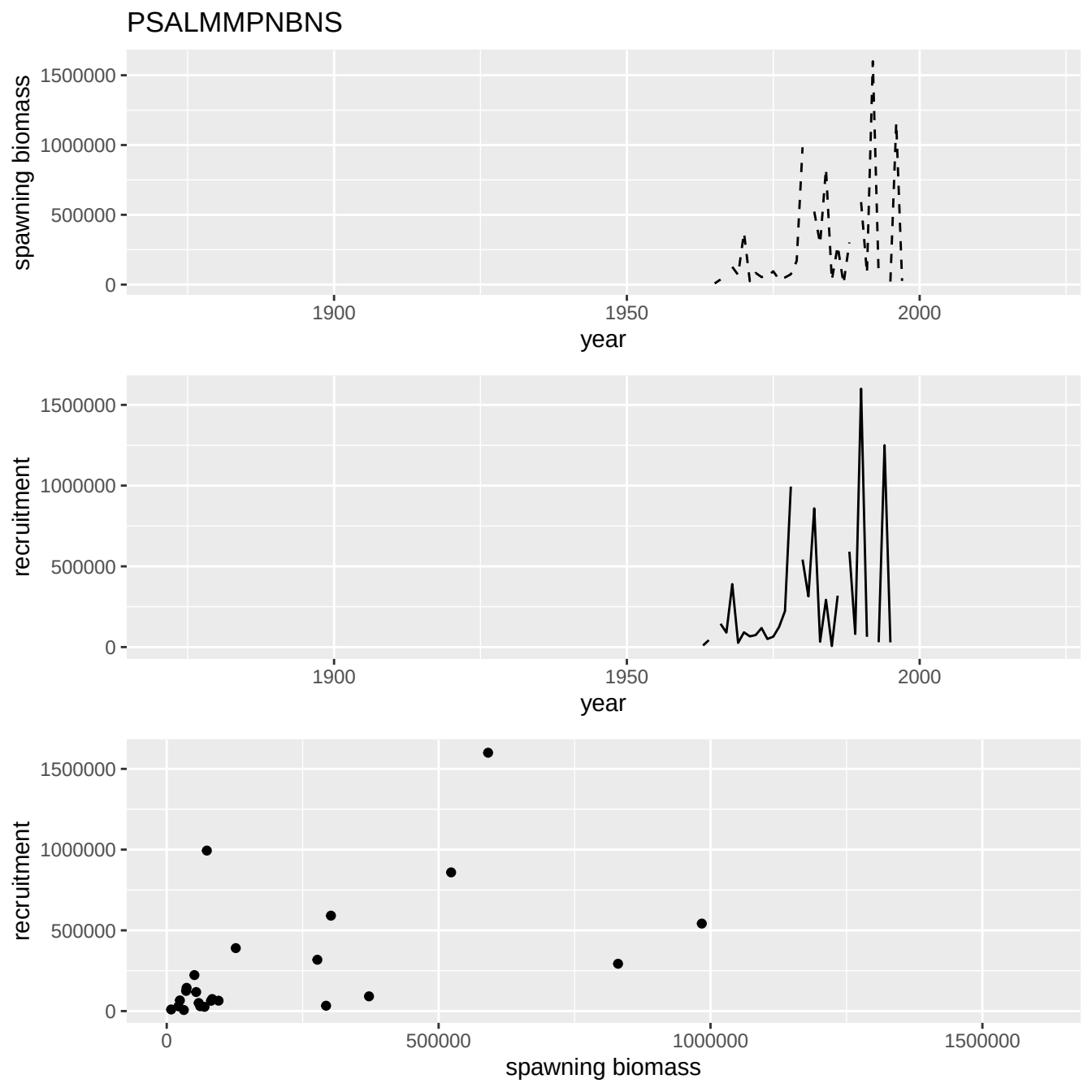
1e+05
2e+05
3e+05
spawning biomass


PSALMMPNBNS
spawning biomass
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
1500000
1000000
500000
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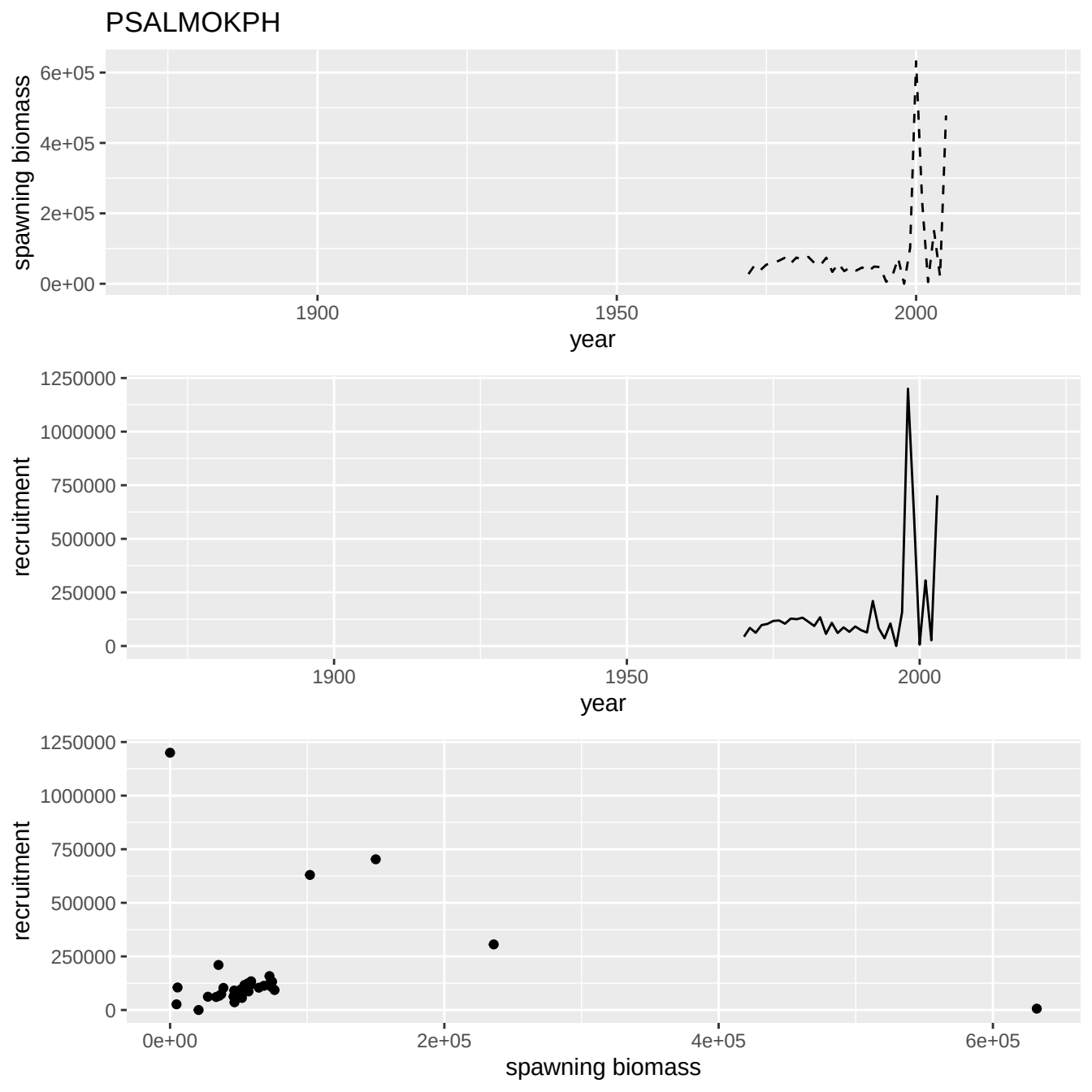
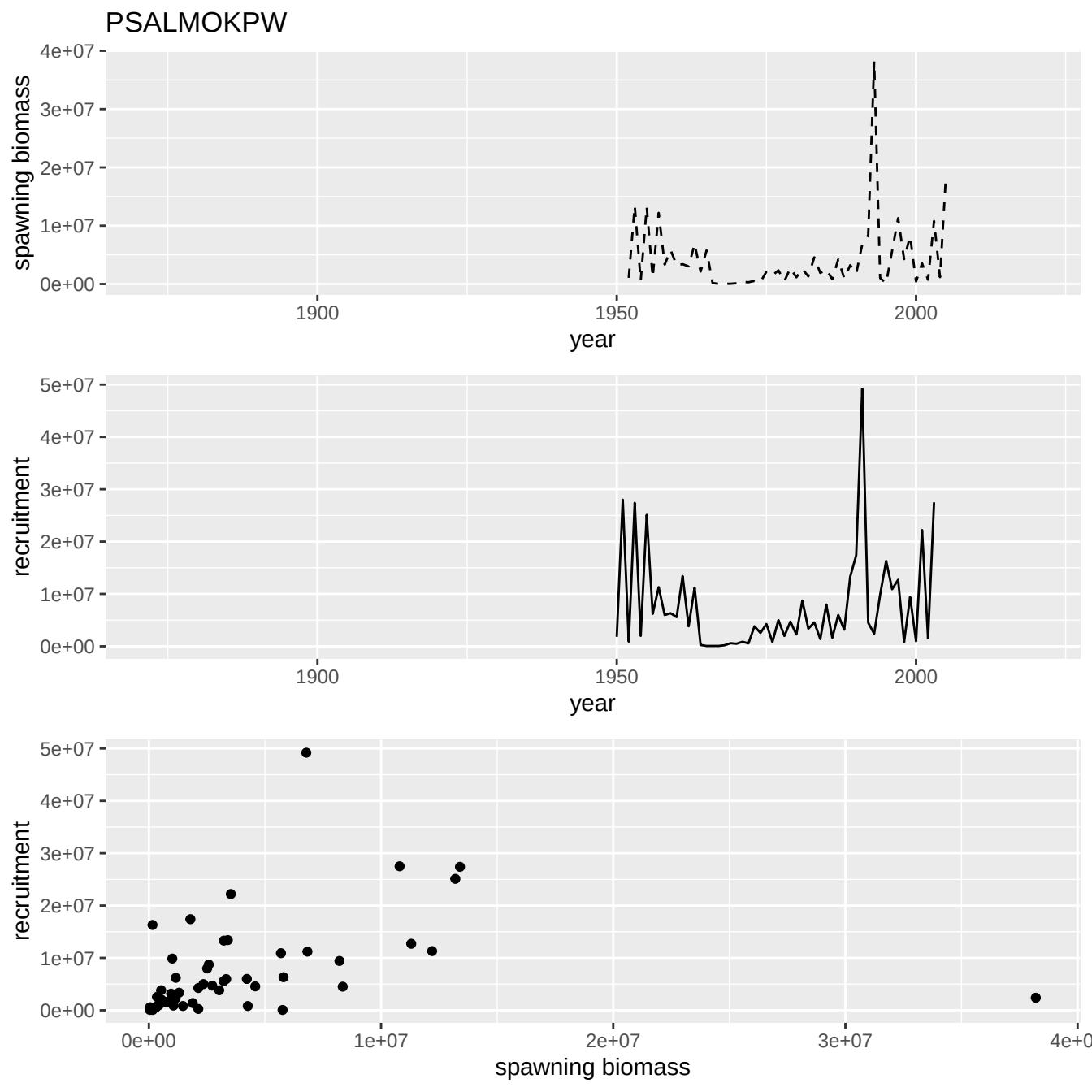
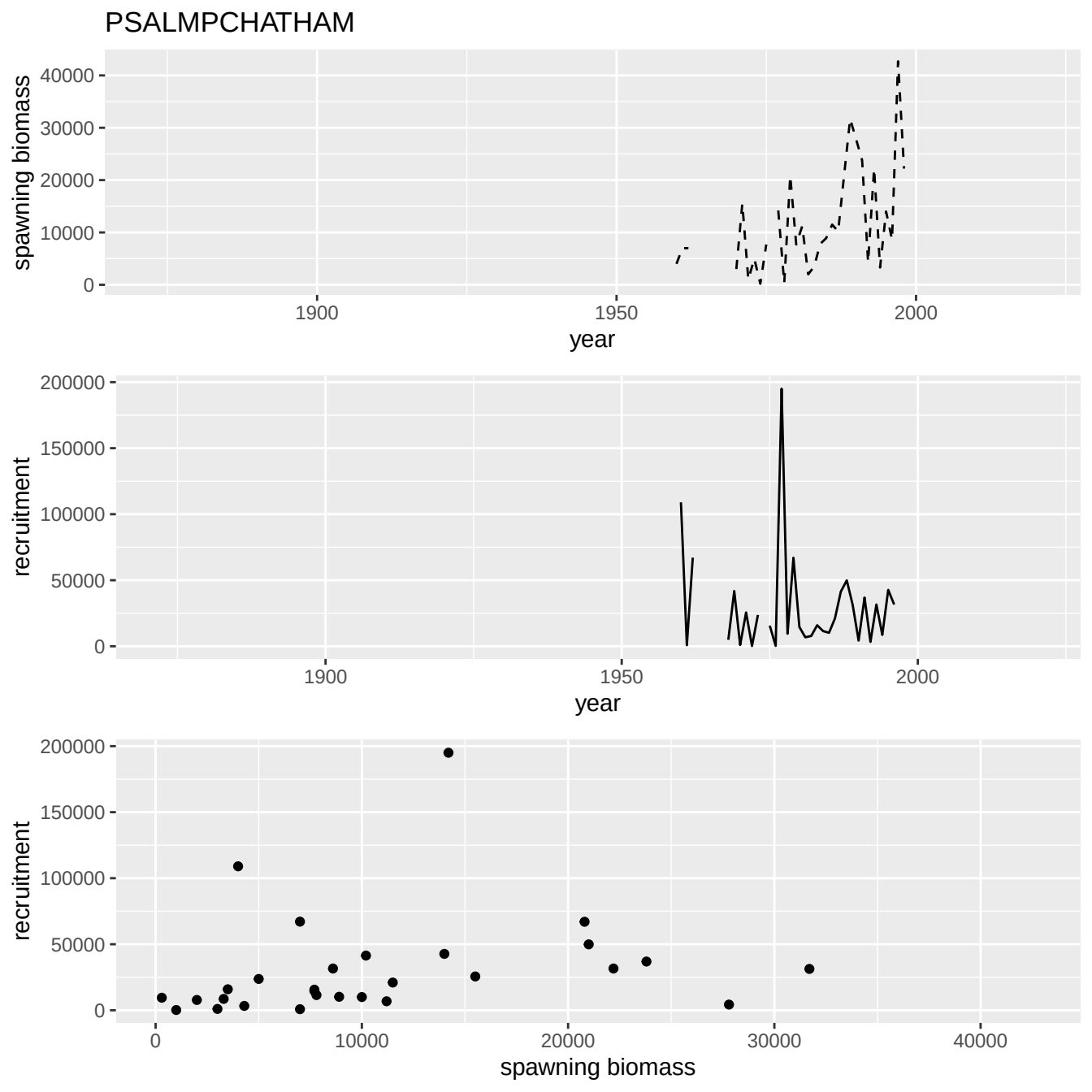
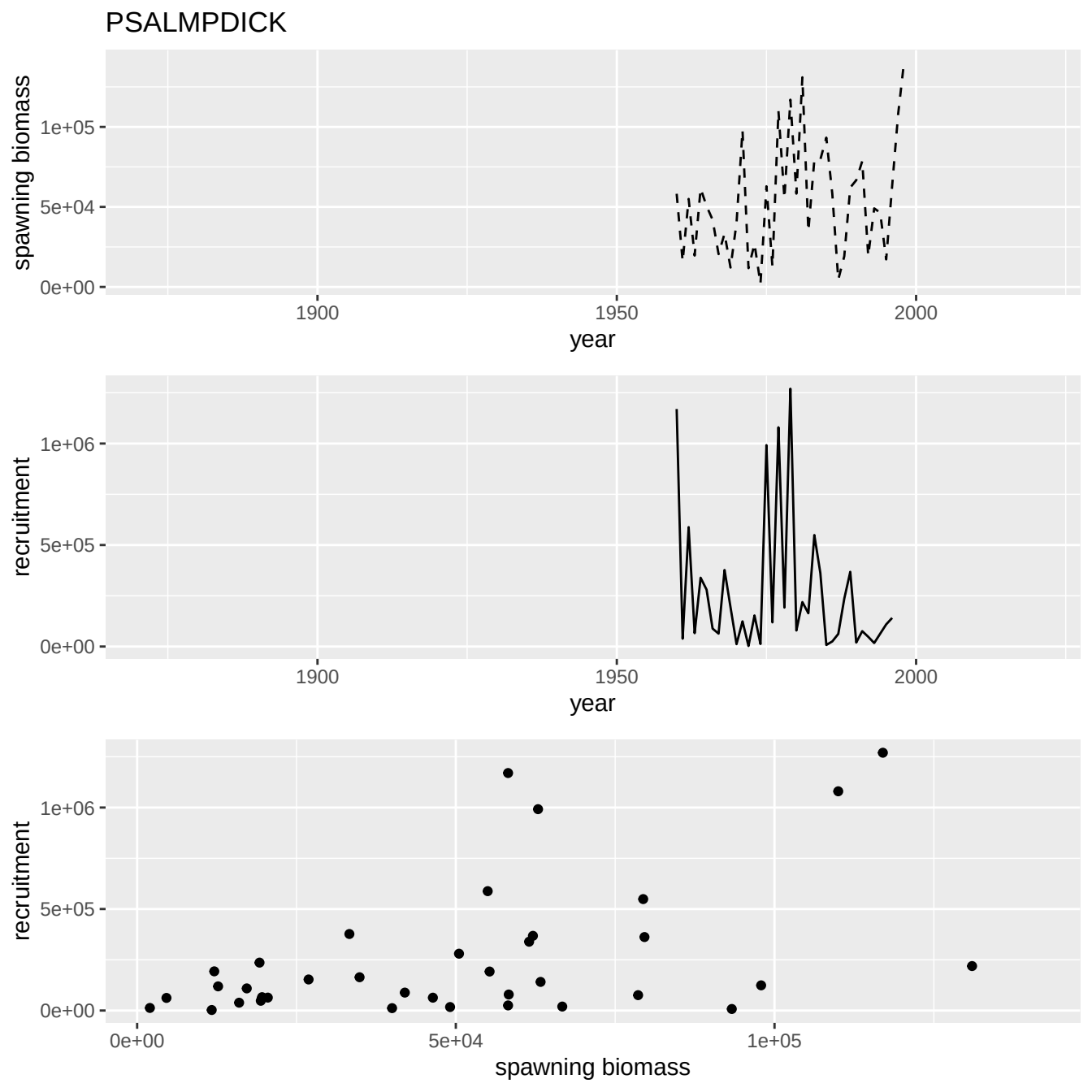
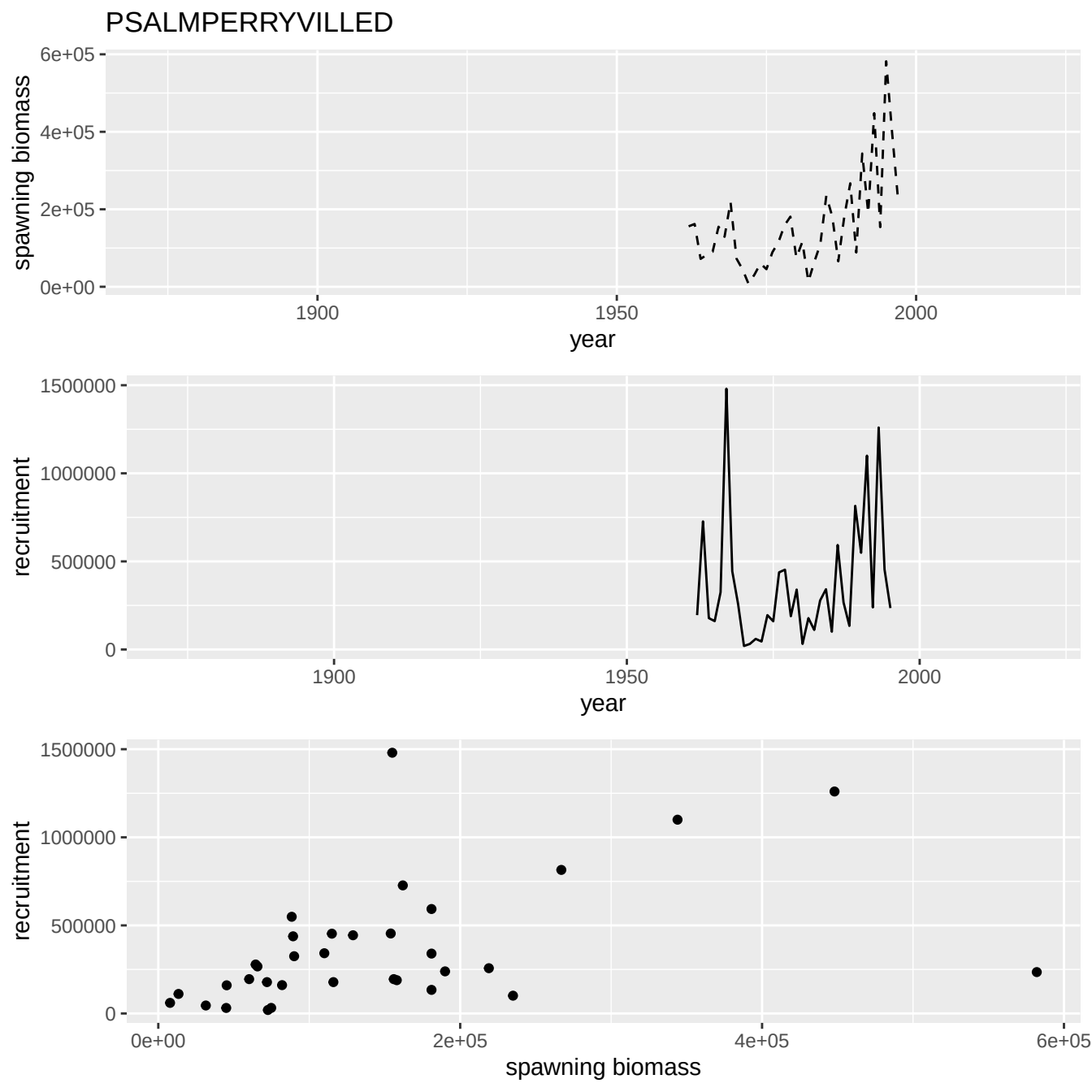
1950
2000
year
recruitment
1500000
1000000
500000
0
0
500000
1000000
1500000
spawning biomass

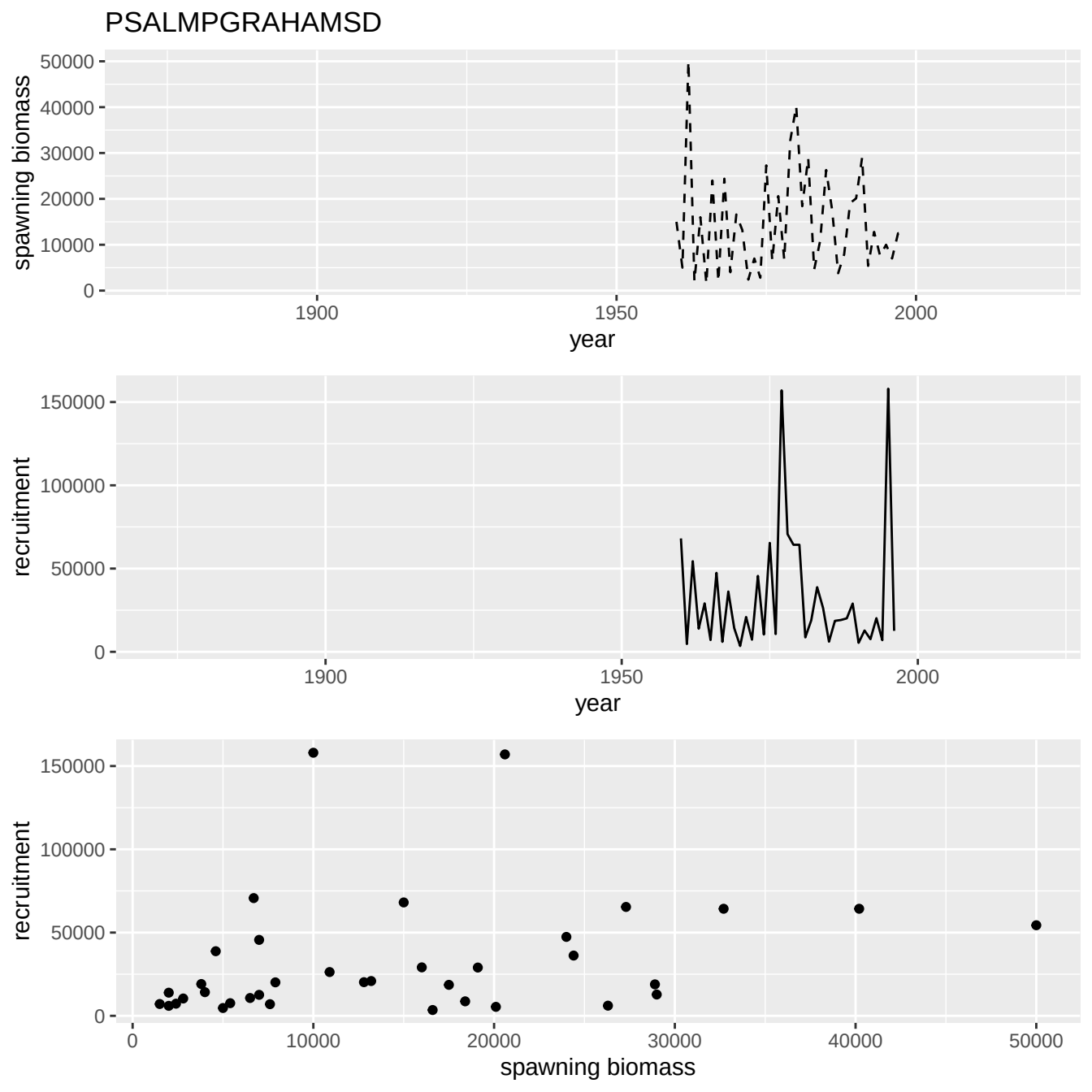

PSALMOKPH
spawning biomass
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
1250000
1000000
750000
500000
250000
0
1900
1950
2000
year
recruitment
1250000
1000000
750000
500000
250000
0
0e+00
2e+05
4e+05
6e+05
spawning biomass


PSALMOKPW
spawning biomass
4e+07
3e+07
2e+07
1e+07
0e+00
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
0e+00
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
0e+00
0e+00
1e+07
2e+07
3e+07
4e+0
spawning biomass


PSALMPCHATHAM
spawning biomass
40000
30000
20000
10000
0
1900
1950
2000
year
recruitment
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
200000
150000
100000
50000
0
0
10000
20000
30000
40000
spawning biomass


PSALMPDICK
spawning biomass
1e+05
5e+04
0e+00
1900
1950
2000
year
recruitment
1e+06
5e+05
0e+00
1900
1950
2000
year
recruitment
1e+06
5e+05
0e+00
0e+00
5e+04
1e+05
spawning biomass


PSALMPERRYVILLED
spawning biomass
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
1500000
1000000
500000
0
0e+00
2e+05
4e+05
6e+05
spawning biomass


PSALMPGRAHAMSD
spawning biomass
50000
40000
30000
20000
10000
0
1900
1950
2000
year
recruitment
150000
100000
50000
0
1900
1950
2000
year
recruitment
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100000
50000
0
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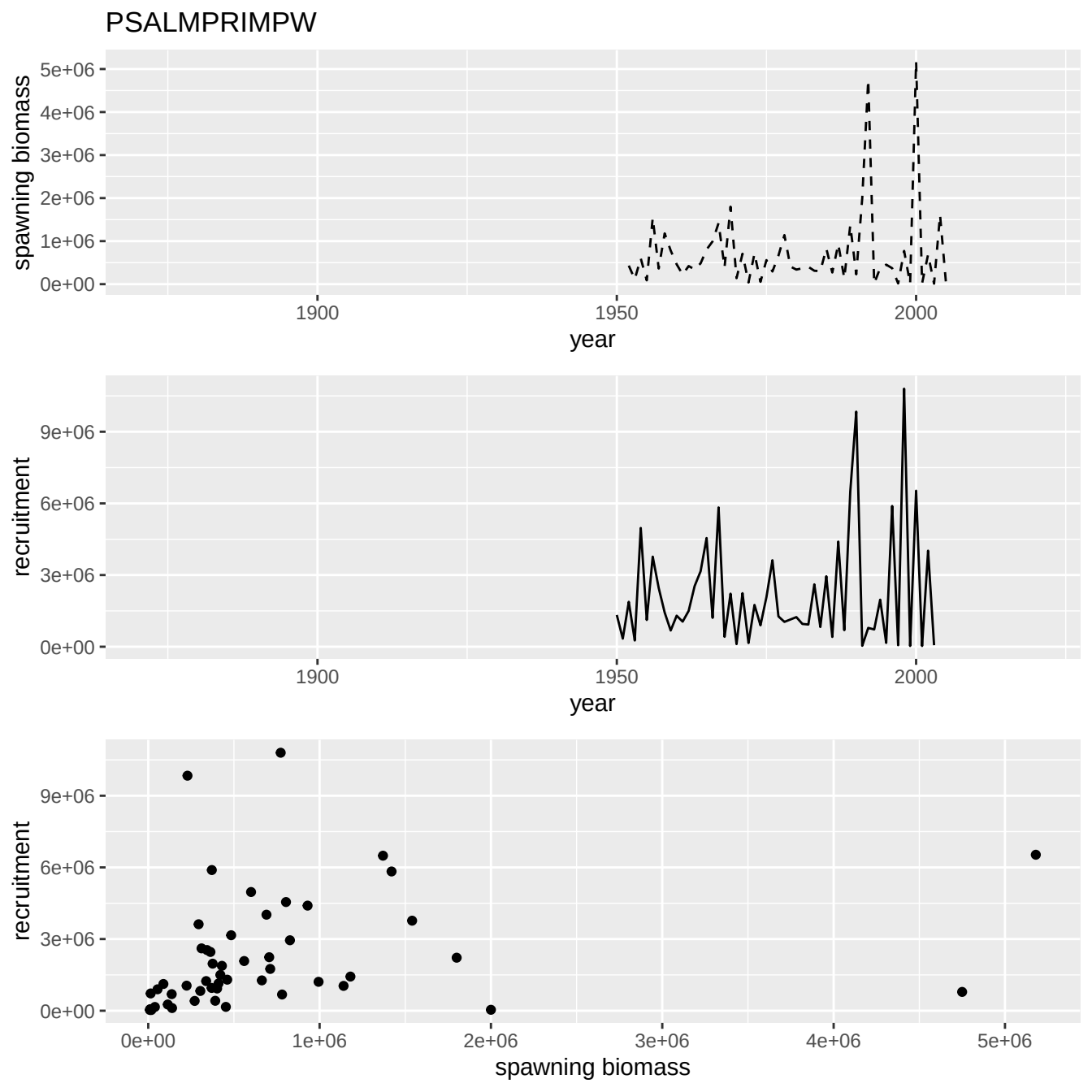
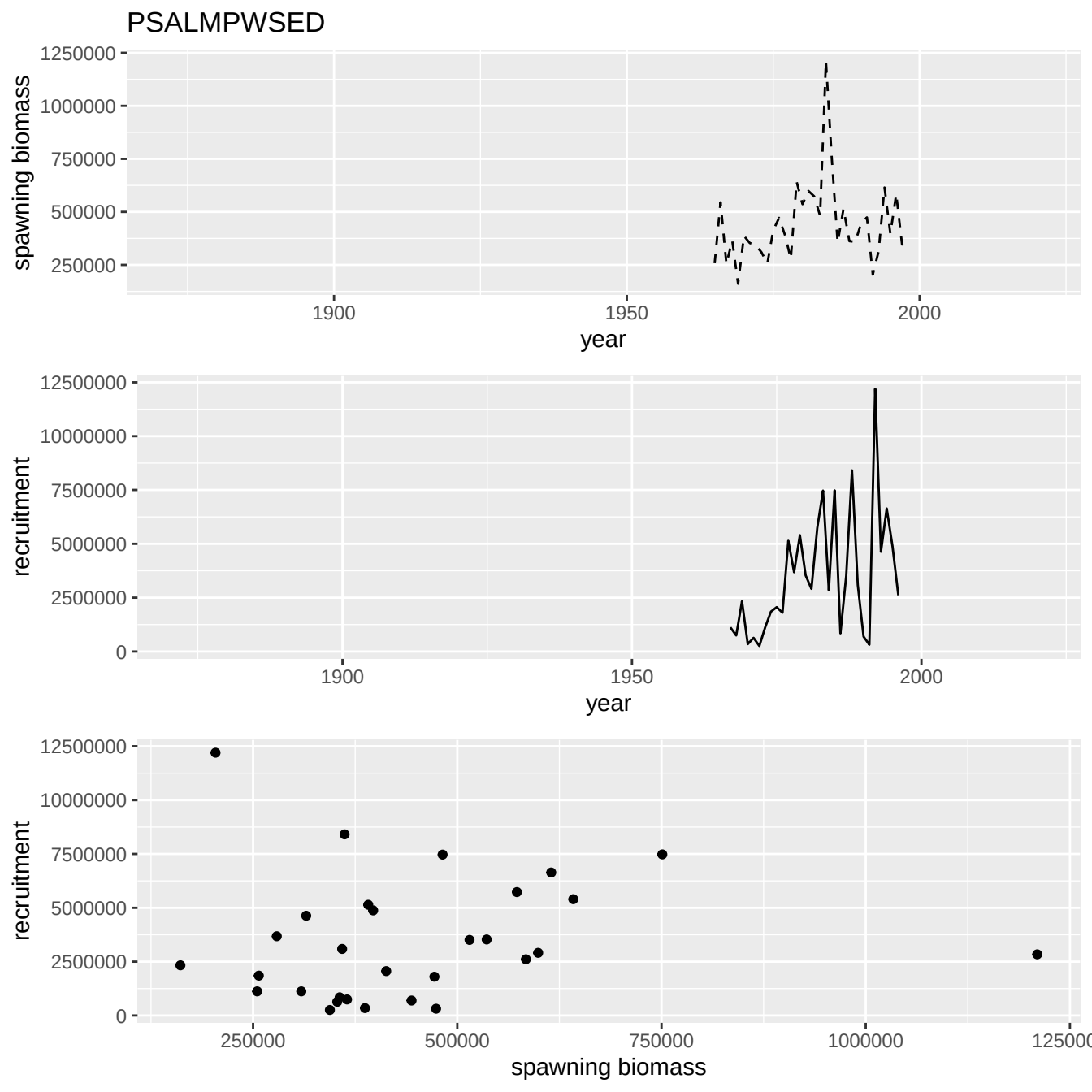
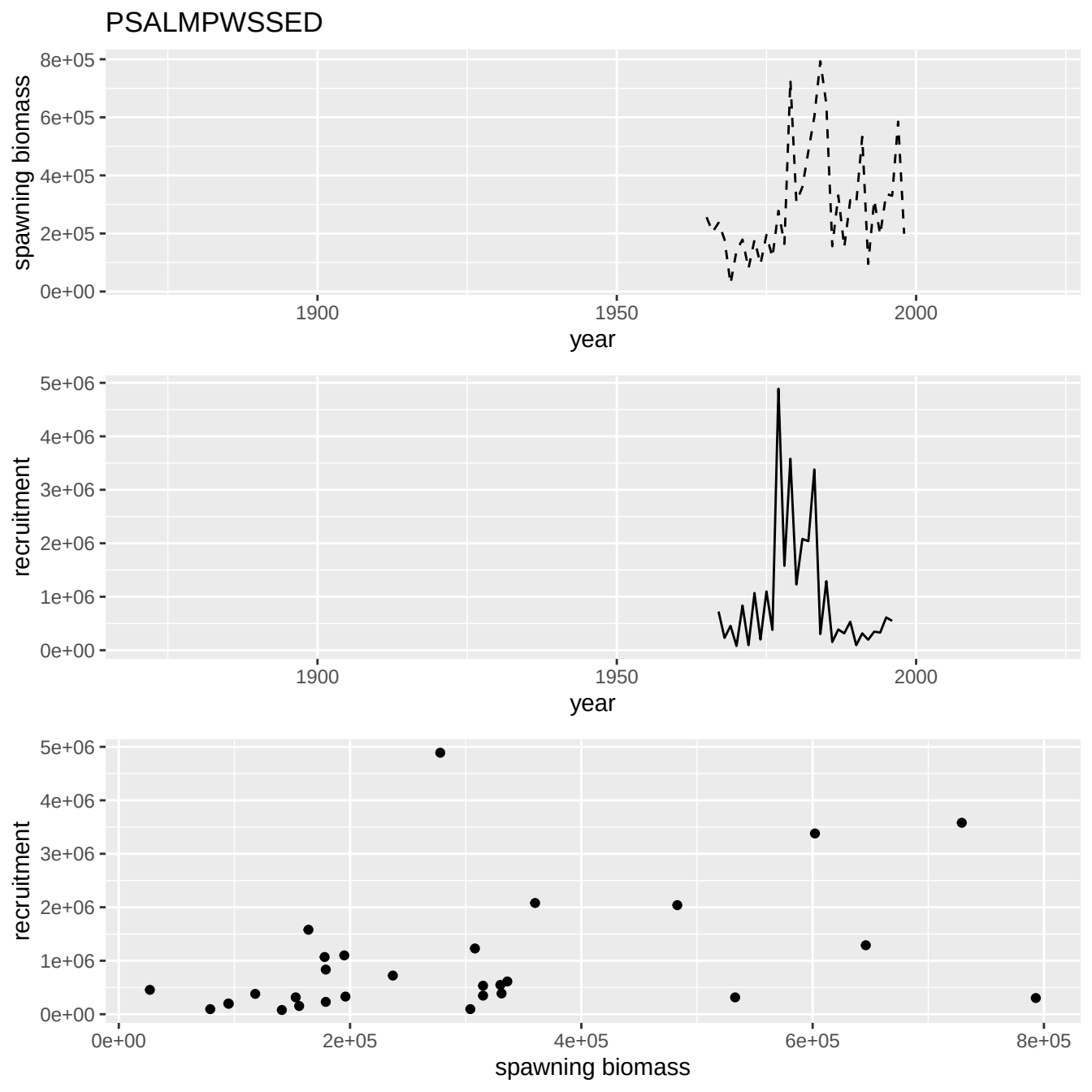
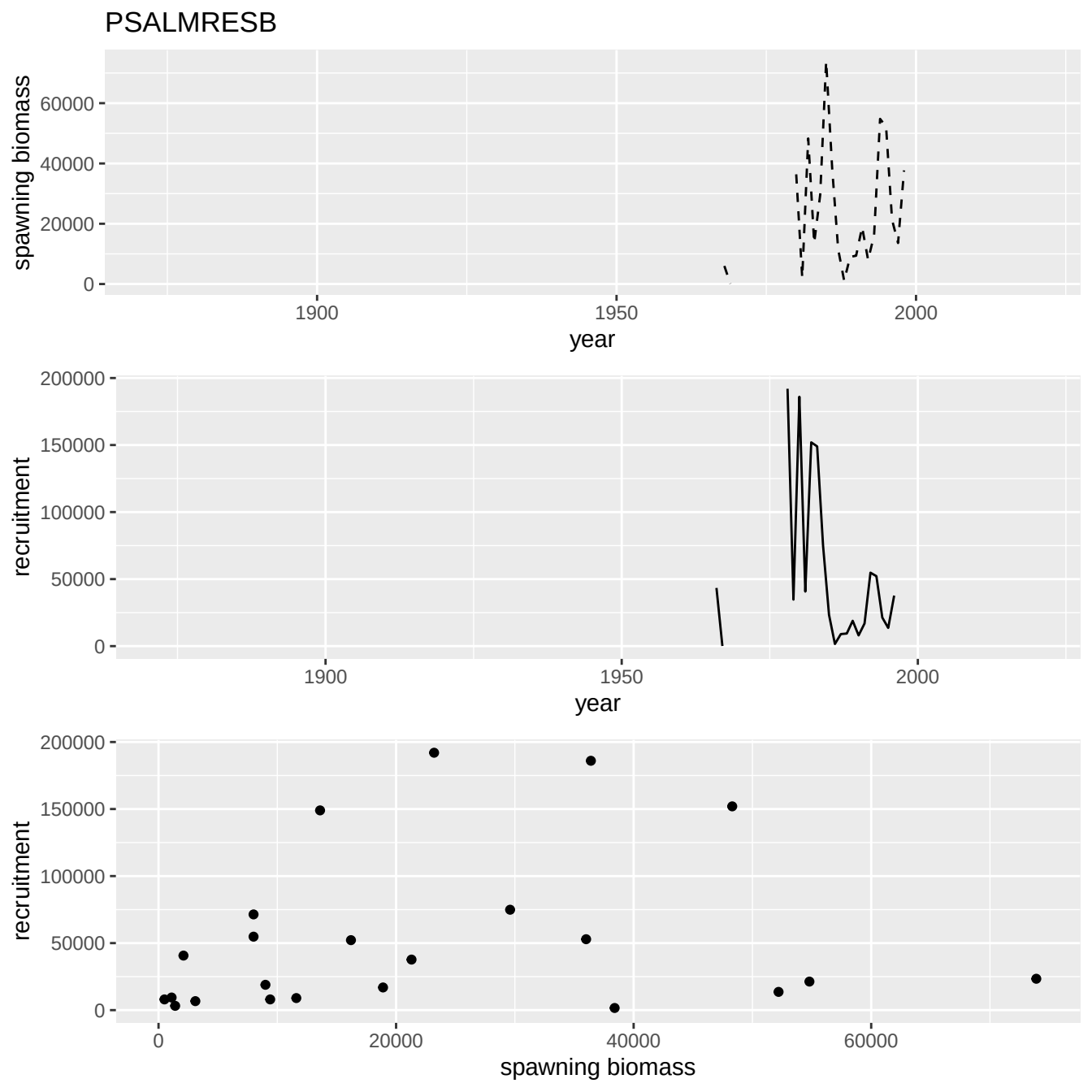
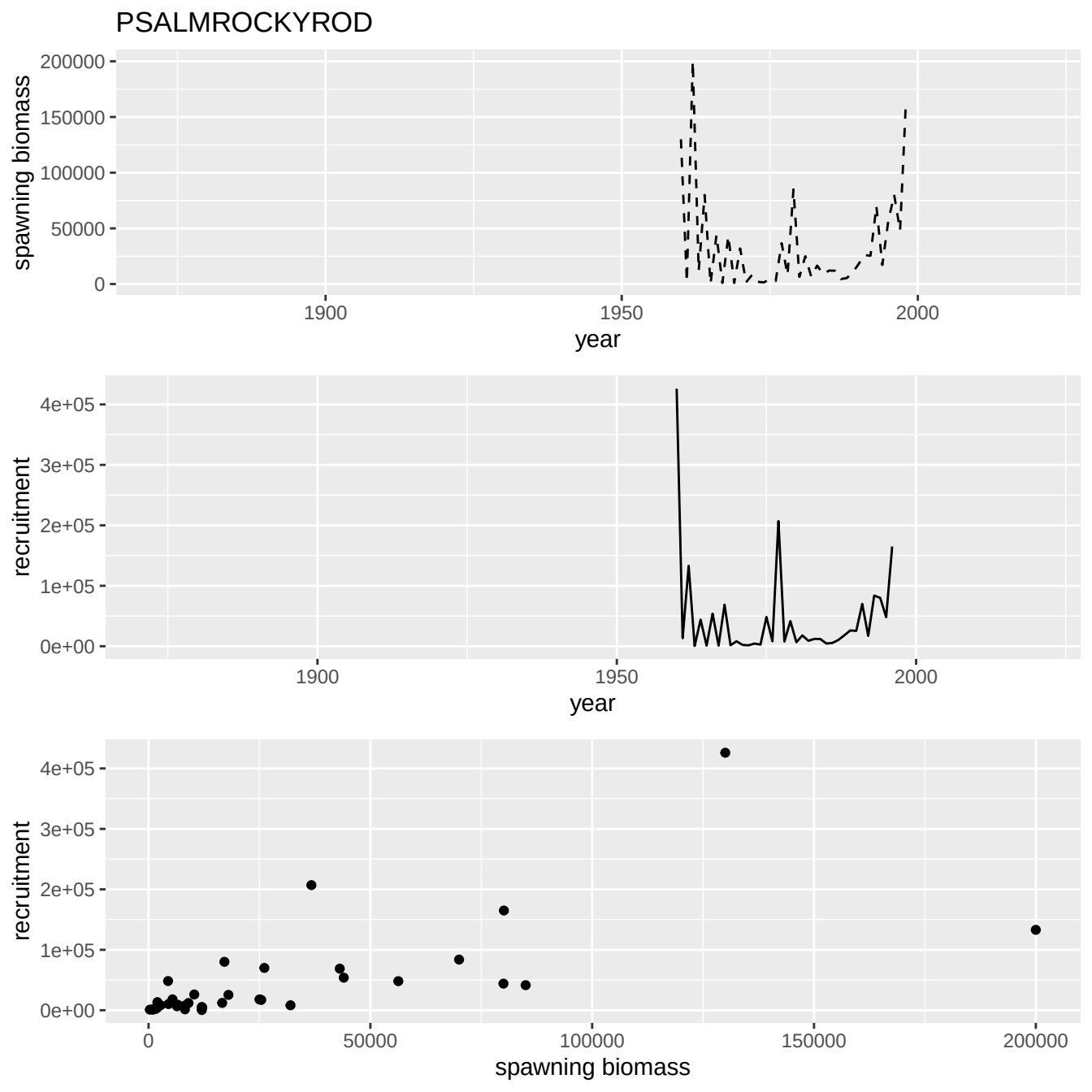
10000
20000
30000
40000
50000
spawning biomass

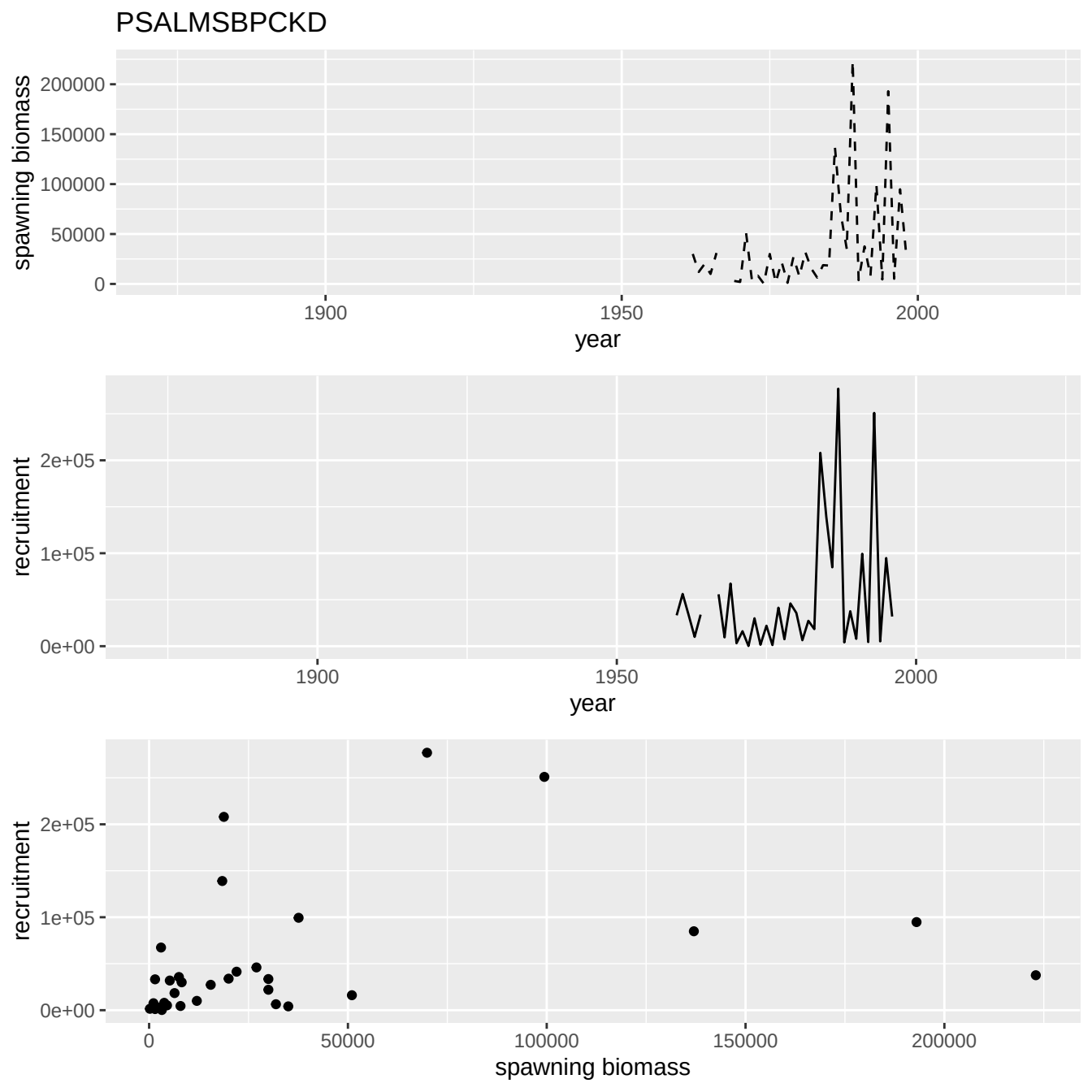

PSALMPRIMPW
spawning biomass
5e+06
4e+06
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
9e+06
6e+06
3e+06
0e+00
1900
1950
2000
year
recruitment
9e+06
6e+06
3e+06
0e+00
0e+00
1e+06
2e+06
3e+06
4e+06
5e+06
spawning biomass

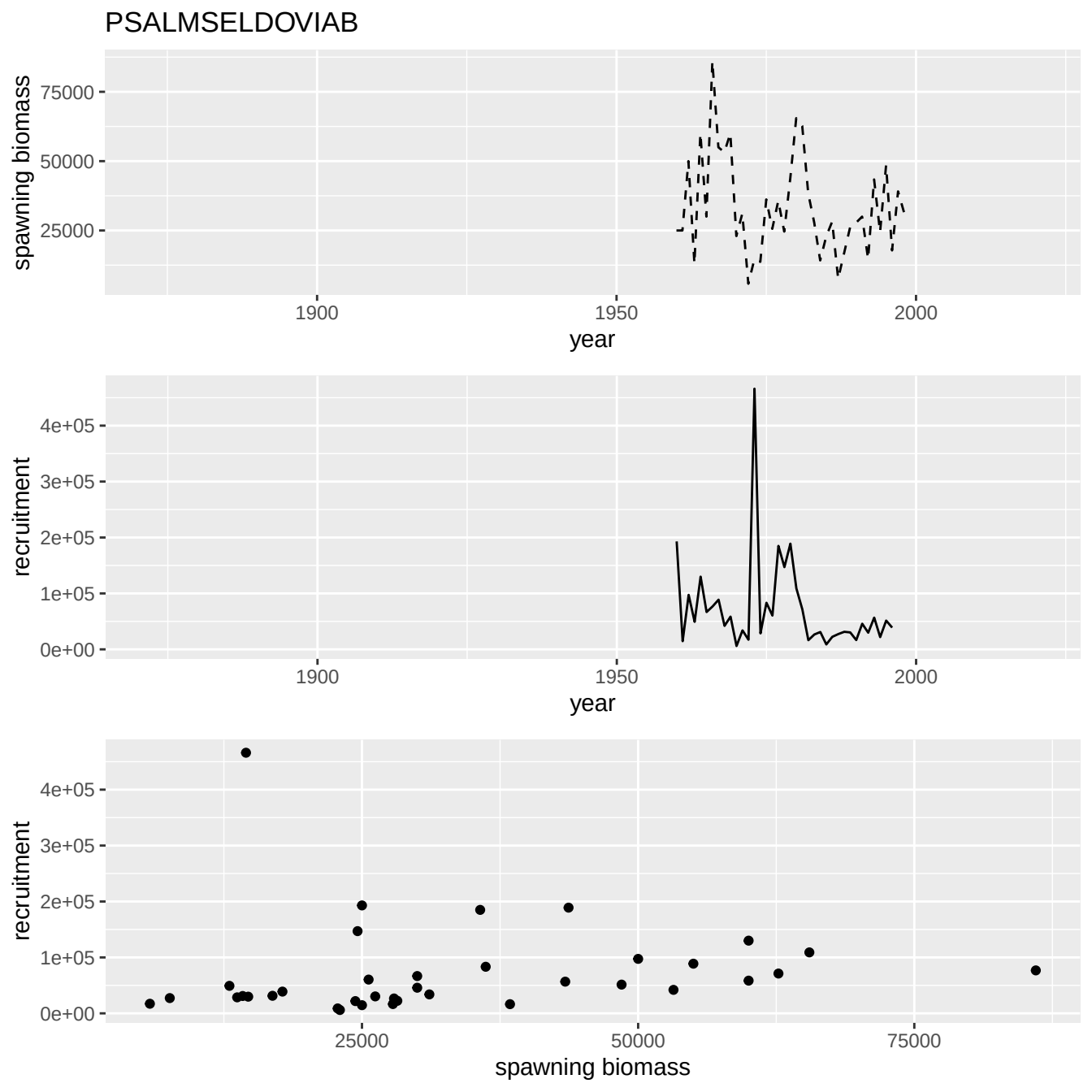

PSALMPWSED
spawning biomass
1250000
1000000
750000
500000
250000
1900
1950
2000
year
recruitment
12500000
10000000
7500000
5000000
2500000
0
1900
1950
2000
year
recruitment
12500000
10000000
7500000
5000000
2500000
0
250000
500000
750000
1000000
spawning biomass

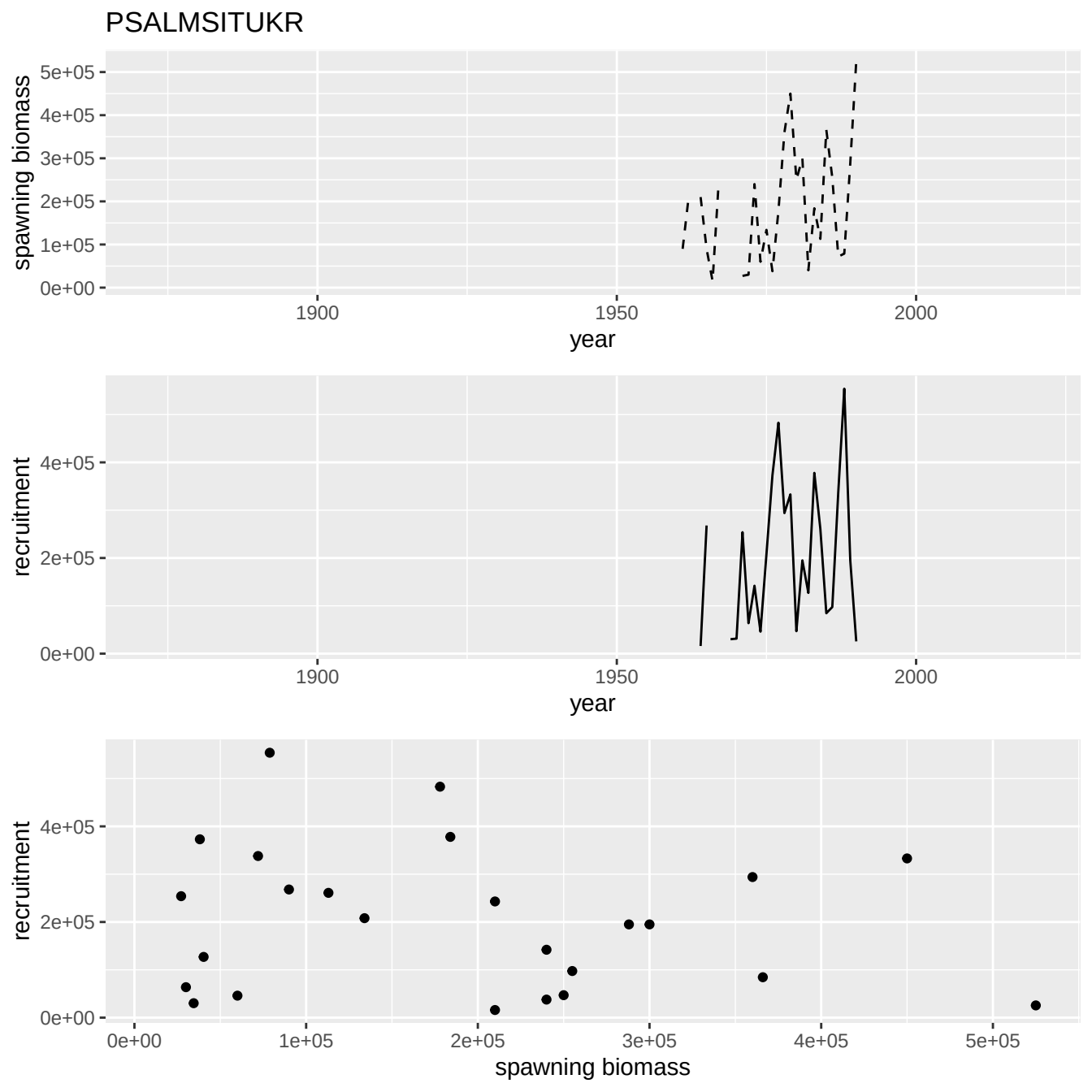

PSALMPWSSED
spawning biomass
8e+05
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
0e+00
0e+00
2e+05
4e+05
6e+05
8e+05
spawning biomass


PSALMRESB
spawning biomass
60000
40000
20000
0
1900
1950
2000
year
recruitment
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
200000
150000
100000
50000
0
0
20000
40000
60000
spawning biomass


PSALMROCKYROD
spawning biomass
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
0e+00
0
50000
100000
150000
200000
spawning biomass


PSALMSBPCKD
spawning biomass
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
2e+05
1e+05
0e+00
0
50000
100000
150000
200000
spawning biomass


PSALMSELDOVIAB
spawning biomass
75000
50000
25000
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
0e+00
25000
50000
75000
spawning biomass


PSALMSITUKR
spawning biomass
5e+05
4e+05
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
4e+05
2e+05
0e+00
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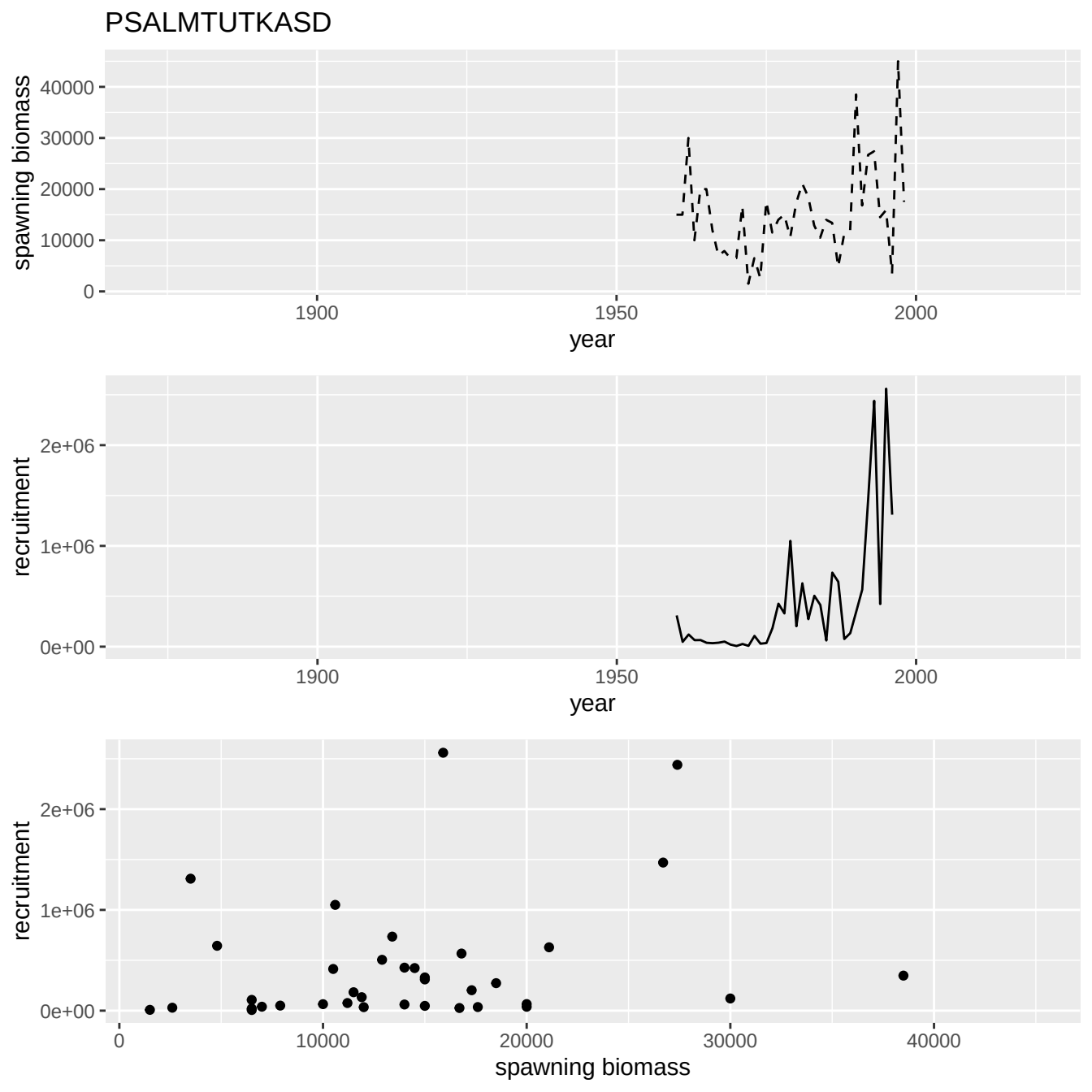
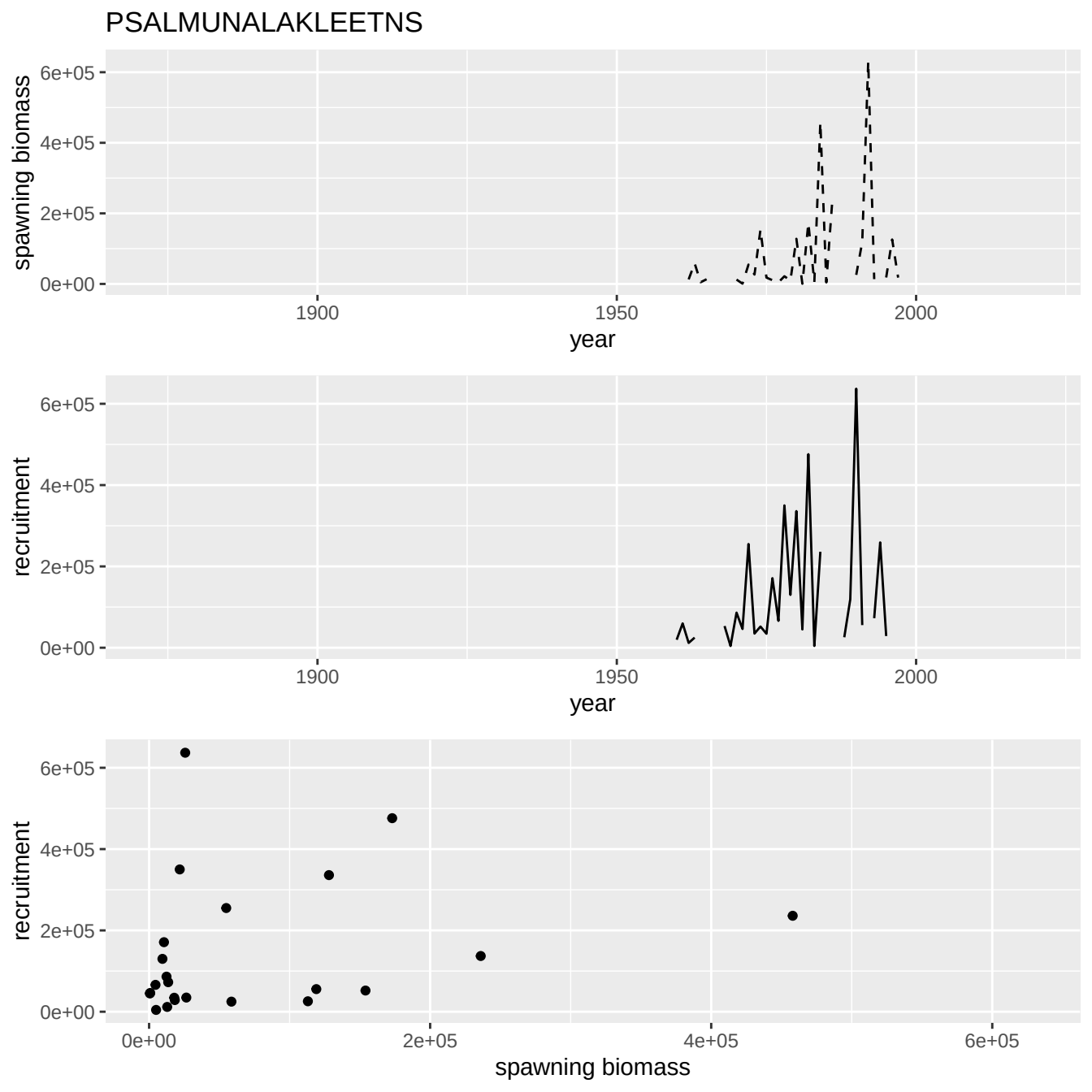
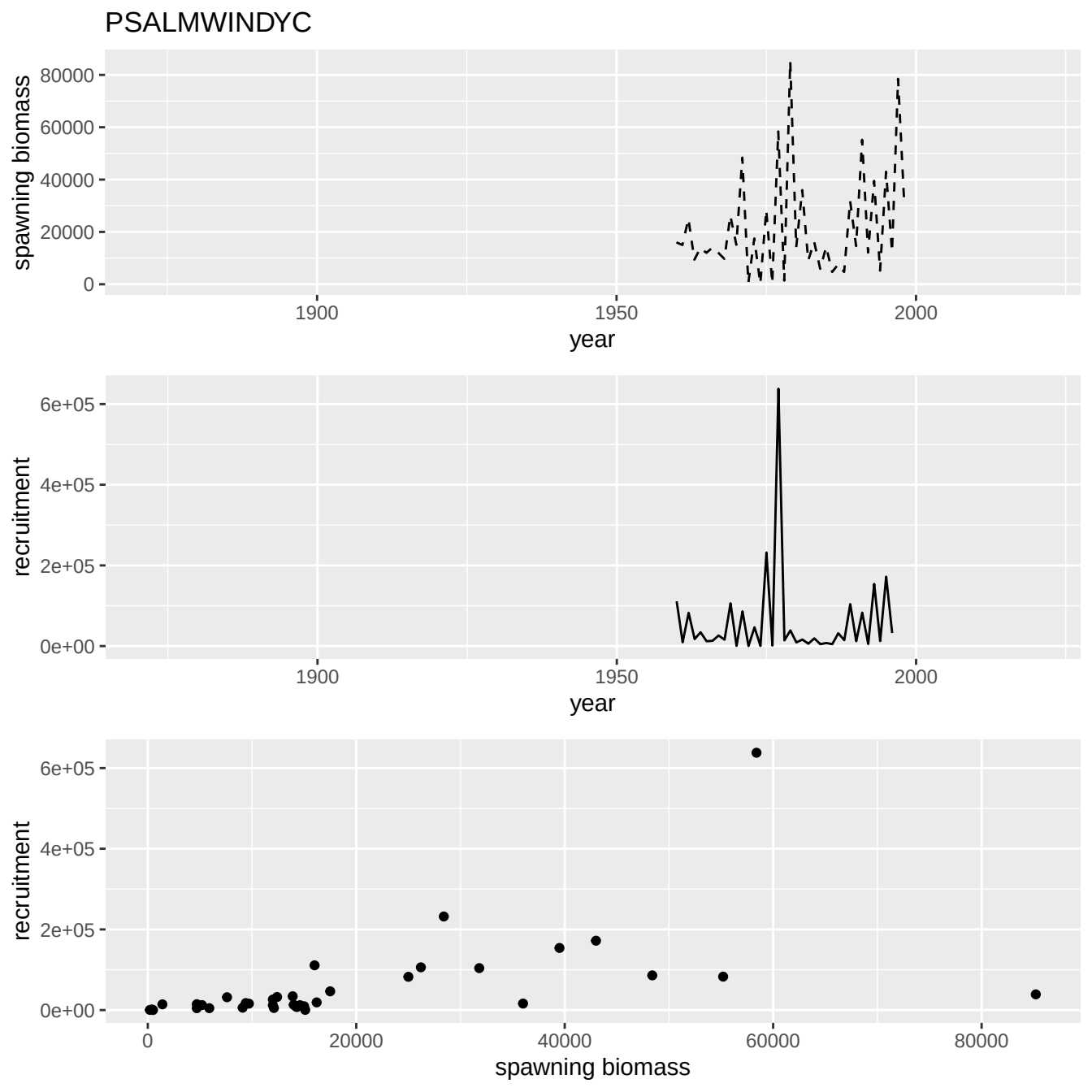
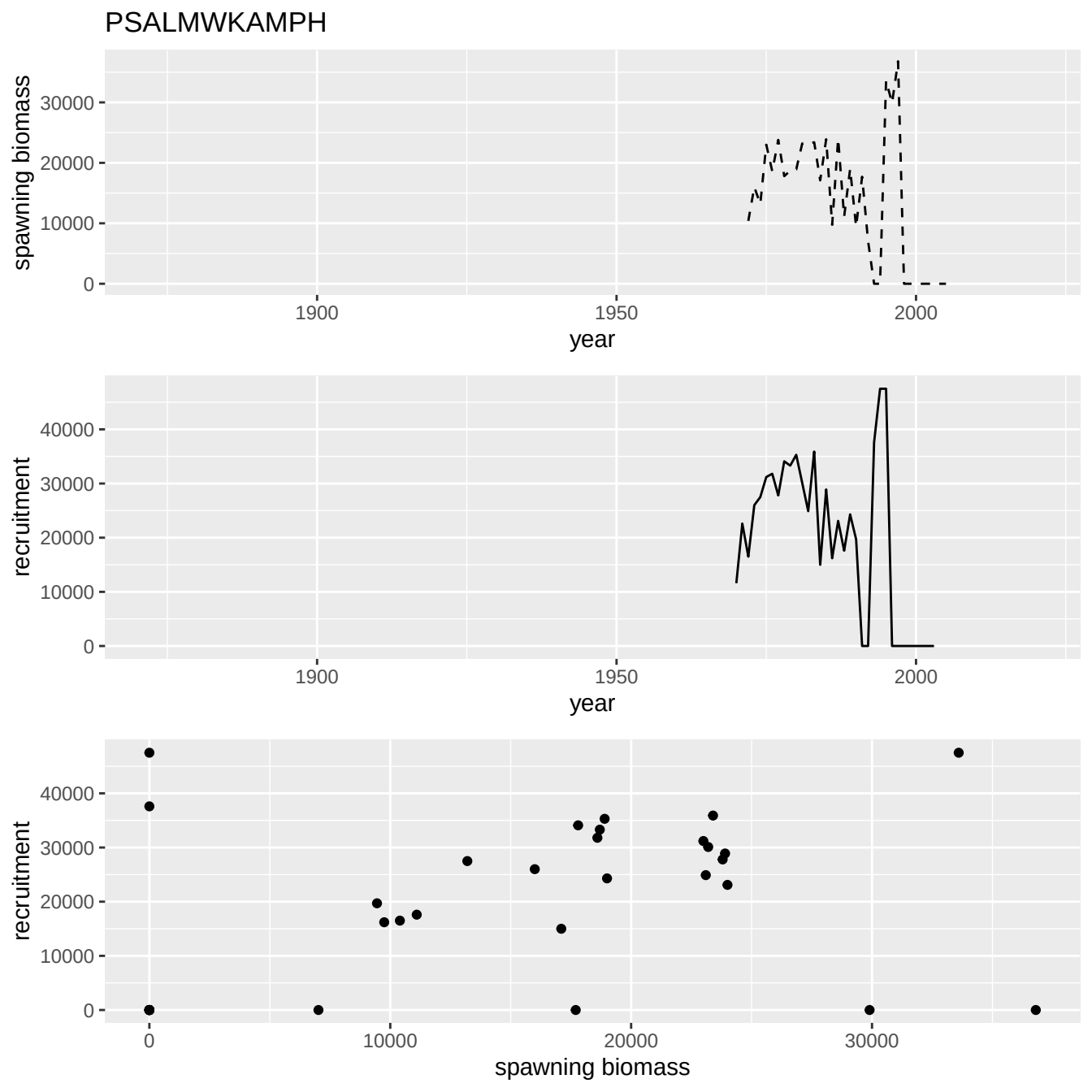
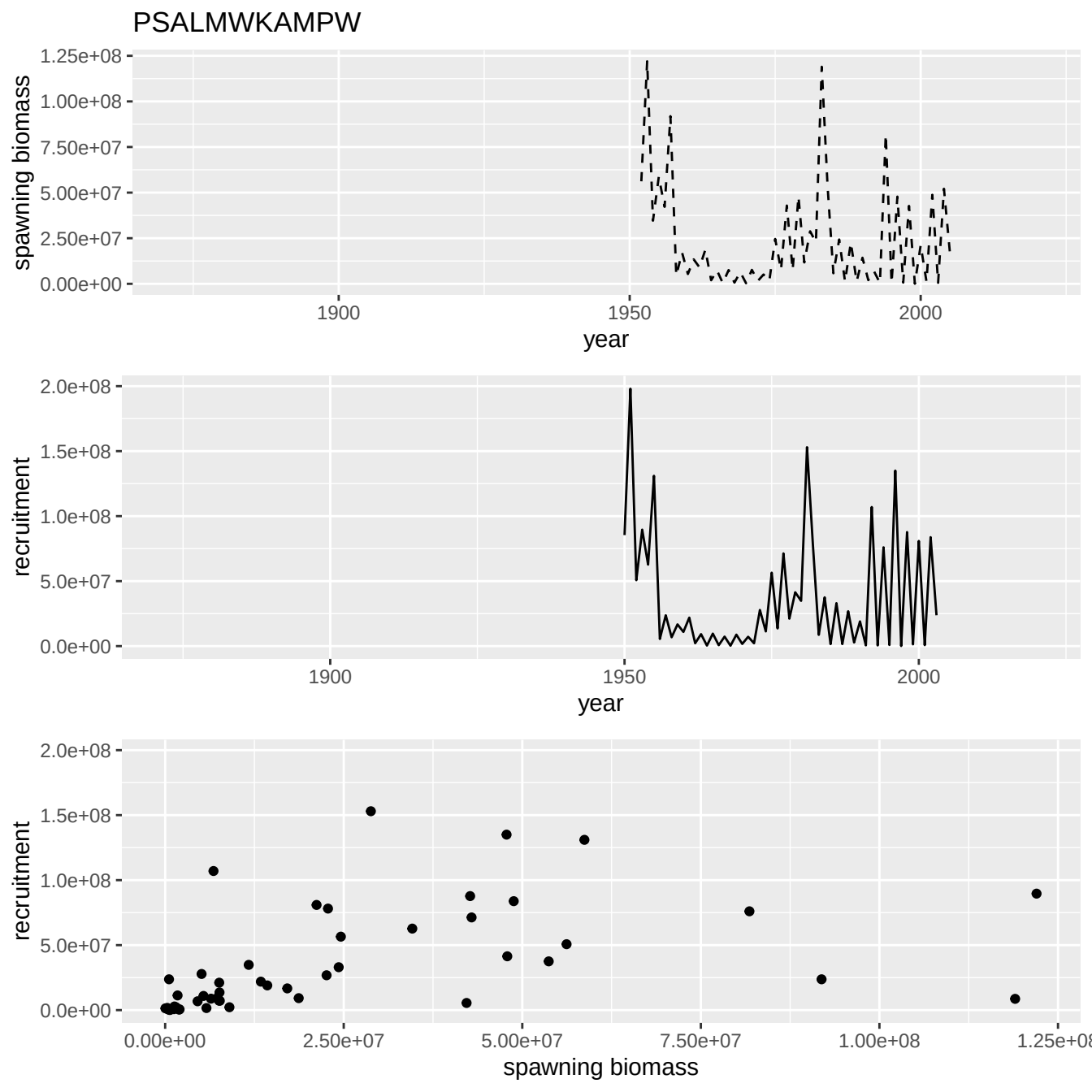
1e+05
2e+05
3e+05
4e+05
5e+05
spawning biomass

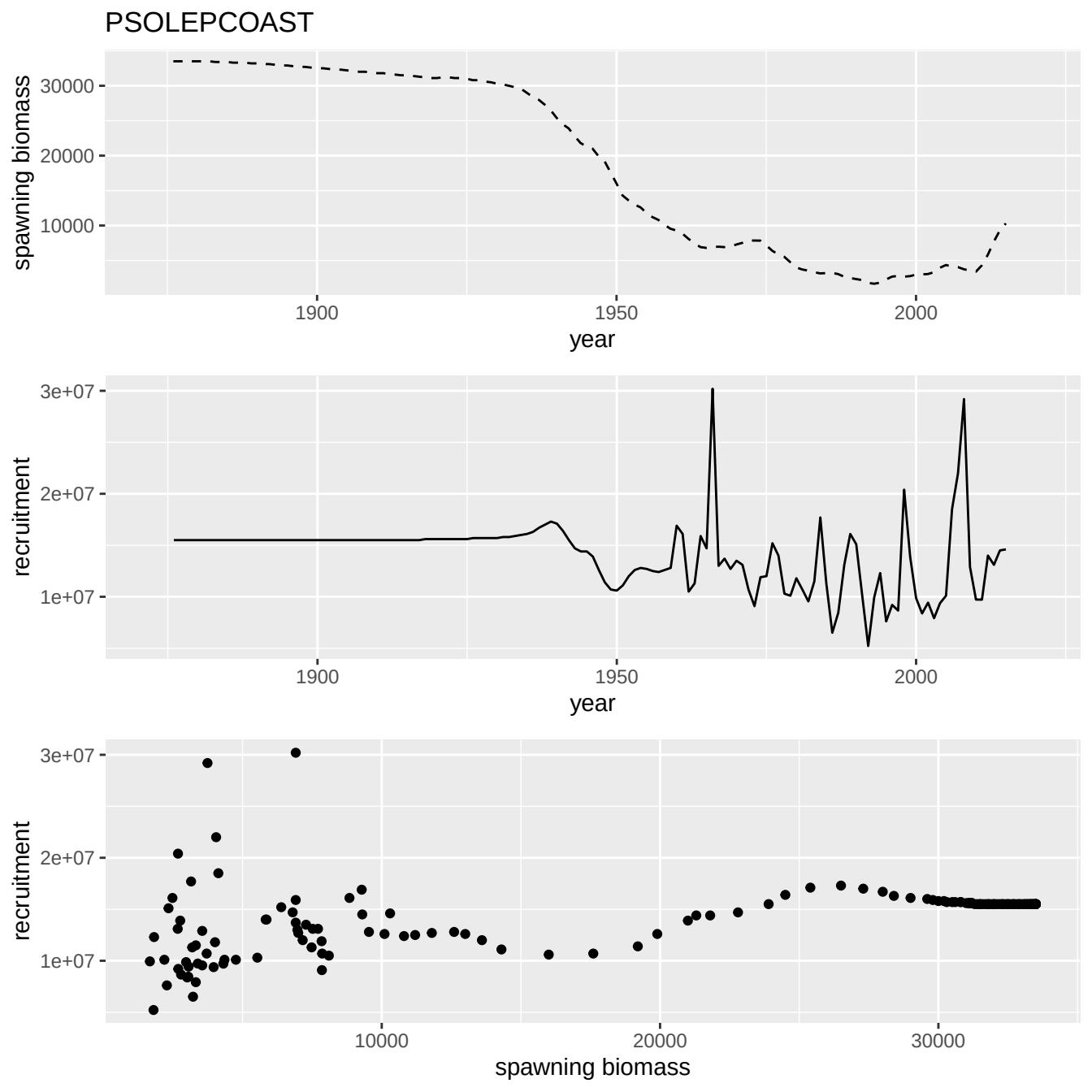

PSALMTUTKASD
spawning biomass
40000
30000
20000
10000
0
1900
1950
2000
year
recruitment
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
2e+06
1e+06
0e+00
0
10000
20000
30000
40000
spawning biomass

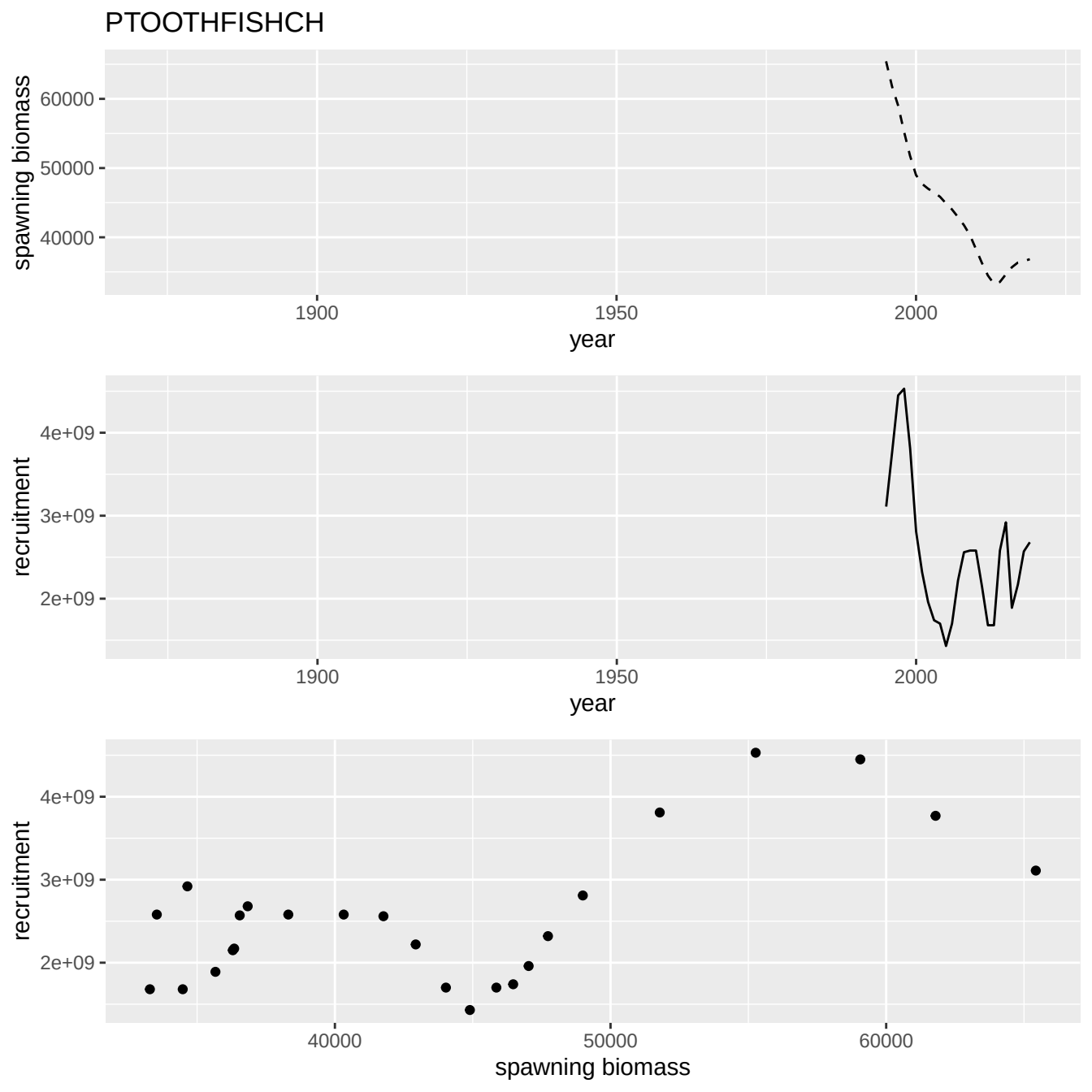

PSALMUNALAKLEETNS
spawning biomass
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
0e+00
0e+00
2e+05
4e+05
6e+05
spawning biomass

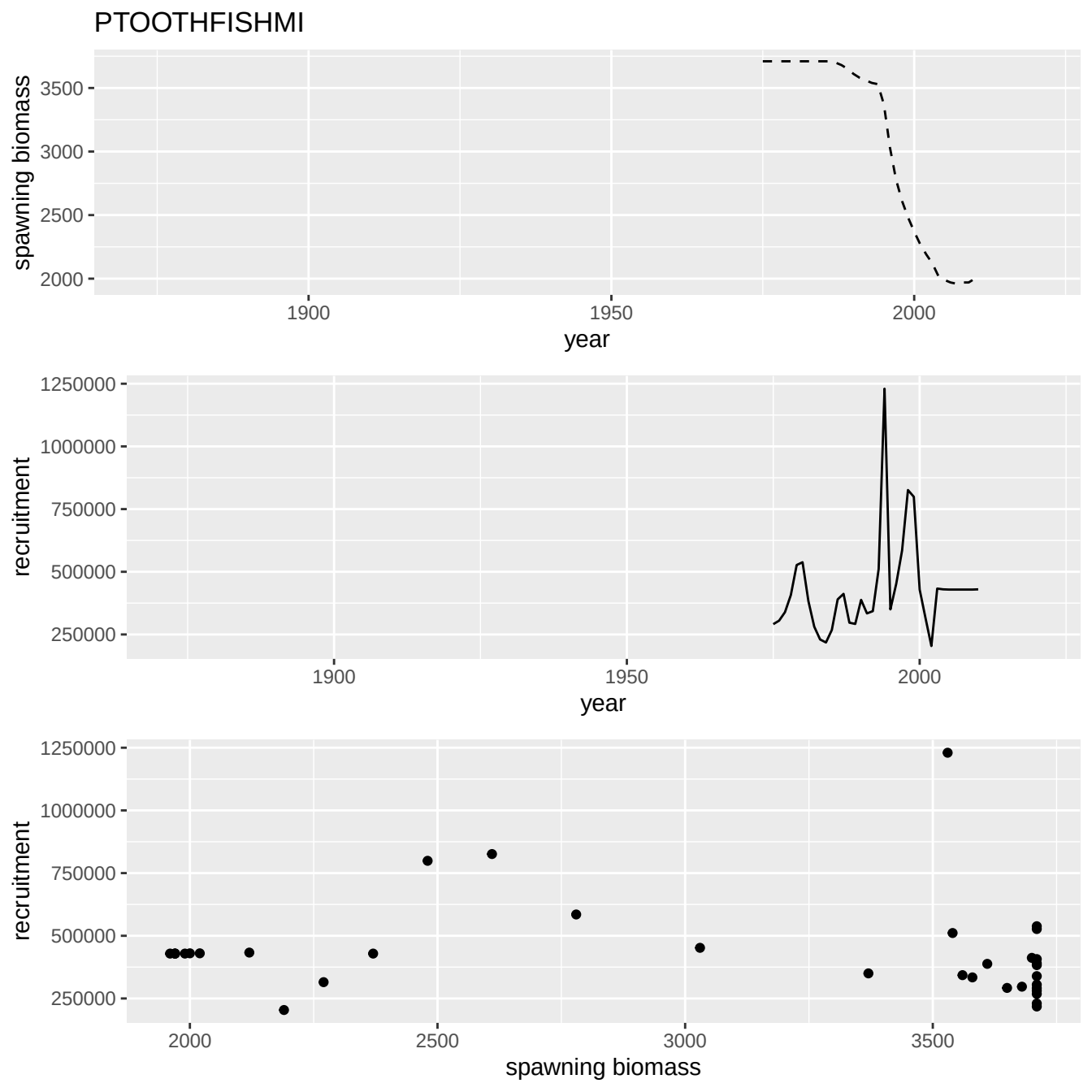

PSALMWINDYC
spawning biomass
80000
60000
40000
20000
0
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
0e+00
0
20000
40000
60000
80000
spawning biomass

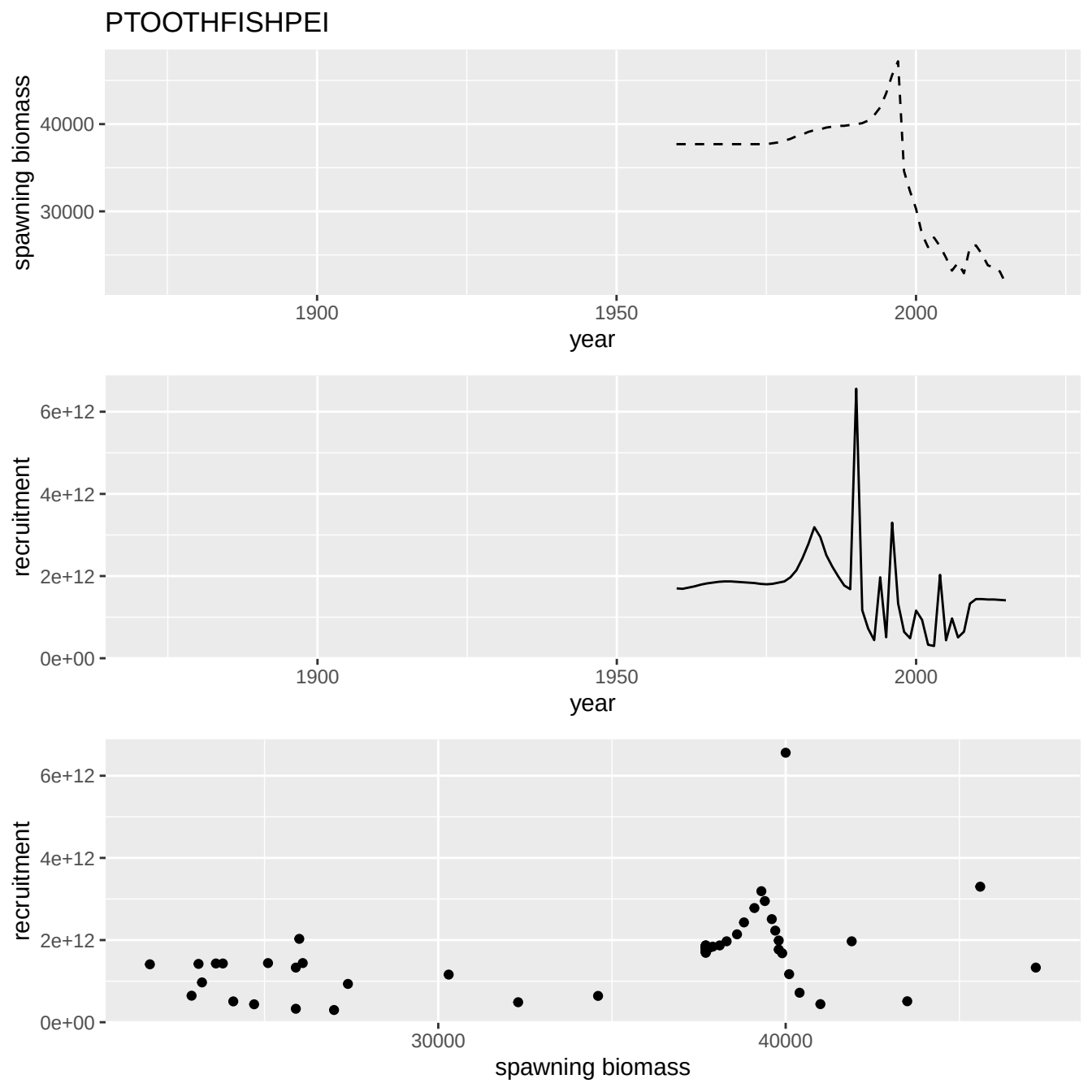

PSALMWKAMPH
spawning biomass
30000
20000
10000
0
1900
1950
2000
year
recruitment
40000
30000
20000
10000
0
1900
1950
2000
year
recruitment
40000
30000
20000
10000
0
0
10000
20000
30000
spawning biomass

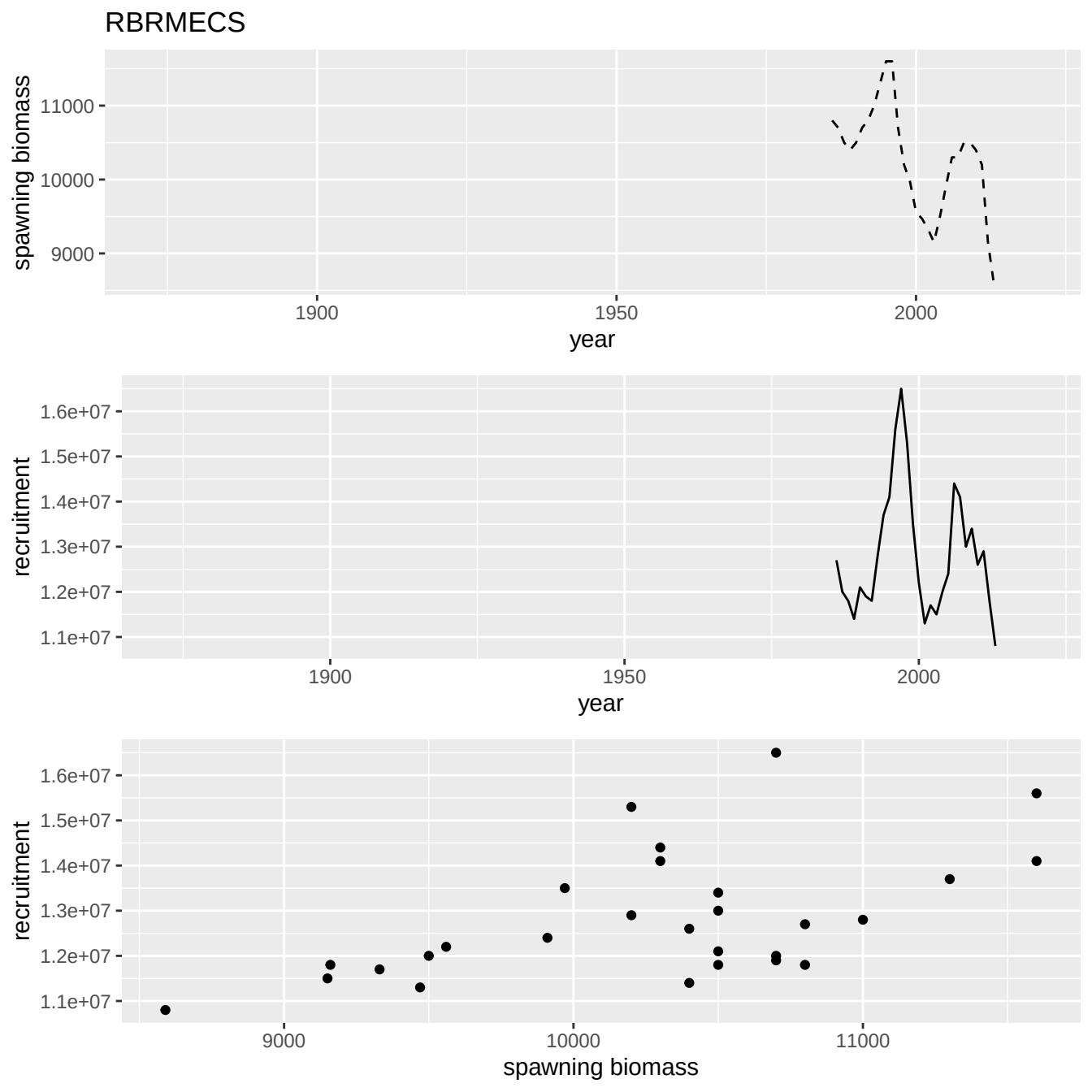

PSALMWKAMPW
spawning biomass
1.25e+08
1.00e+08
7.50e+07
5.00e+07
2.50e+07
0.00e+00
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
5.0e+07
0.0e+00
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
5.0e+07
0.0e+00
0.00e+00
2.50e+07
5.00e+07
7.50e+07
1.00e+08
1.25e+08
spawning biomass

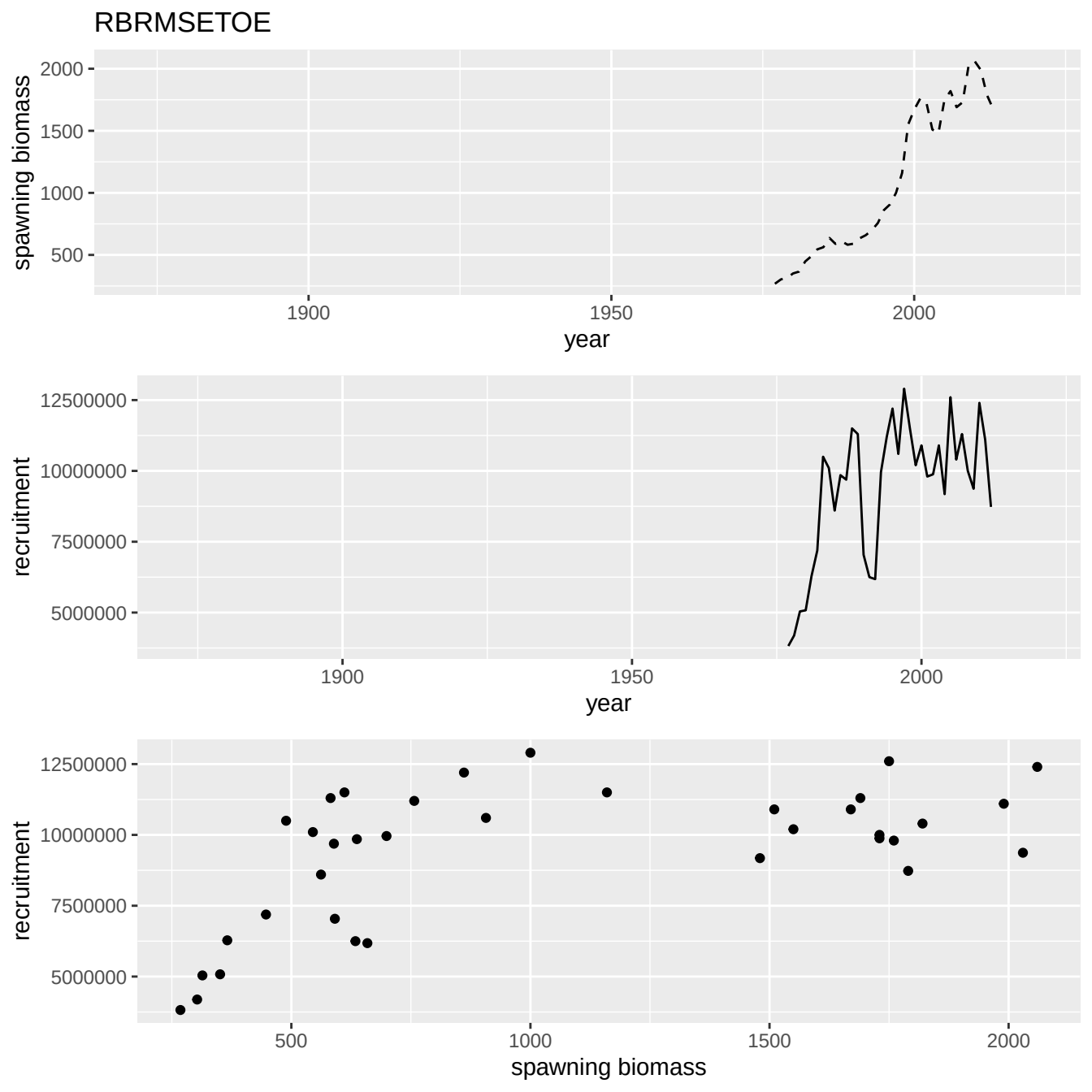

PSOLEPCOAST
spawning biomass
30000
20000
10000
1900
1950
2000
year
recruitment
3e+07
2e+07
1e+07
1900
1950
2000
year
recruitment
3e+07
2e+07
1e+07
10000
20000
30000
spawning biomass

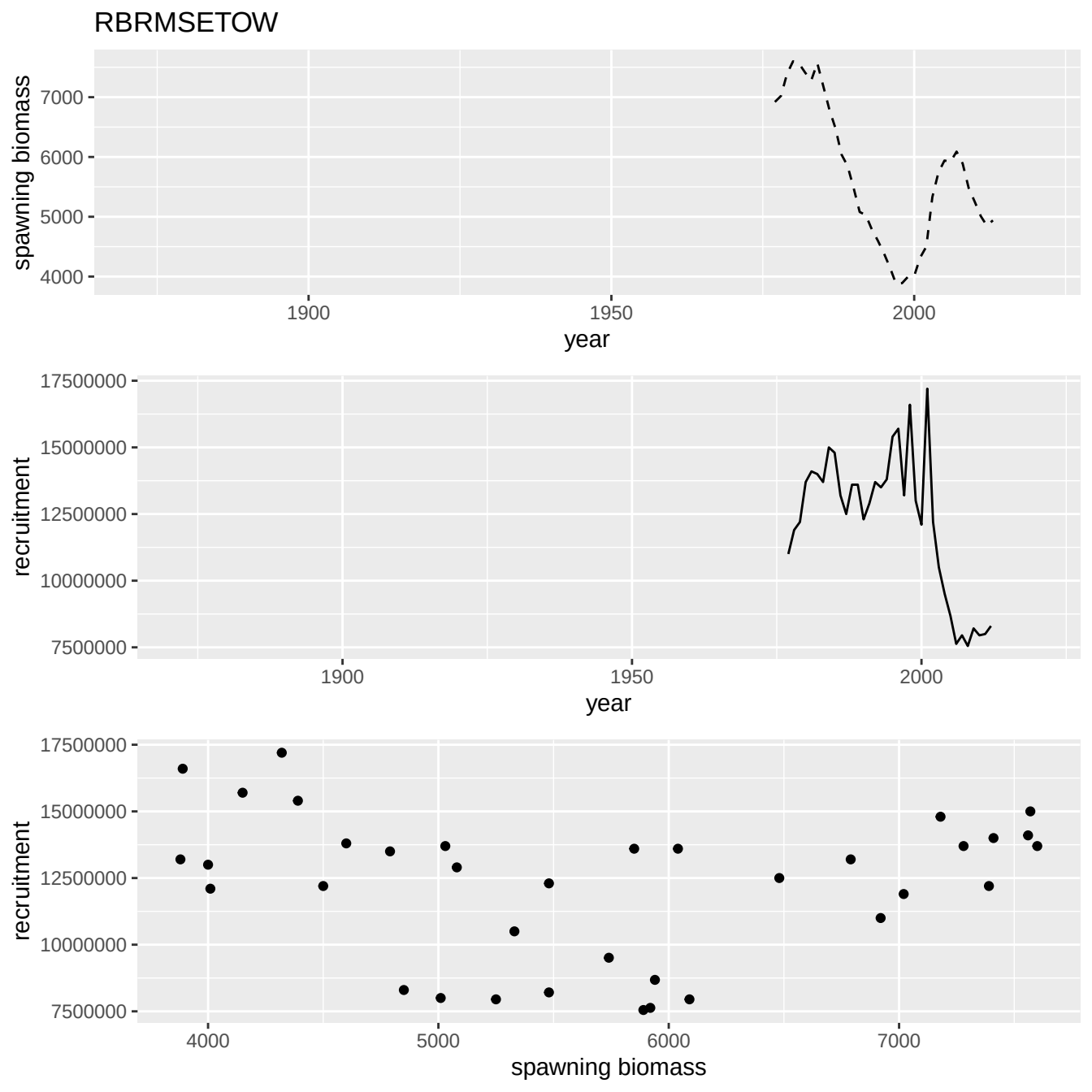

PTOOTHFISHCH
spawning biomass
60000
50000
40000
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
40000
50000
60000
spawning biomass

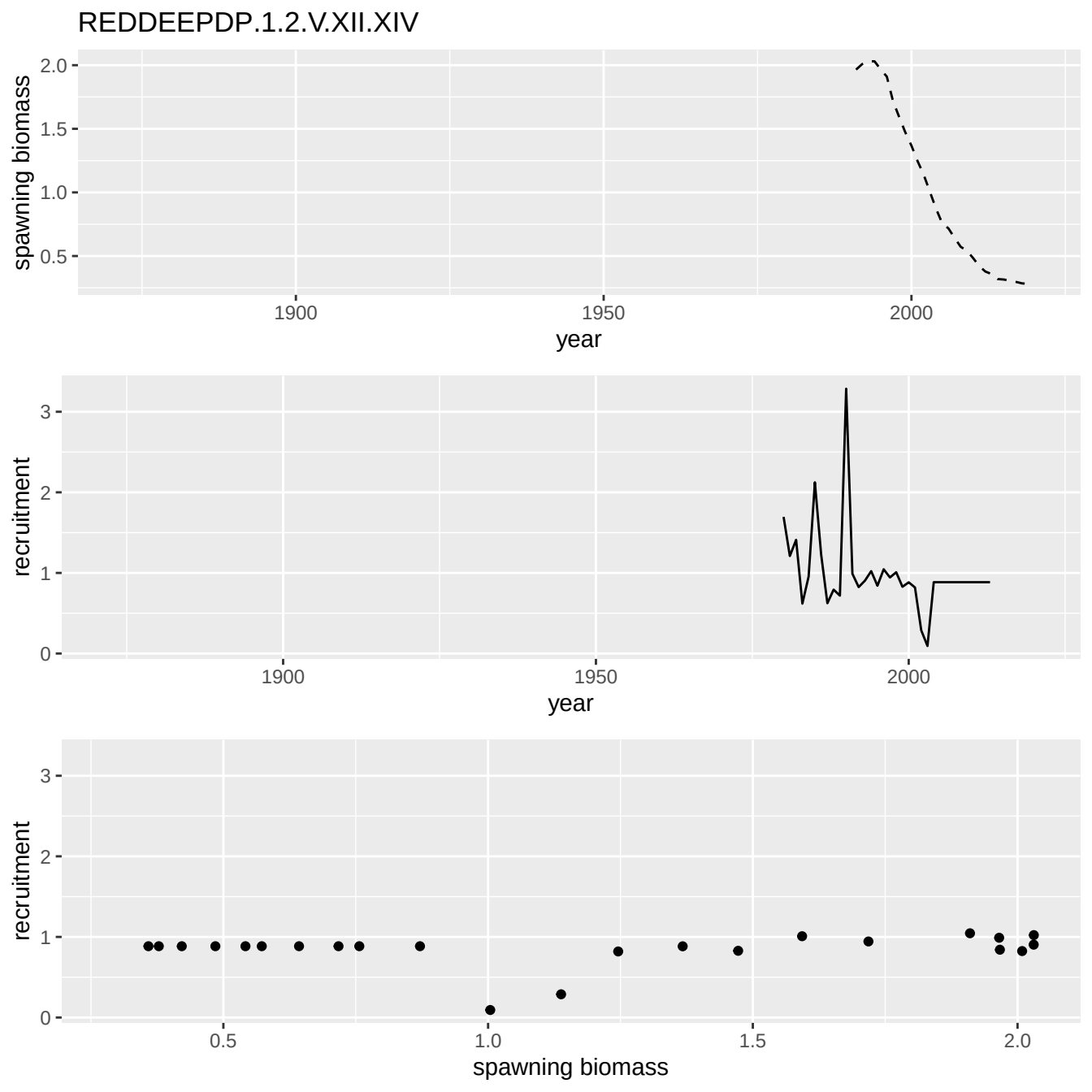

PTOOTHFISHMI
spawning biomass
3500
3000
2500
2000
1900
1950
2000
year
recruitment
1250000
1000000
750000
500000
250000
1900
1950
2000
year
recruitment
1250000
1000000
750000
500000
250000
2000
2500
3000
3500
spawning biomass

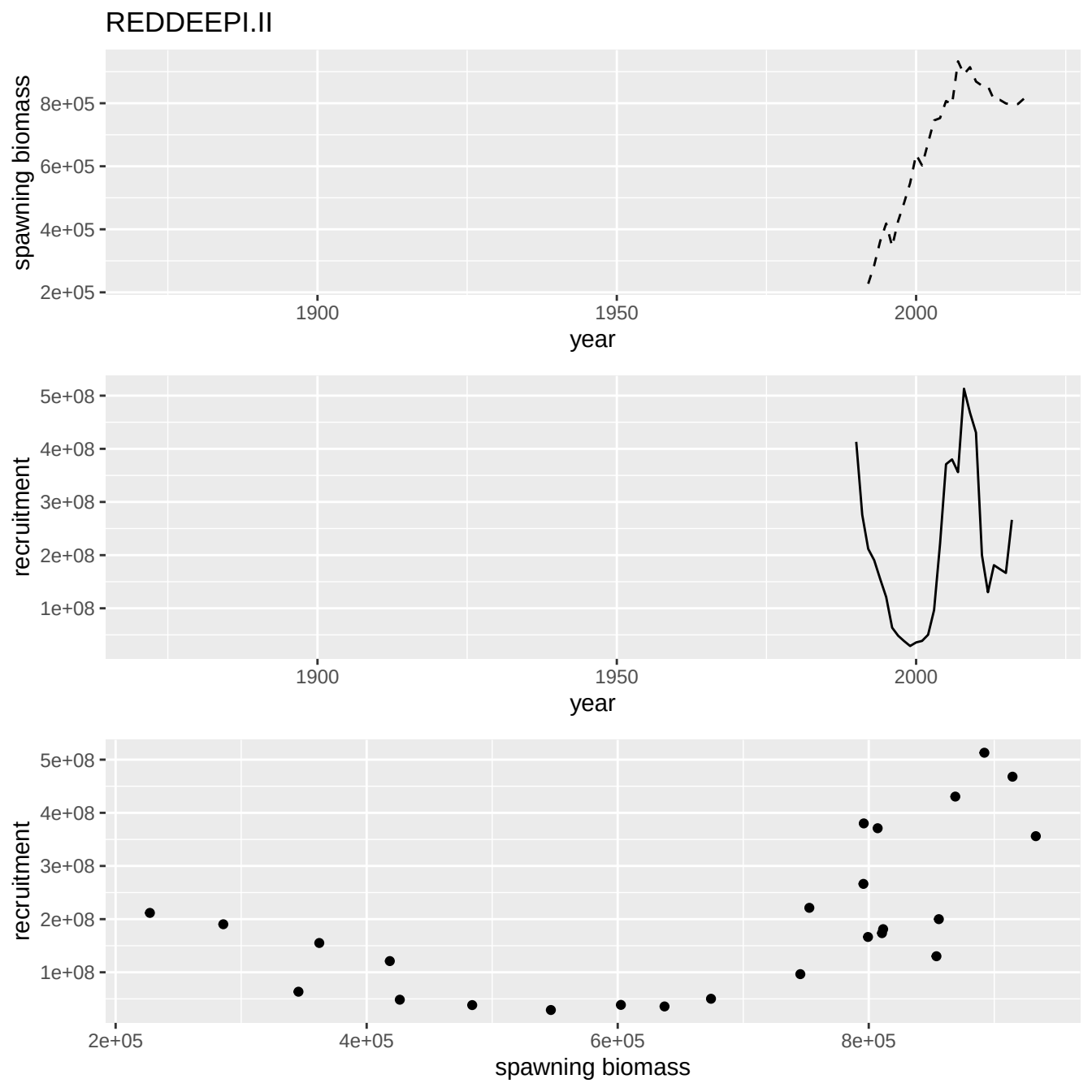

PTOOTHFISHPEI
spawning biomass
40000
30000
1900
1950
2000
year
recruitment
6e+12
4e+12
2e+12
0e+00
1900
1950
2000
year
recruitment
6e+12
4e+12
2e+12
0e+00
30000
40000
spawning biomass

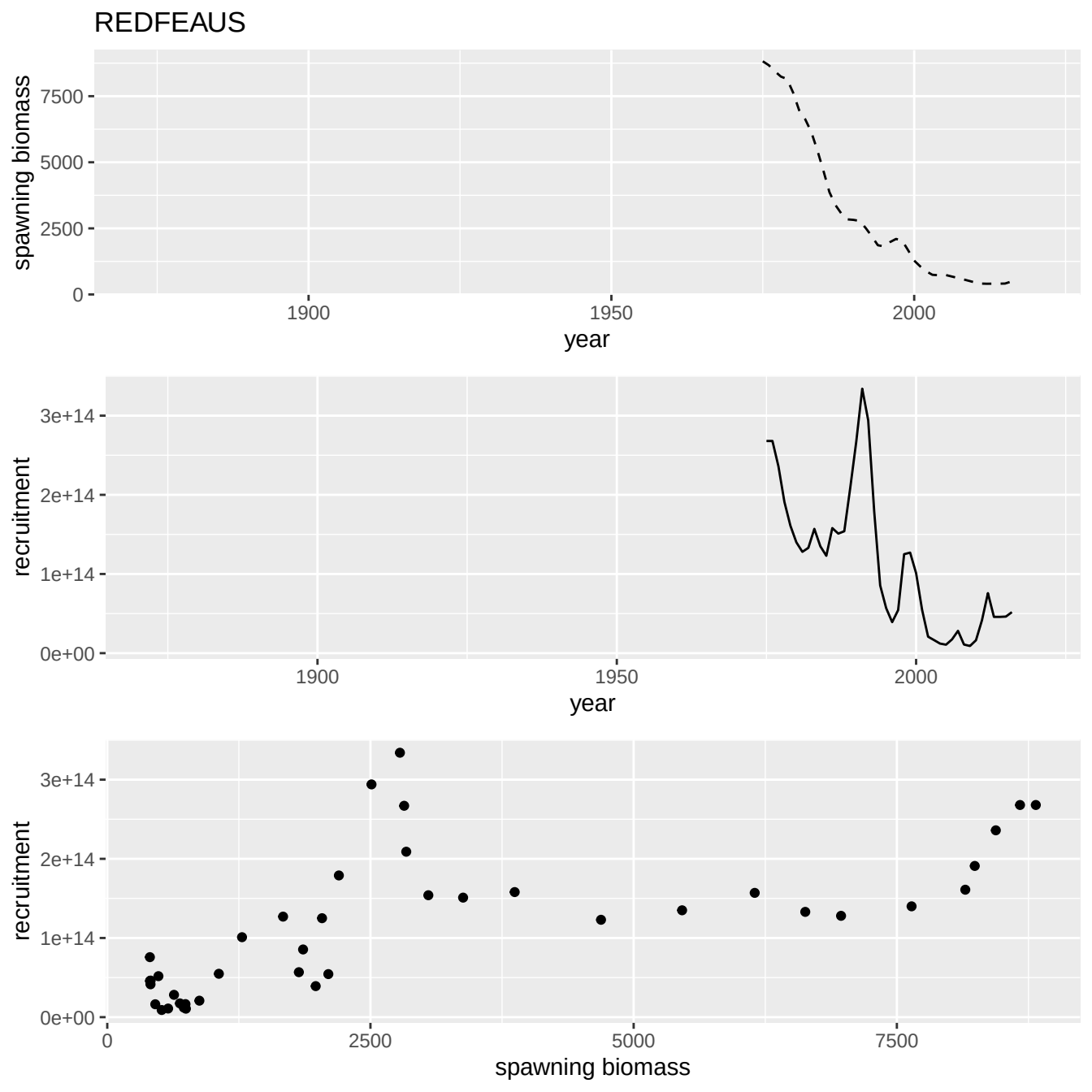

RBRMECS
spawning biomass
11000
10000
9000
1900
1950
2000
year
recruitment
1.6e+07
1.5e+07
1.4e+07
1.3e+07
1.2e+07
1.1e+07
1900
1950
2000
year
recruitment
1.6e+07
1.5e+07
1.4e+07
1.3e+07
1.2e+07
1.1e+07
9000
10000
11000
spawning biomass

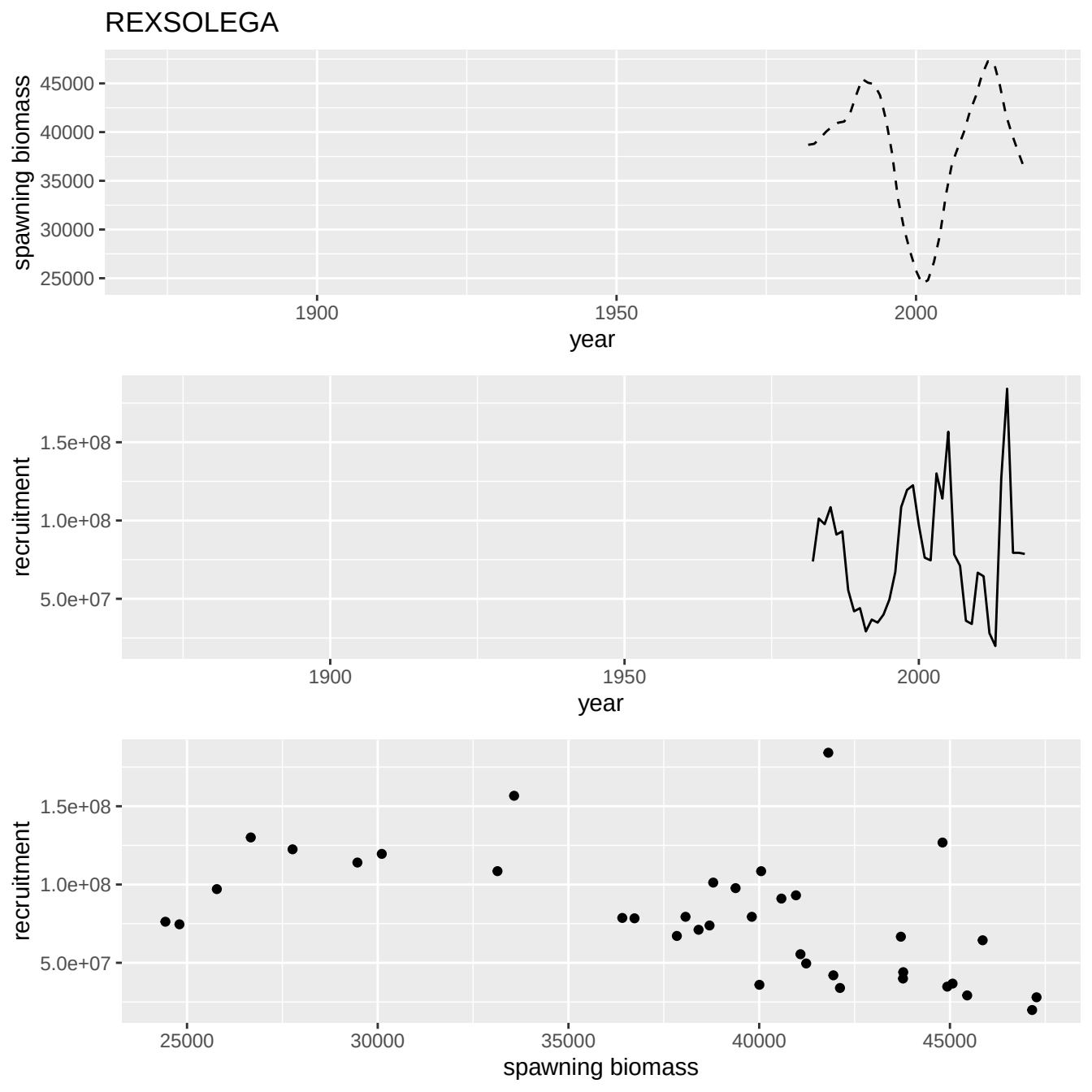

RBRMSETOE
spawning biomass
2000
1500
1000
500
1900
1950
2000
year
recruitment
12500000
10000000
7500000
5000000
1900
1950
2000
year
recruitment
12500000
10000000
7500000
5000000
500
1000
1500
2000
spawning biomass

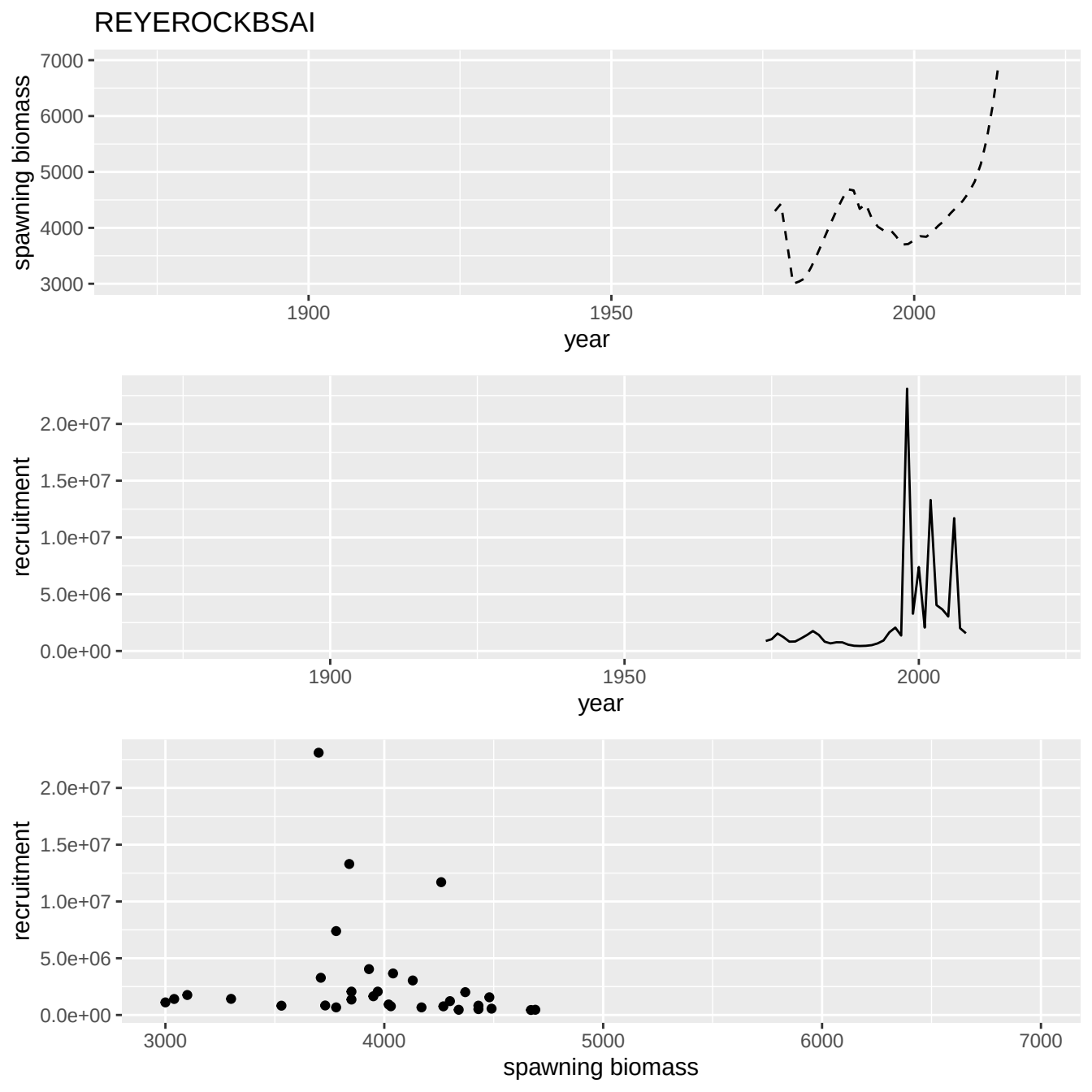

RBRMSETOW
spawning biomass
7000
6000
5000
4000
1900
1950
2000
year
recruitment
17500000
15000000
12500000
10000000
7500000
1900
1950
2000
year
recruitment
17500000
15000000
12500000
10000000
7500000
4000
5000
6000
7000
spawning biomass

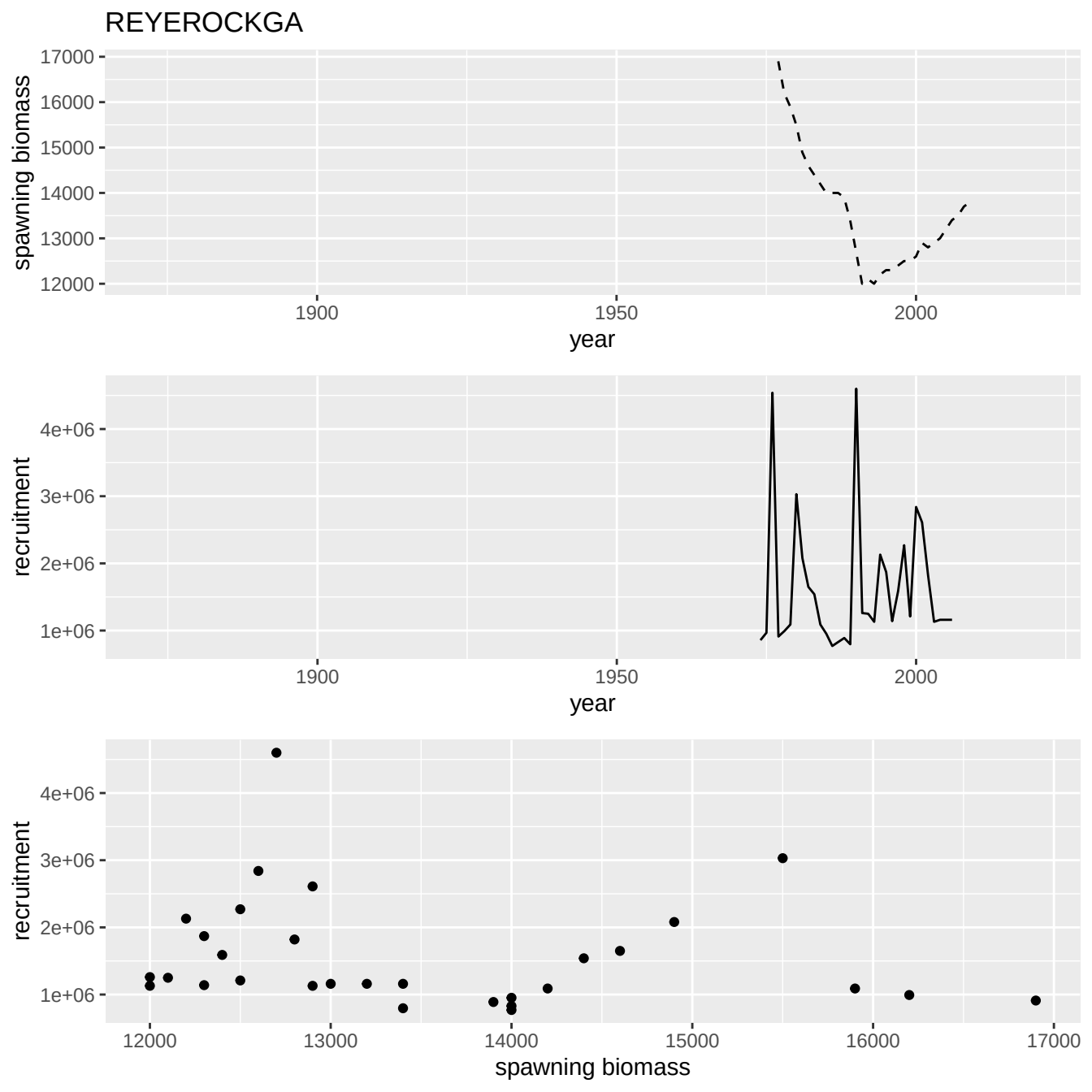

REDDEEPDP.1.2.V.XII.XIV
spawning biomass
2.0
1.5
1.0
0.5
1900
1950
2000
year
recruitment
3
2
1
0
1900
1950
2000
year
recruitment
3
2
1
0
0.5
1.0
1.5
2.0
spawning biomass

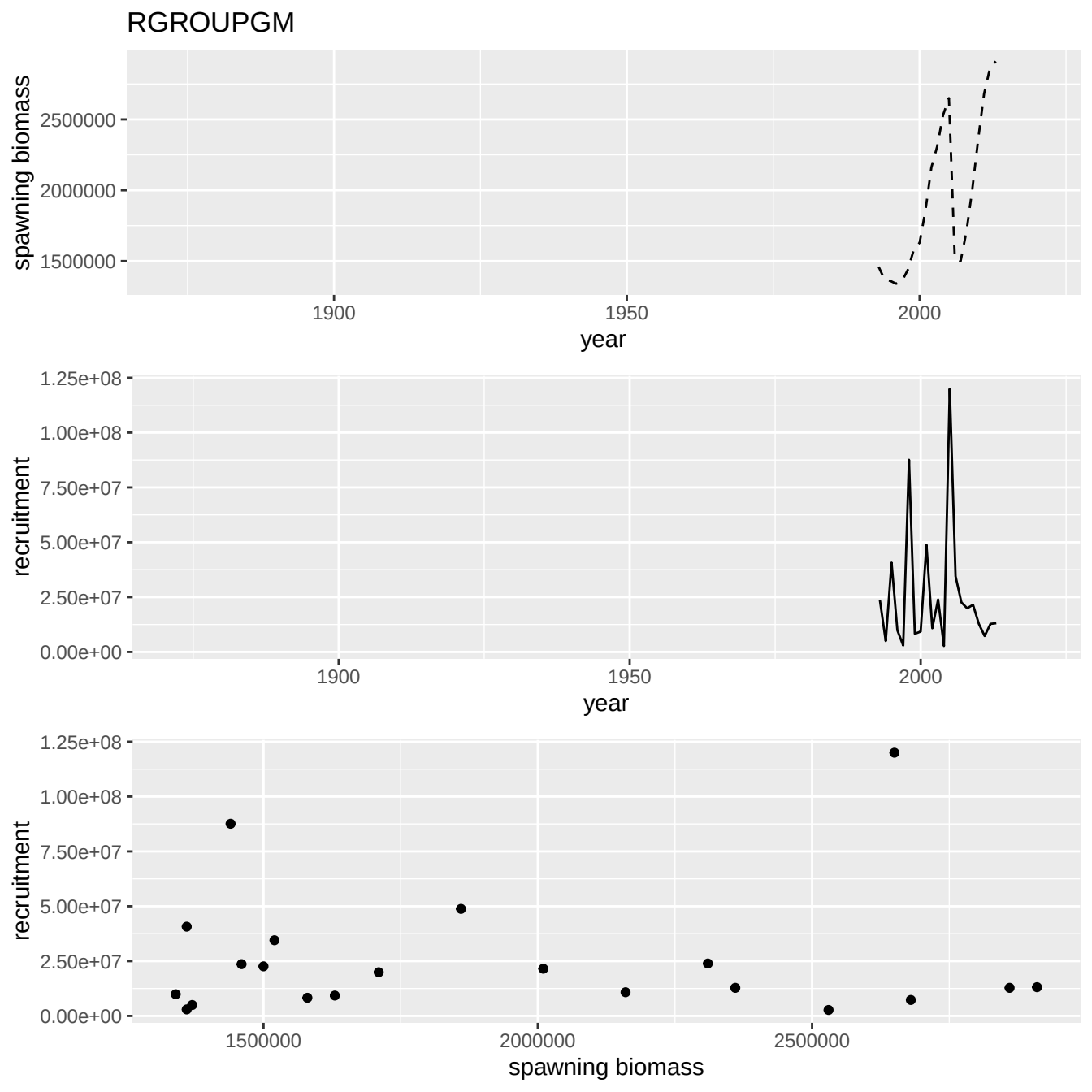

REDDEEPI.II
spawning biomass
8e+05
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
5e+08
4e+08
3e+08
2e+08
1e+08
1900
1950
2000
year
recruitment
5e+08
4e+08
3e+08
2e+08
1e+08
2e+05
4e+05
6e+05
8e+05
spawning biomass

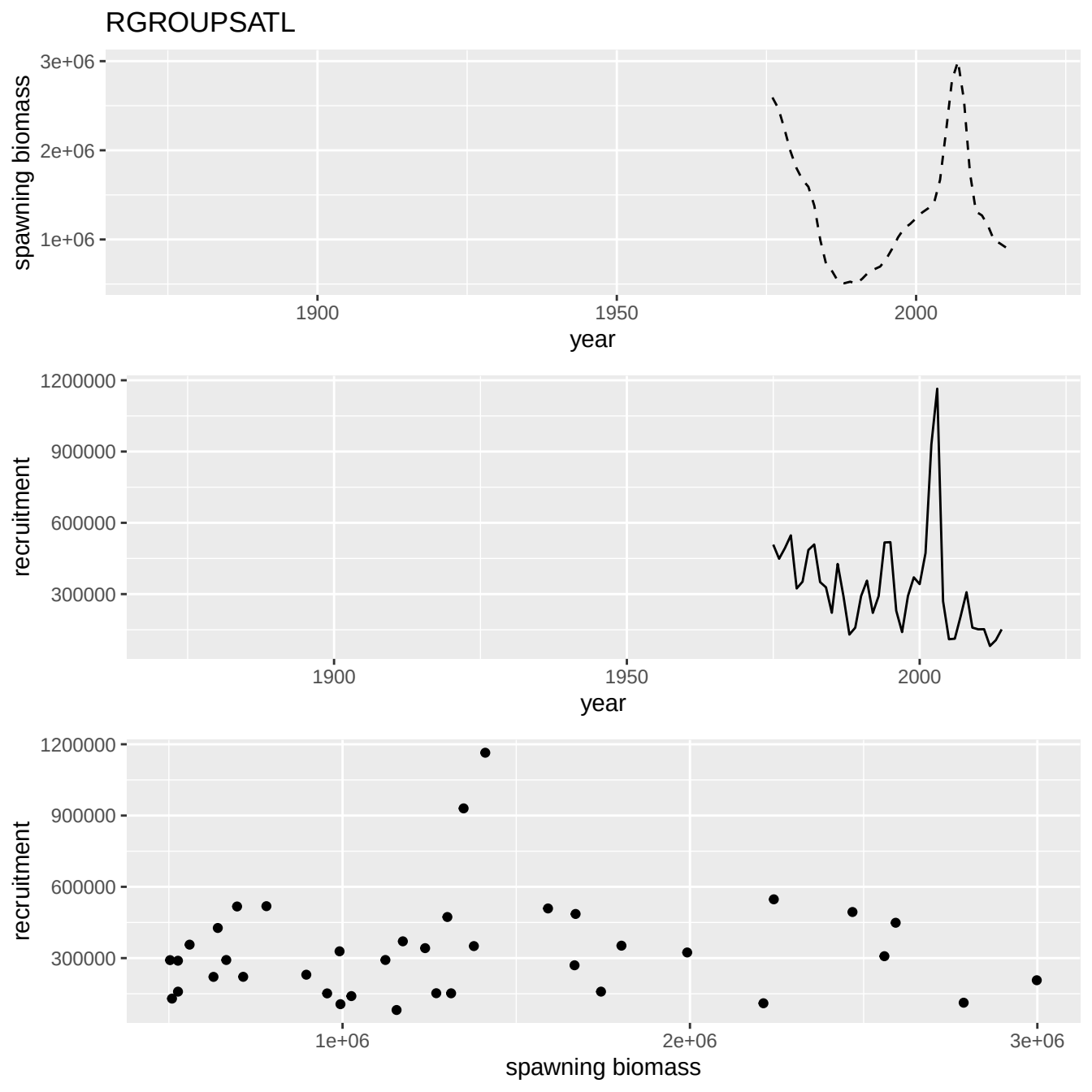

REDFEAUS
spawning biomass
7500
5000
2500
0
1900
1950
2000
year
recruitment
3e+14
2e+14
1e+14
0e+00
1900
1950
2000
year
recruitment
3e+14
2e+14
1e+14
0e+00
0
2500
5000
7500
spawning biomass


REXSOLEGA
spawning biomass
45000
40000
35000
30000
25000
1900
1950
2000
year
recruitment
1.5e+08
1.0e+08
5.0e+07
1900
1950
2000
year
recruitment
1.5e+08
1.0e+08
5.0e+07
25000
30000
35000
40000
45000
spawning biomass

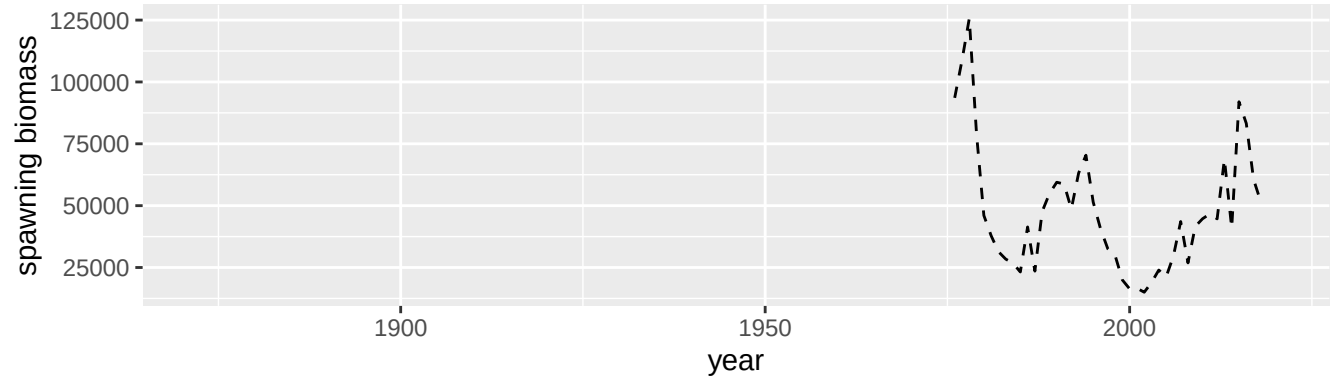

REYEROCKBSAI
spawning biomass
7000
6000
5000
4000
3000
1900
1950
2000
year
recruitment
2.0e+07
1.5e+07
1.0e+07
5.0e+06
0.0e+00
1900
1950
2000
year
recruitment
2.0e+07
1.5e+07
1.0e+07
5.0e+06
0.0e+00
3000
4000
5000
6000
7000
spawning biomass

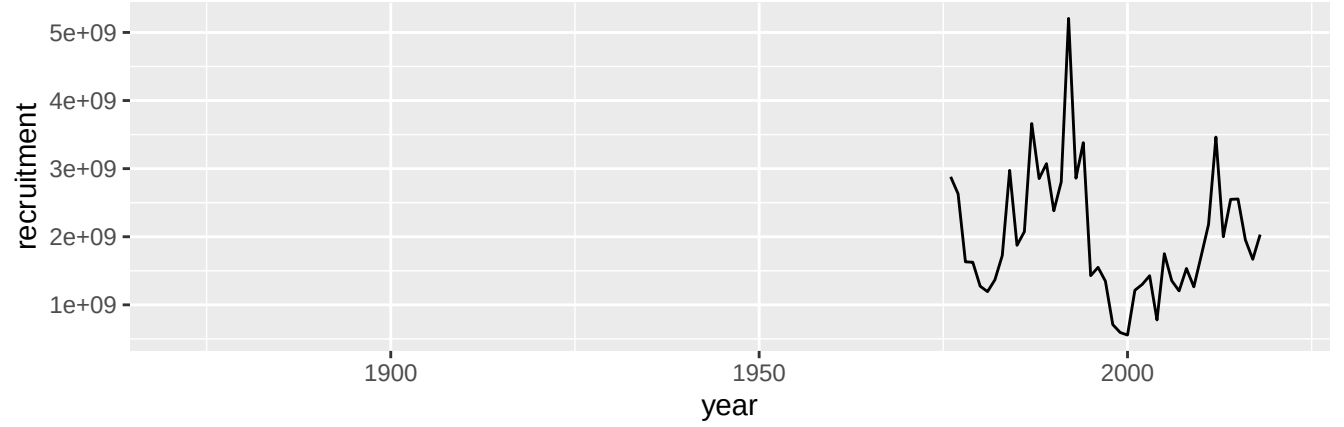

REYEROCKGA
spawning biomass
17000
16000
15000
14000
13000
12000
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
12000
13000
14000
15000
16000
17000
spawning biomass

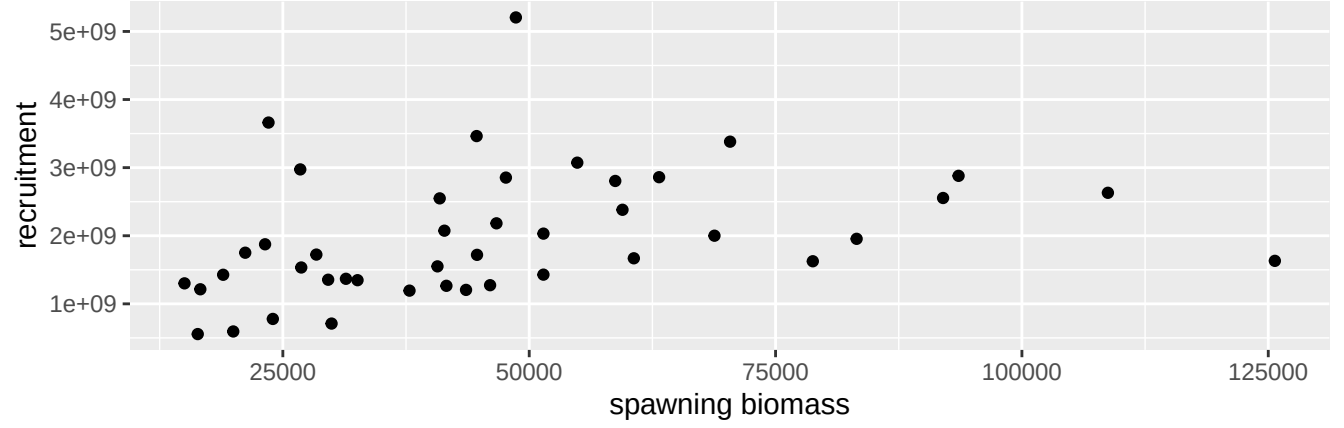

RGROUPGM
spawning biomass
2500000
2000000
1500000
1900
1950
2000
year
recruitment
1.25e+08
1.00e+08
7.50e+07
5.00e+07
2.50e+07
0.00e+00
1900
1950
2000
year
recruitment
1.25e+08
1.00e+08
7.50e+07
5.00e+07
2.50e+07
0.00e+00
1500000
2000000
2500000
spawning biomass

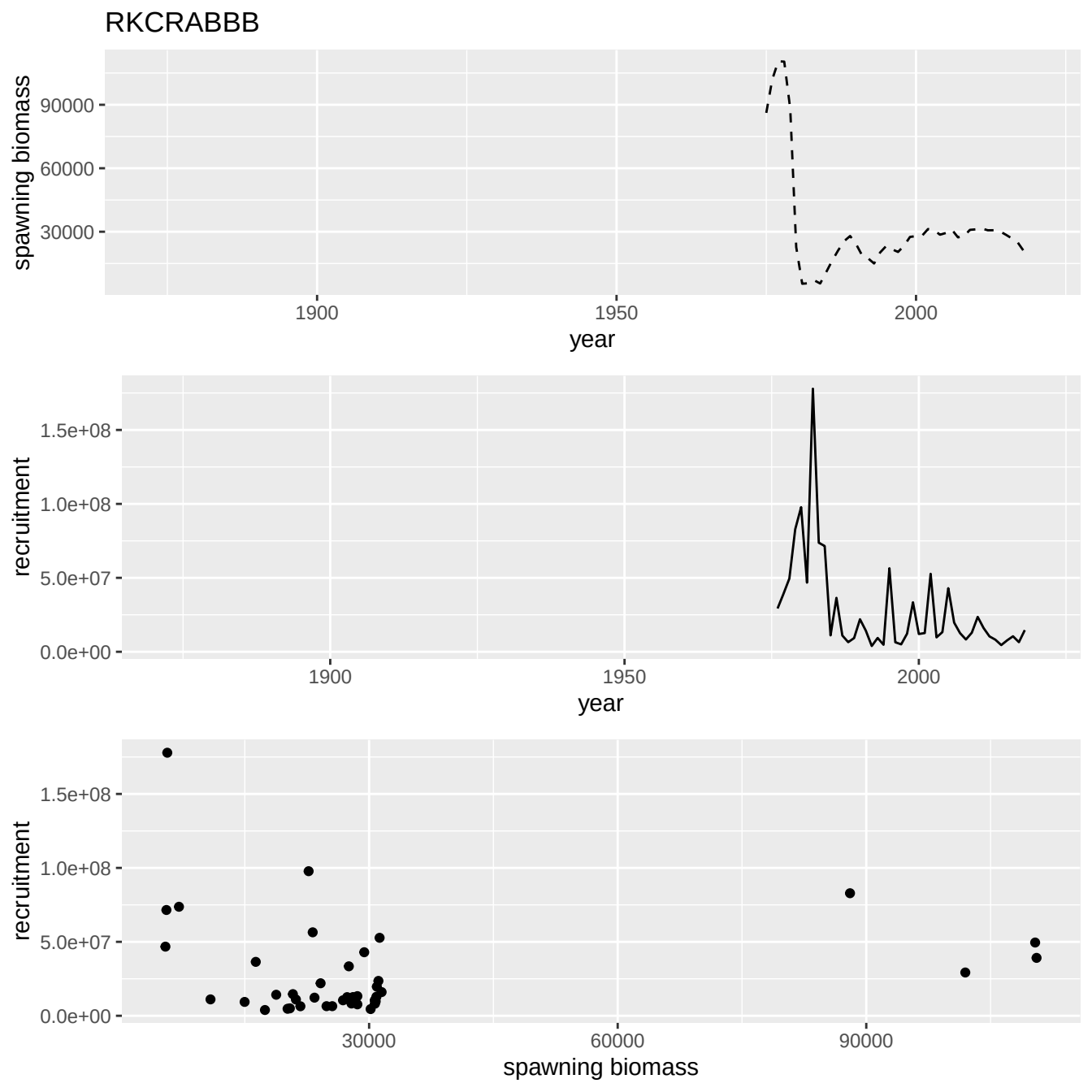

RGROUPSATL
spawning biomass
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
1200000
900000
600000
300000
1900
1950
2000
year
recruitment
1200000
900000
600000
300000
1e+06
2e+06
3e+06
spawning biomass

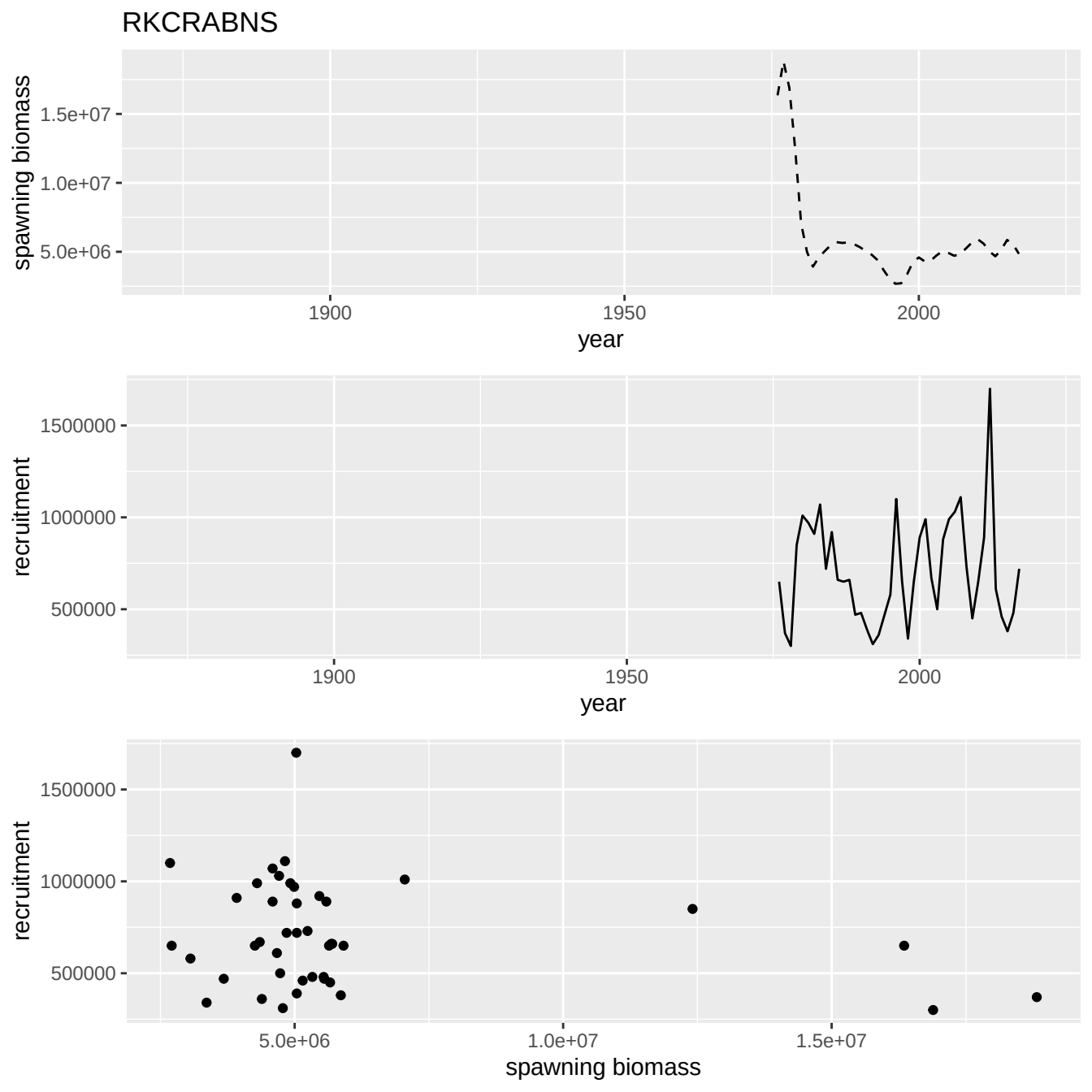
RHERRTSST

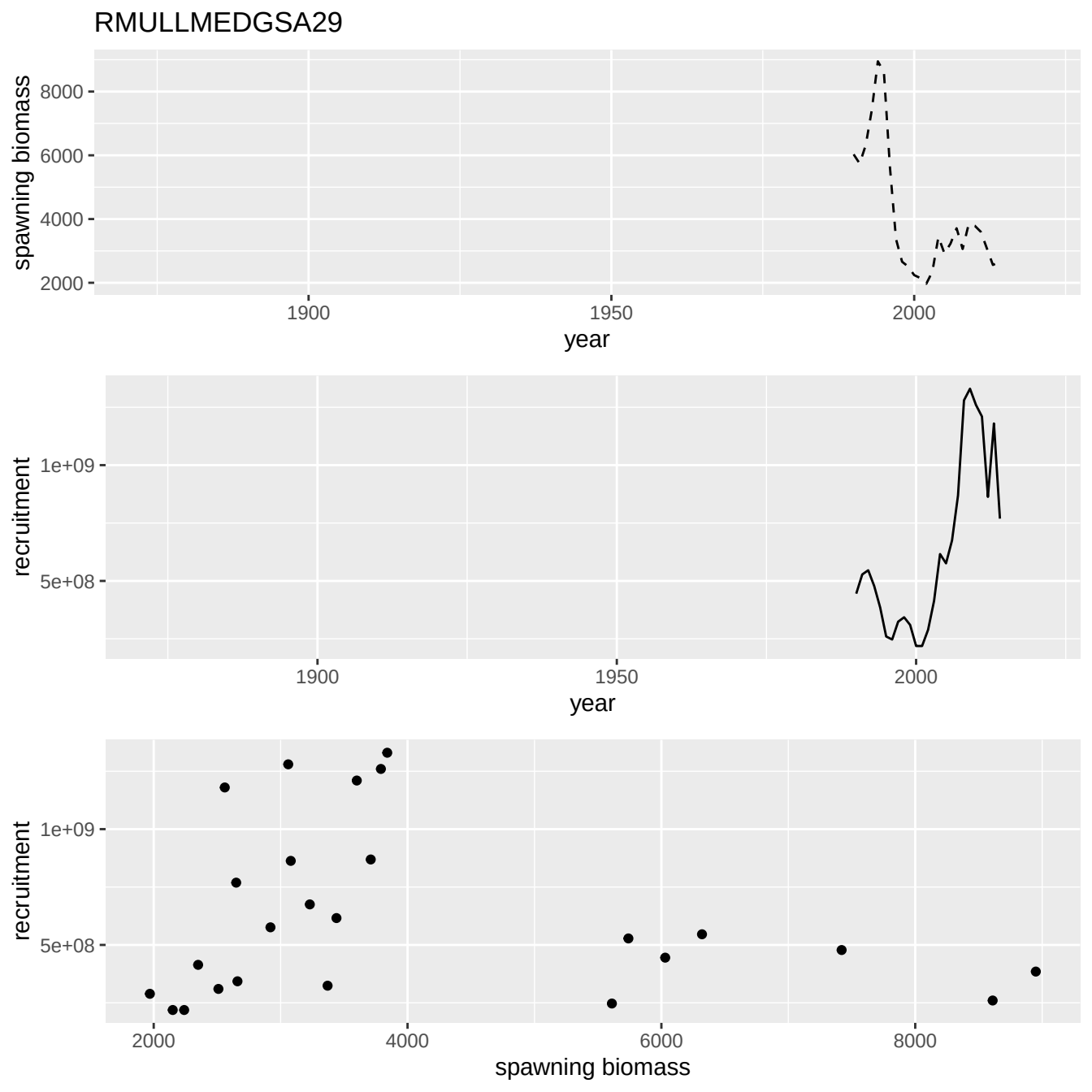

spawning biomass
125000
100000
75000
50000
25000
1900
1950
2000
year

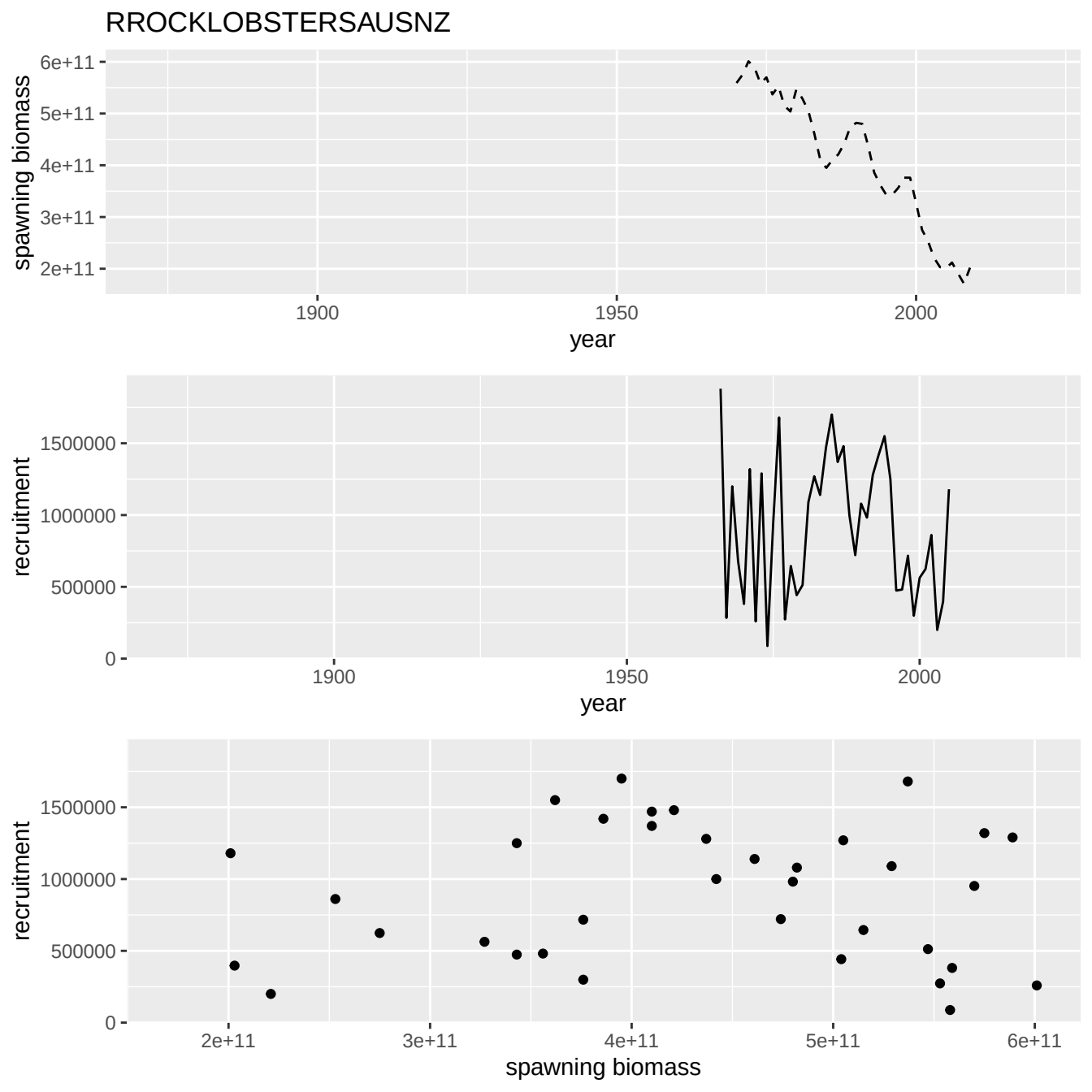

recruitment
5e+09
4e+09
3e+09
2e+09
1e+09
1900
1950
2000
year

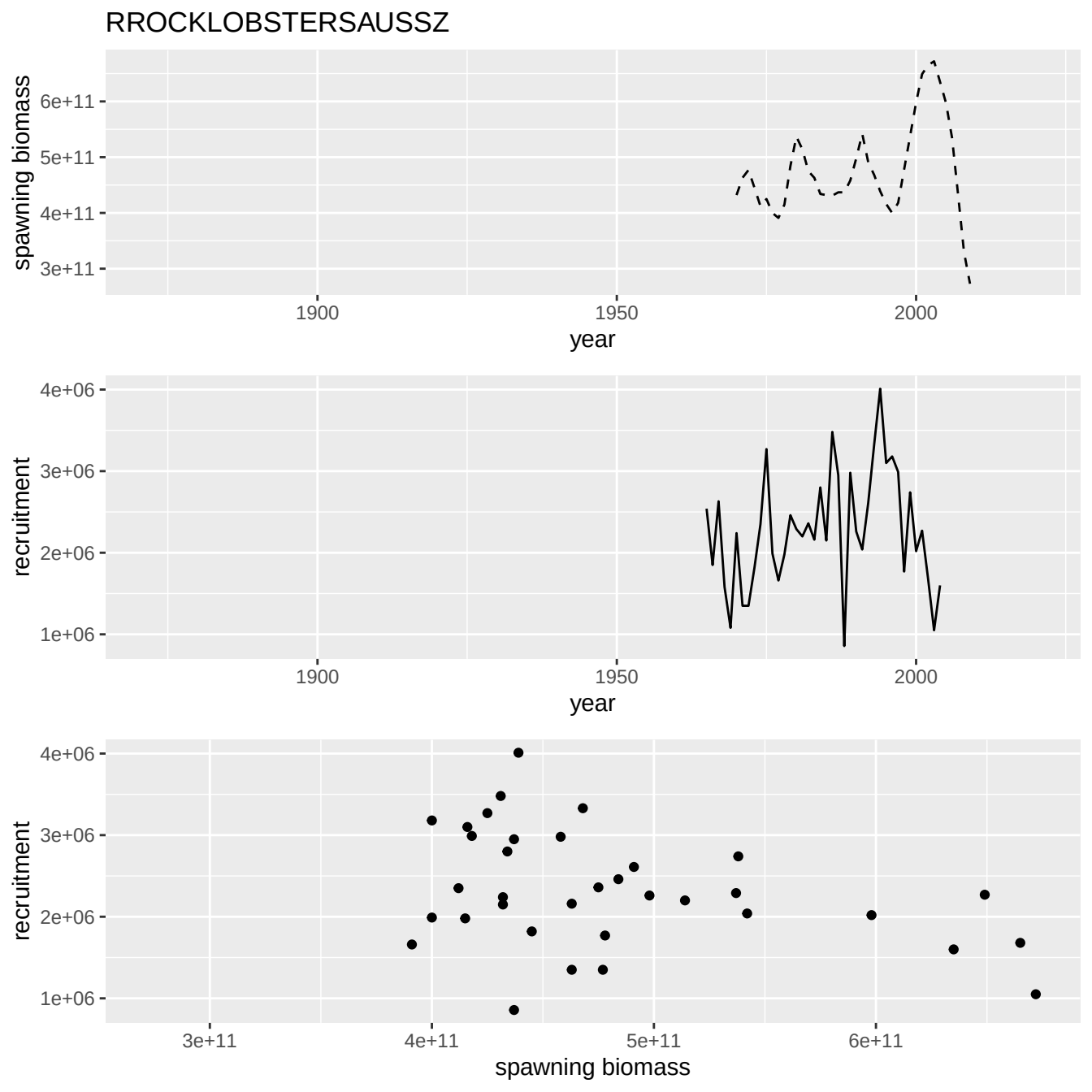

recruitment
5e+09
4e+09
3e+09
2e+09
1e+09
25000
50000
75000
100000
125000
spawning biomass

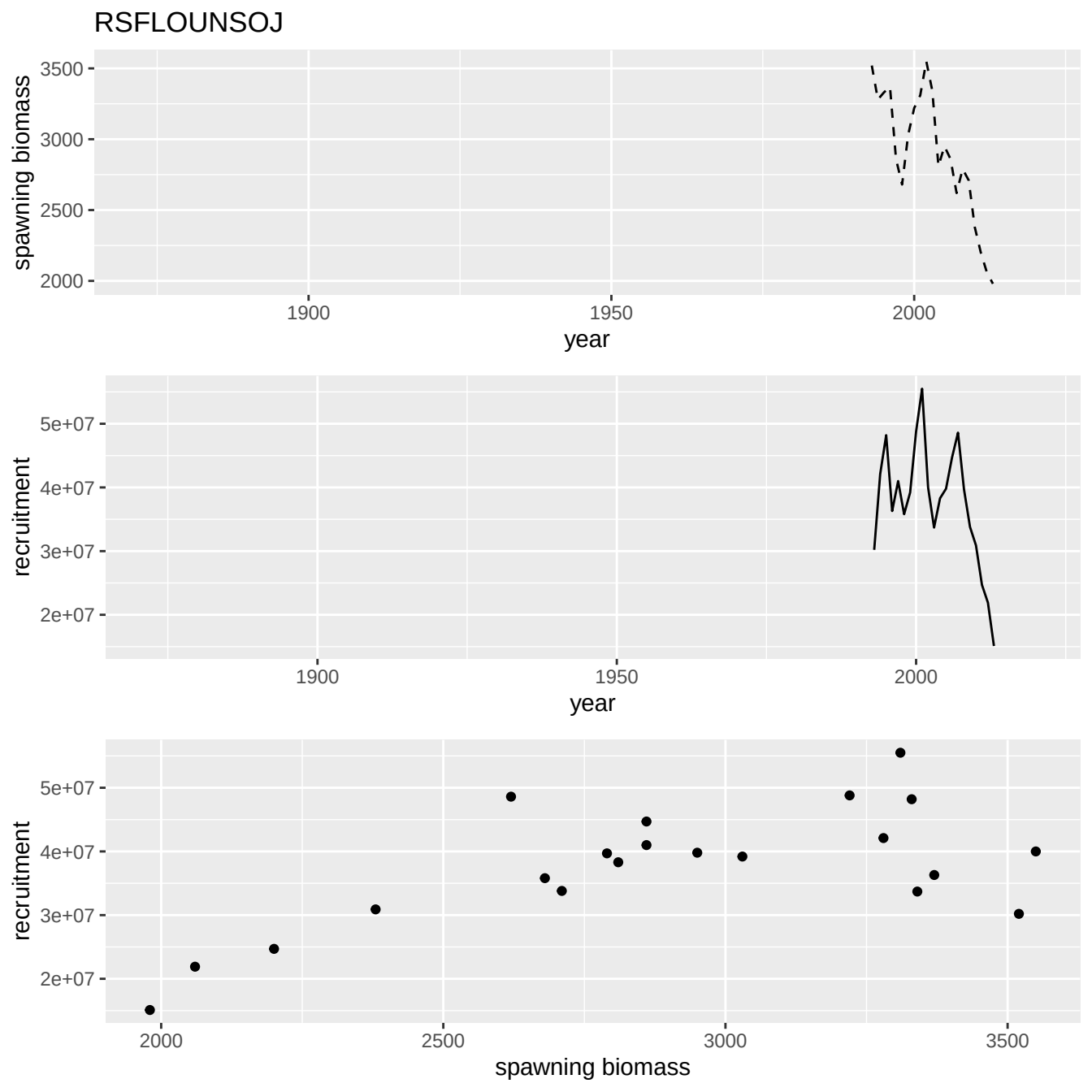

RKCRABBB
spawning biomass
90000
60000
30000
1900
1950
2000
year
recruitment
1.5e+08
1.0e+08
5.0e+07
0.0e+00
1900
1950
2000
year
recruitment
1.5e+08
1.0e+08
5.0e+07
0.0e+00
30000
60000
90000
spawning biomass

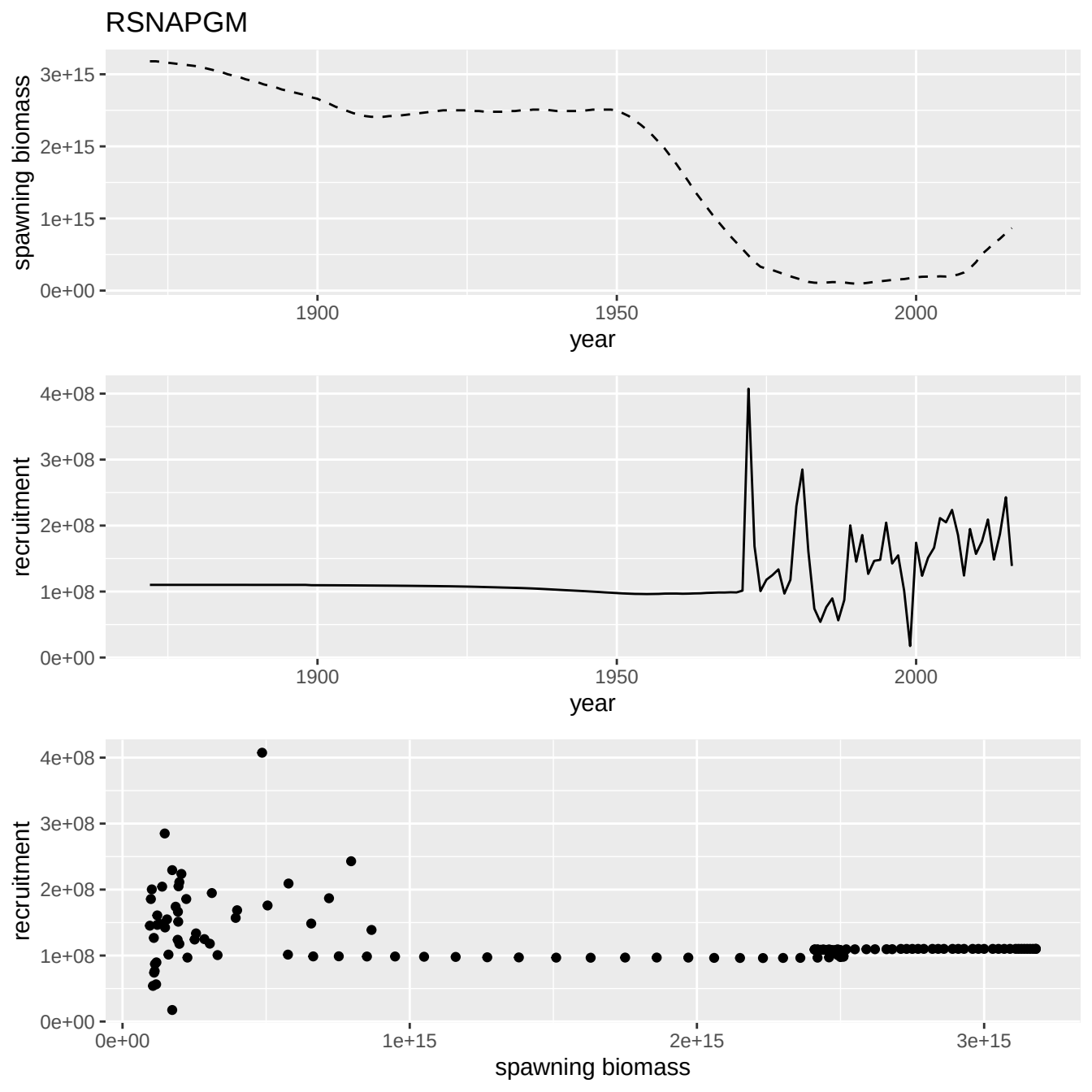

RKCRABNS
spawning biomass
1.5e+07
1.0e+07
5.0e+06
1900
1950
2000
year
recruitment
1500000
1000000
500000
1900
1950
2000
year
recruitment
1500000
1000000
500000
5.0e+06
1.0e+07
1.5e+07
spawning biomass

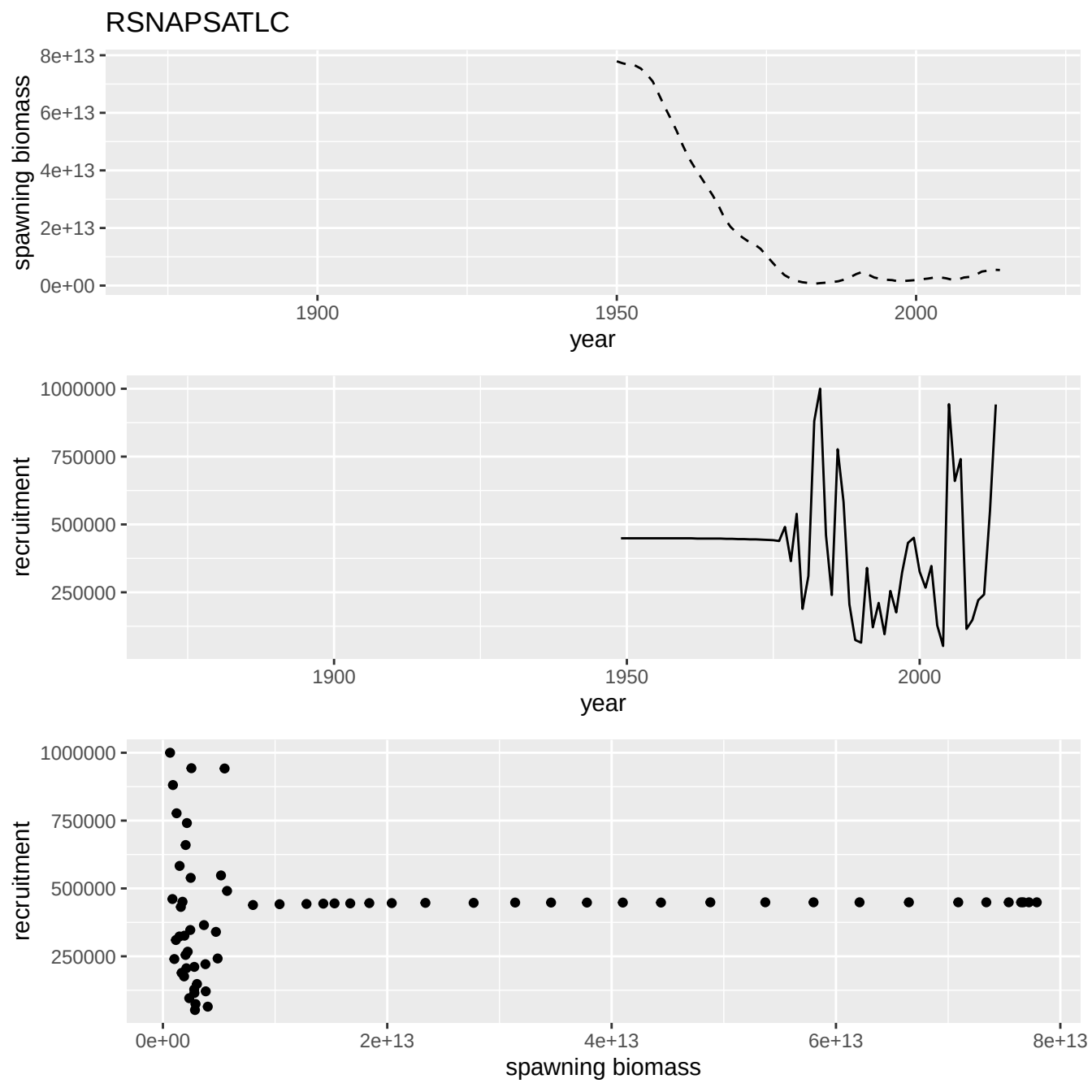

RMULLMEDGSA29
spawning biomass
8000
6000
4000
2000
1900
1950
2000
year
recruitment
1e+09
5e+08
1900
1950
2000
year
recruitment
1e+09
5e+08
2000
4000
6000
8000
spawning biomass

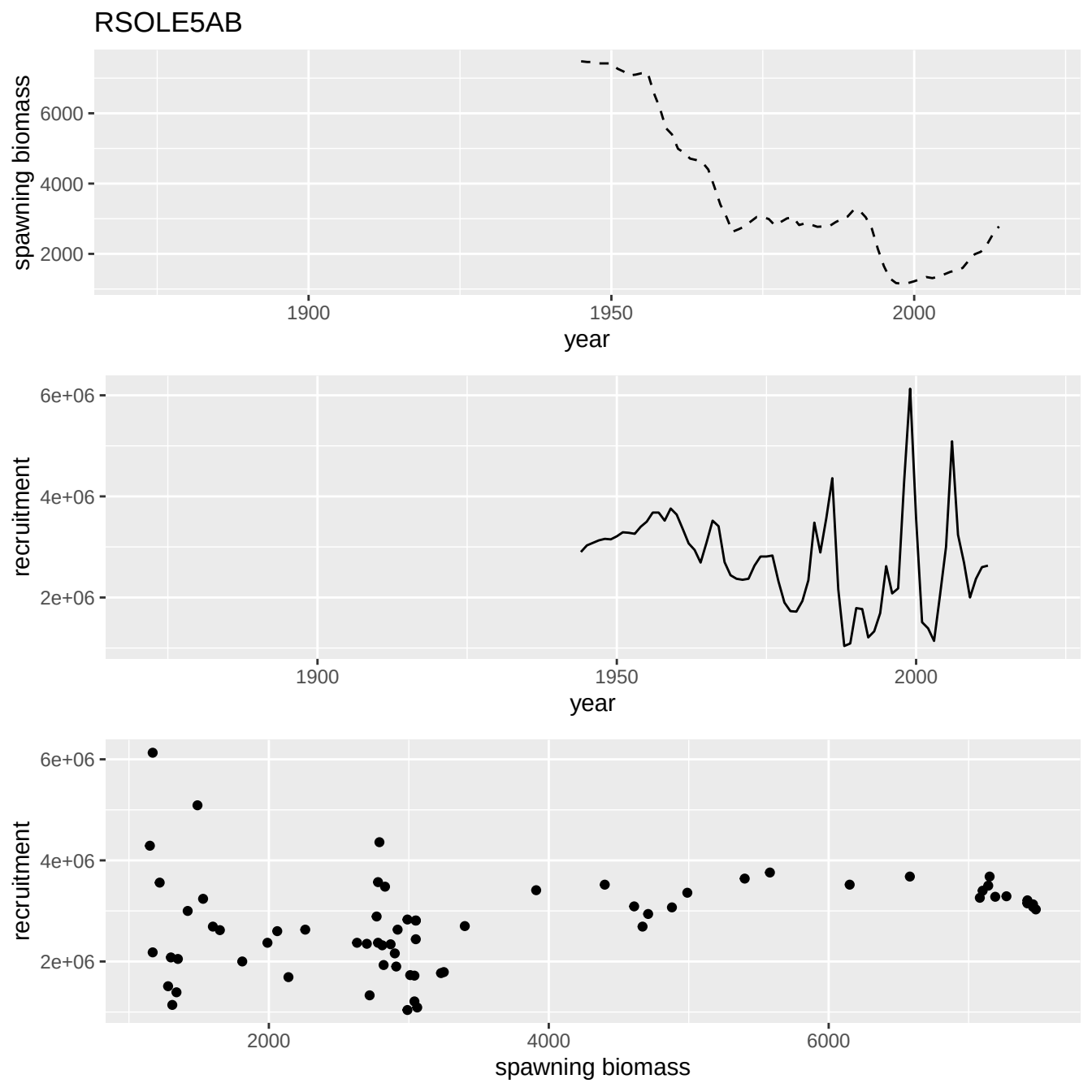

RROCKLOBSTERSAUSNZ
spawning biomass
6e+11
5e+11
4e+11
3e+11
2e+11
1900
1950
2000
year
recruitment
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
1500000
1000000
500000
0
2e+11
3e+11
4e+11
5e+11
6e+11
spawning biomass

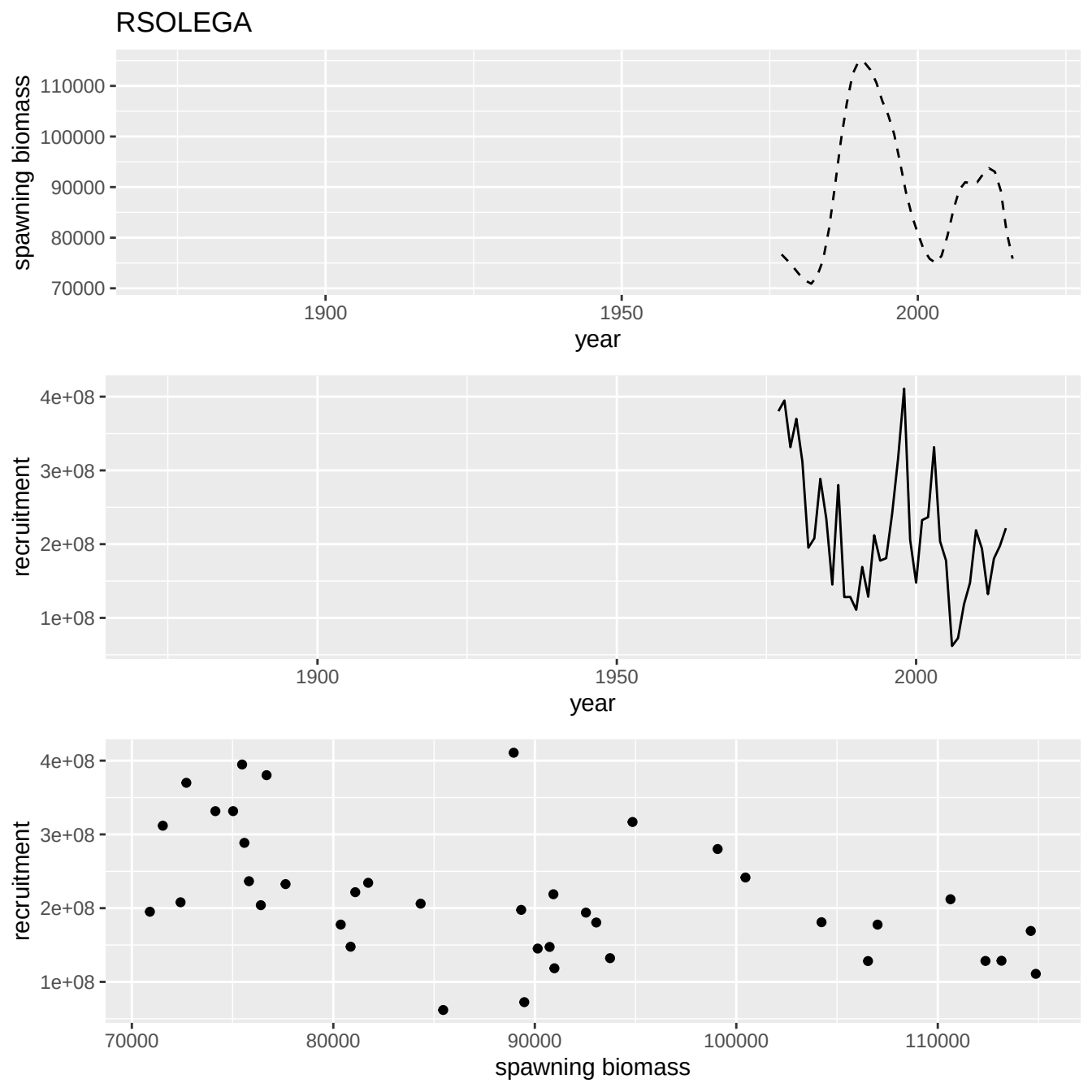

RROCKLOBSTERSAUSSZ
spawning biomass
6e+11
5e+11
4e+11
3e+11
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
3e+11
4e+11
5e+11
6e+11
spawning biomass

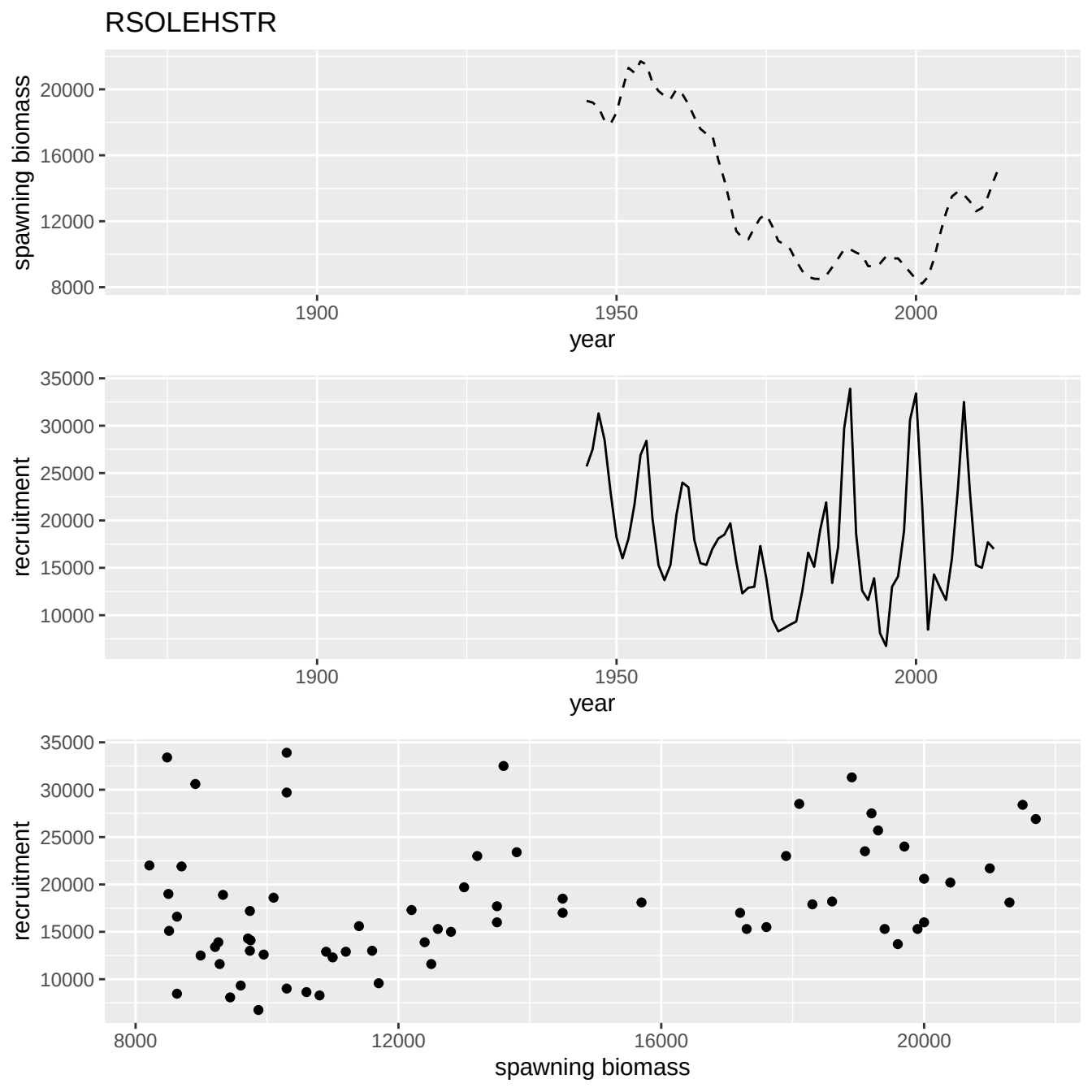

RSFLOUNSOJ
spawning biomass
3500
3000
2500
2000
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
2000
2500
3000
3500
spawning biomass

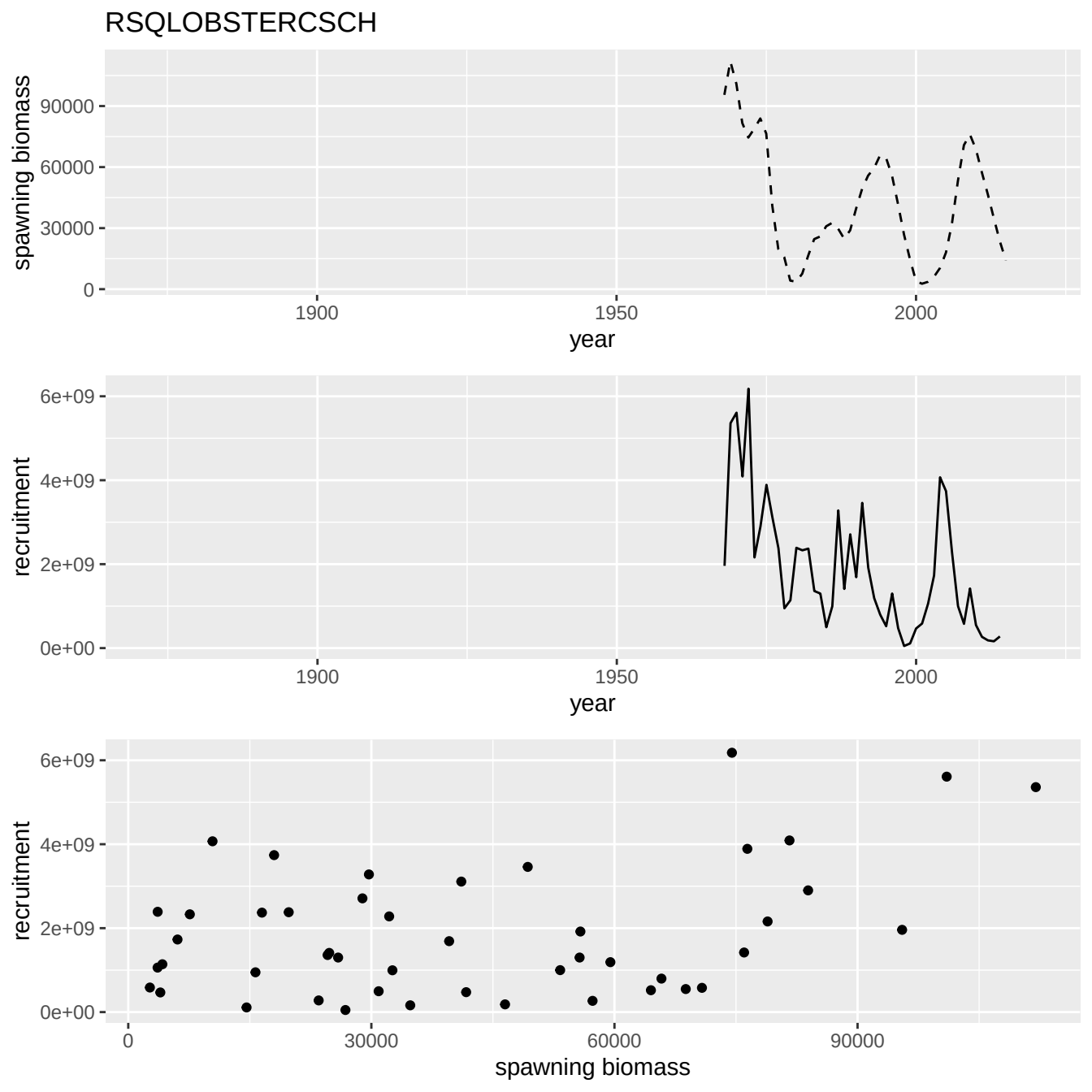

RSNAPGM
spawning biomass
3e+15
2e+15
1e+15
0e+00
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
0e+00
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
0e+00
0e+00
1e+15
2e+15
3e+15
spawning biomass

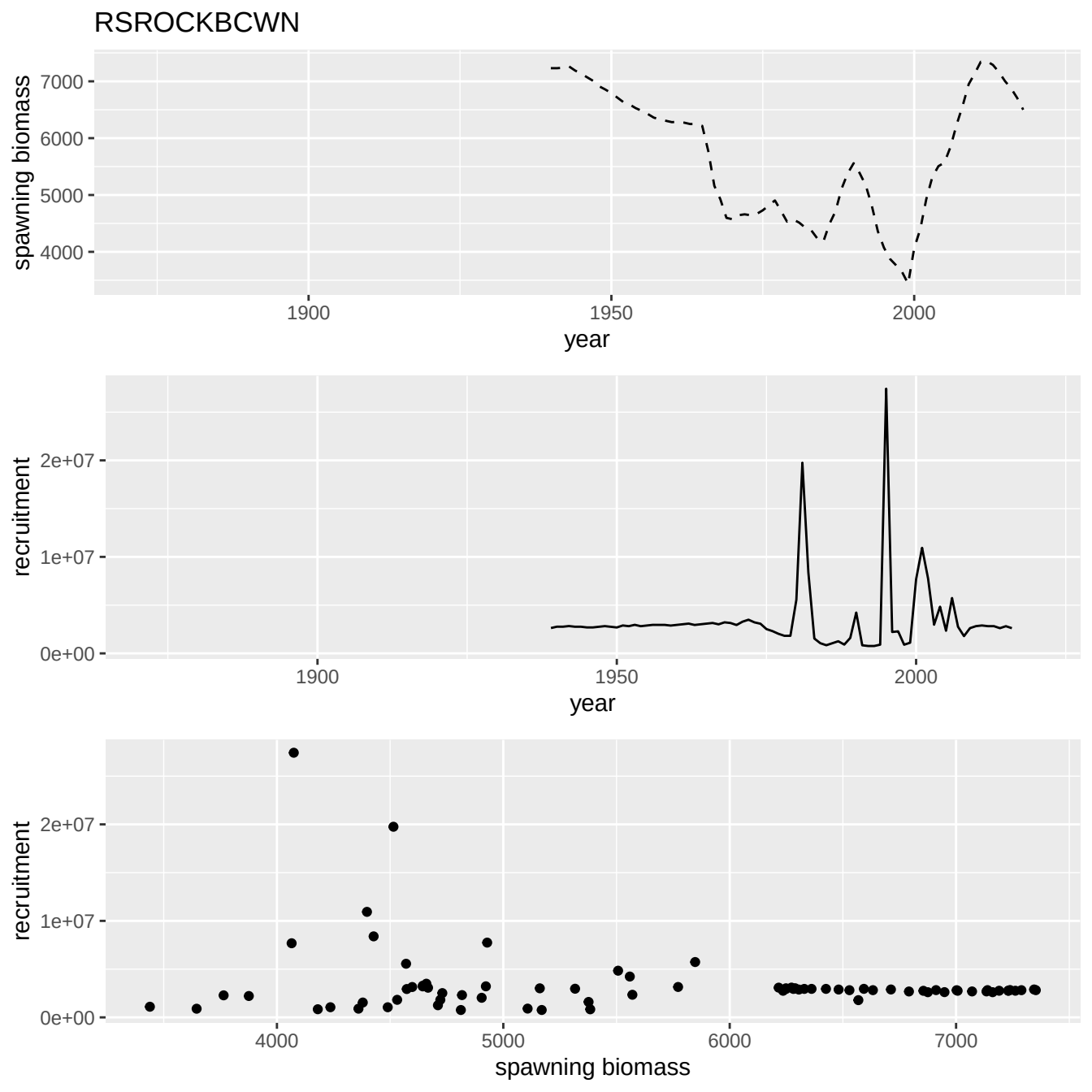

RSNAPSATLC
spawning biomass
8e+13
6e+13
4e+13
2e+13
0e+00
1900
1950
2000
year
recruitment
1000000
750000
500000
250000
1900
1950
2000
year
recruitment
1000000
750000
500000
250000
0e+00
2e+13
4e+13
6e+13
8e+13
spawning biomass

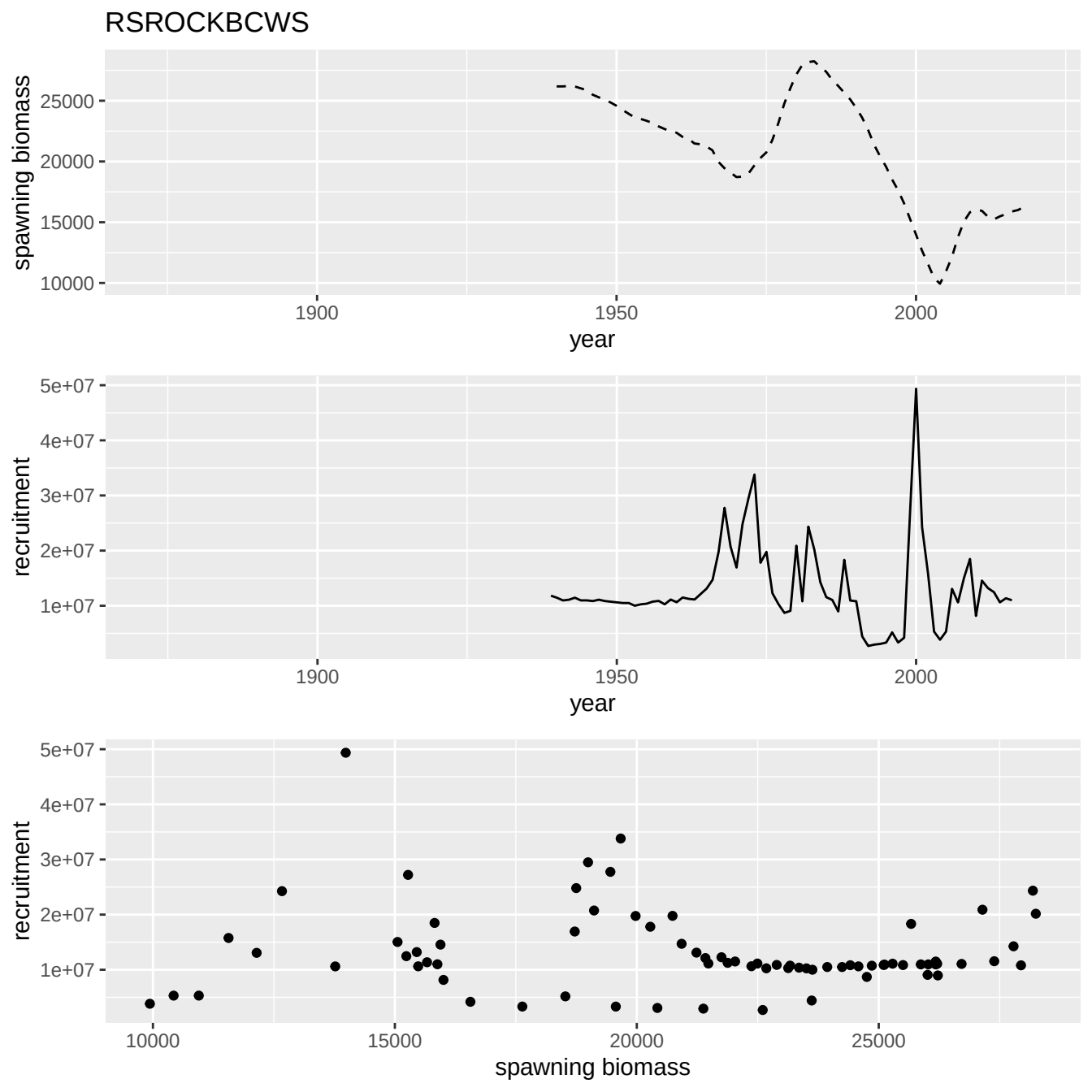

RSOLE5AB
spawning biomass
6000
4000
2000
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
2000
4000
6000
spawning biomass

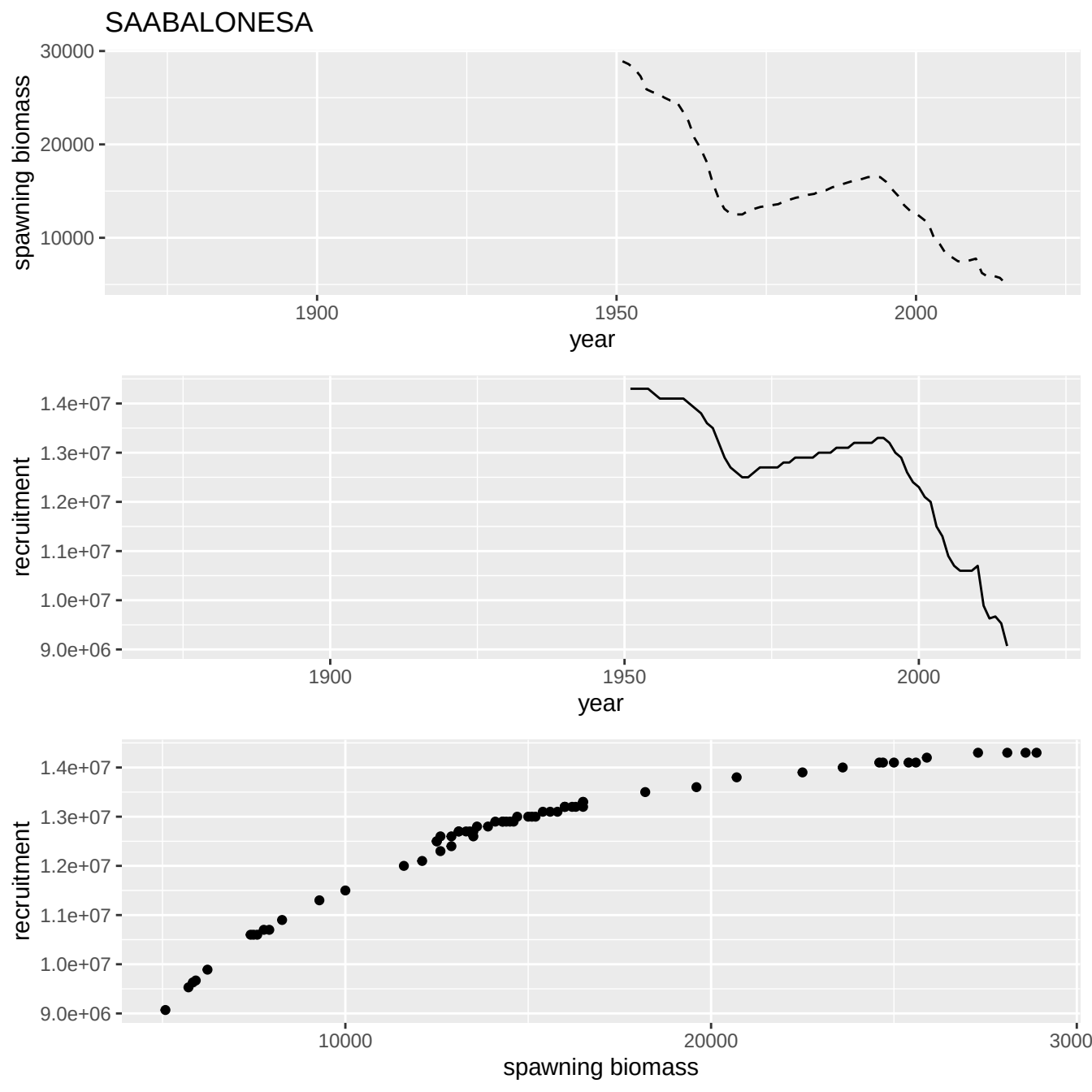

RSOLEGA
spawning biomass
110000
100000
90000
80000
70000
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
70000
80000
90000
100000
110000
spawning biomass

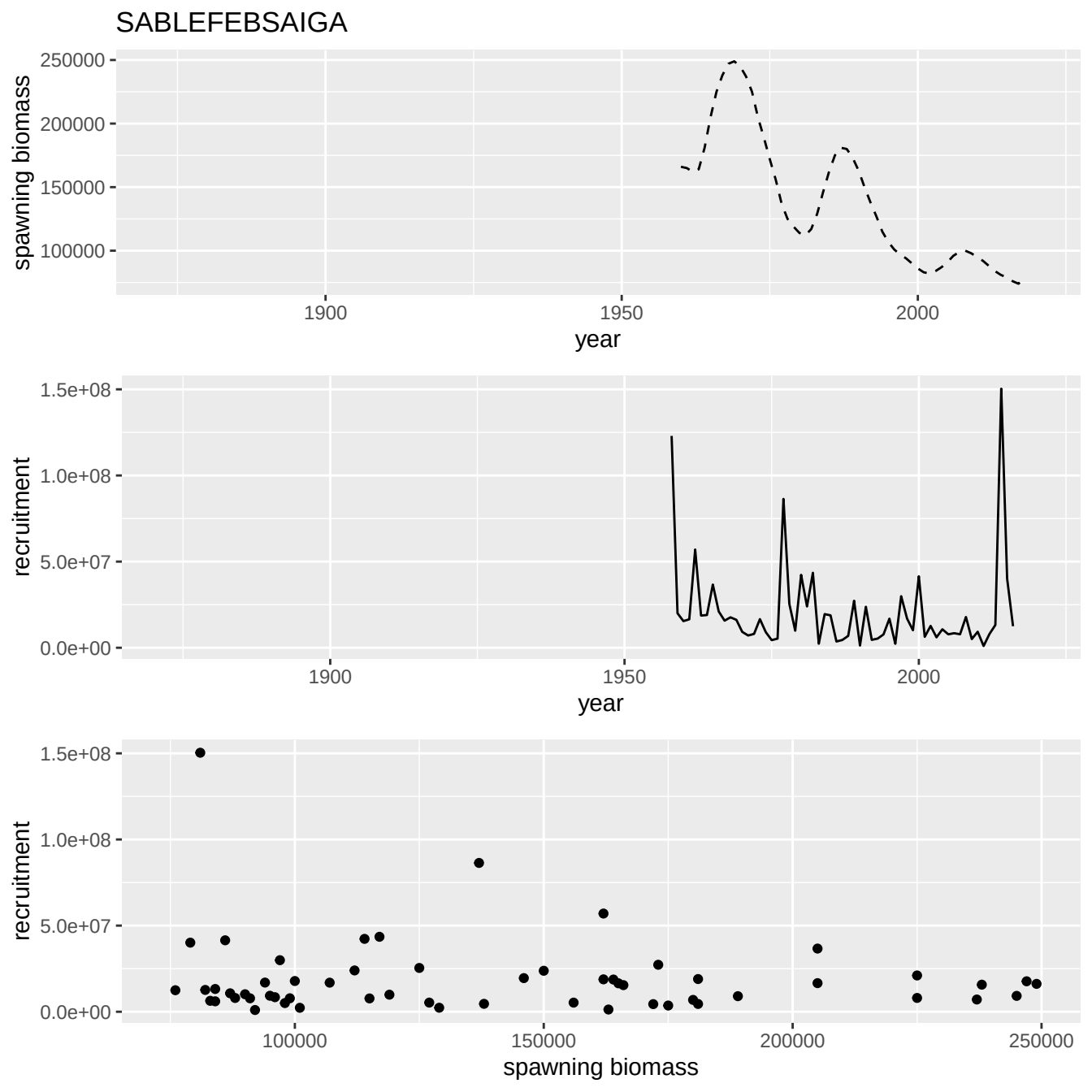

RSOLEHSTR
spawning biomass
20000
16000
12000
8000
1900
1950
2000
year
recruitment
35000
30000
25000
20000
15000
10000
1900
1950
2000
year
recruitment
35000
30000
25000
20000
15000
10000
8000
12000
16000
20000
spawning biomass

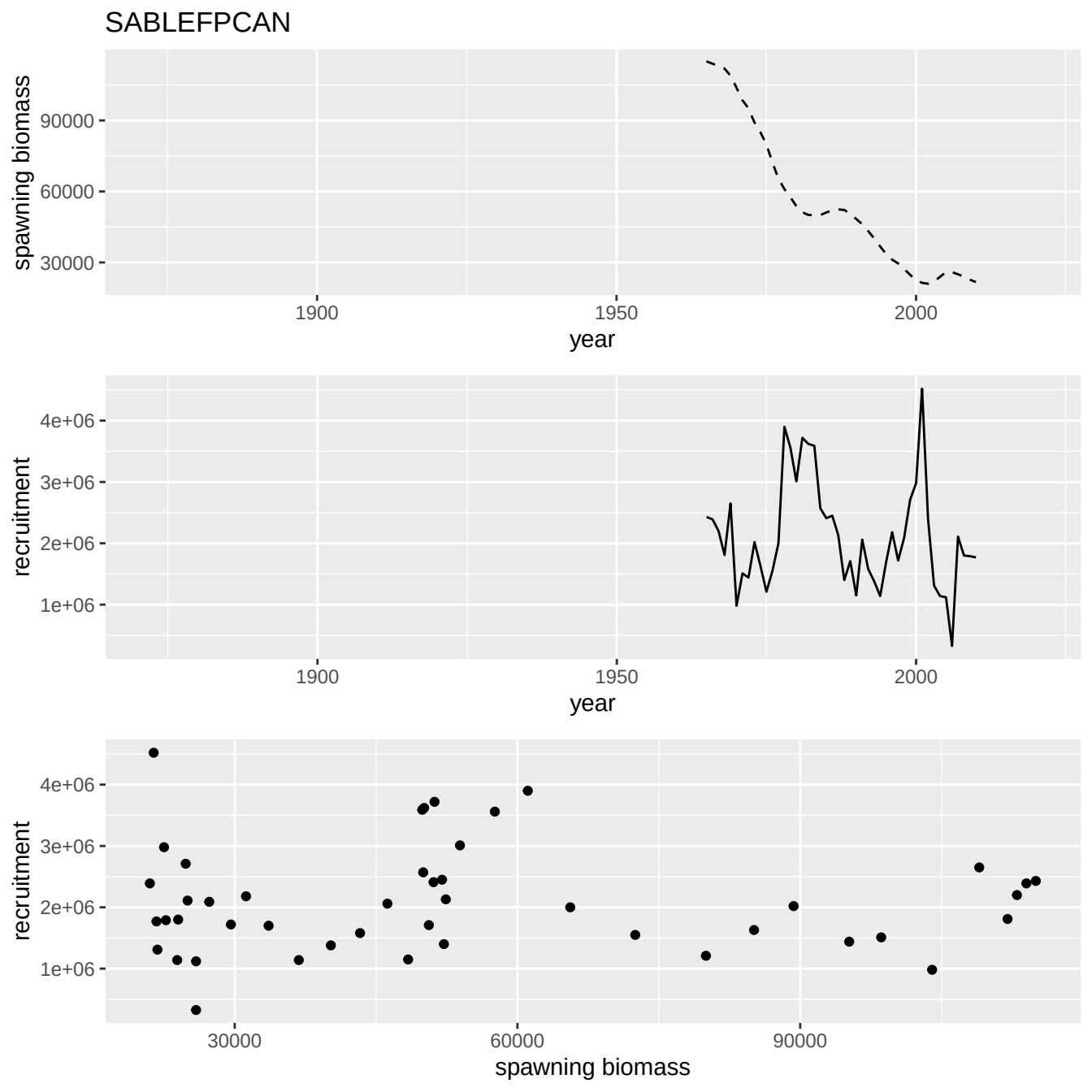

RSQLOBSTERCSCH
spawning biomass
90000
60000
30000
0
1900
1950
2000
year
recruitment
6e+09
4e+09
2e+09
0e+00
1900
1950
2000
year
recruitment
6e+09
4e+09
2e+09
0e+00
0
30000
60000
90000
spawning biomass

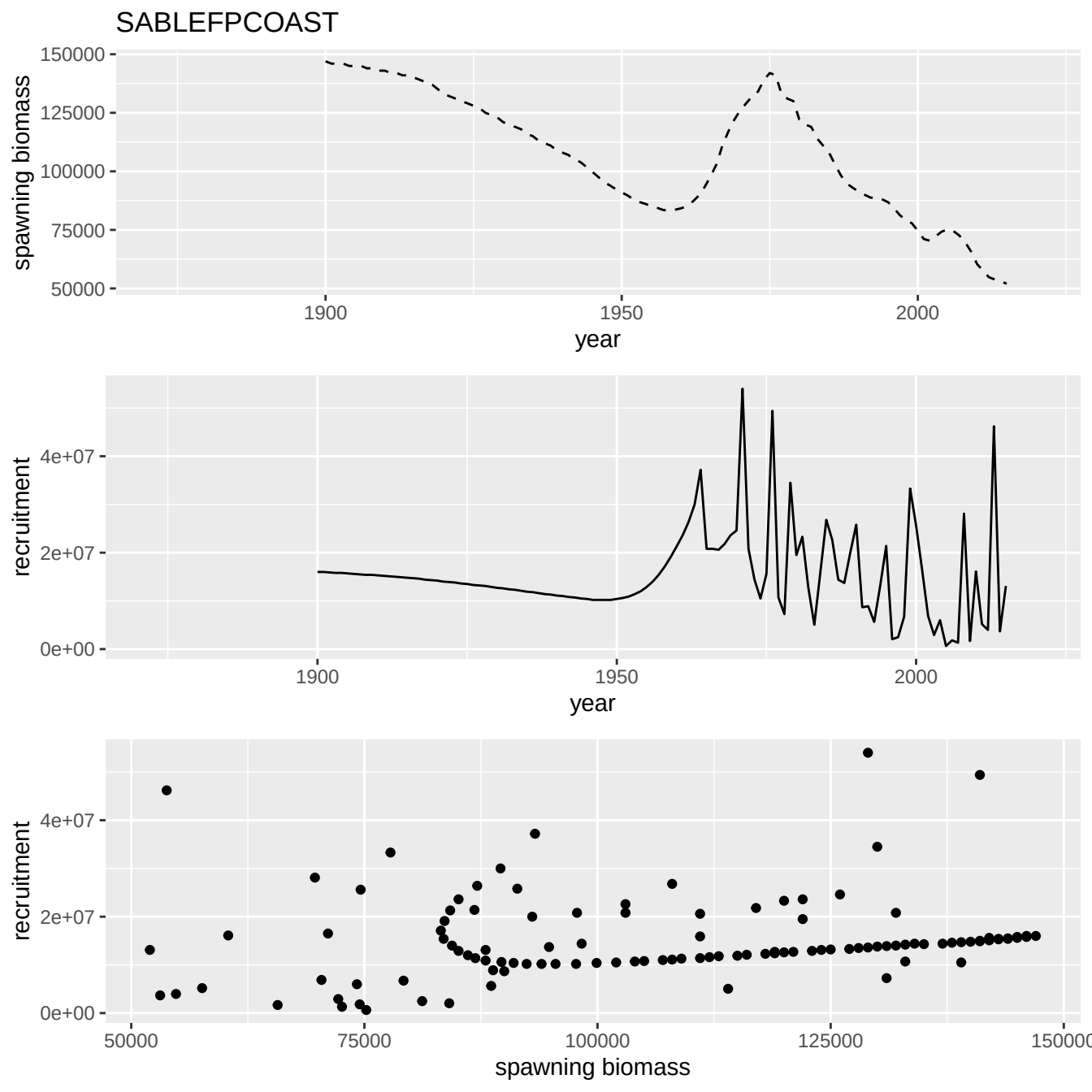

RSROCKBCWN
spawning biomass
7000
6000
5000
4000
1900
1950
2000
year
recruitment
2e+07
1e+07
0e+00
1900
1950
2000
year
recruitment
2e+07
1e+07
0e+00
4000
5000
6000
7000
spawning biomass

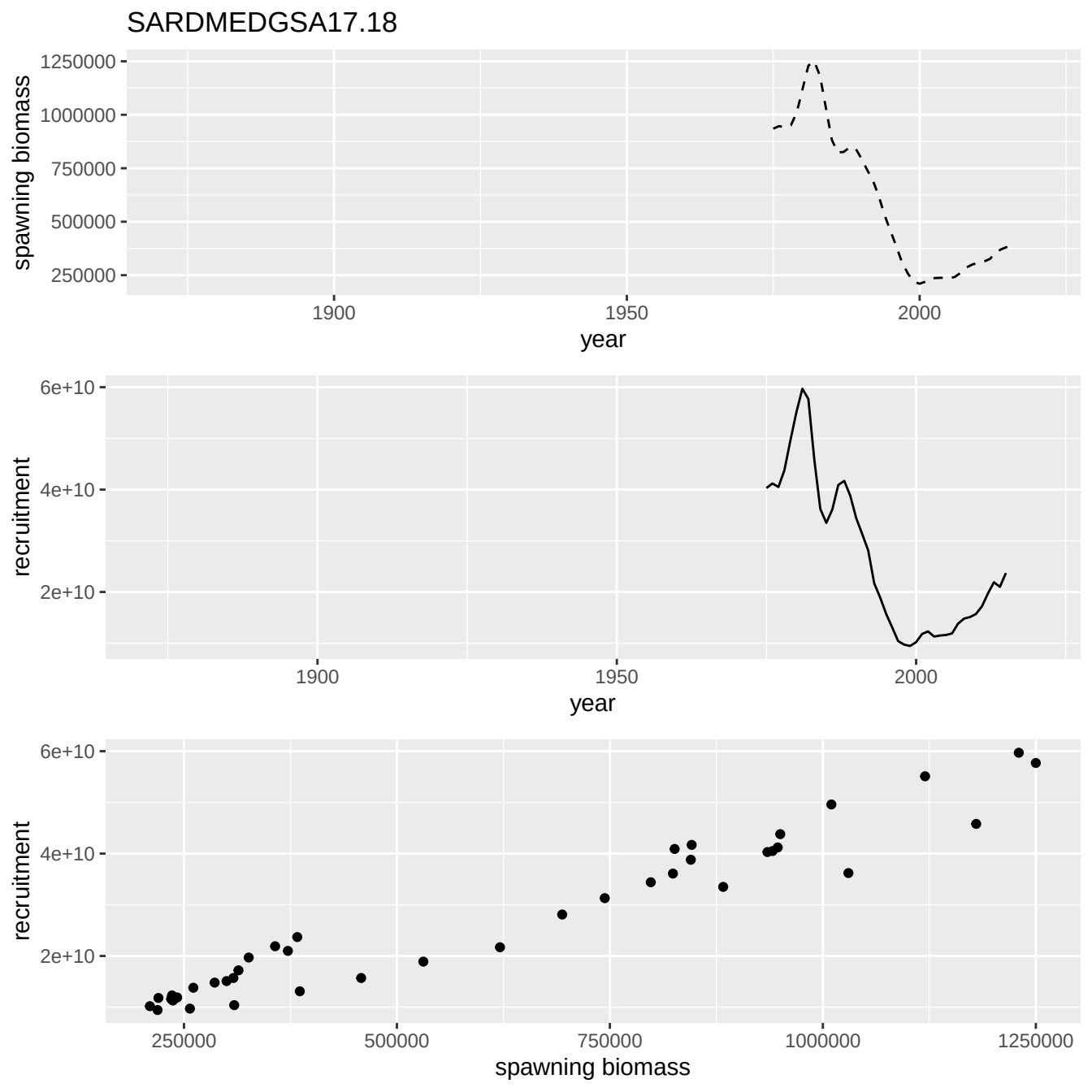

RSROCKBCWS
spawning biomass
25000
20000
15000
10000
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
1900
1950
2000
year
recruitment
5e+07
4e+07
3e+07
2e+07
1e+07
10000
15000
20000
25000
spawning biomass

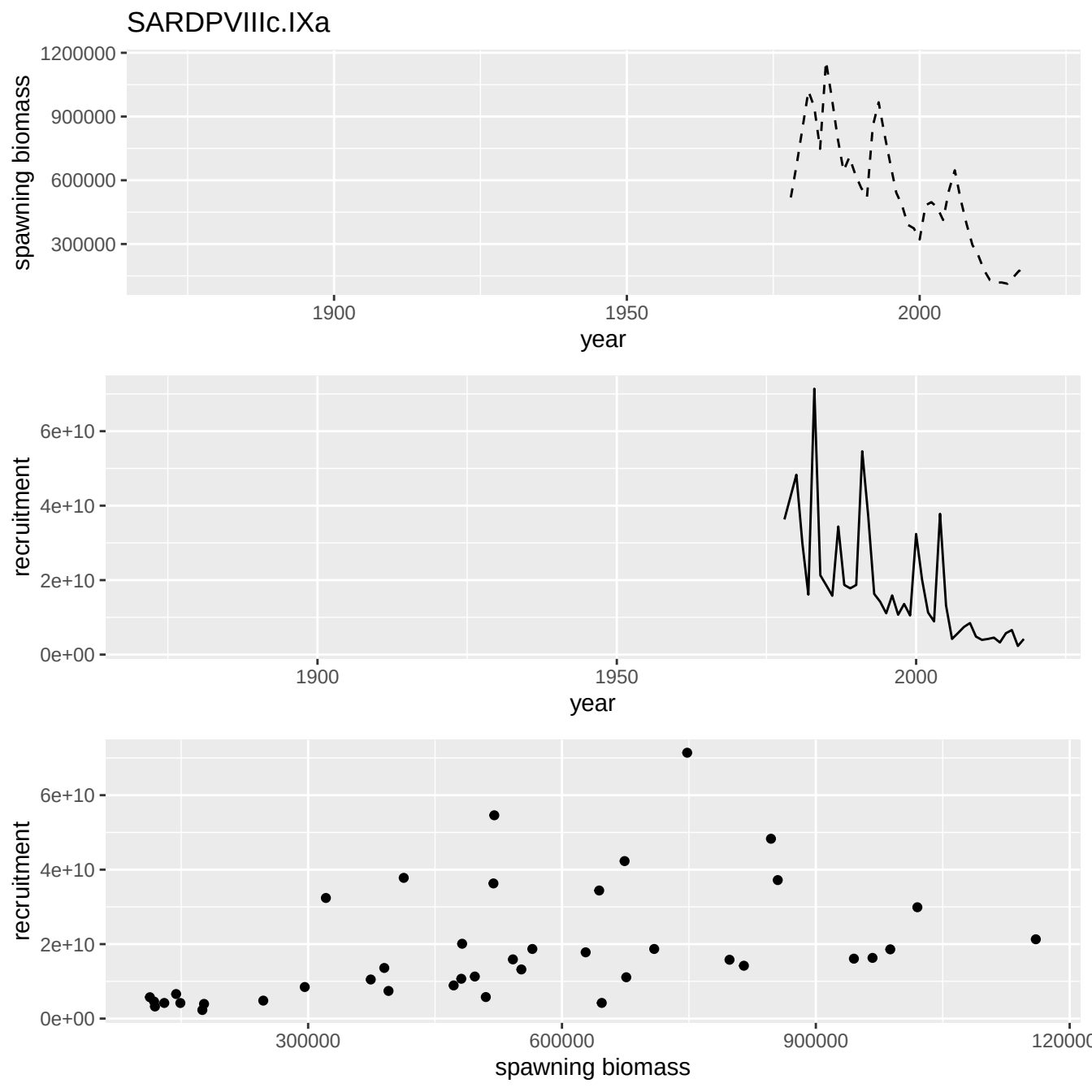

SAABALONESA
spawning biomass
30000
20000
10000
1900
1950
2000
year
recruitment
1.4e+07
1.3e+07
1.2e+07
1.1e+07
1.0e+07
9.0e+06
1900
1950
2000
year
recruitment
1.4e+07
1.3e+07
1.2e+07
1.1e+07
1.0e+07
9.0e+06
10000
20000
3000
spawning biomass

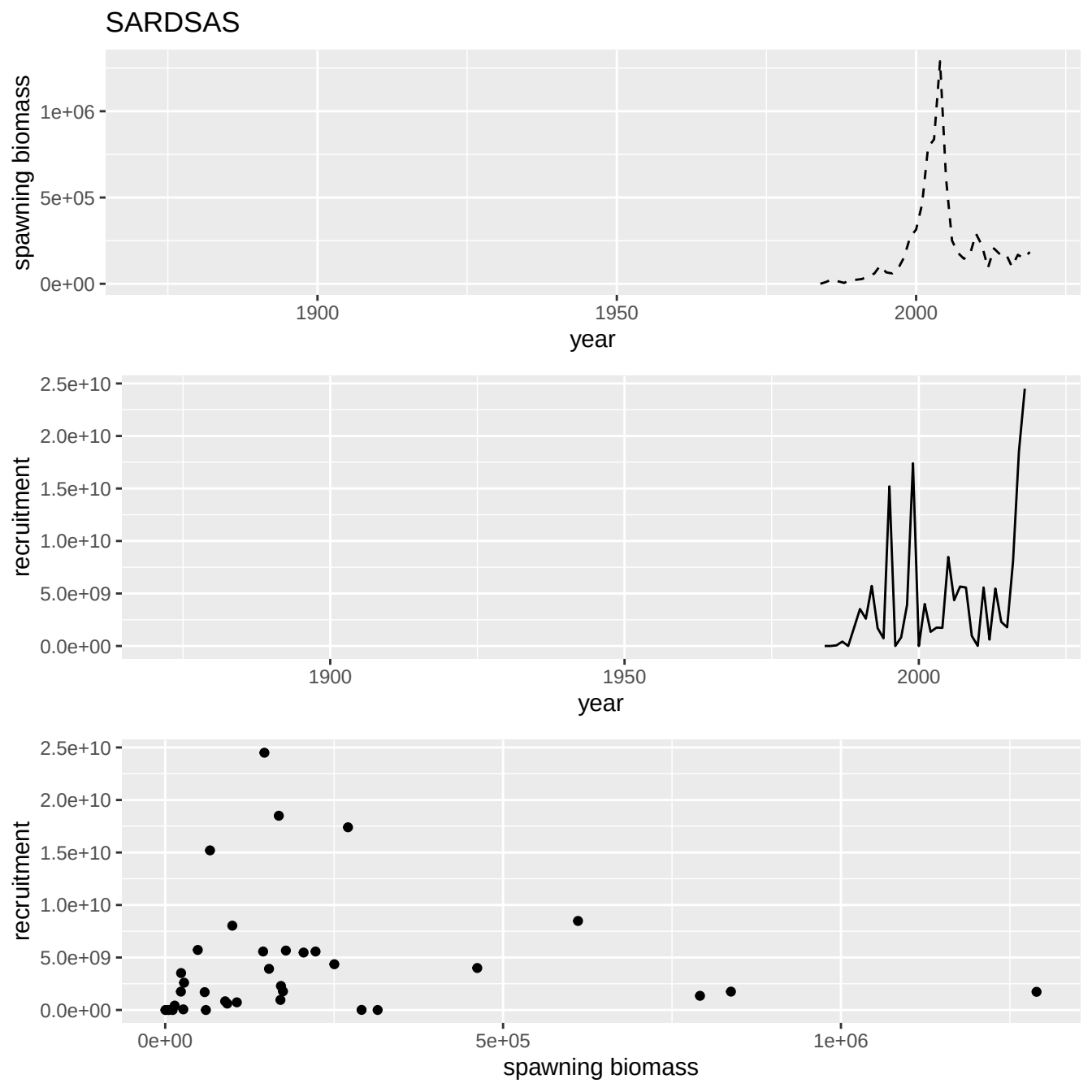

SABLEFEBSAIGA
spawning biomass
250000
200000
150000
100000
1900
1950
2000
year
recruitment
1.5e+08
1.0e+08
5.0e+07
0.0e+00
1900
1950
2000
year
recruitment
1.5e+08
1.0e+08
5.0e+07
0.0e+00
100000
150000
200000
250000
spawning biomass

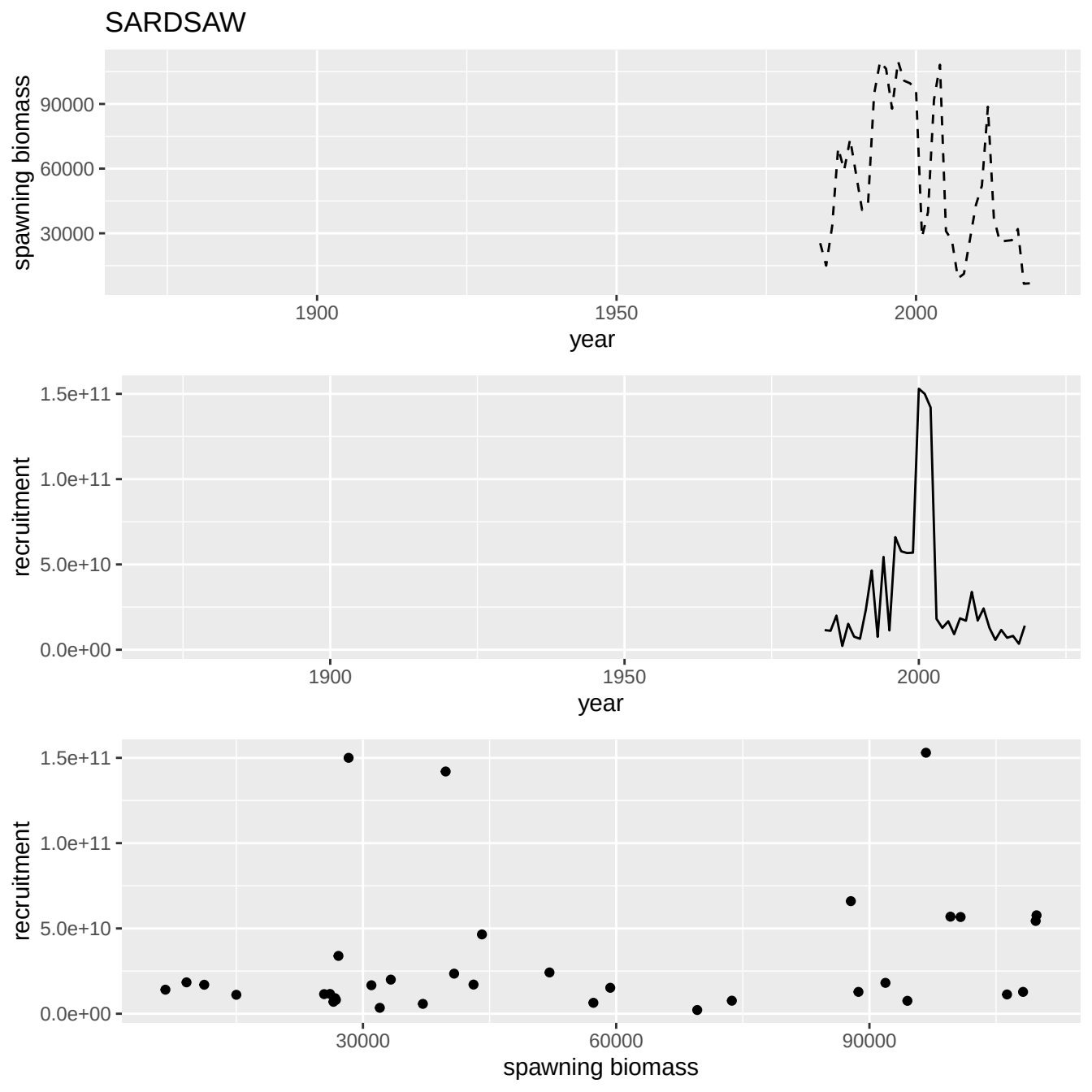

SABLEFPCAN
spawning biomass
90000
60000
30000
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
30000
60000
90000
spawning biomass

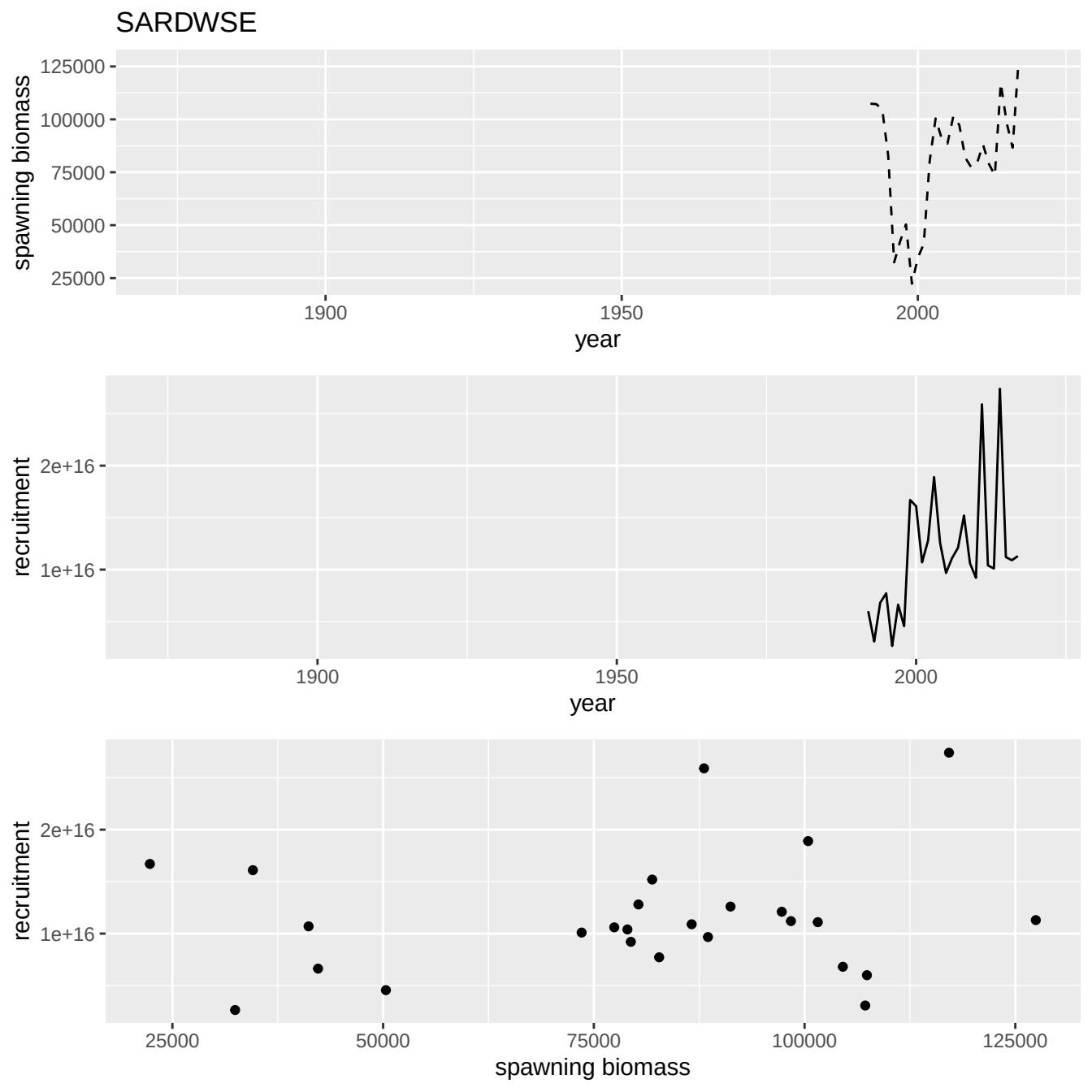

SABLEFPCOAST
spawning biomass
150000
125000
100000
75000
50000
1900
1950
2000
year
recruitment
4e+07
2e+07
0e+00
1900
1950
2000
year
recruitment
4e+07
2e+07
0e+00
50000
75000
100000
125000
150000
spawning biomass

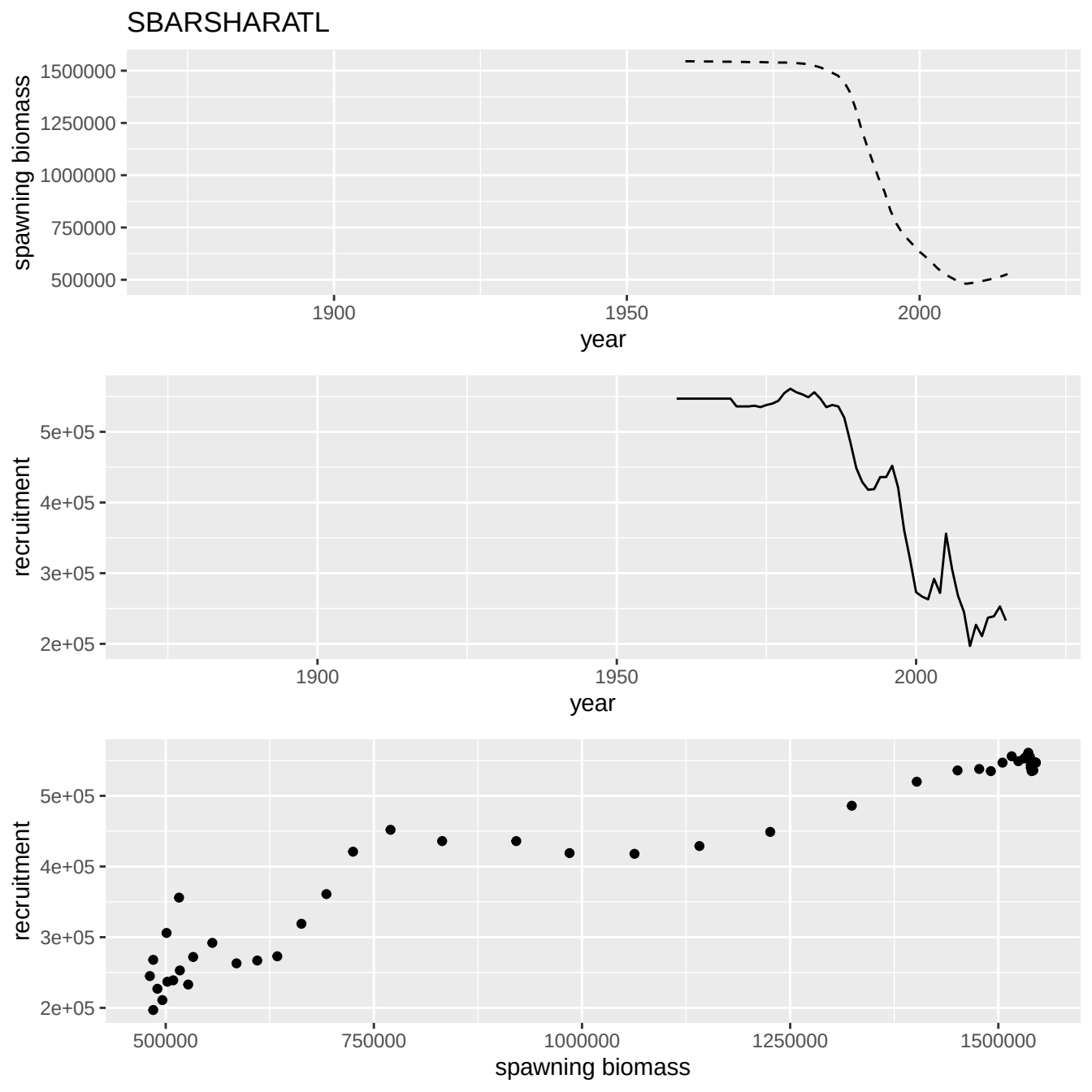

SARDMEDGSA17.18
spawning biomass
1250000
1000000
750000
500000
250000
1900
1950
2000
year
recruitment
6e+10
4e+10
2e+10
1900
1950
2000
year
recruitment
6e+10
4e+10
2e+10
250000
500000
750000
1000000
1250000
spawning biomass

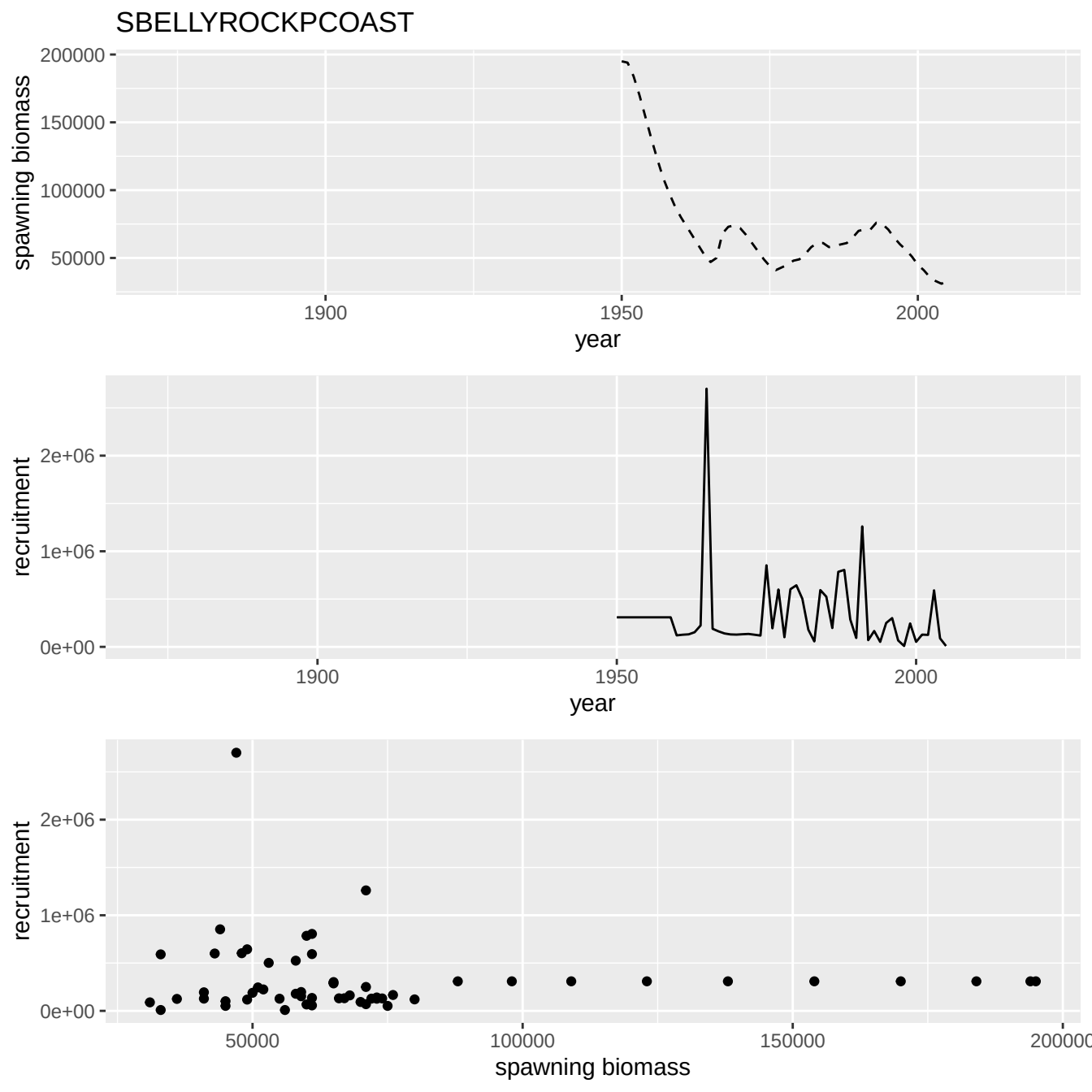

SARDPVIIIc.IXa
spawning biomass
1200000
900000
600000
300000
1900
1950
2000
year
recruitment
6e+10
4e+10
2e+10
0e+00
1900
1950
2000
year
recruitment
6e+10
4e+10
2e+10
0e+00
300000
600000
900000
120000
spawning biomass

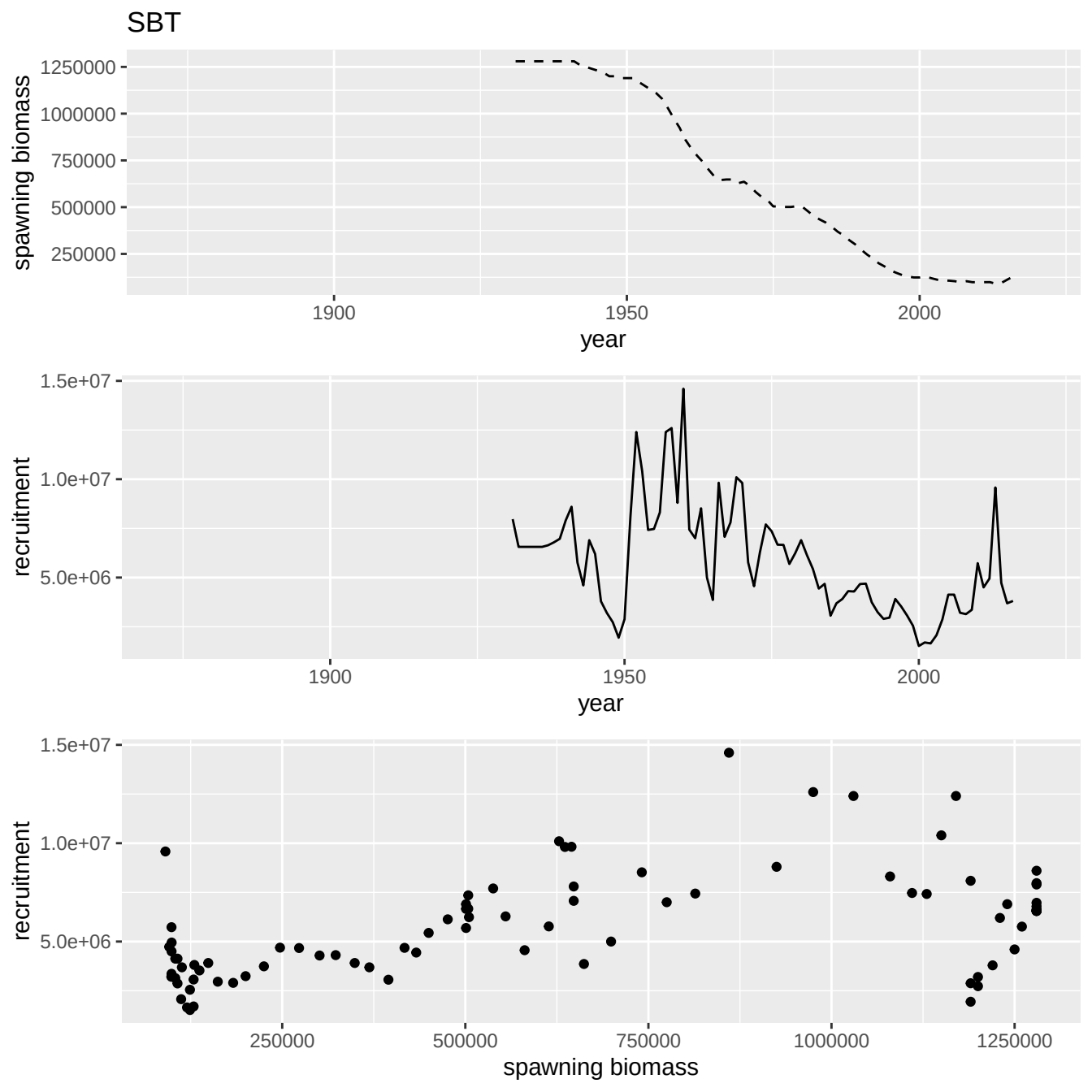

SARDSAS
spawning biomass
1e+06
5e+05
0e+00
1900
1950
2000
year
recruitment
2.5e+10
2.0e+10
1.5e+10
1.0e+10
5.0e+09
0.0e+00
1900
1950
2000
year
recruitment
2.5e+10
2.0e+10
1.5e+10
1.0e+10
5.0e+09
0.0e+00
0e+00
5e+05
1e+06
spawning biomass

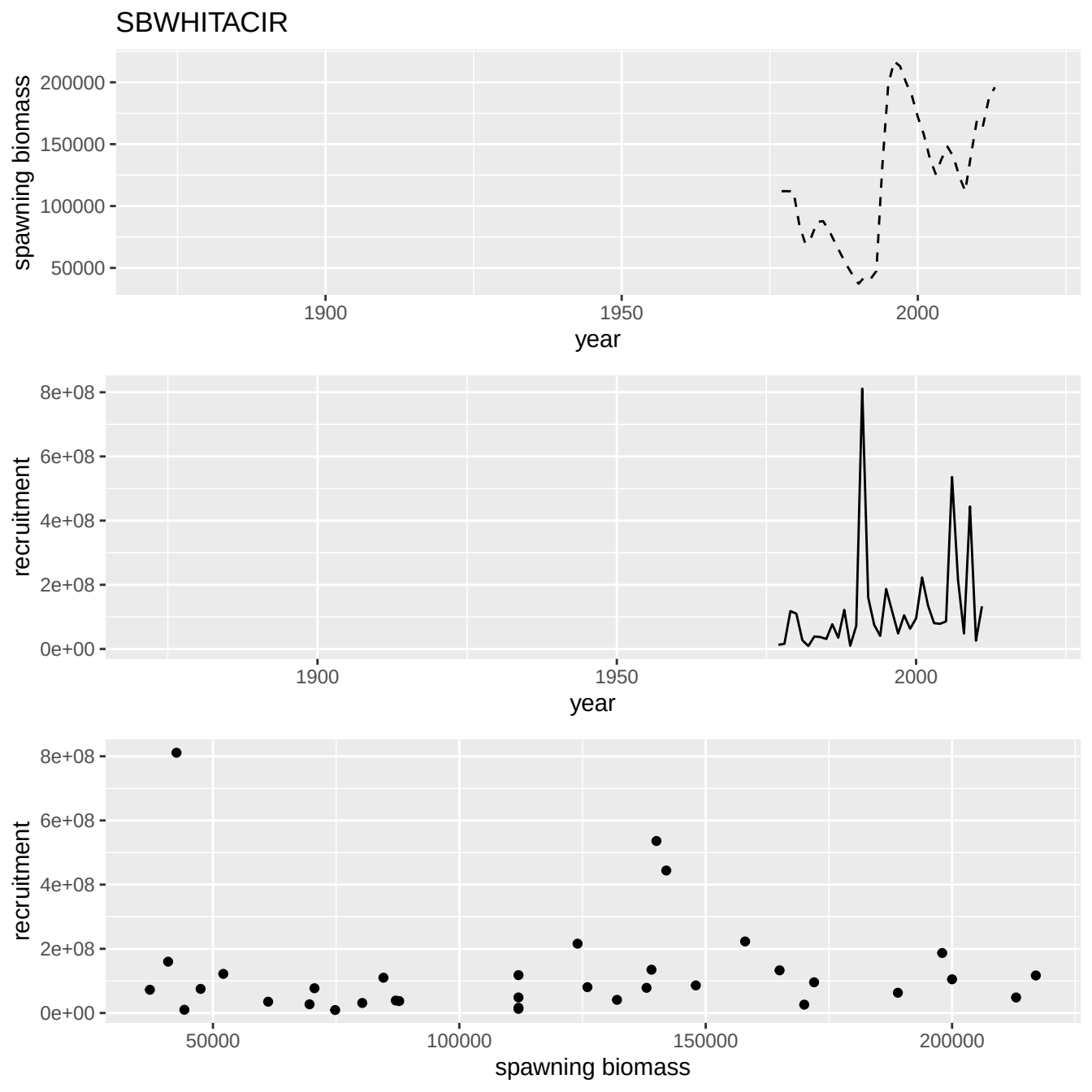

SARDSAW
spawning biomass
90000
60000
30000
1900
1950
2000
year
recruitment
1.5e+11
1.0e+11
5.0e+10
0.0e+00
1900
1950
2000
year
recruitment
1.5e+11
1.0e+11
5.0e+10
0.0e+00
30000
60000
90000
spawning biomass

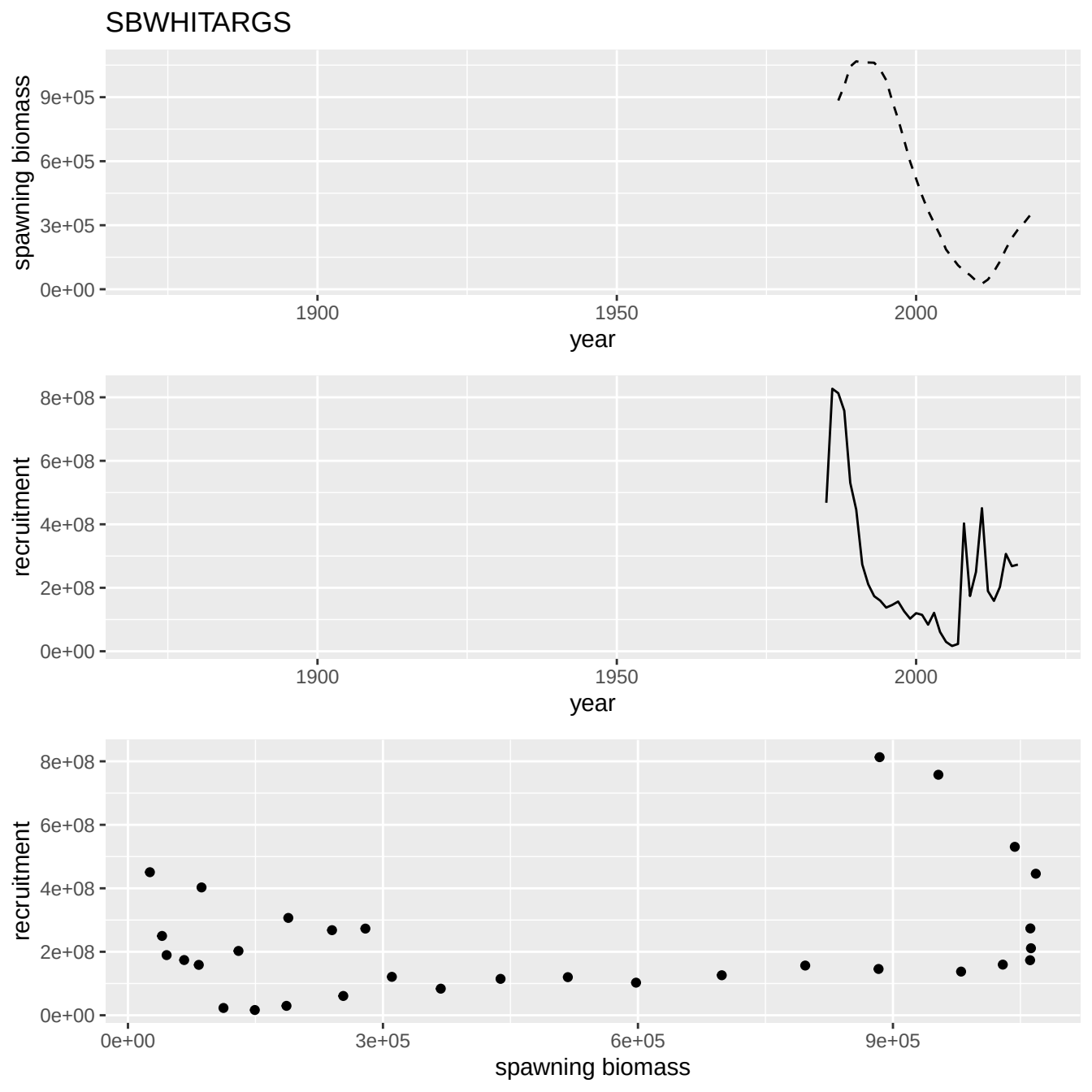

SARDWSE
spawning biomass
125000
100000
75000
50000
25000
1900
1950
2000
year
recruitment
2e+16
1e+16
1900
1950
2000
year
recruitment
2e+16
1e+16
25000
50000
75000
100000
125000
spawning biomass

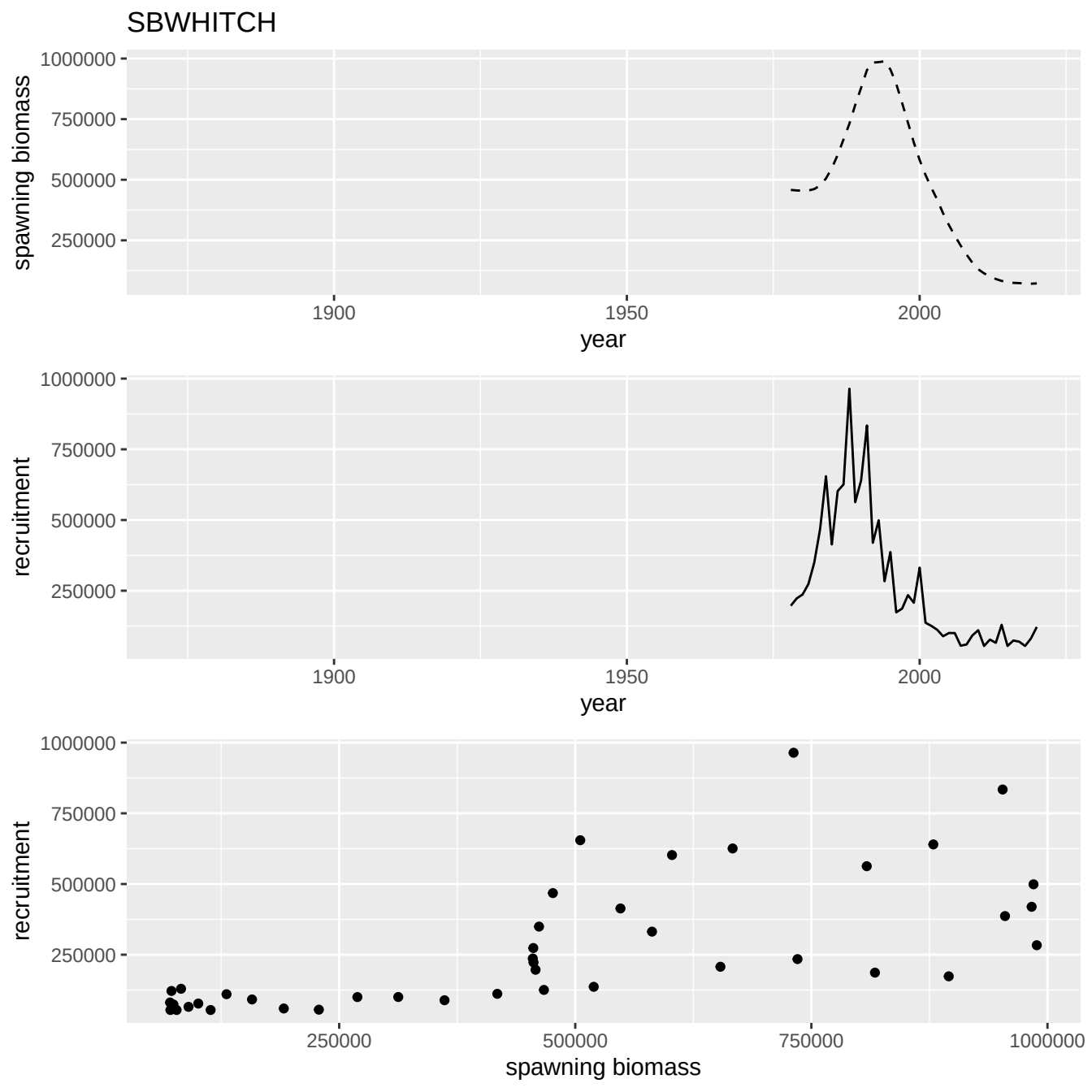

SBARSHARATL
spawning biomass
1500000
1250000
1000000
750000
500000
1900
1950
2000
year
recruitment
5e+05
4e+05
3e+05
2e+05
1900
1950
2000
year
recruitment
5e+05
4e+05
3e+05
2e+05
500000
750000
1000000
1250000
1500000
spawning biomass

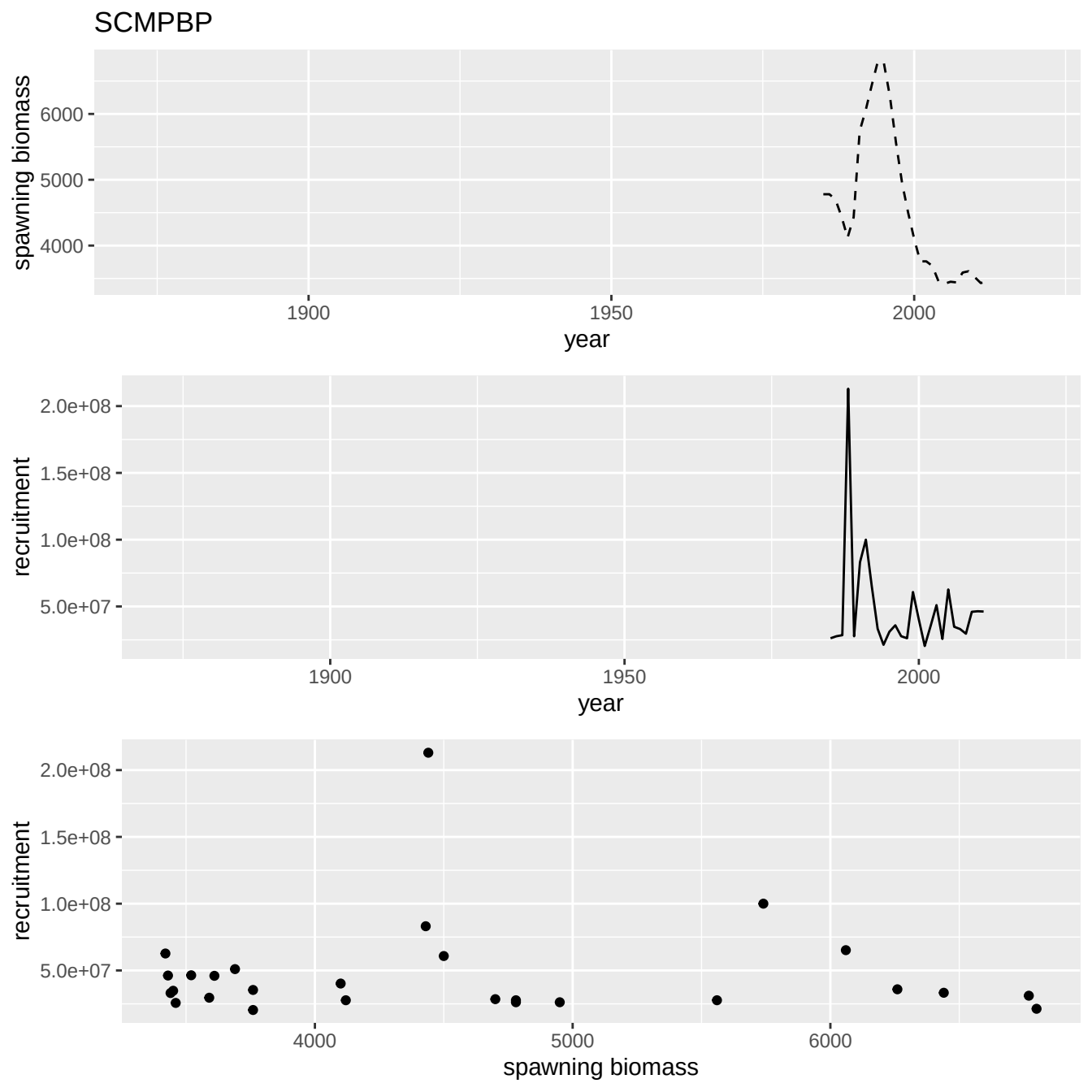

SBELLYROCKPCOAST
spawning biomass
200000
150000
100000
50000
1900
1950
2000
year
recruitment
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
2e+06
1e+06
0e+00
50000
100000
150000
200000
spawning biomass

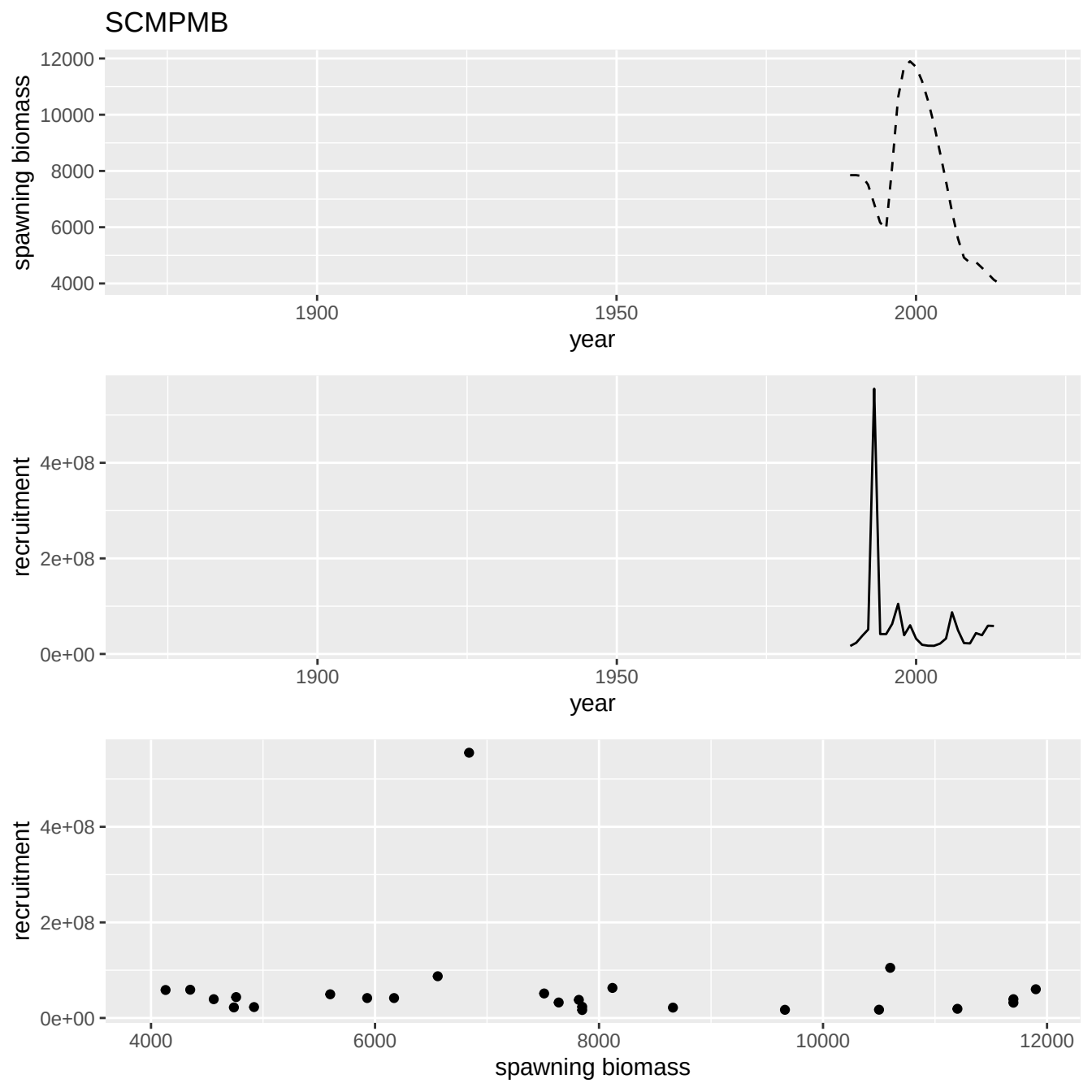

SBT
spawning biomass
1250000
1000000
750000
500000
250000
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
250000
500000
750000
1000000
1250000
spawning biomass

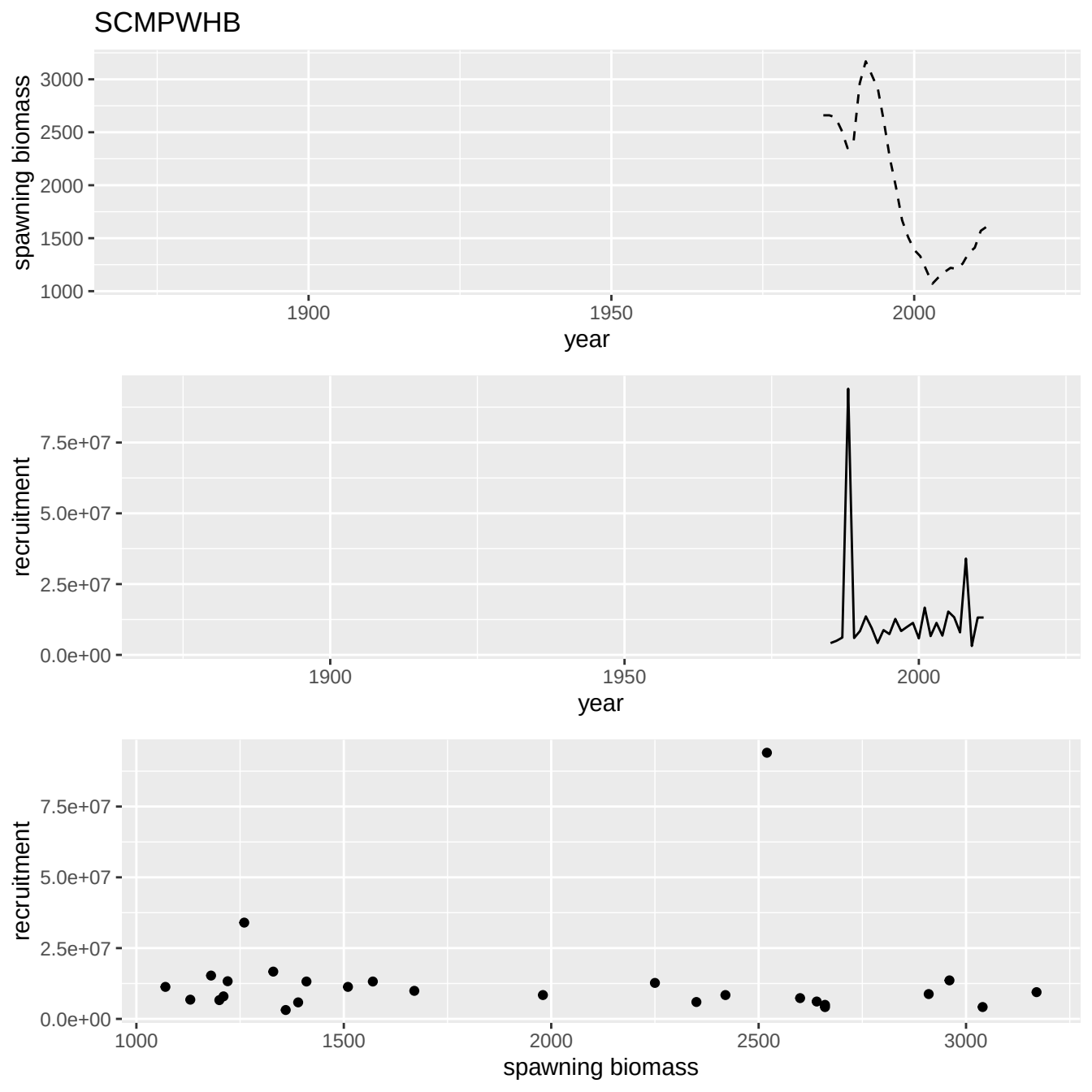

SBWHITACIR
spawning biomass
200000
150000
100000
50000
1900
1950
2000
year
recruitment
8e+08
6e+08
4e+08
2e+08
0e+00
1900
1950
2000
year
recruitment
8e+08
6e+08
4e+08
2e+08
0e+00
50000
100000
150000
200000
spawning biomass

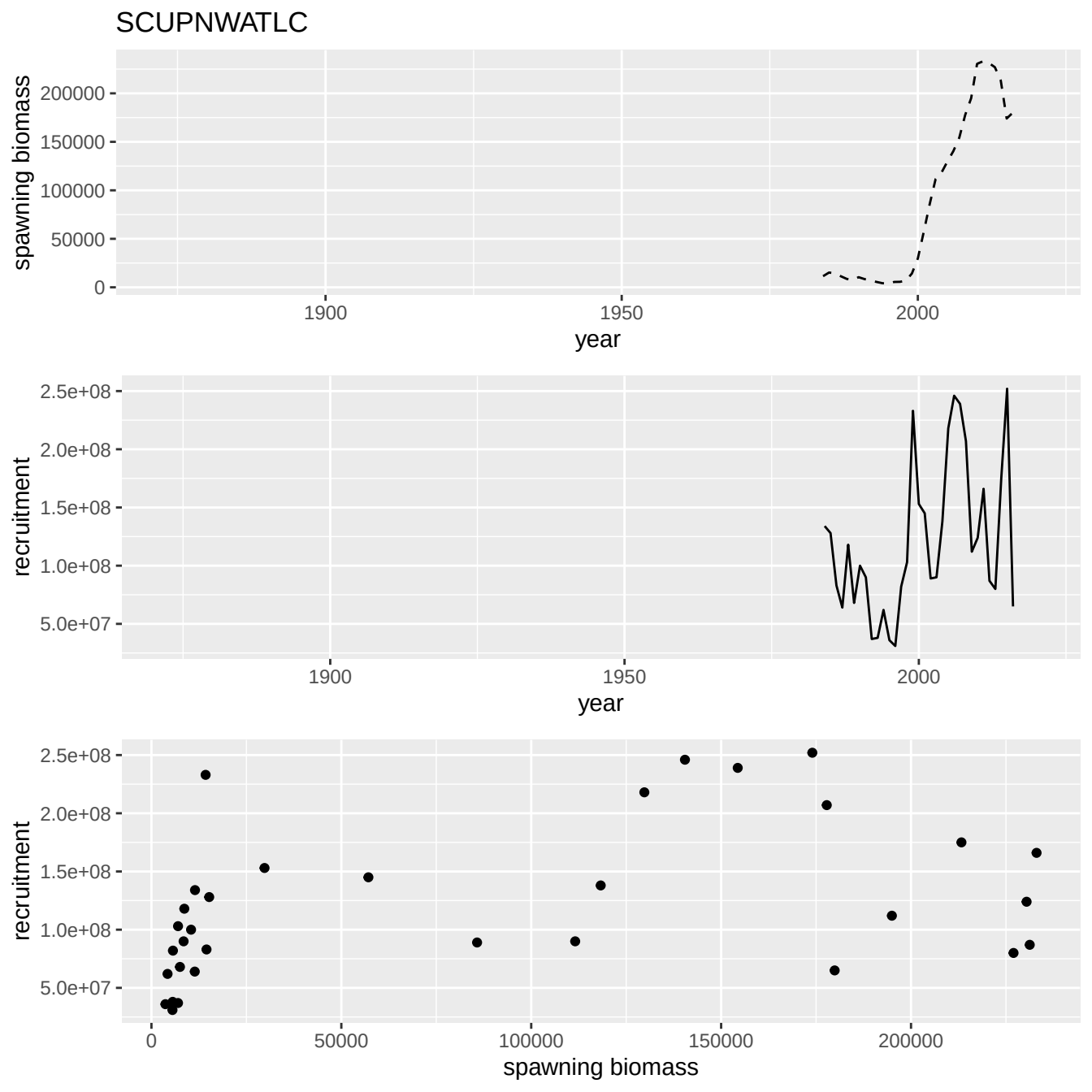

SBWHITARGS
spawning biomass
9e+05
6e+05
3e+05
0e+00
1900
1950
2000
year
recruitment
8e+08
6e+08
4e+08
2e+08
0e+00
1900
1950
2000
year
recruitment
8e+08
6e+08
4e+08
2e+08
0e+00
0e+00
3e+05
6e+05
9e+05
spawning biomass

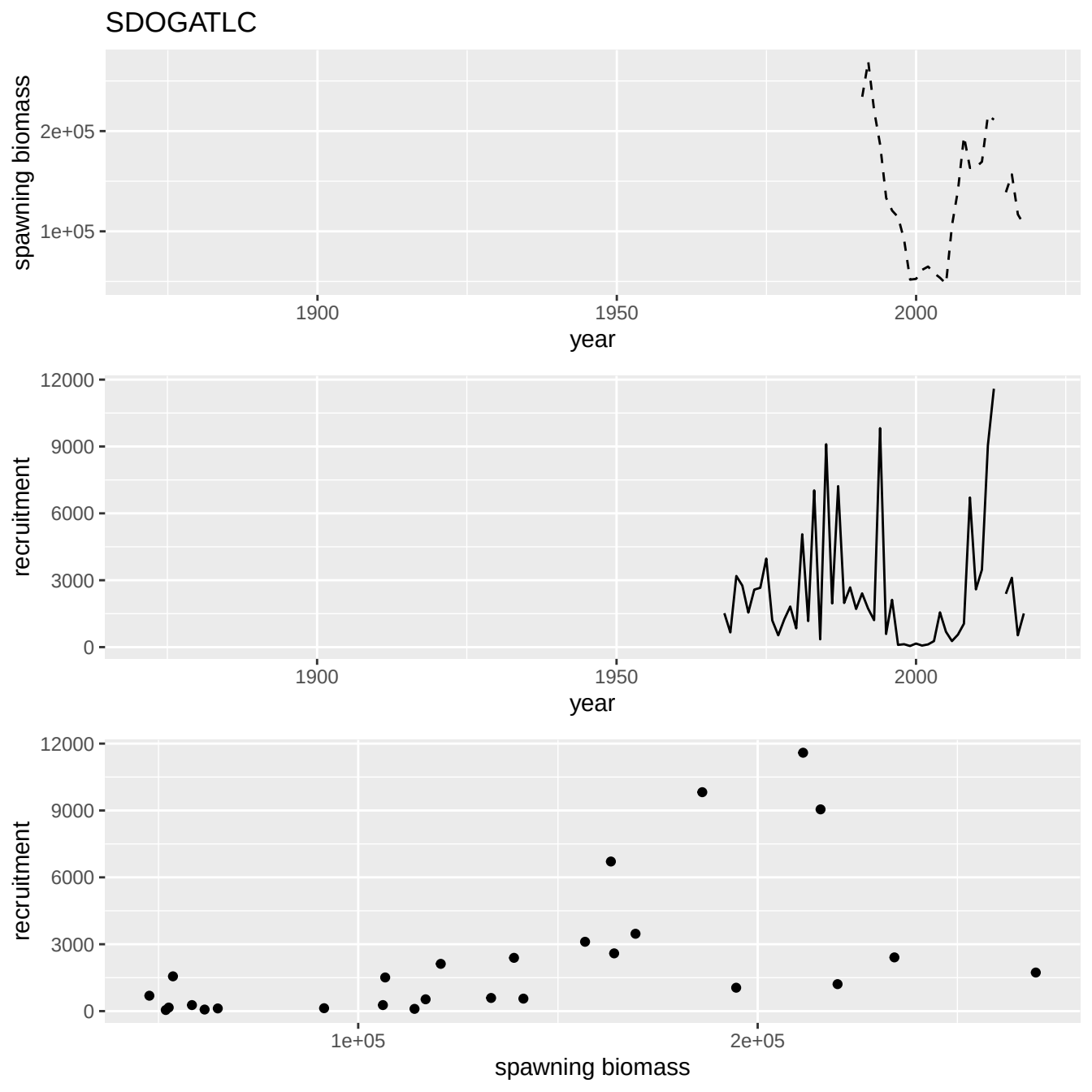

SBWHITCH
spawning biomass
1000000
750000
500000
250000
1900
1950
2000
year
recruitment
1000000
750000
500000
250000
1900
1950
2000
year
recruitment
1000000
750000
500000
250000
250000
500000
750000
1000000
spawning biomass

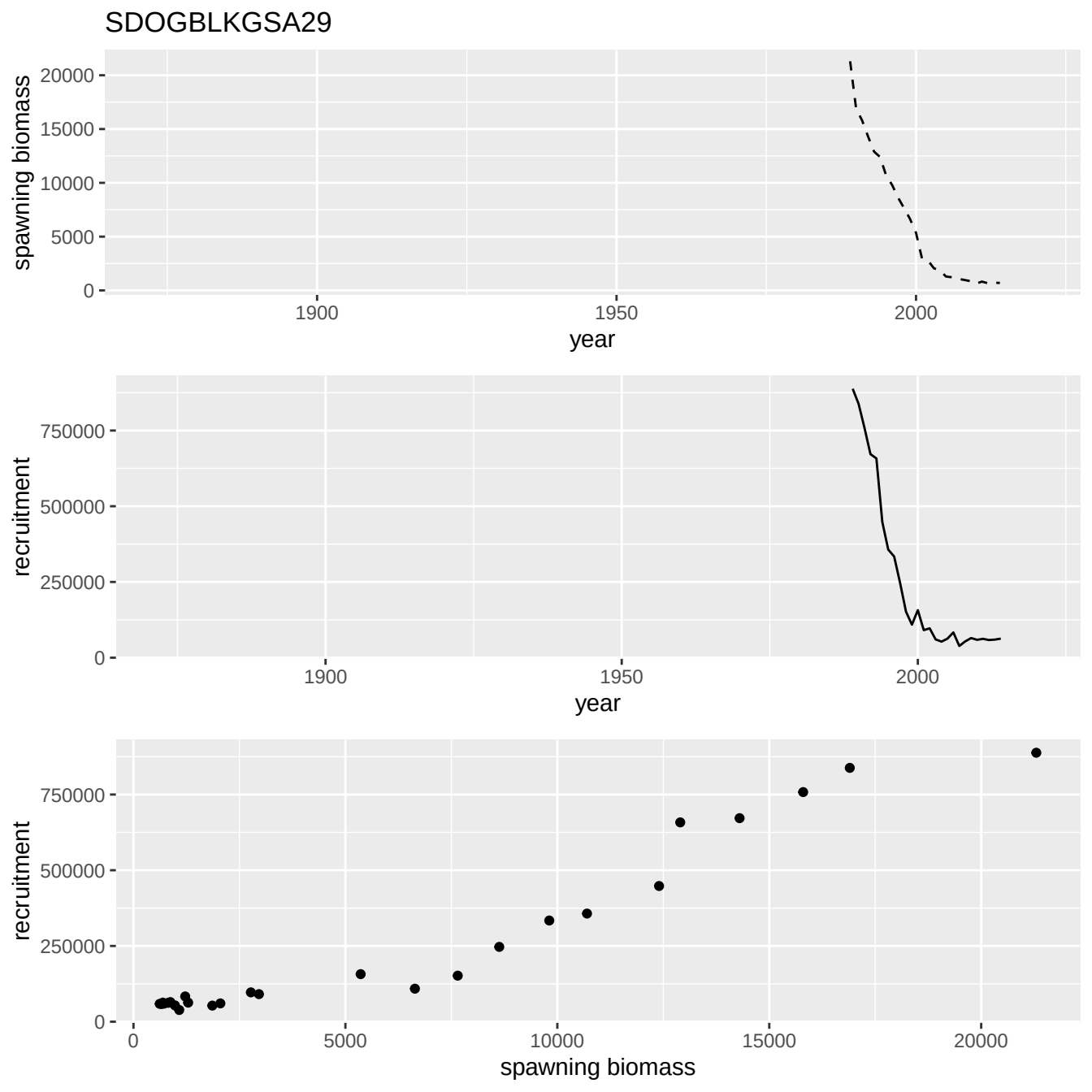

SCMPBP
spawning biomass
6000
5000
4000
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
5.0e+07
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
5.0e+07
4000
5000
6000
spawning biomass

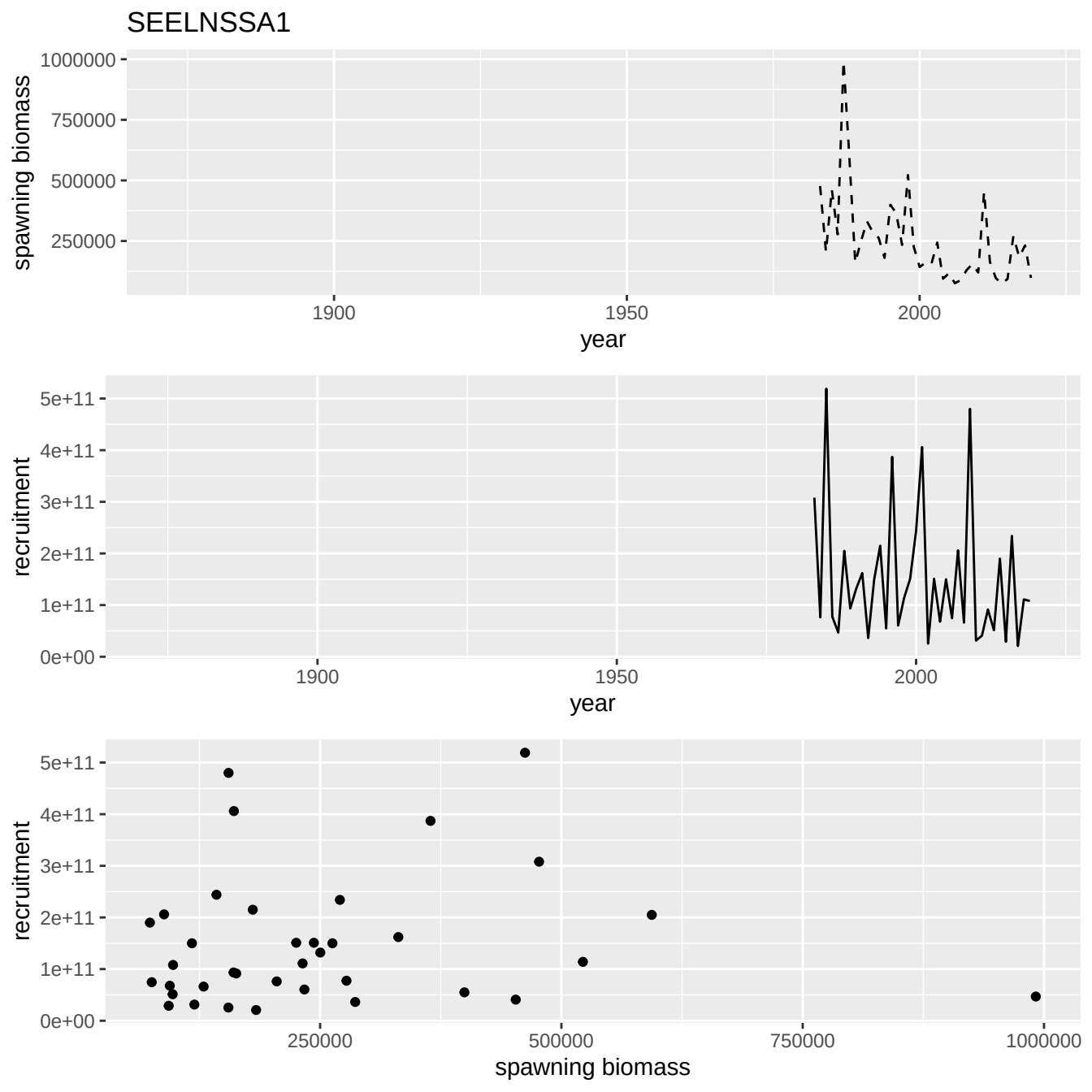

SCMPMB
spawning biomass
12000
10000
8000
6000
4000
1900
1950
2000
year
recruitment
4e+08
2e+08
0e+00
1900
1950
2000
year
recruitment
4e+08
2e+08
0e+00
4000
6000
8000
10000
12000
spawning biomass

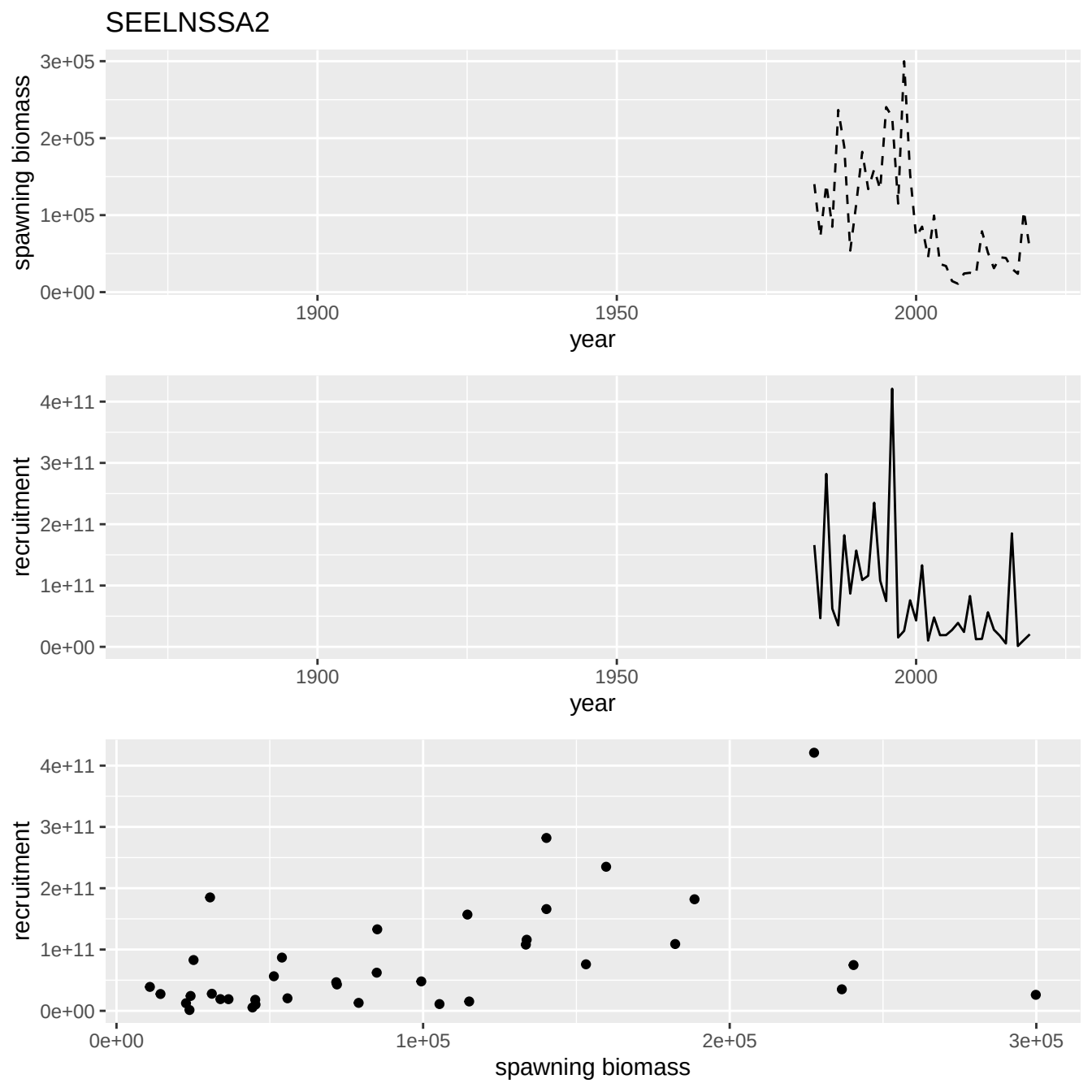

SCMPWHB
spawning biomass
3000
2500
2000
1500
1000
1900
1950
2000
year
recruitment
7.5e+07
5.0e+07
2.5e+07
0.0e+00
1900
1950
2000
year
recruitment
7.5e+07
5.0e+07
2.5e+07
0.0e+00
1000
1500
2000
2500
3000
spawning biomass

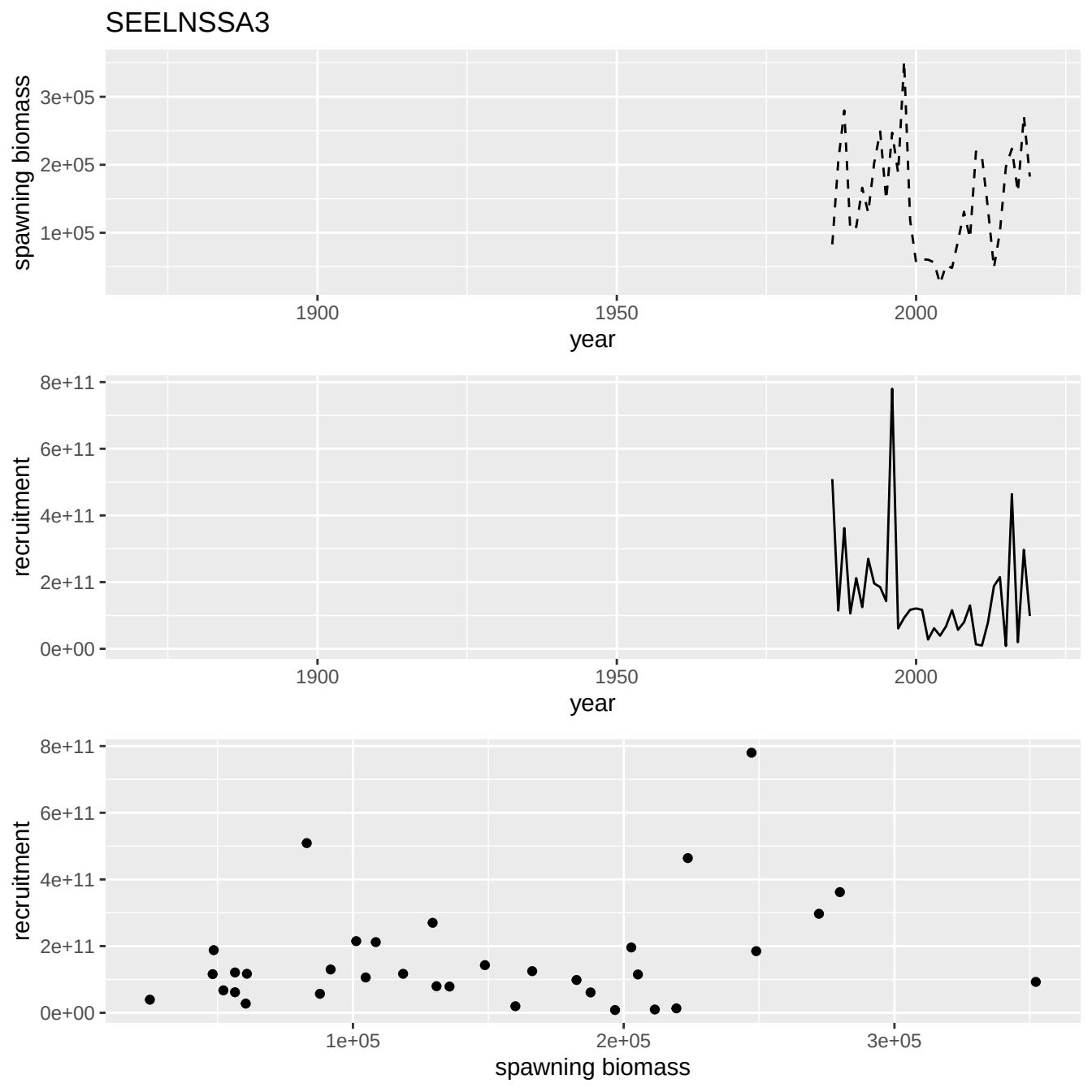

SCUPNWATLC
spawning biomass
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
2.5e+08
2.0e+08
1.5e+08
1.0e+08
5.0e+07
1900
1950
2000
year
recruitment
2.5e+08
2.0e+08
1.5e+08
1.0e+08
5.0e+07
0
50000
100000
150000
200000
spawning biomass

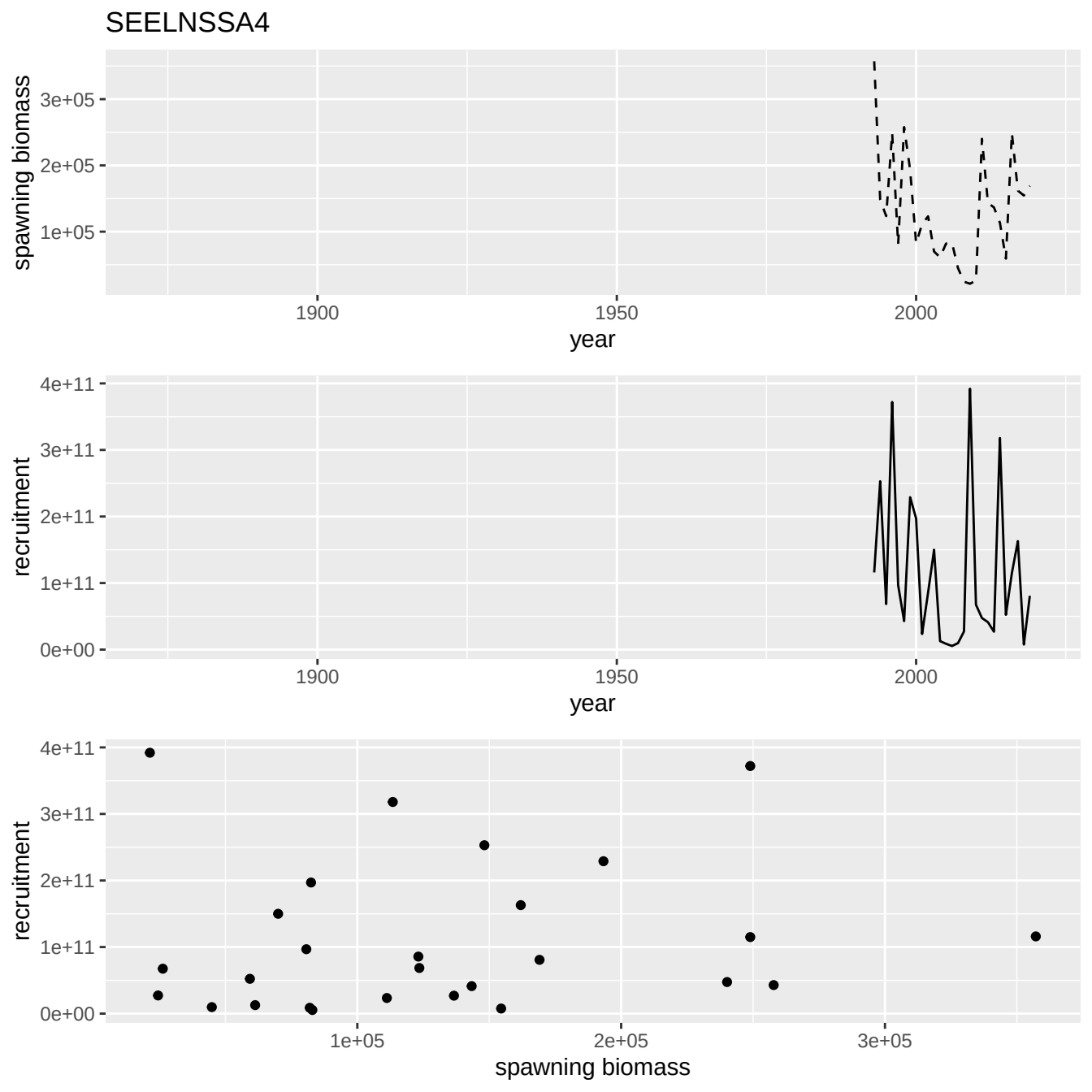

SDOGATLC
spawning biomass
2e+05
1e+05
1900
1950
2000
year
recruitment
12000
9000
6000
3000
0
1900
1950
2000
year
recruitment
12000
9000
6000
3000
0
1e+05
2e+05
spawning biomass

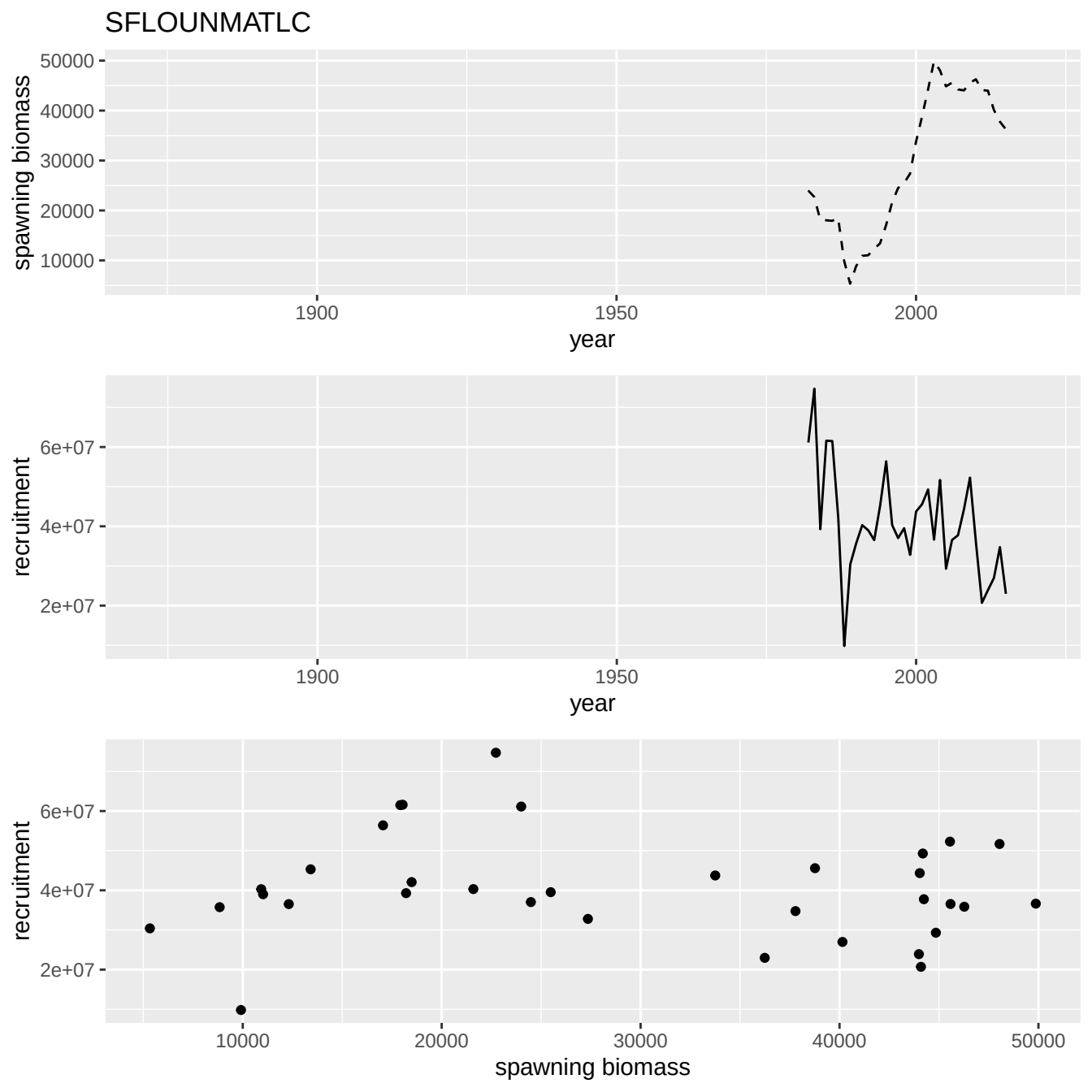

SDOGBLKGSA29
spawning biomass
20000
15000
10000
5000
0
1900
1950
2000
year
recruitment
750000
500000
250000
0
1900
1950
2000
year
recruitment
750000
500000
250000
0
0
5000
10000
15000
20000
spawning biomass

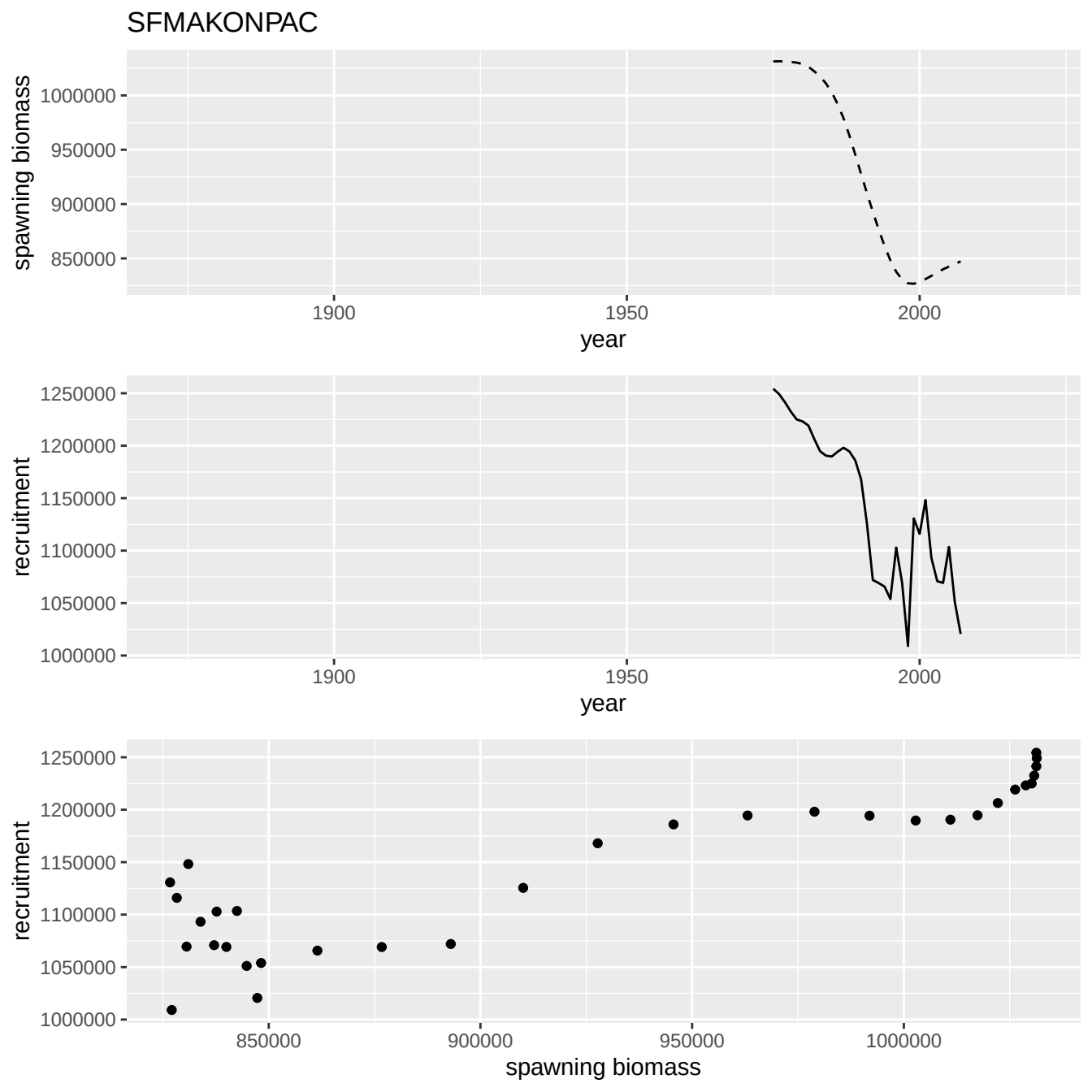

SEELNSSA1
spawning biomass
1000000
750000
500000
250000
1900
1950
2000
year
recruitment
5e+11
4e+11
3e+11
2e+11
1e+11
0e+00
1900
1950
2000
year
recruitment
5e+11
4e+11
3e+11
2e+11
1e+11
0e+00
250000
500000
750000
1000000
spawning biomass

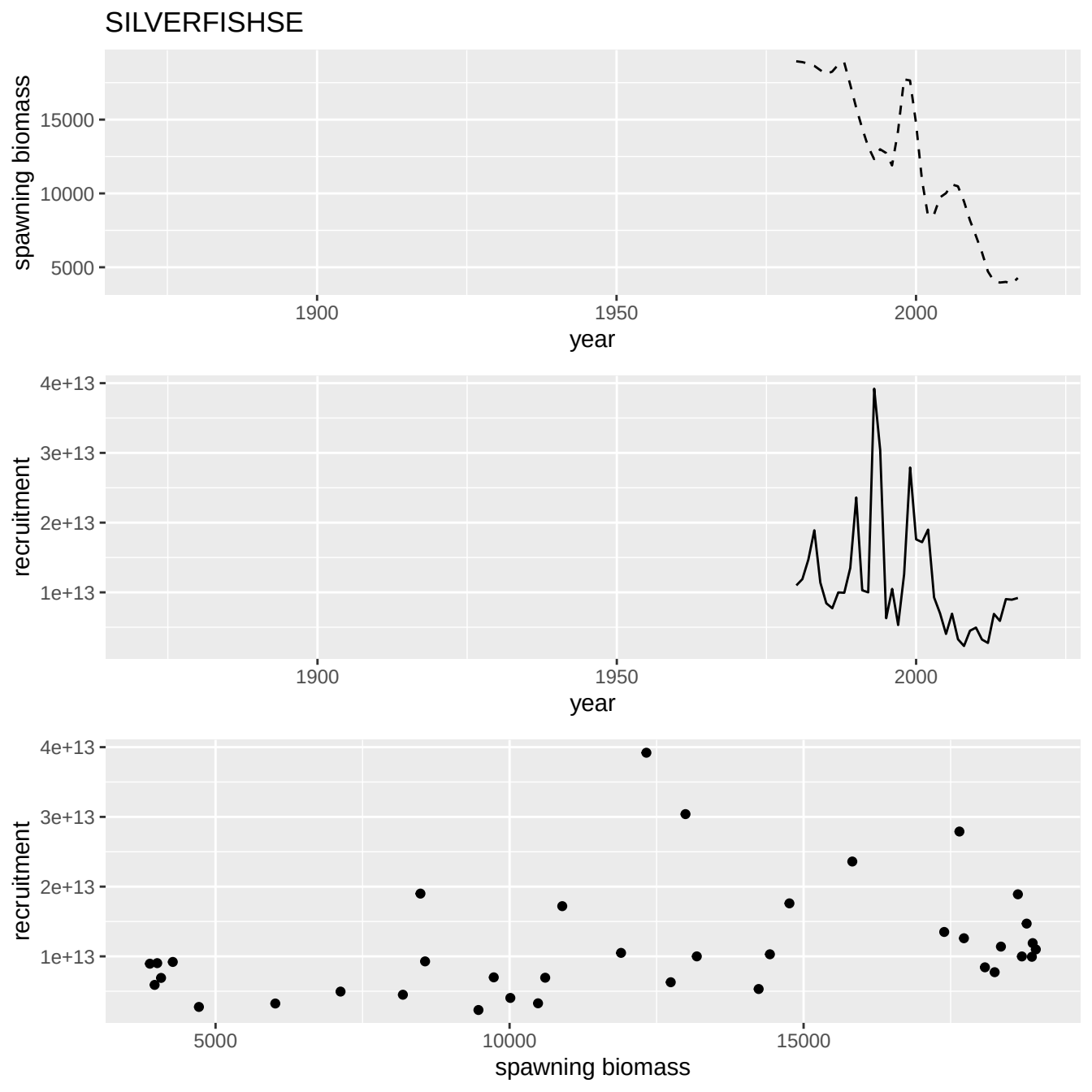

SEELNSSA2
spawning biomass
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
4e+11
3e+11
2e+11
1e+11
0e+00
1900
1950
2000
year
recruitment
4e+11
3e+11
2e+11
1e+11
0e+00
0e+00
1e+05
2e+05
3e+05
spawning biomass

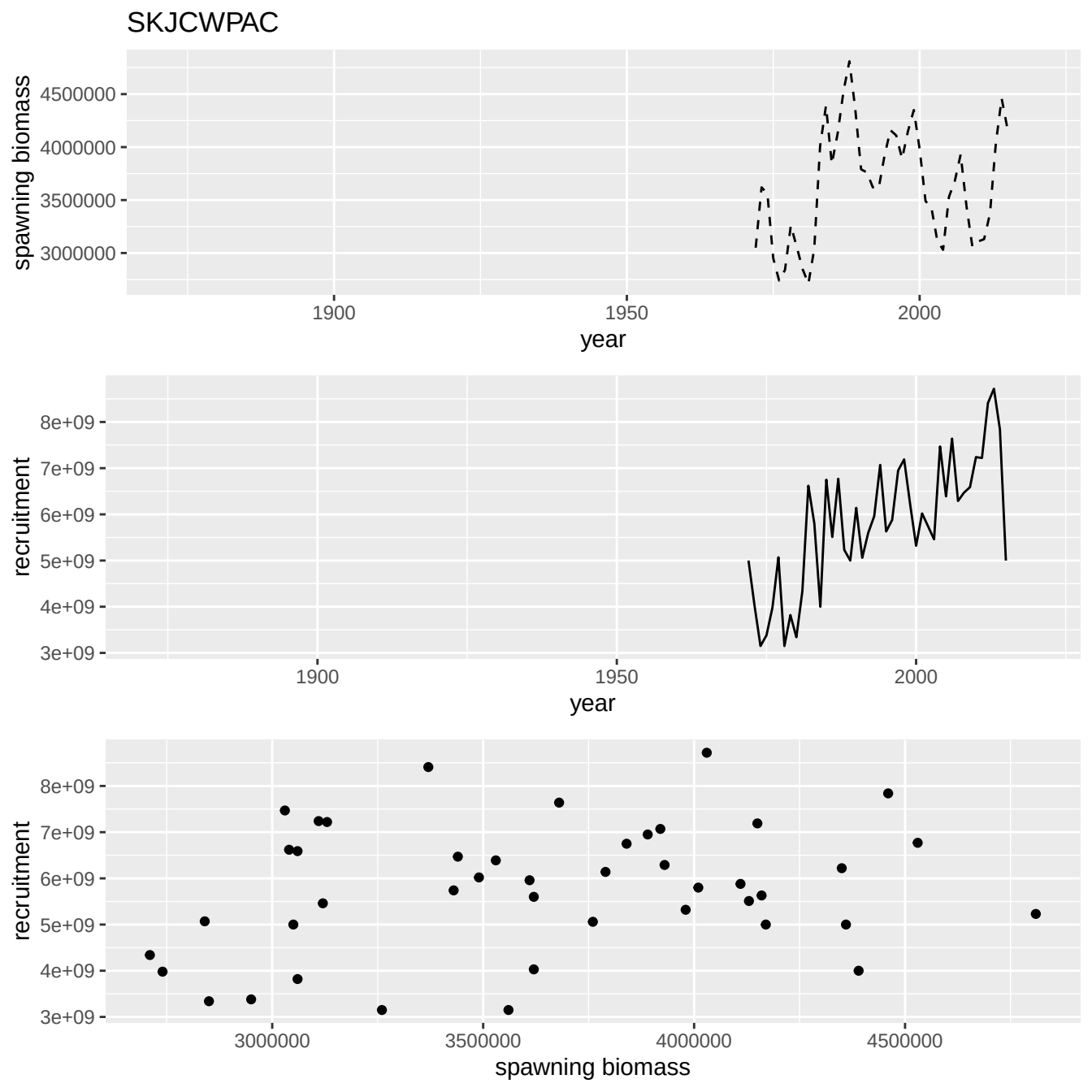

SEELNSSA3
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
8e+11
6e+11
4e+11
2e+11
0e+00
1900
1950
2000
year
recruitment
8e+11
6e+11
4e+11
2e+11
0e+00
1e+05
2e+05
3e+05
spawning biomass

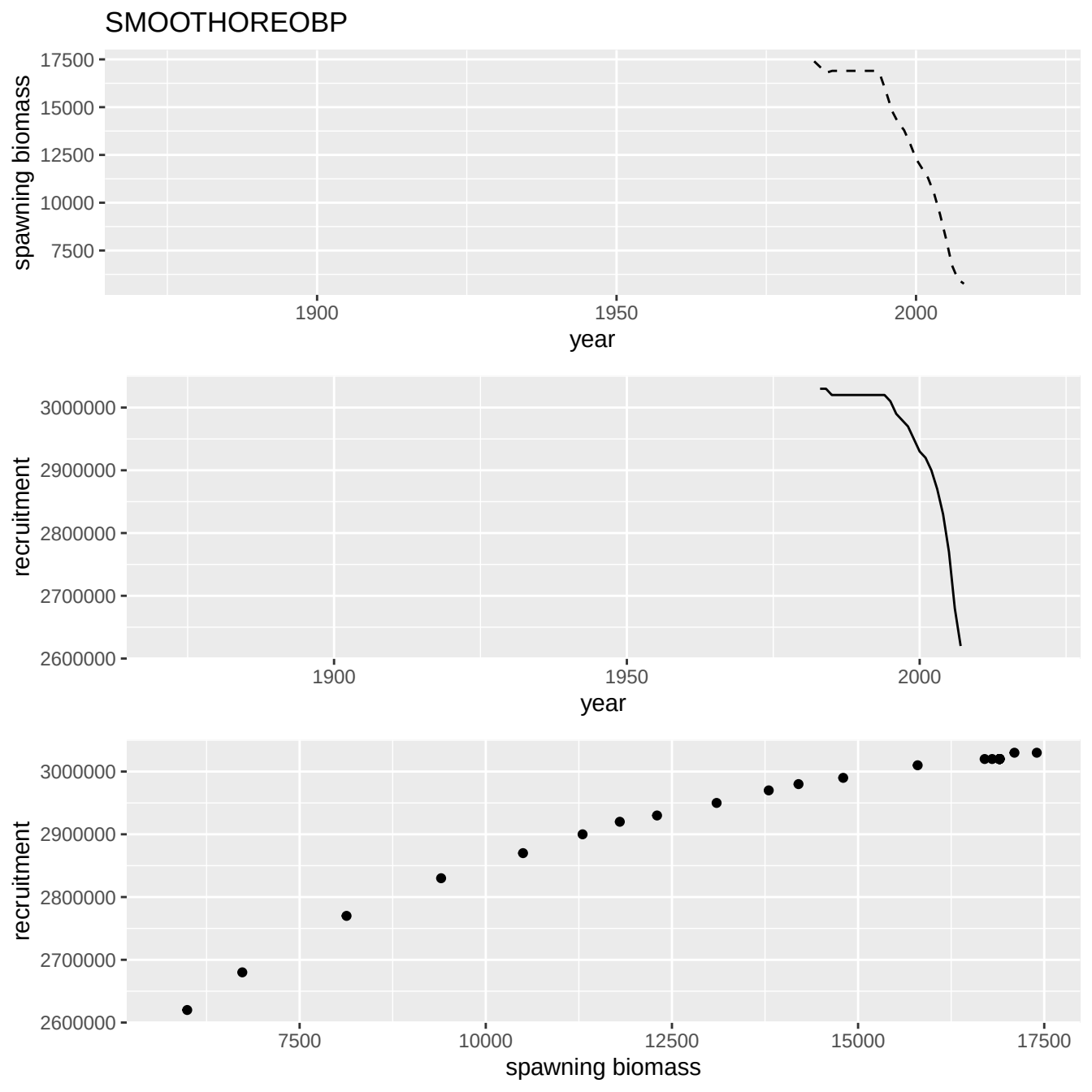

SEELNSSA4
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
4e+11
3e+11
2e+11
1e+11
0e+00
1900
1950
2000
year
recruitment
4e+11
3e+11
2e+11
1e+11
0e+00
1e+05
2e+05
3e+05
spawning biomass

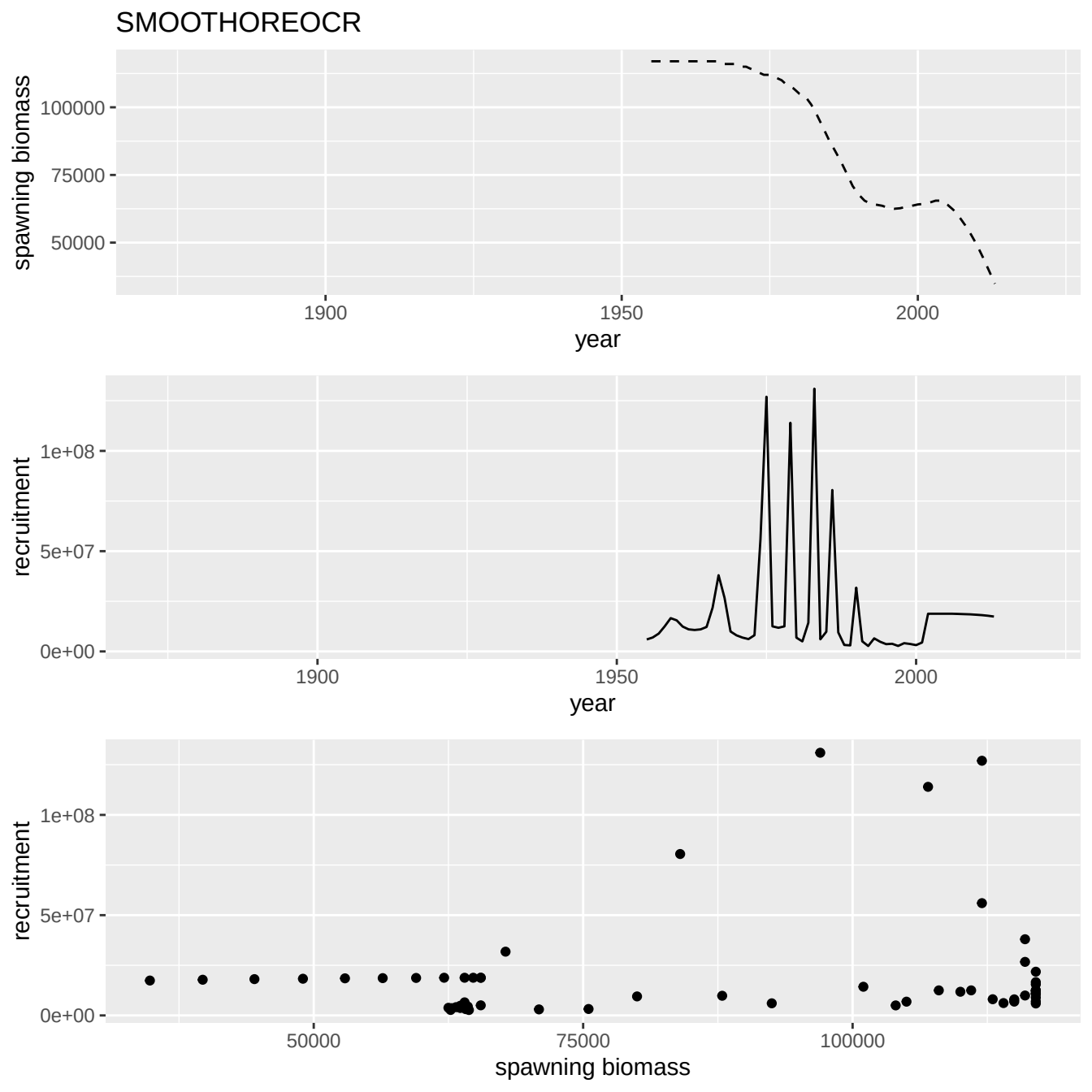

SFLOUNMATLC
spawning biomass
50000
40000
30000
20000
10000
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
10000
20000
30000
40000
50000
spawning biomass

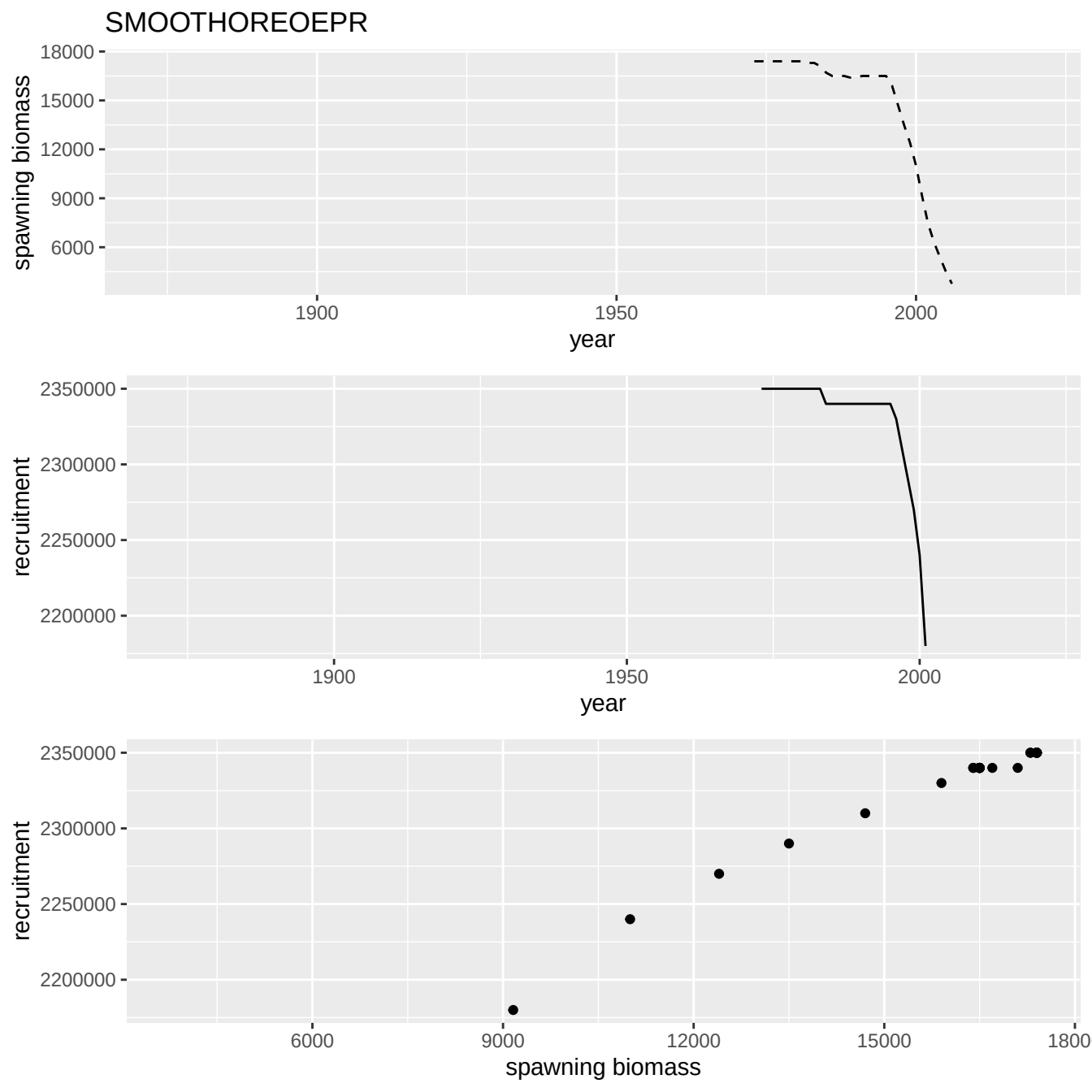

SFMAKONPAC
spawning biomass
1000000
950000
900000
850000
1900
1950
2000
year
recruitment
1250000
1200000
1150000
1100000
1050000
1000000
1900
1950
2000
year
recruitment
1250000
1200000
1150000
1100000
1050000
1000000
850000
900000
950000
1000000
spawning biomass

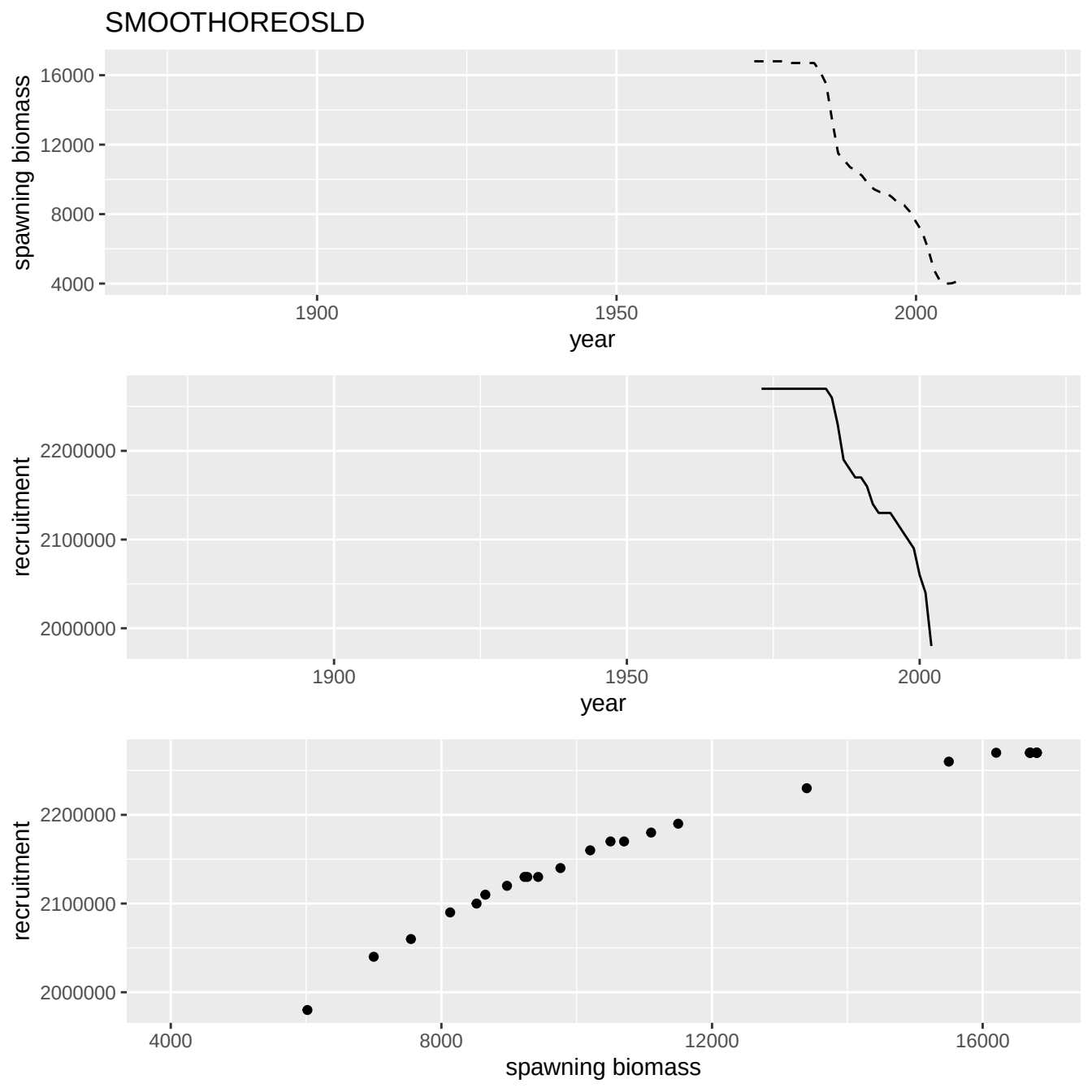

SILVERFISHSE
spawning biomass
15000
10000
5000
1900
1950
2000
year
recruitment
4e+13
3e+13
2e+13
1e+13
1900
1950
2000
year
recruitment
4e+13
3e+13
2e+13
1e+13
5000
10000
15000
spawning biomass

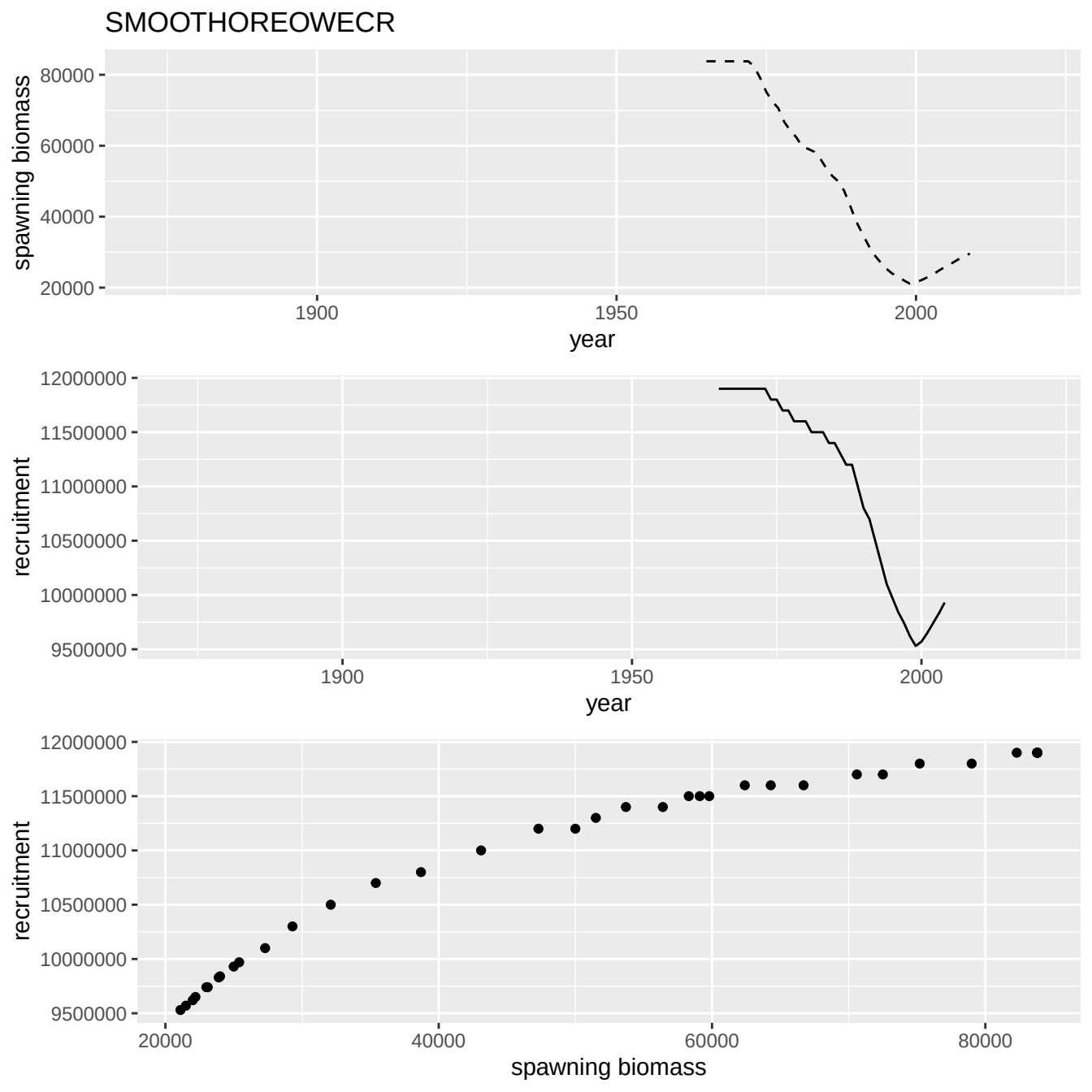

SKJCWPAC
spawning biomass
4500000
4000000
3500000
3000000
1900
1950
2000
year
recruitment
8e+09
7e+09
6e+09
5e+09
4e+09
3e+09
1900
1950
2000
year
recruitment
8e+09
7e+09
6e+09
5e+09
4e+09
3e+09
3000000
3500000
4000000
4500000
spawning biomass

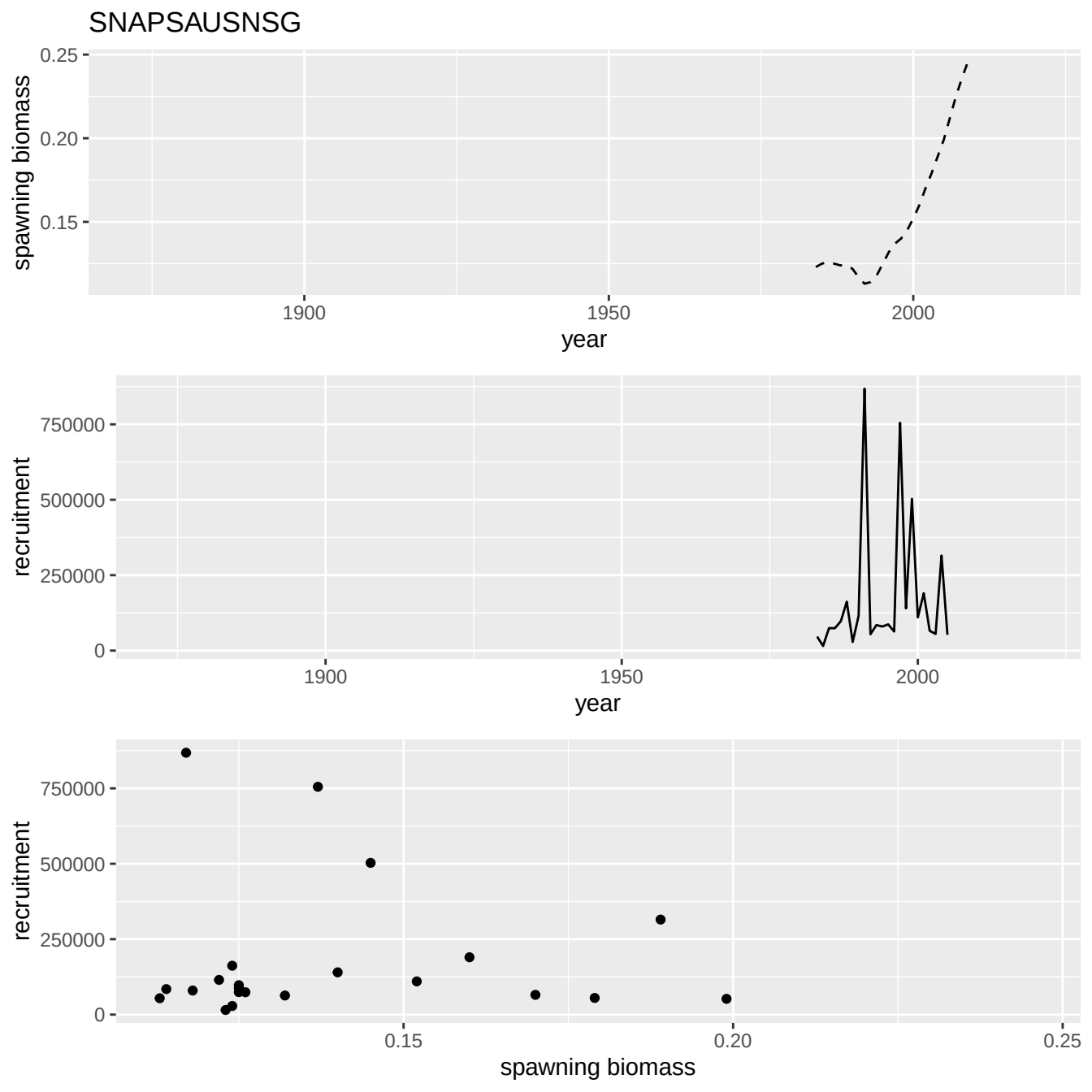

SMOOTHOREOBP
spawning biomass
17500
15000
12500
10000
7500
1900
1950
2000
year
recruitment
3000000
2900000
2800000
2700000
2600000
1900
1950
2000
year
recruitment
3000000
2900000
2800000
2700000
2600000
7500
10000
12500
15000
17500
spawning biomass

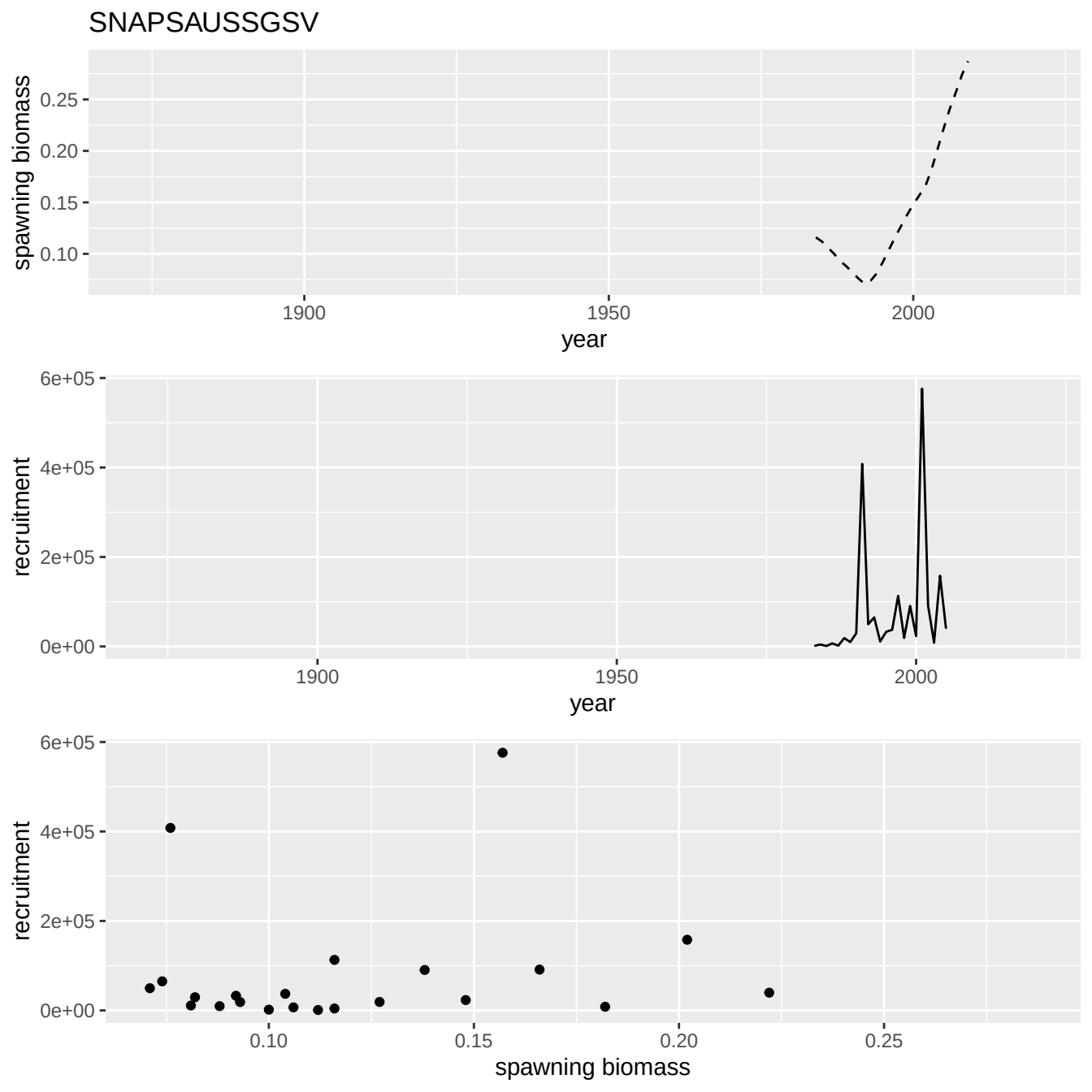

SMOOTHOREOCR
spawning biomass
100000
75000
50000
1900
1950
2000
year
recruitment
1e+08
5e+07
0e+00
1900
1950
2000
year
recruitment
1e+08
5e+07
0e+00
50000
75000
100000
spawning biomass

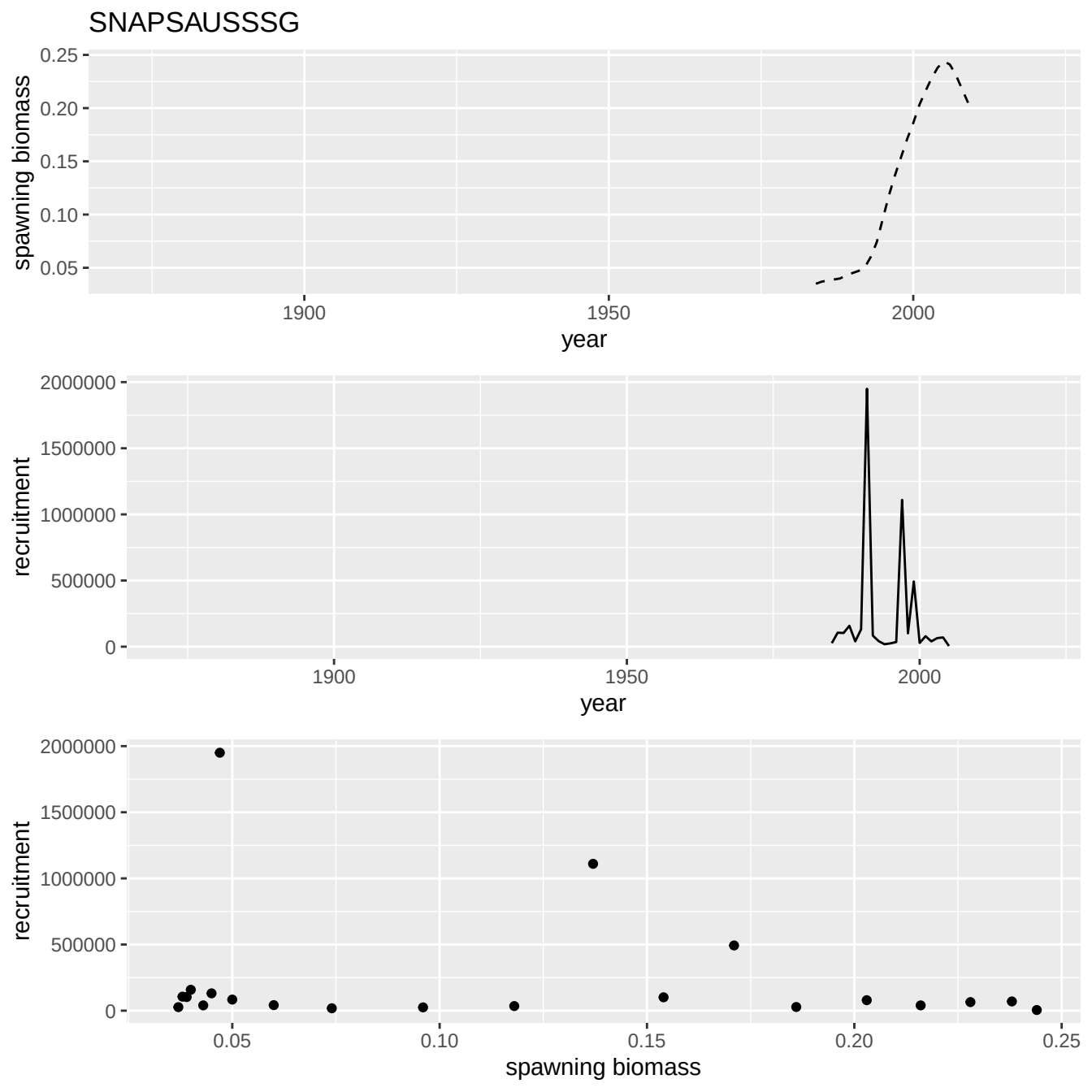

SMOOTHOREOEPR
spawning biomass
18000
15000
12000
9000
6000
1900
1950
2000
year
recruitment
2350000
2300000
2250000
2200000
1900
1950
2000
year
recruitment
2350000
2300000
2250000
2200000
6000
9000
12000
15000
1800
spawning biomass

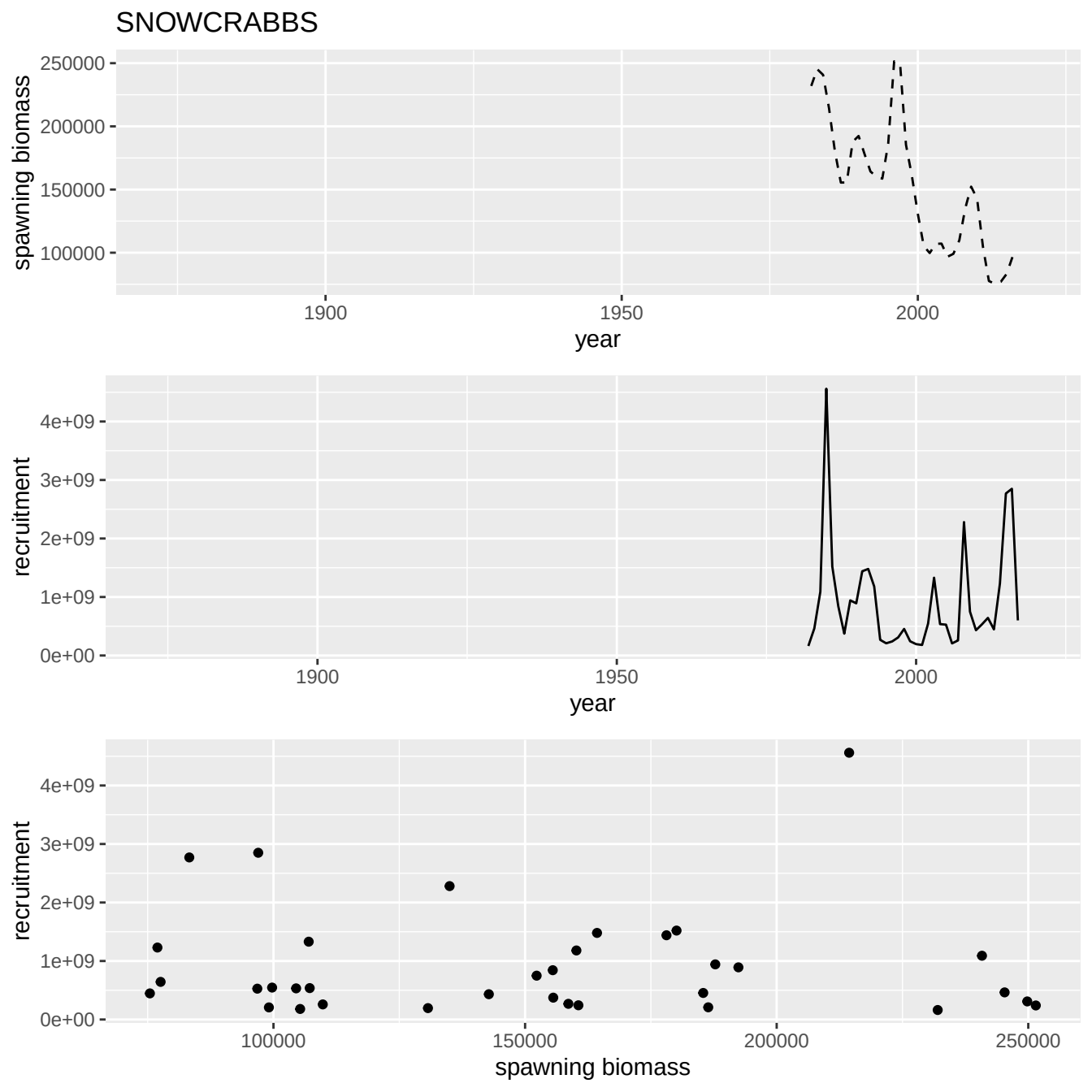

SMOOTHOREOSLD
spawning biomass
16000
12000
8000
4000
1900
1950
2000
year
recruitment
2200000
2100000
2000000
1900
1950
2000
year
recruitment
2200000
2100000
2000000
4000
8000
12000
16000
spawning biomass

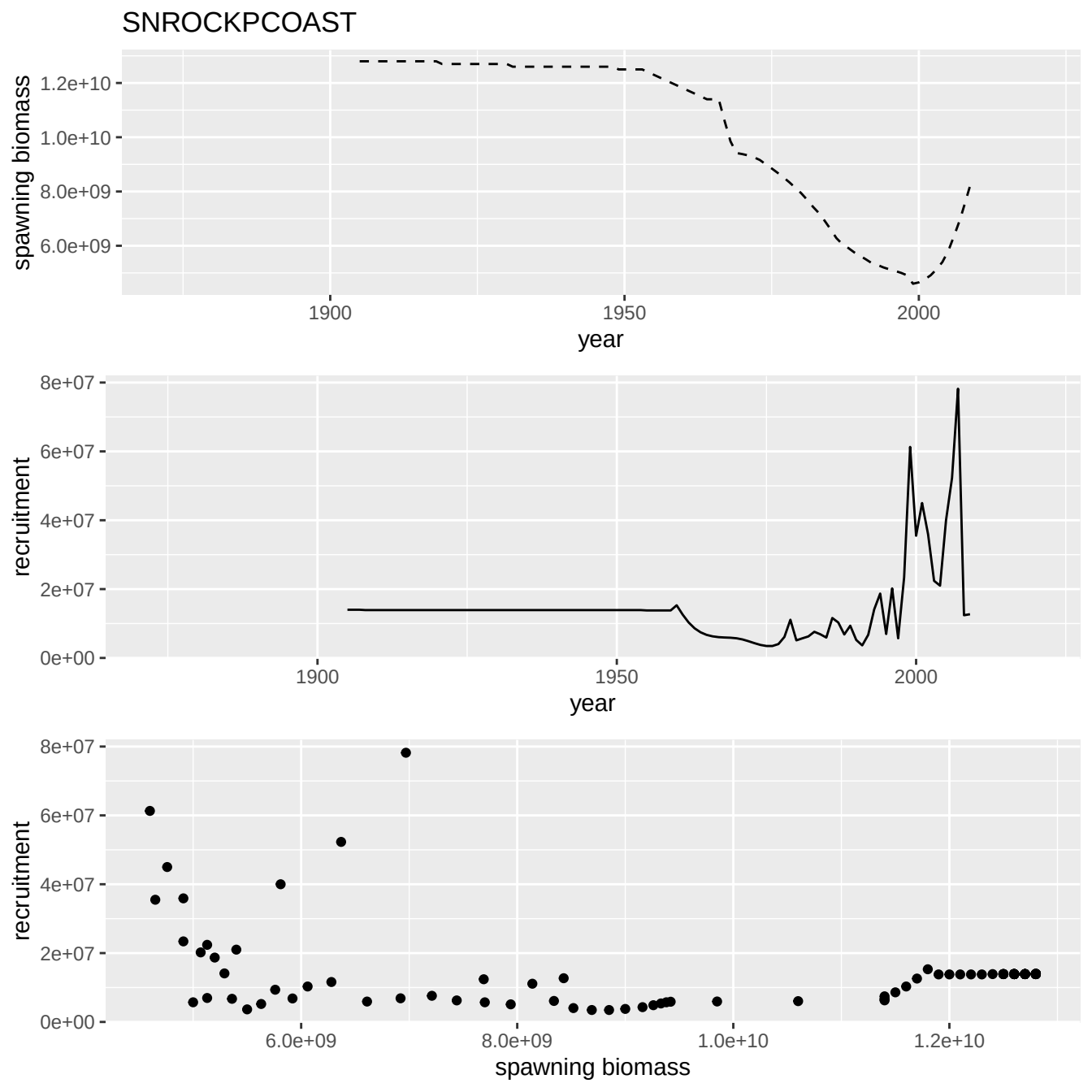

SMOOTHOREOWECR
spawning biomass
80000
60000
40000
20000
1900
1950
2000
year
recruitment
12000000
11500000
11000000
10500000
10000000
9500000
1900
1950
2000
year
recruitment
12000000
11500000
11000000
10500000
10000000
9500000
20000
40000
60000
80000
spawning biomass

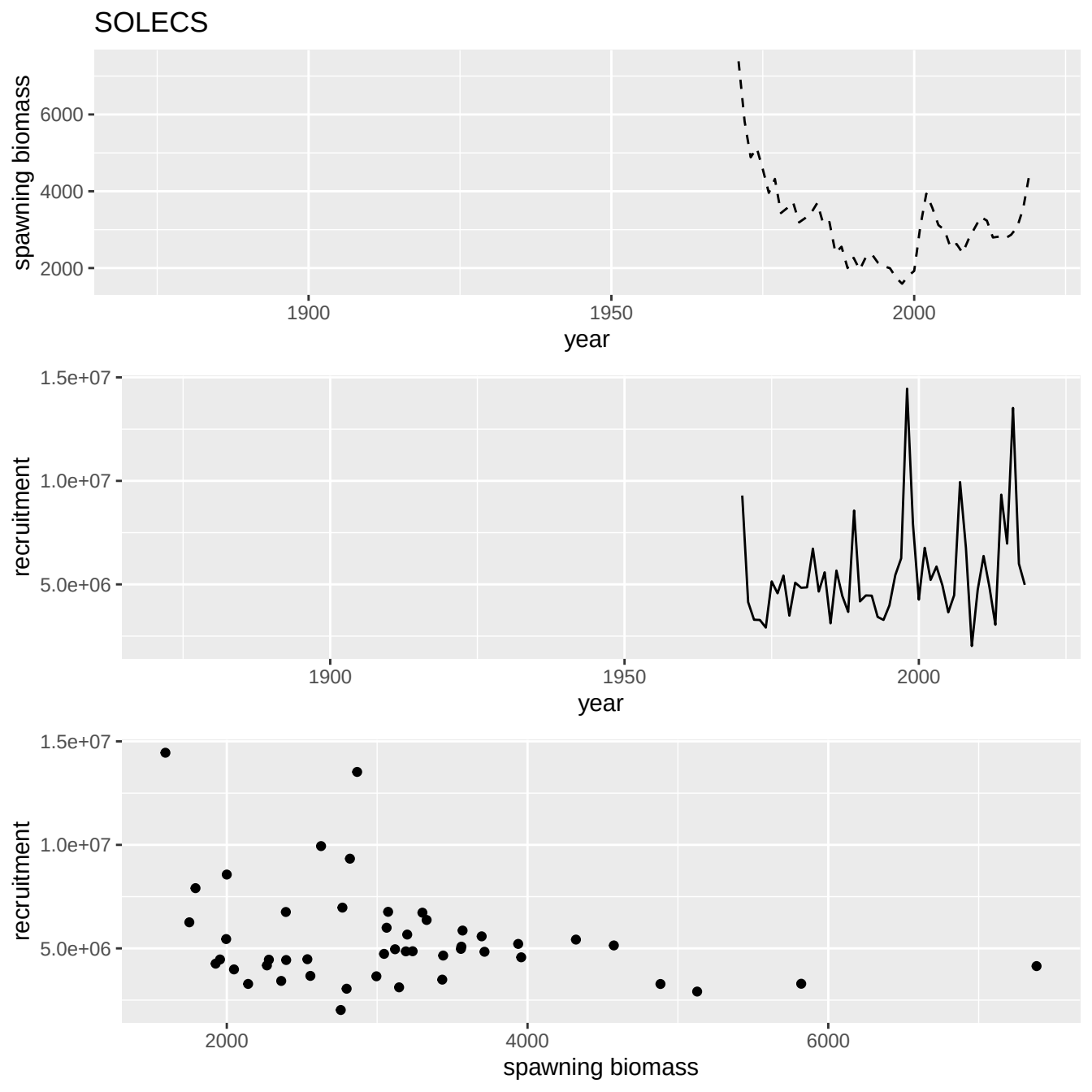

SNAPSAUSNSG
spawning biomass
0.25
0.20
0.15
1900
1950
2000
year
recruitment
750000
500000
250000
0
1900
1950
2000
year
recruitment
750000
500000
250000
0
0.15
0.20
0.25
spawning biomass

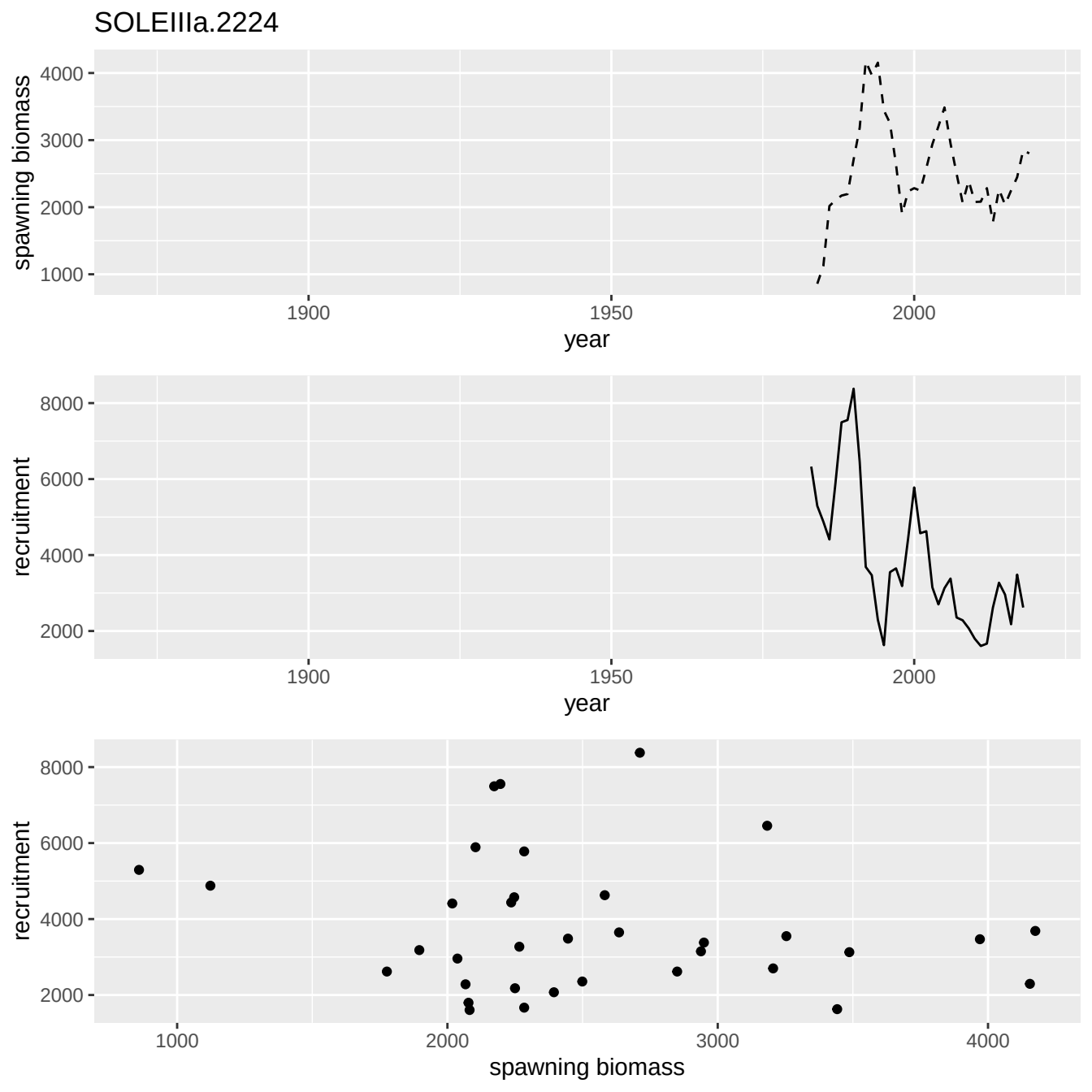

SNAPSAUSSGSV
spawning biomass
0.25
0.20
0.15
0.10
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
0e+00
0.10
0.15
0.20
0.25
spawning biomass

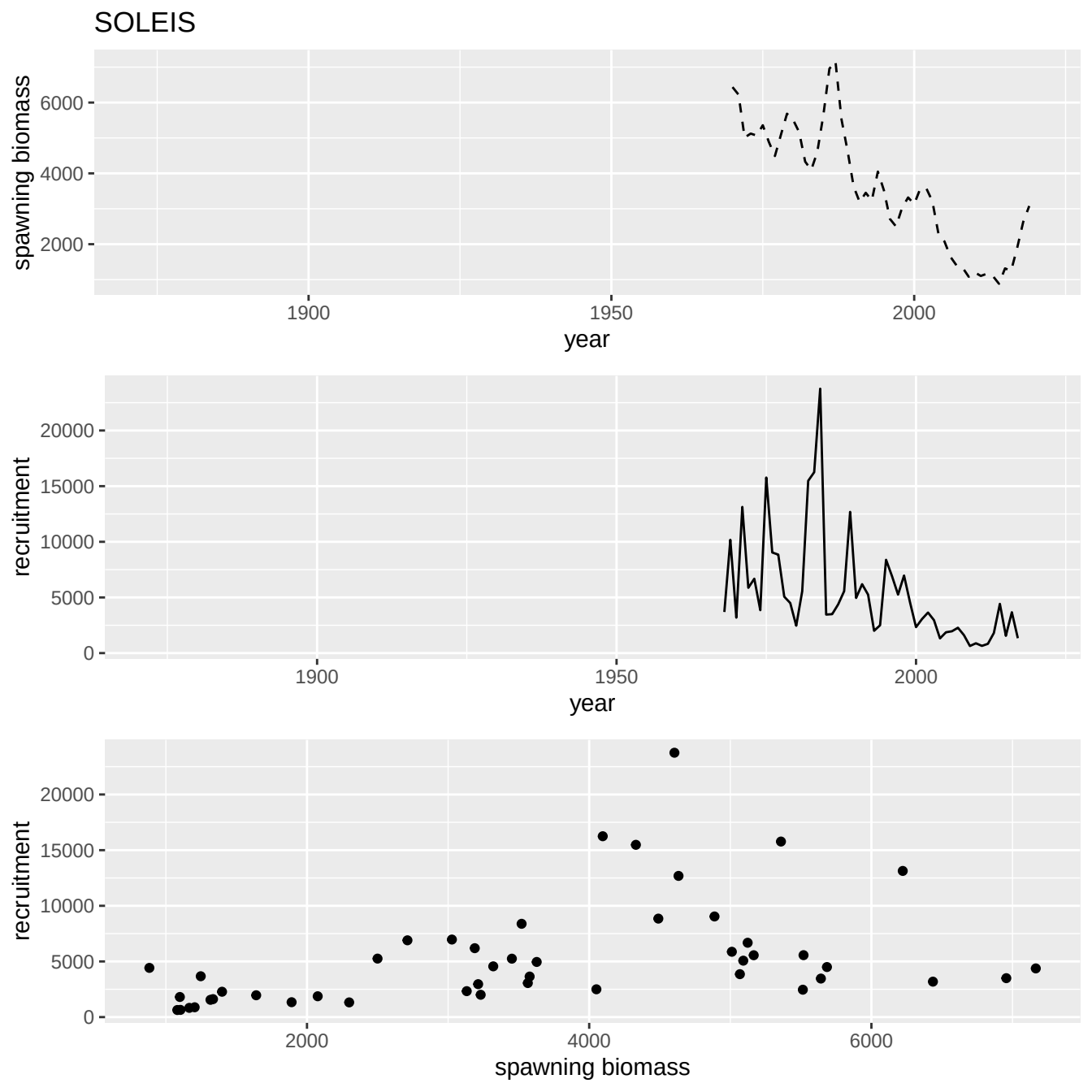

SNAPSAUSSSG
spawning biomass
0.25
0.20
0.15
0.10
0.05
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
0
0.05
0.10
0.15
0.20
0.25
spawning biomass

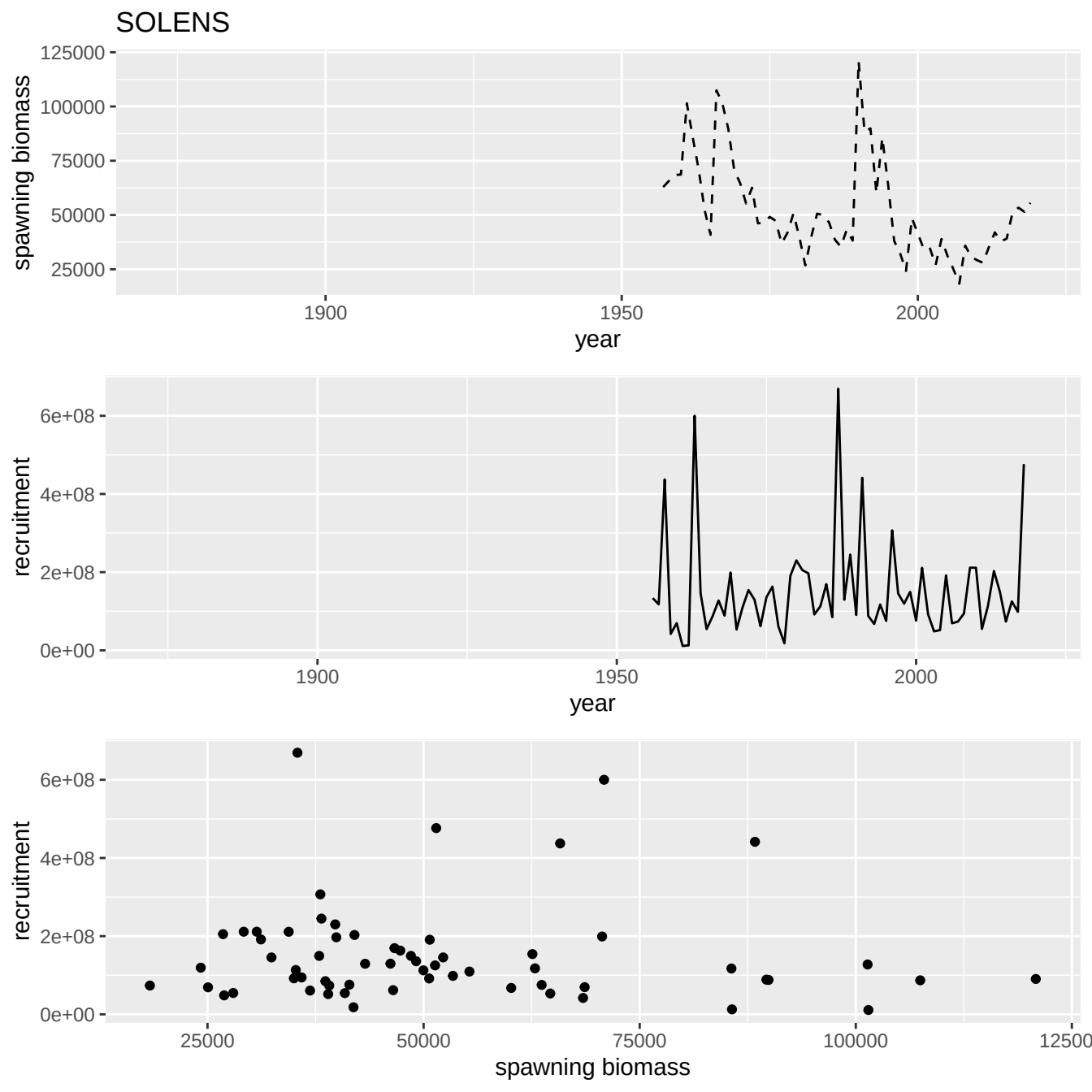

SNOWCRABBS
spawning biomass
250000
200000
150000
100000
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
1e+09
0e+00
1900
1950
2000
year
recruitment
4e+09
3e+09
2e+09
1e+09
0e+00
100000
150000
200000
250000
spawning biomass

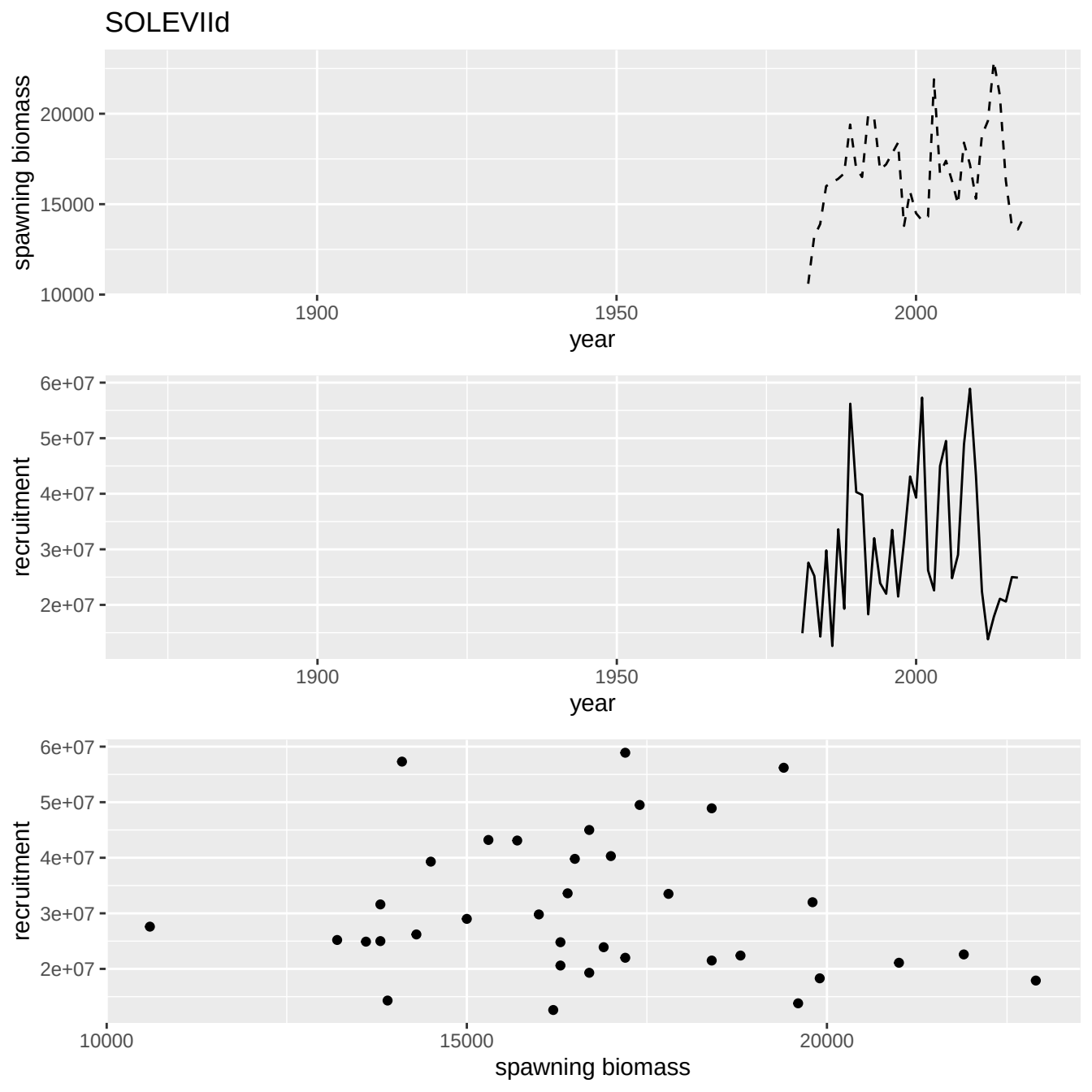

SNROCKPCOAST
spawning biomass
1.2e+10
1.0e+10
8.0e+09
6.0e+09
1900
1950
2000
year
recruitment
8e+07
6e+07
4e+07
2e+07
0e+00
1900
1950
2000
year
recruitment
8e+07
6e+07
4e+07
2e+07
0e+00
6.0e+09
8.0e+09
1.0e+10
1.2e+10
spawning biomass

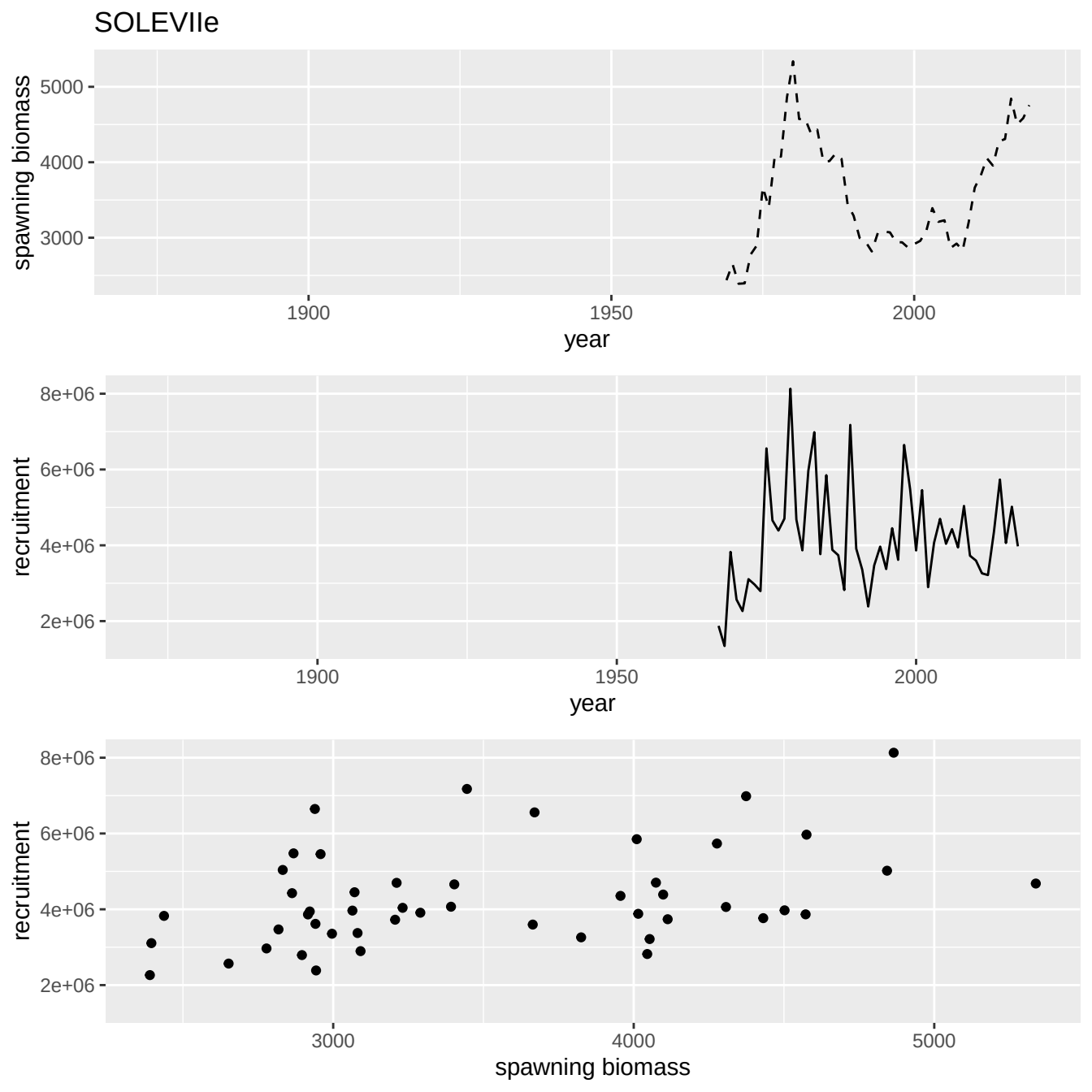

SOLECS
spawning biomass
6000
4000
2000
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
2000
4000
6000
spawning biomass

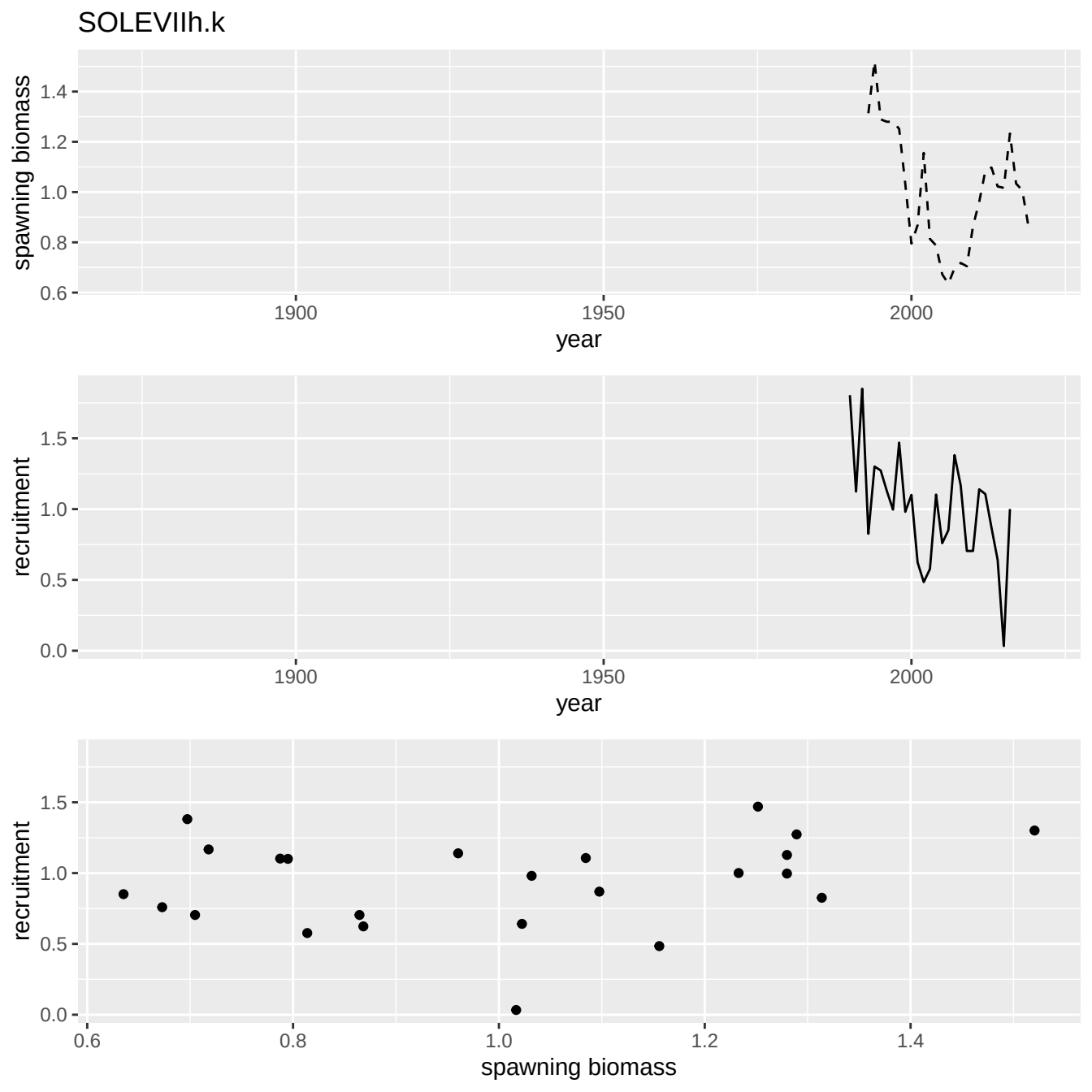

SOLEIIIa.2224
spawning biomass
4000
3000
2000
1000
1900
1950
2000
year
recruitment
8000
6000
4000
2000
1900
1950
2000
year
recruitment
8000
6000
4000
2000
1000
2000
3000
4000
spawning biomass

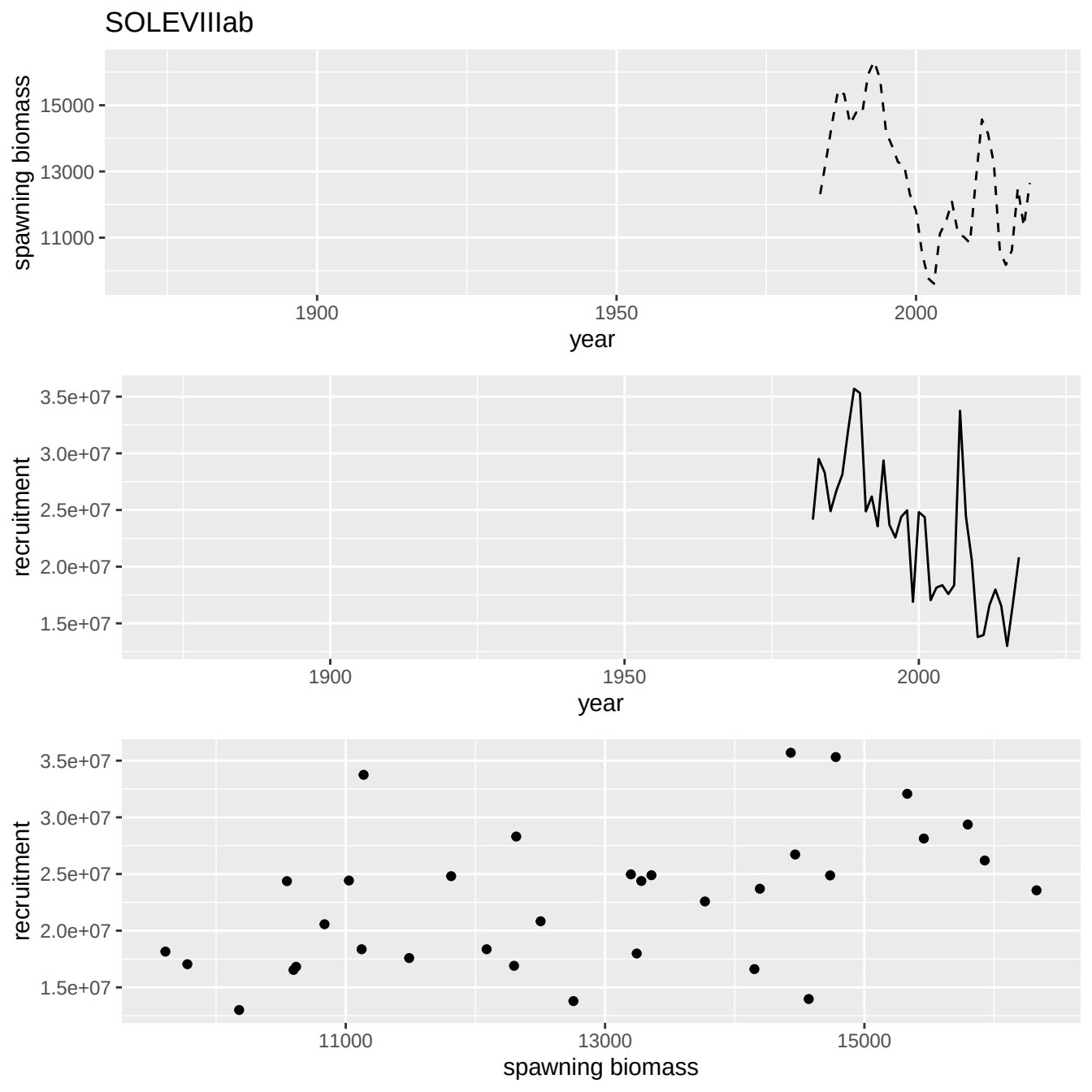

SOLEIS
spawning biomass
6000
4000
2000
1900
1950
2000
year
recruitment
20000
15000
10000
5000
0
1900
1950
2000
year
recruitment
20000
15000
10000
5000
0
2000
4000
6000
spawning biomass

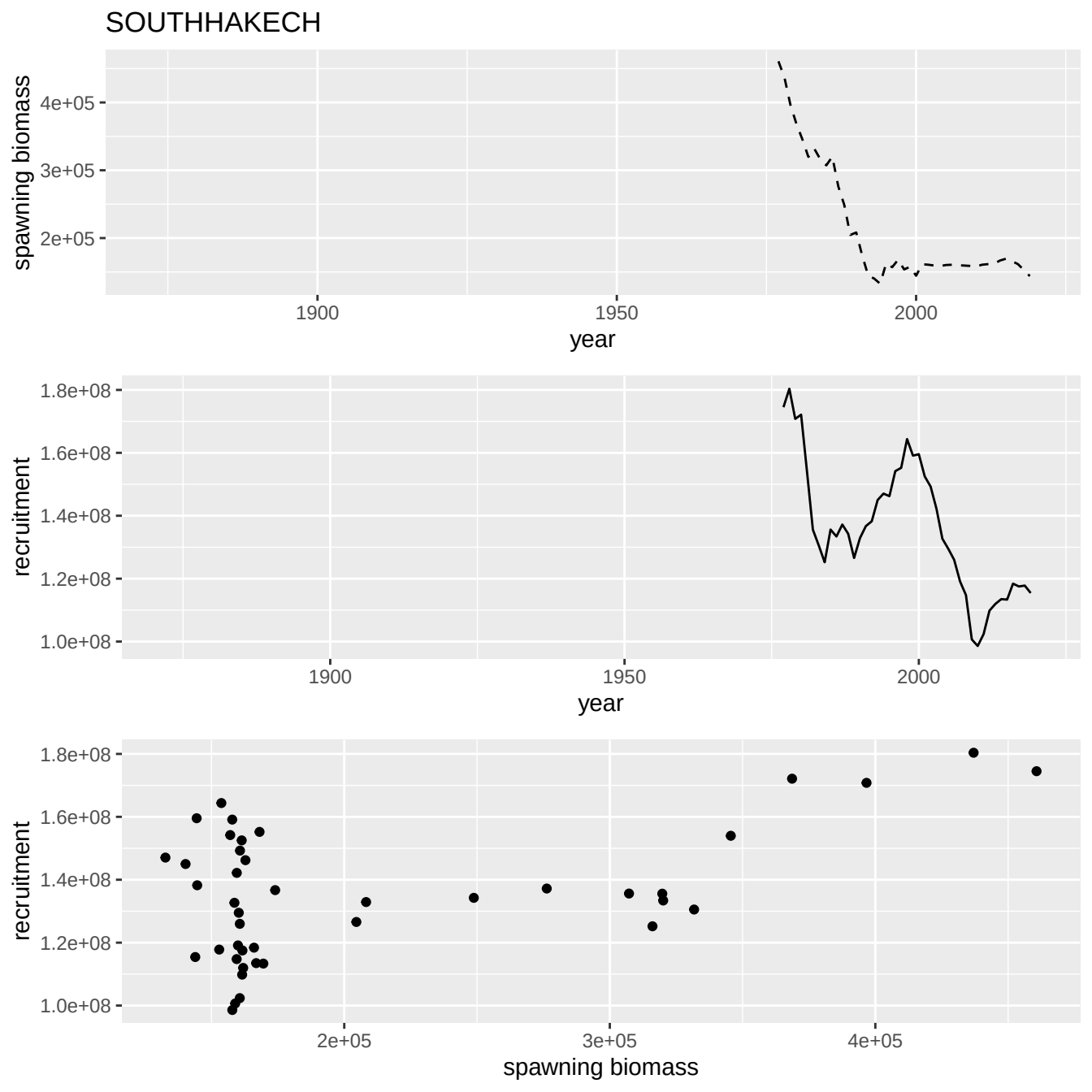

SOLENS
spawning biomass
125000
100000
75000
50000
25000
1900
1950
2000
year
recruitment
6e+08
4e+08
2e+08
0e+00
1900
1950
2000
year
recruitment
6e+08
4e+08
2e+08
0e+00
25000
50000
75000
100000
12500
spawning biomass

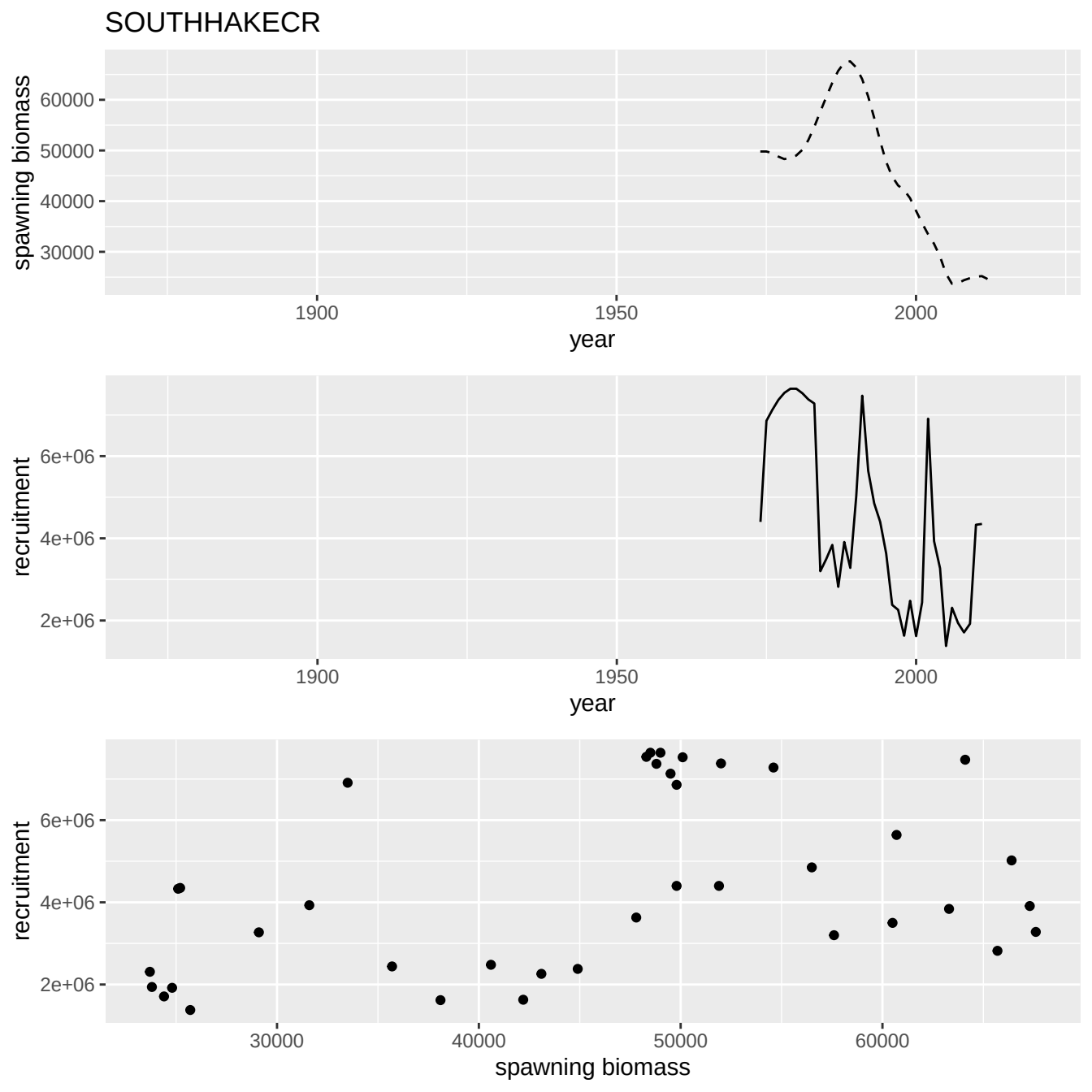

SOLEVIId
spawning biomass
20000
15000
10000
1900
1950
2000
year
recruitment
6e+07
5e+07
4e+07
3e+07
2e+07
1900
1950
2000
year
recruitment
6e+07
5e+07
4e+07
3e+07
2e+07
10000
15000
20000
spawning biomass

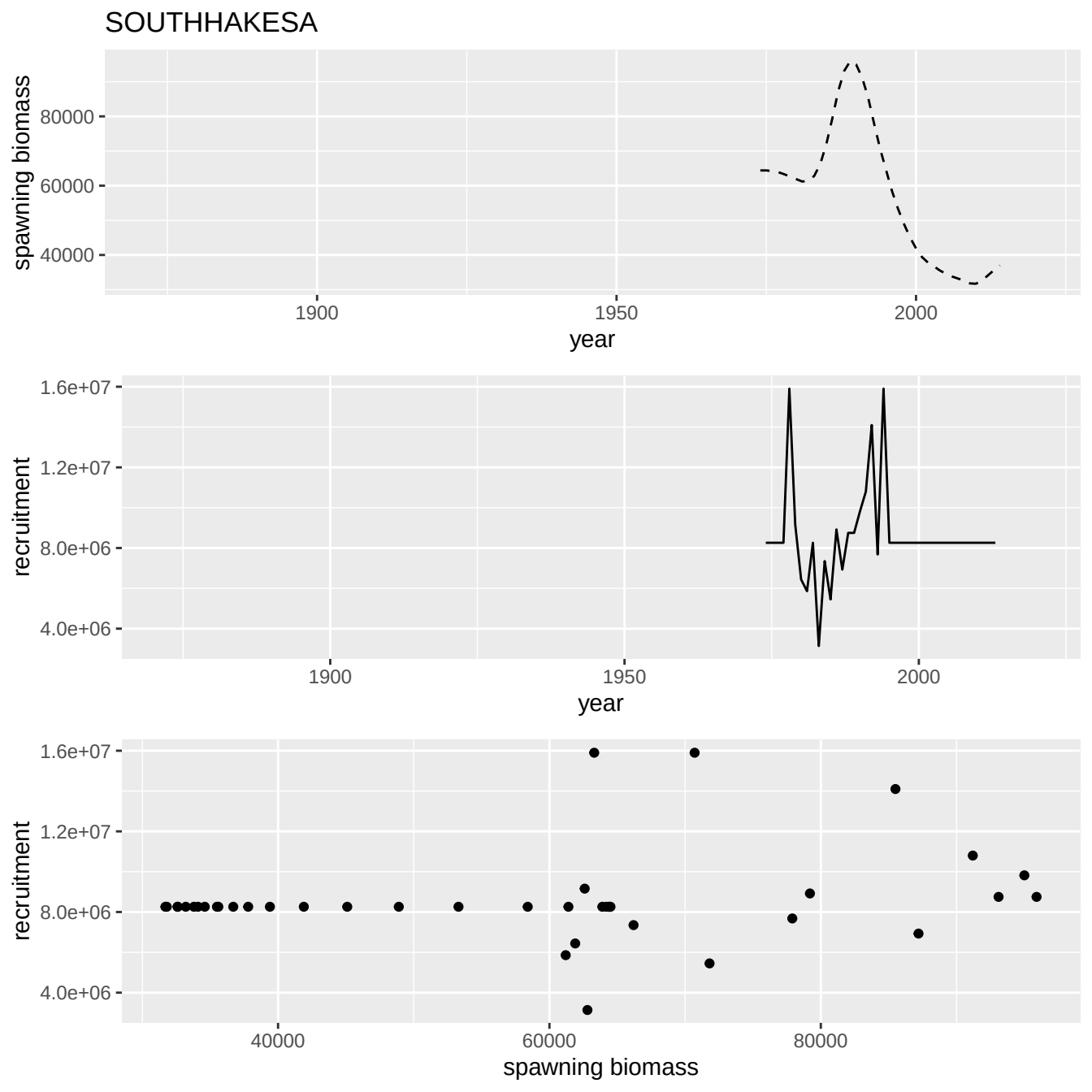

SOLEVIIe
spawning biomass
5000
4000
3000
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
3000
4000
5000
spawning biomass

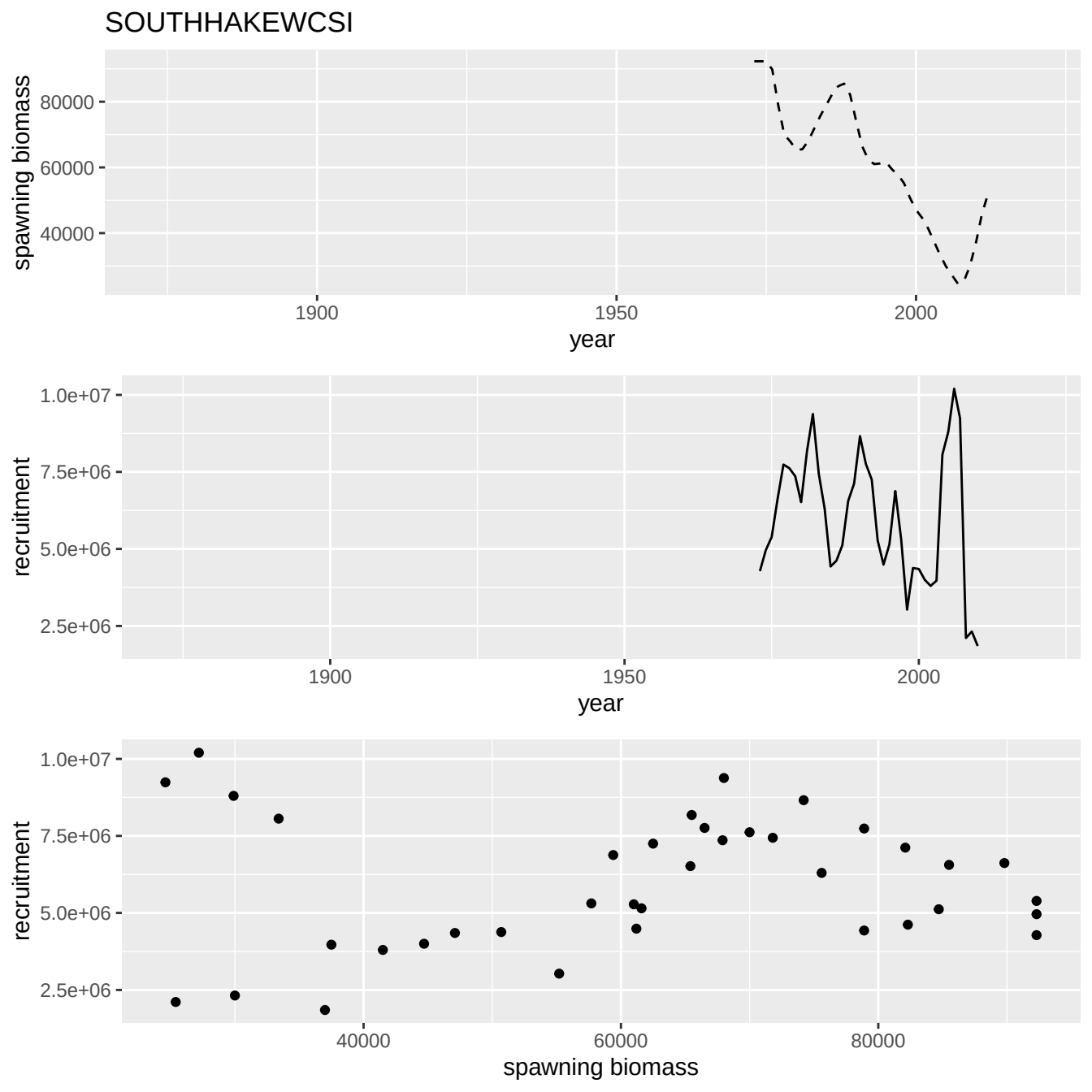

SOLEVIIh.k
spawning biomass
1.4
1.2
1.0
0.8
0.6
1900
1950
2000
year
recruitment
1.5
1.0
0.5
0.0
1900
1950
2000
year
recruitment
1.5
1.0
0.5
0.0
0.6
0.8
1.0
1.2
1.4
spawning biomass

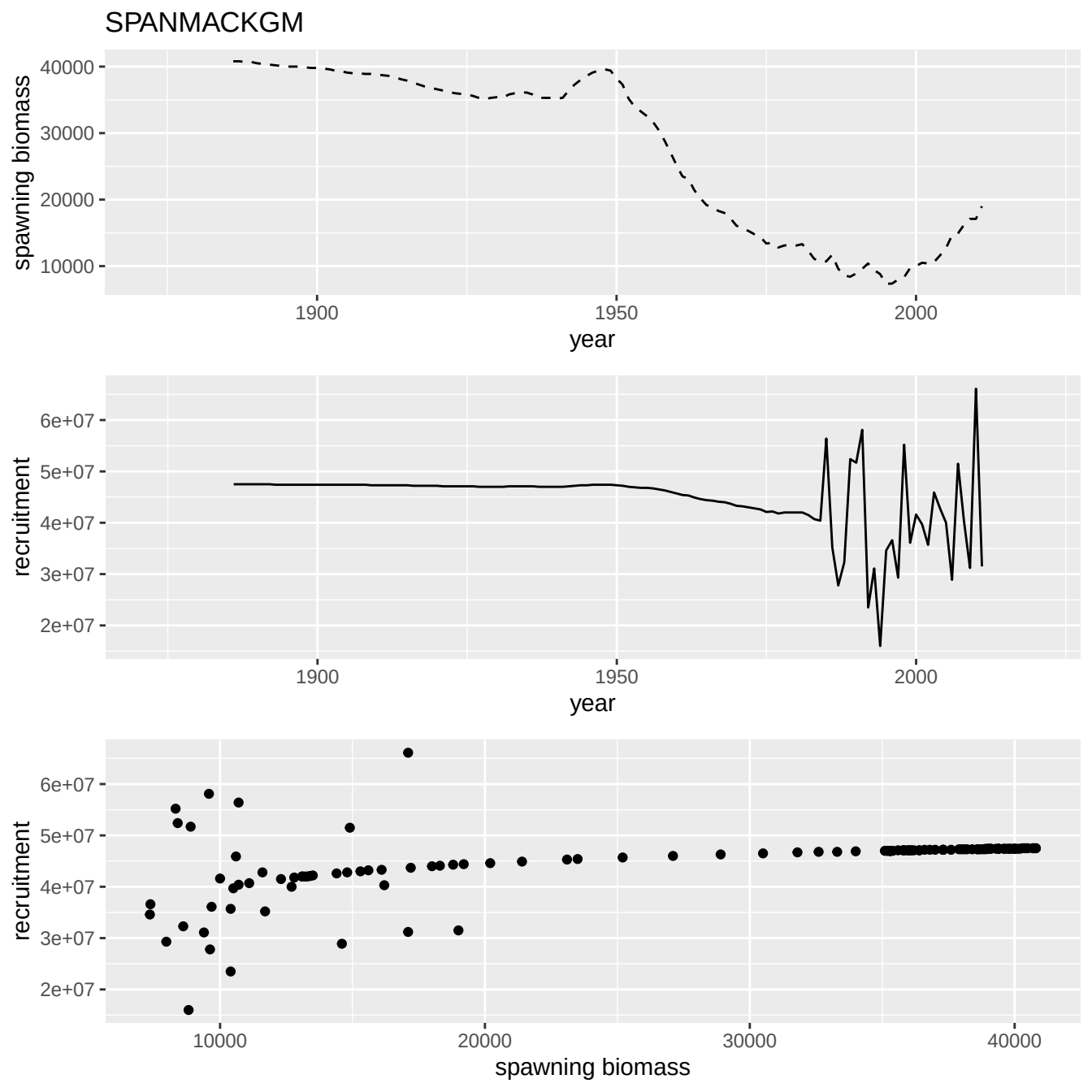

SOLEVIIIab
spawning biomass
15000
13000
11000
1900
1950
2000
year
recruitment
3.5e+07
3.0e+07
2.5e+07
2.0e+07
1.5e+07
1900
1950
2000
year
recruitment
3.5e+07
3.0e+07
2.5e+07
2.0e+07
1.5e+07
11000
13000
15000
spawning biomass

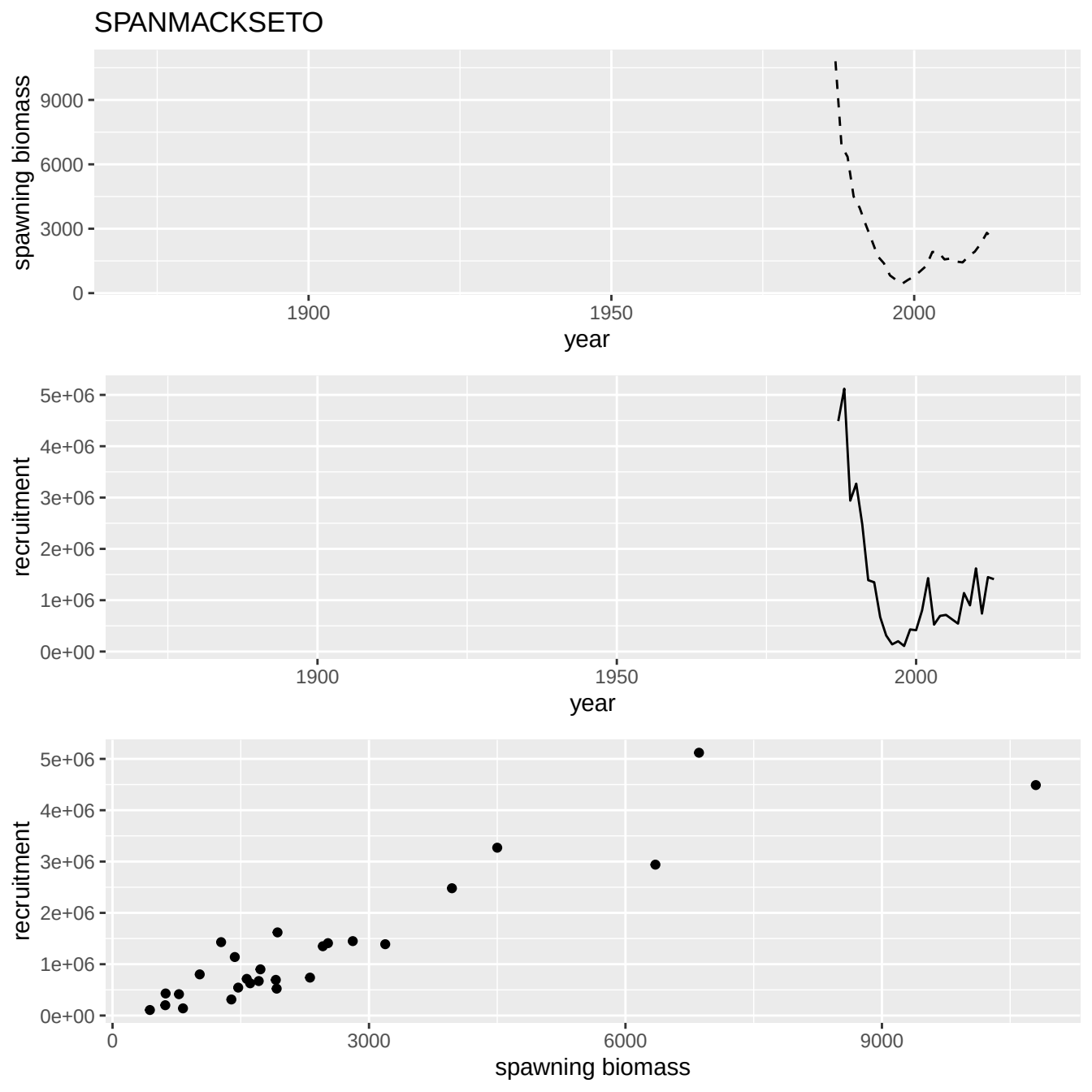

SOUTHHAKECH
spawning biomass
4e+05
3e+05
2e+05
1900
1950
2000
year
recruitment
1.8e+08
1.6e+08
1.4e+08
1.2e+08
1.0e+08
1900
1950
2000
year
recruitment
1.8e+08
1.6e+08
1.4e+08
1.2e+08
1.0e+08
2e+05
3e+05
4e+05
spawning biomass

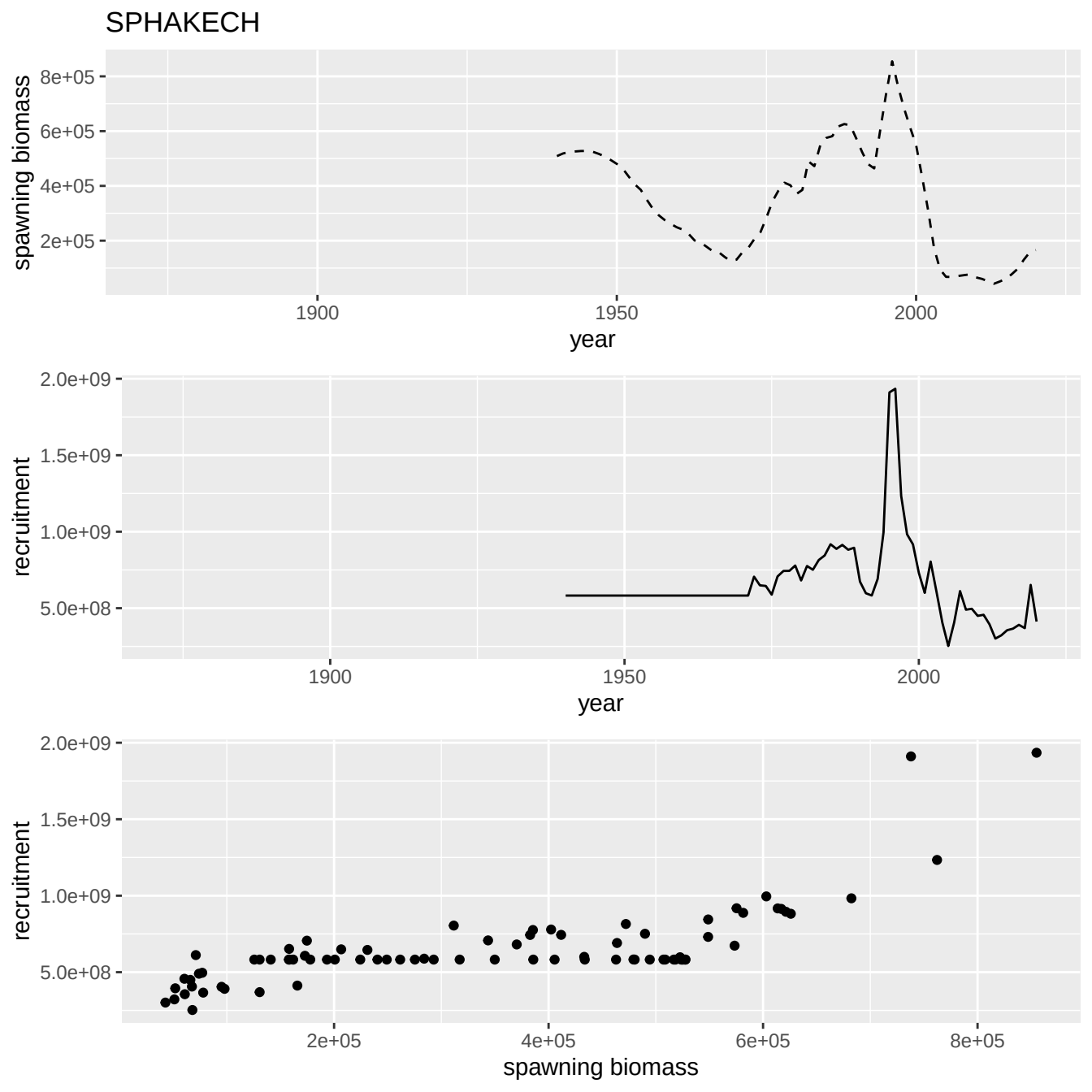

SOUTHHAKECR
spawning biomass
60000
50000
40000
30000
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
30000
40000
50000
60000
spawning biomass

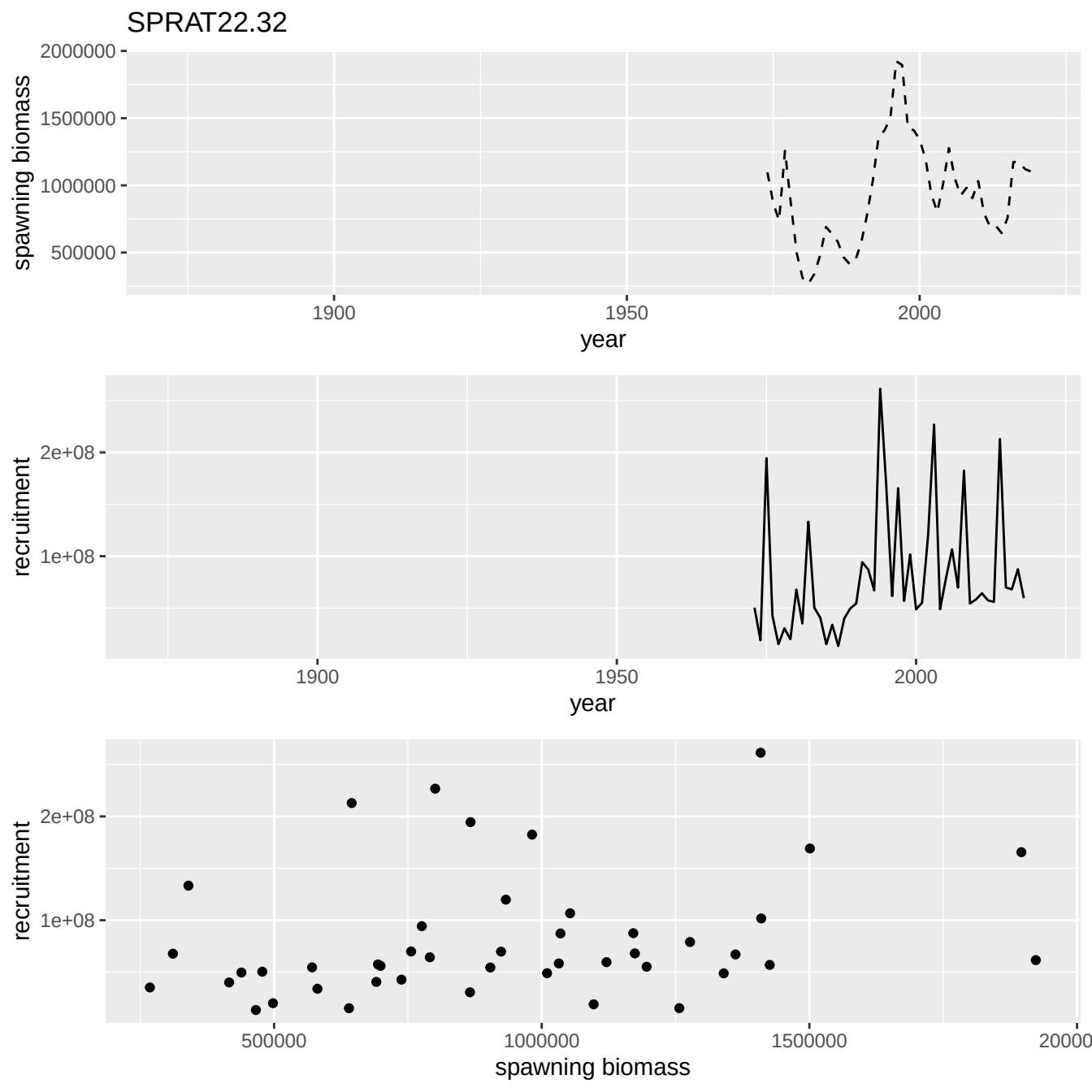

SOUTHHAKESA
spawning biomass
80000
60000
40000
1900
1950
2000
year
recruitment
1.6e+07
1.2e+07
8.0e+06
4.0e+06
1900
1950
2000
year
recruitment
1.6e+07
1.2e+07
8.0e+06
4.0e+06
40000
60000
80000
spawning biomass

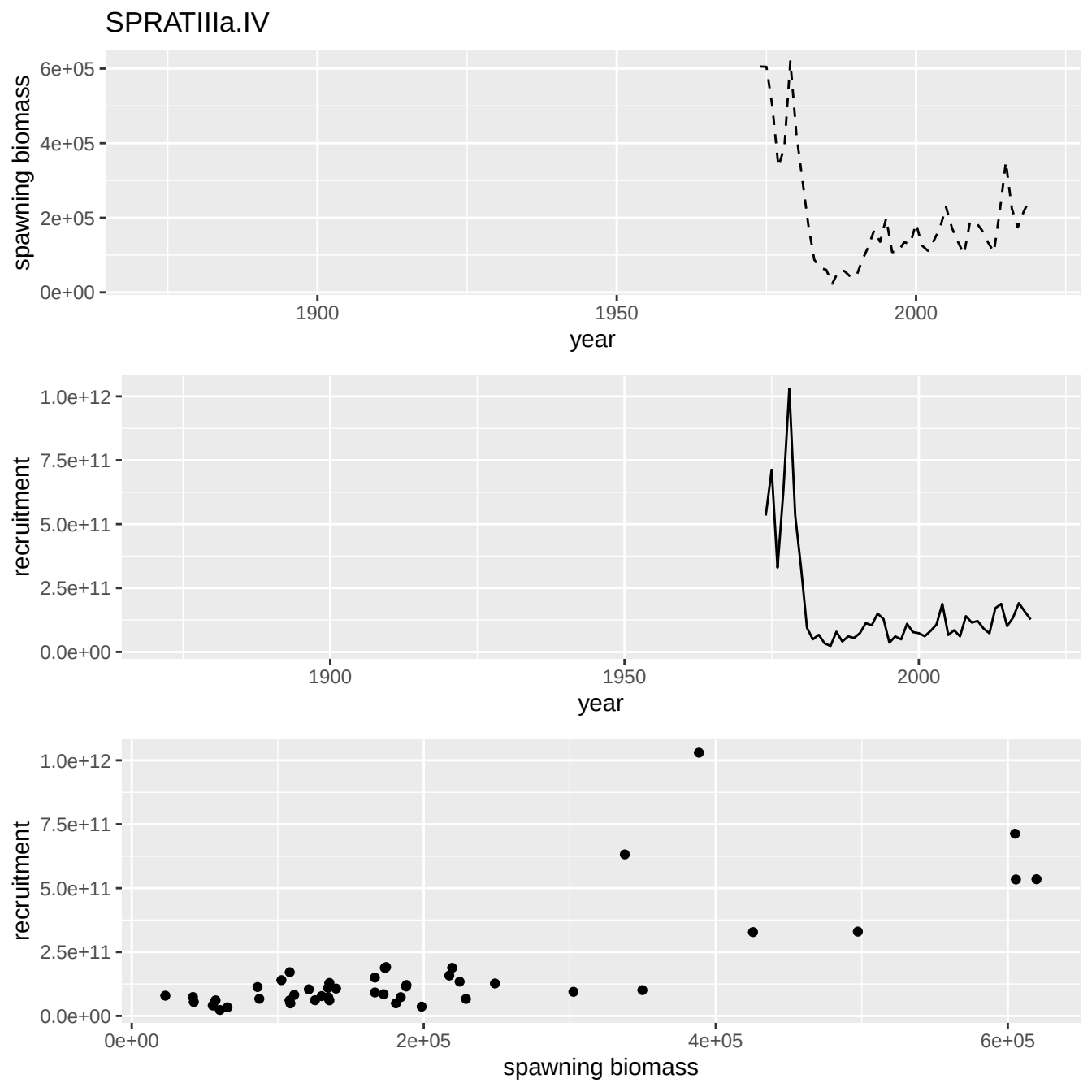

SOUTHHAKEWCSI
spawning biomass
80000
60000
40000
1900
1950
2000
year
recruitment
1.0e+07
7.5e+06
5.0e+06
2.5e+06
1900
1950
2000
year
recruitment
1.0e+07
7.5e+06
5.0e+06
2.5e+06
40000
60000
80000
spawning biomass

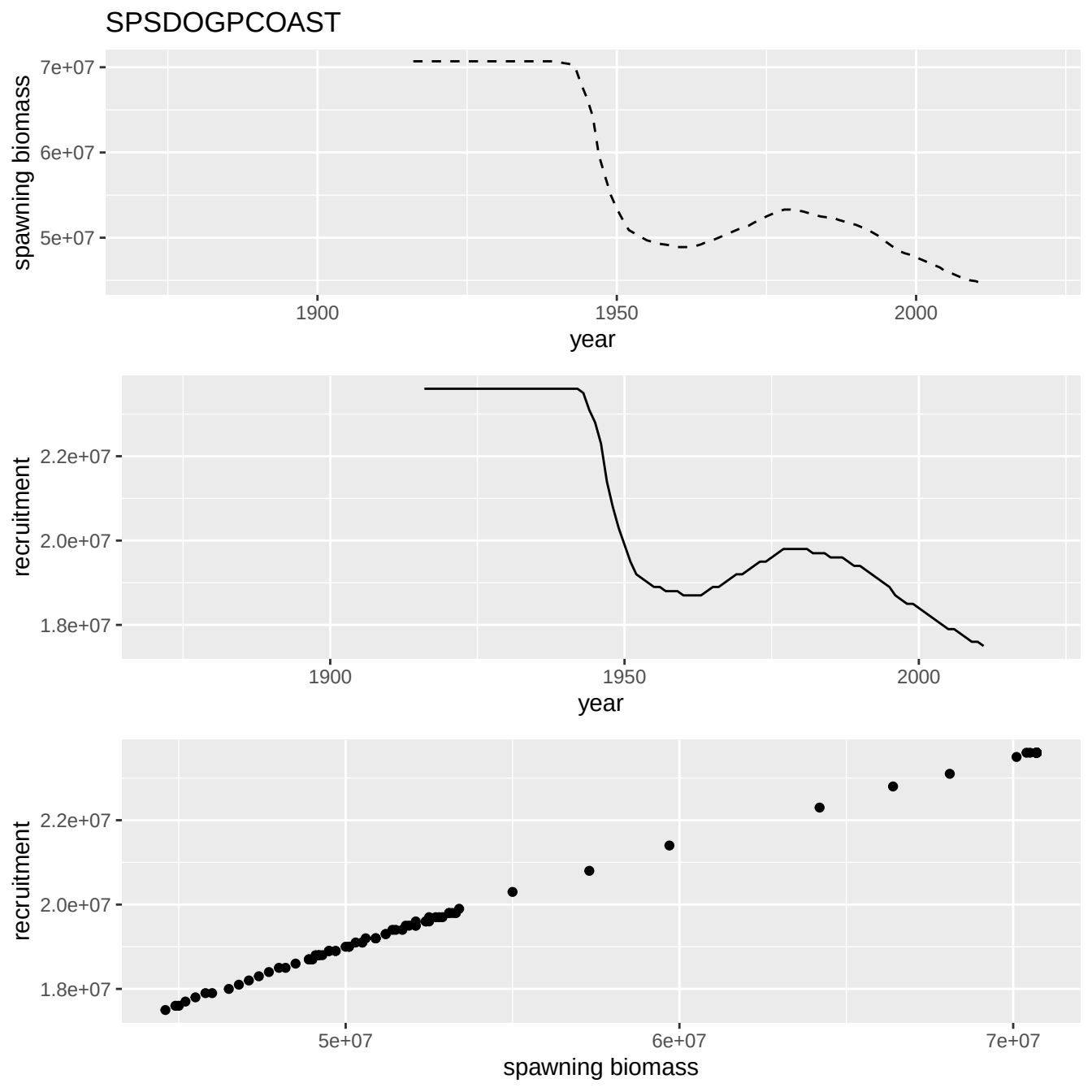

SPANMACKGM
spawning biomass
40000
30000
20000
10000
1900
1950
2000
year
recruitment
6e+07
5e+07
4e+07
3e+07
2e+07
1900
1950
2000
year
recruitment
6e+07
5e+07
4e+07
3e+07
2e+07
10000
20000
30000
40000
spawning biomass

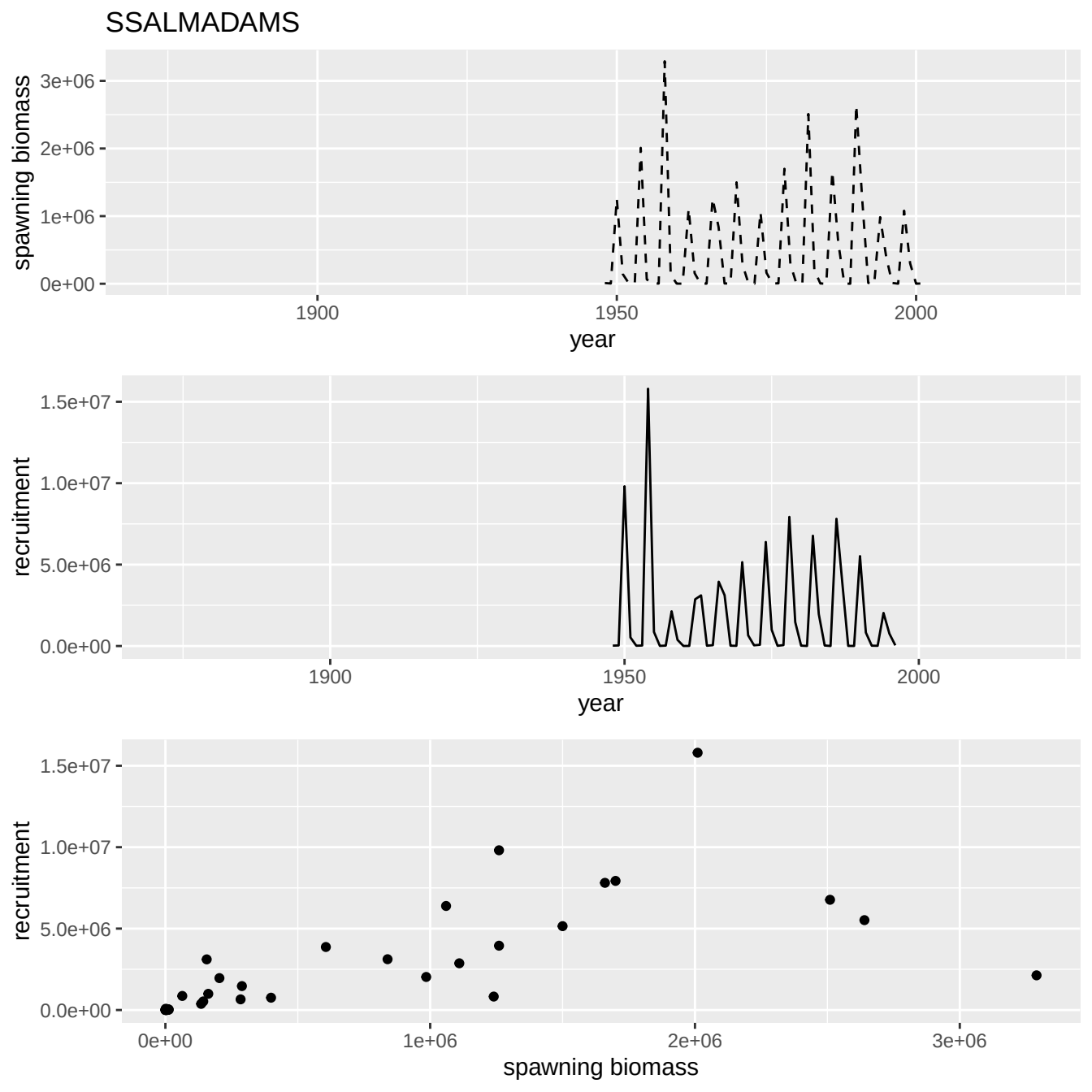

SPANMACKSETO
spawning biomass
9000
6000
3000
0
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
0e+00
0
3000
6000
9000
spawning biomass

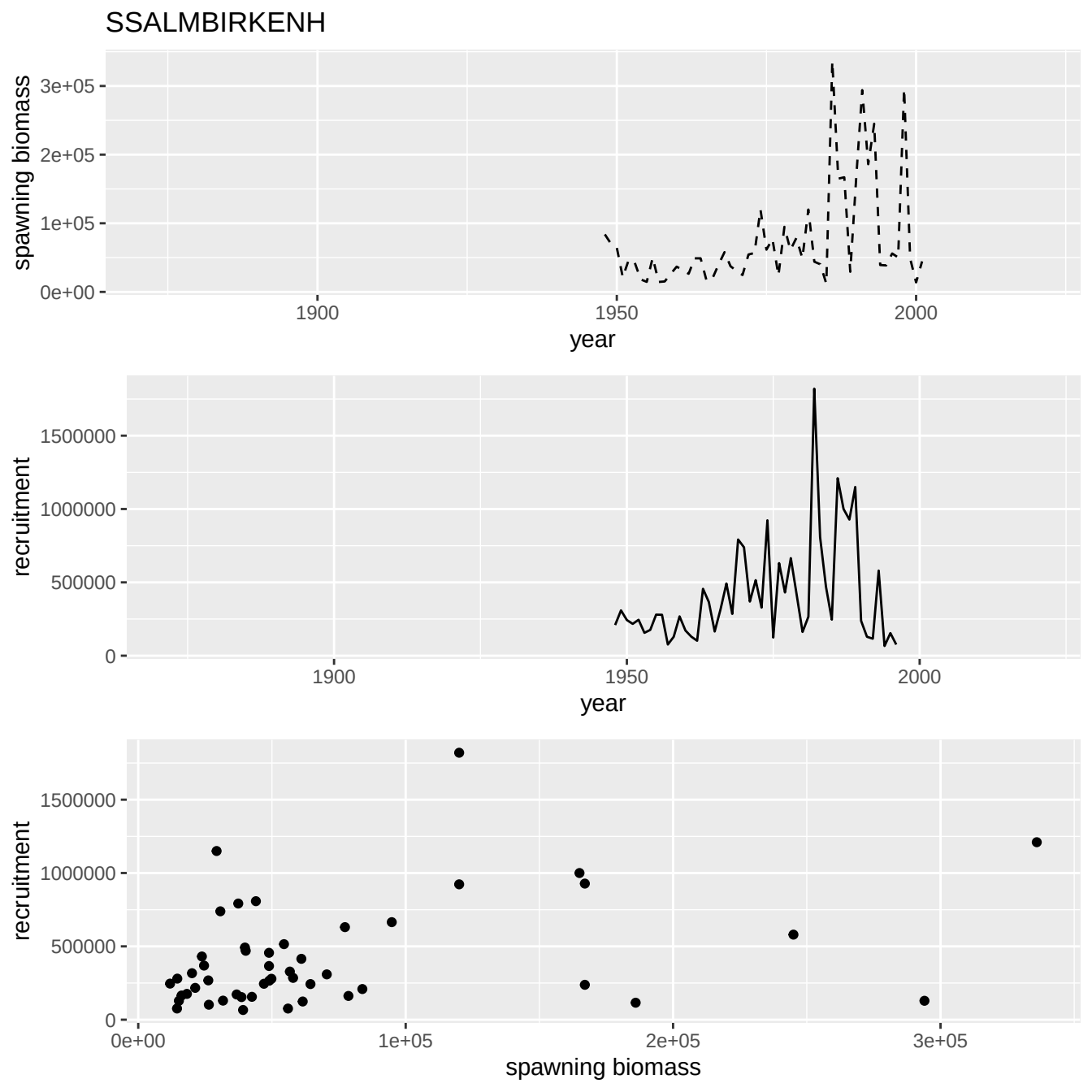

SPHAKECH
spawning biomass
8e+05
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
2e+05
4e+05
6e+05
8e+05
spawning biomass

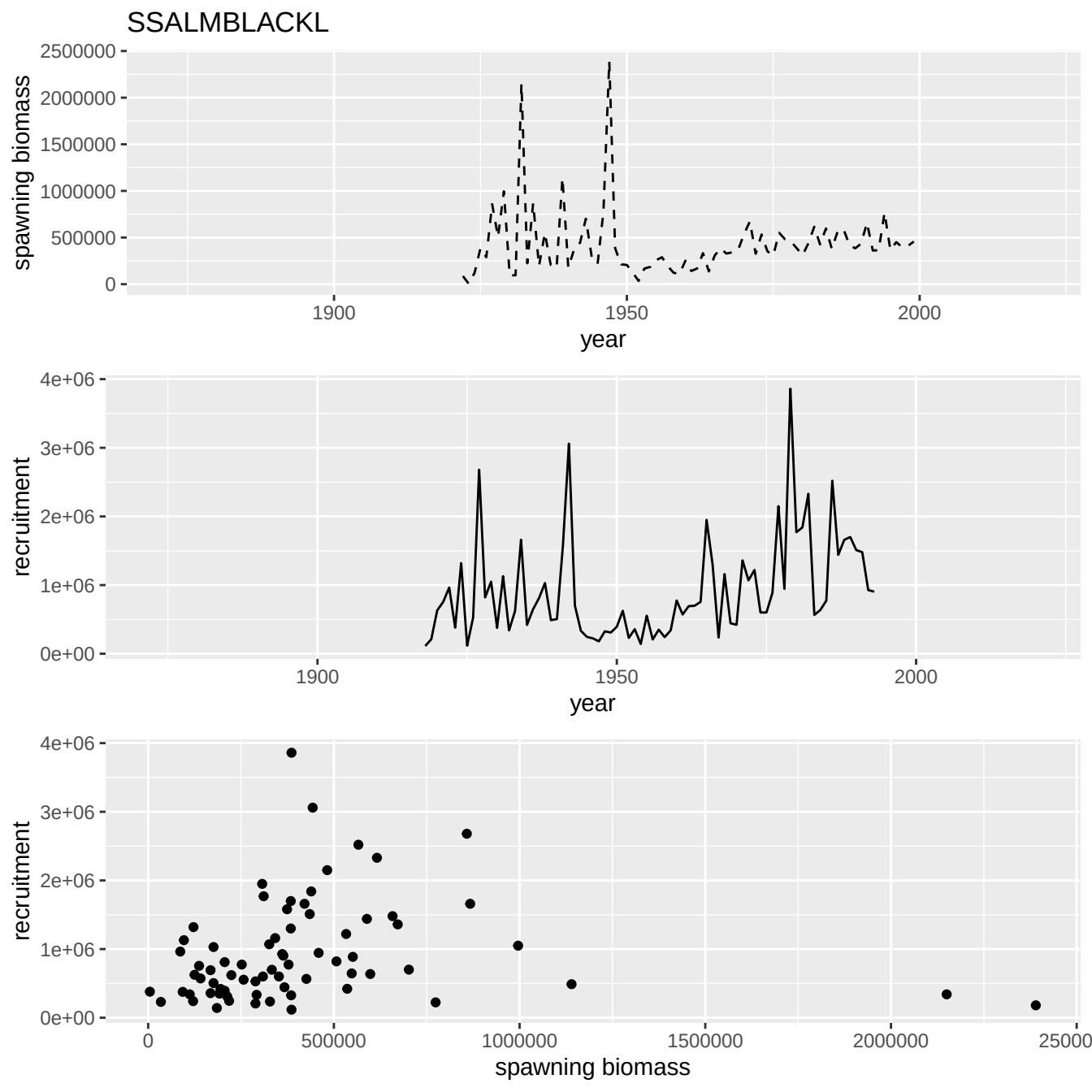

SPRAT22.32
spawning biomass
2000000
1500000
1000000
500000
1900
1950
2000
year
recruitment
2e+08
1e+08
1900
1950
2000
year
recruitment
2e+08
1e+08
500000
1000000
1500000
20000
spawning biomass

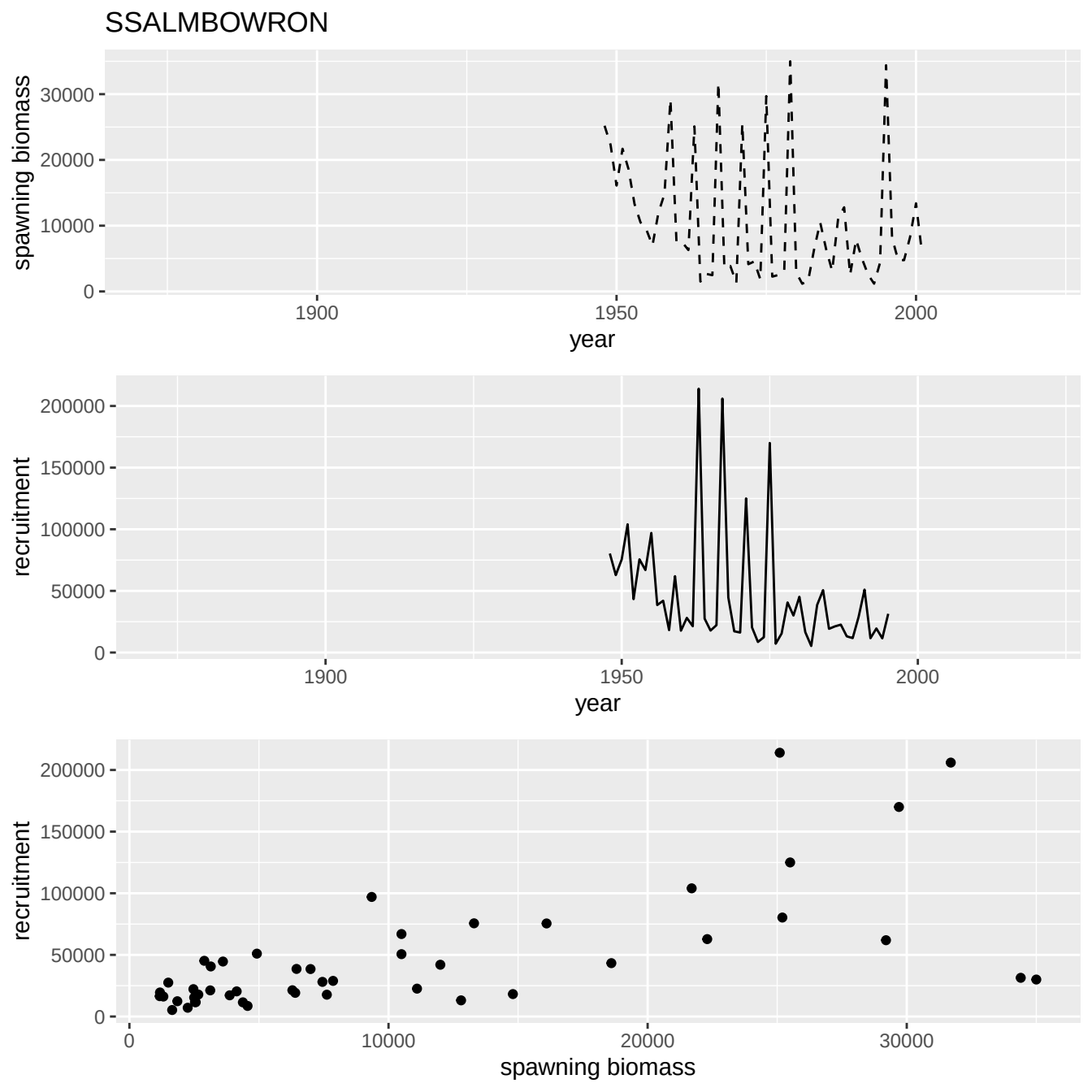

SPRATIIIa.IV
spawning biomass
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
1.0e+12
7.5e+11
5.0e+11
2.5e+11
0.0e+00
1900
1950
2000
year
recruitment
1.0e+12
7.5e+11
5.0e+11
2.5e+11
0.0e+00
0e+00
2e+05
4e+05
6e+05
spawning biomass

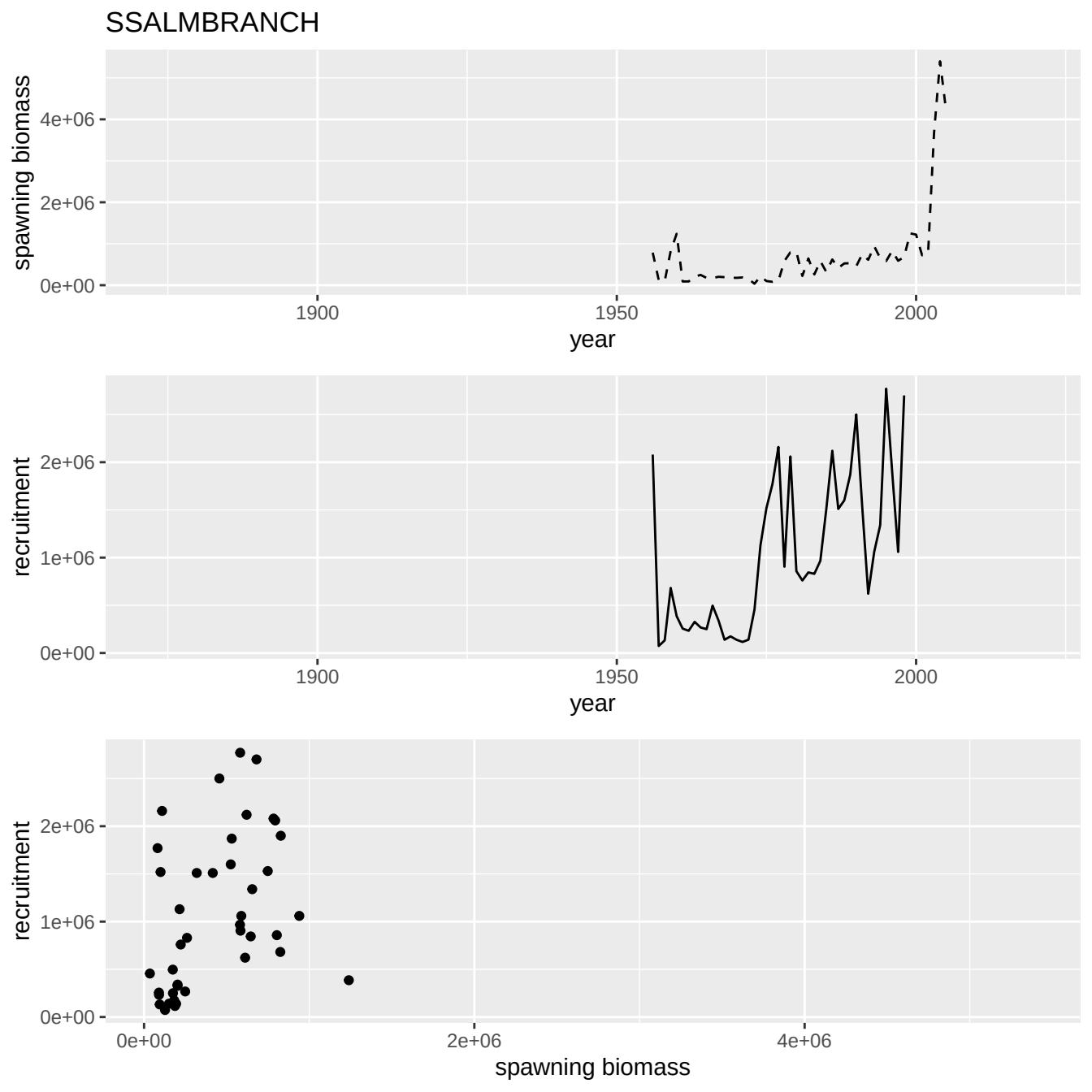

SPSDOGPCOAST
spawning biomass
7e+07
6e+07
5e+07
1900
1950
2000
year
recruitment
2.2e+07
2.0e+07
1.8e+07
1900
1950
2000
year
recruitment
2.2e+07
2.0e+07
1.8e+07
5e+07
6e+07
7e+07
spawning biomass

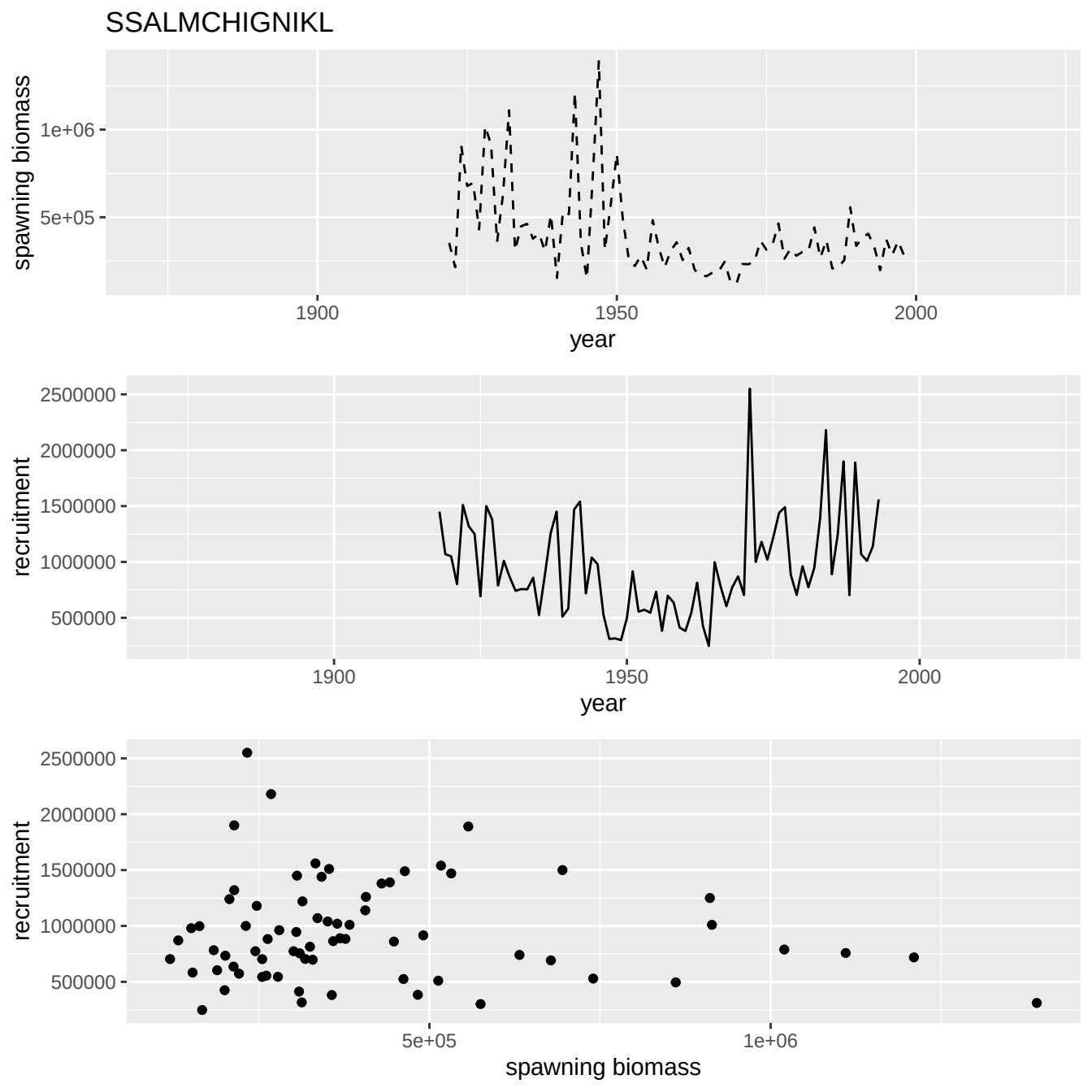

SSALMADAMS
spawning biomass
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
0.0e+00
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
0.0e+00
0e+00
1e+06
2e+06
3e+06
spawning biomass

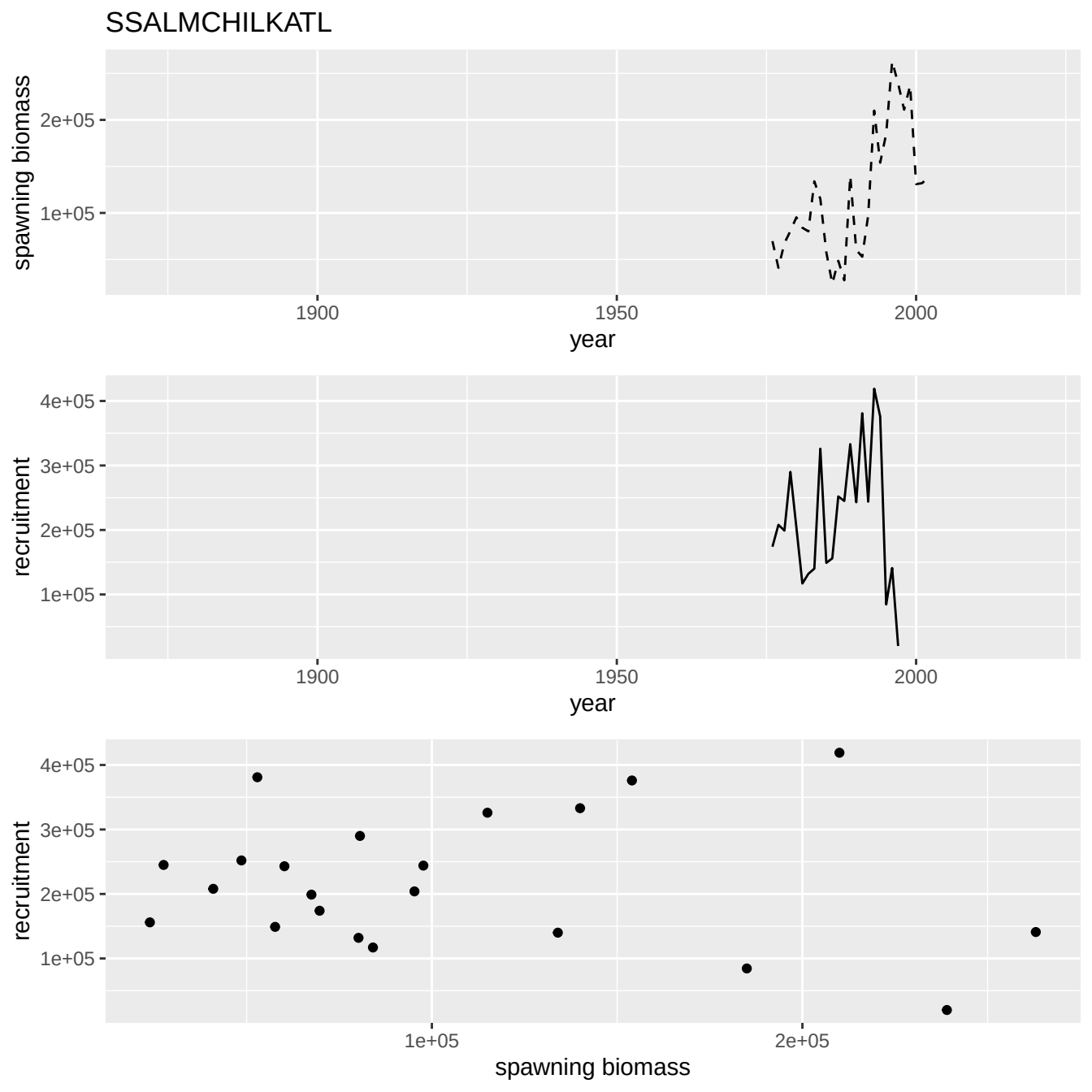

SSALMBIRKENH
spawning biomass
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
1500000
1000000
500000
0
0e+00
1e+05
2e+05
3e+05
spawning biomass

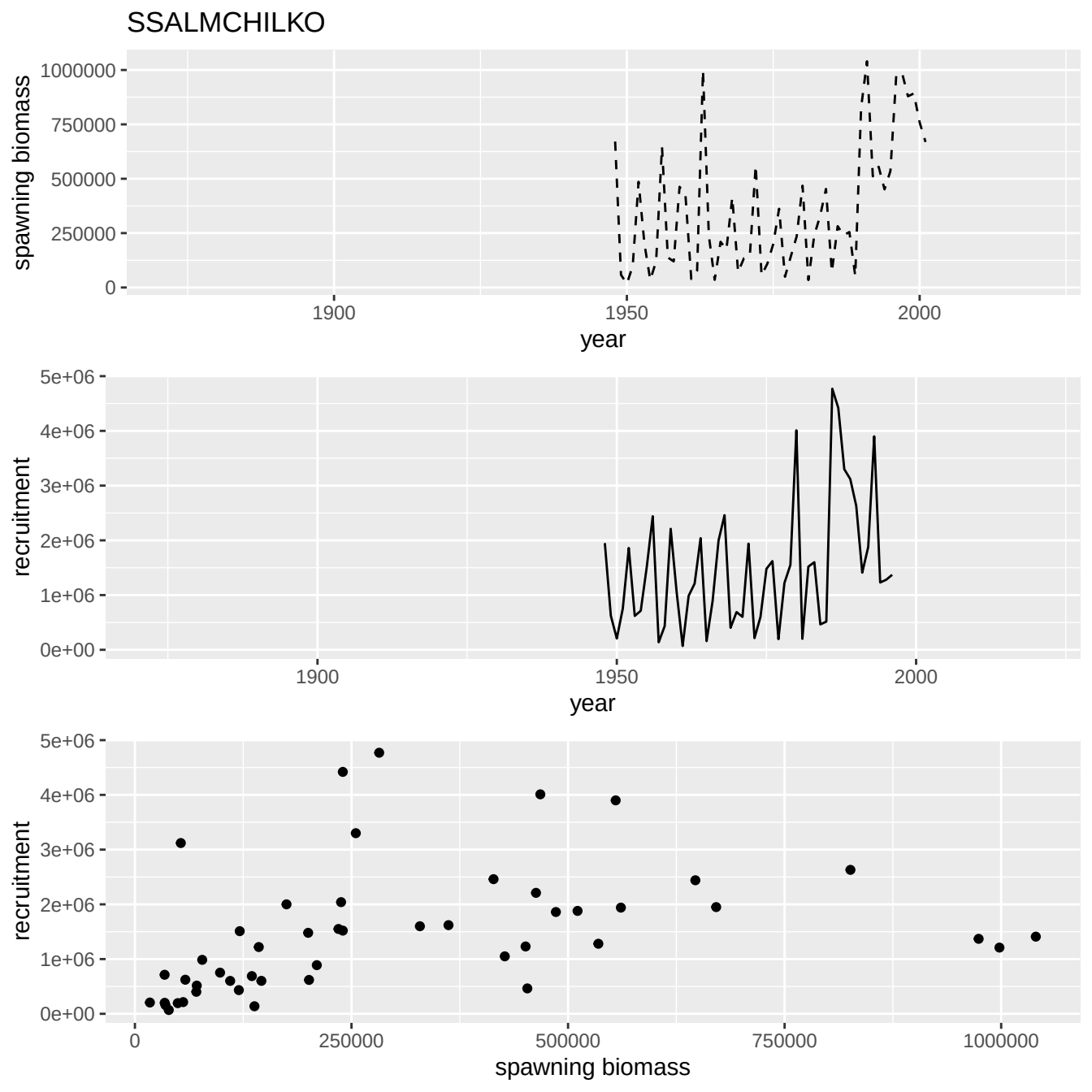

SSALMBLACKL
spawning biomass
2500000
2000000
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
0e+00
0
500000
1000000
1500000
2000000
spawning biomass

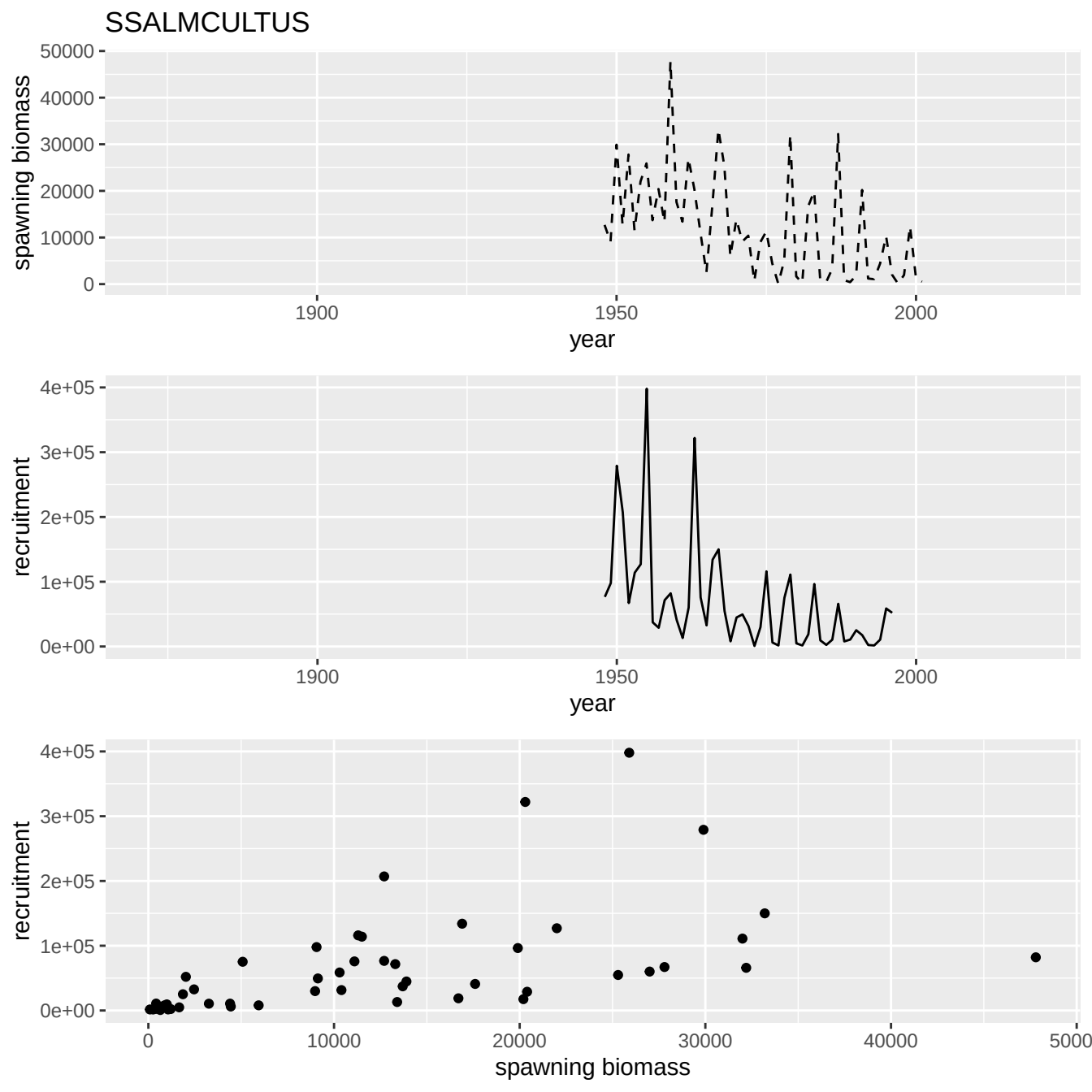

SSALMBOWRON
spawning biomass
30000
20000
10000
0
1900
1950
2000
year
recruitment
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
200000
150000
100000
50000
0
0
10000
20000
30000
spawning biomass

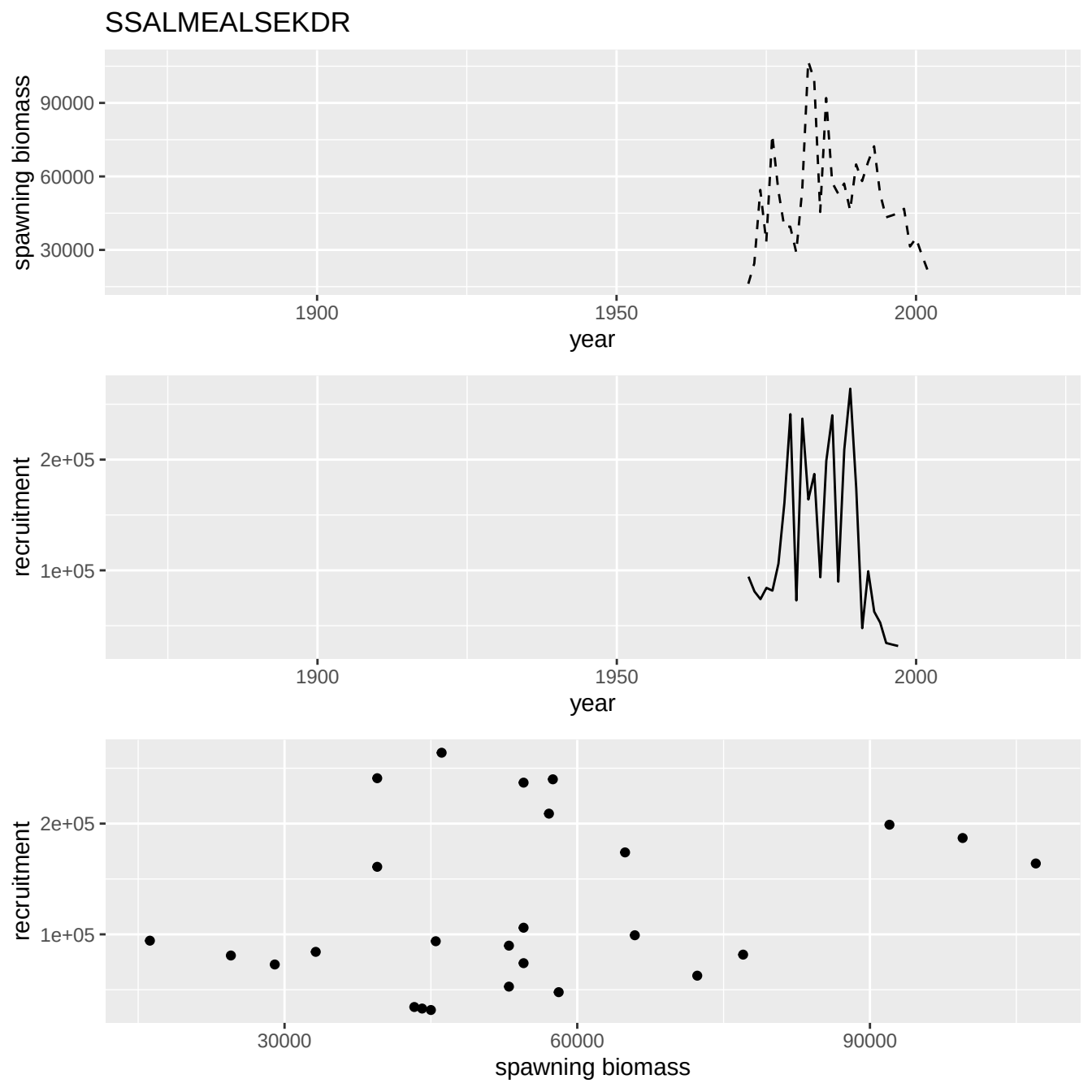

SSALMBRANCH
spawning biomass
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
2e+06
1e+06
0e+00
0e+00
2e+06
4e+06
spawning biomass

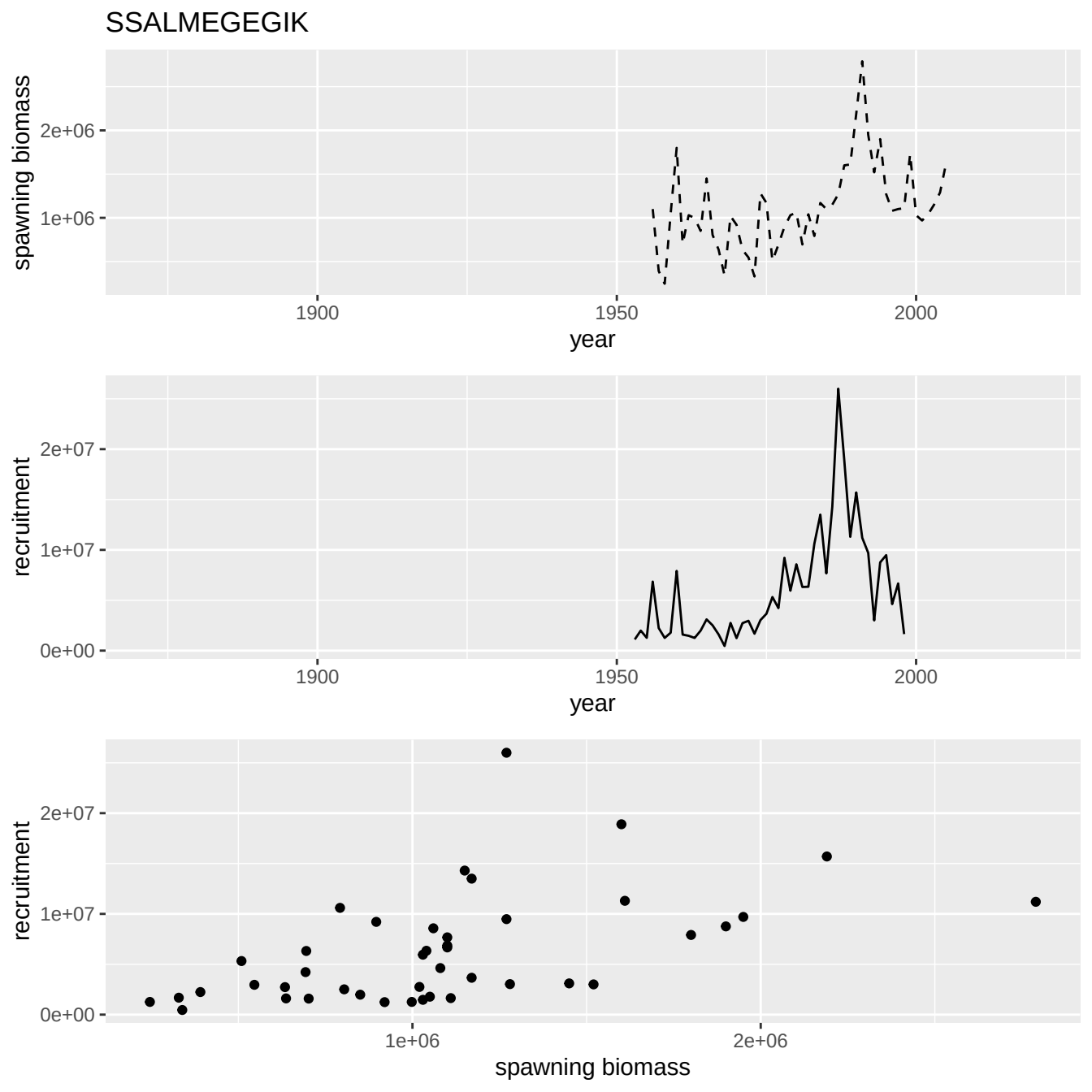

SSALMCHIGNIKL
spawning biomass
1e+06
5e+05
1900
1950
2000
year
recruitment
2500000
2000000
1500000
1000000
500000
1900
1950
2000
year
recruitment
2500000
2000000
1500000
1000000
500000
5e+05
1e+06
spawning biomass

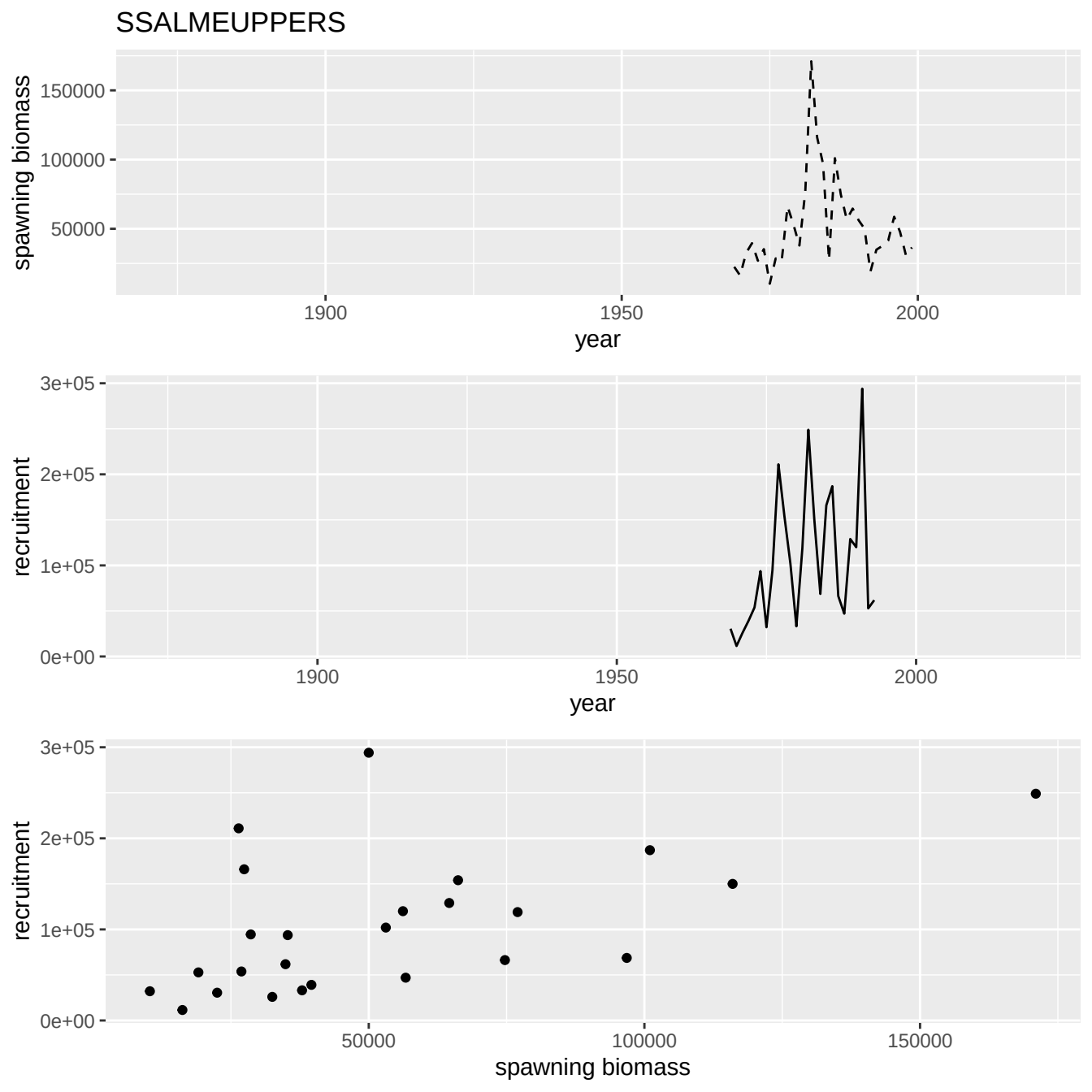

SSALMCHILKATL
spawning biomass
2e+05
1e+05
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
1e+05
2e+05
spawning biomass

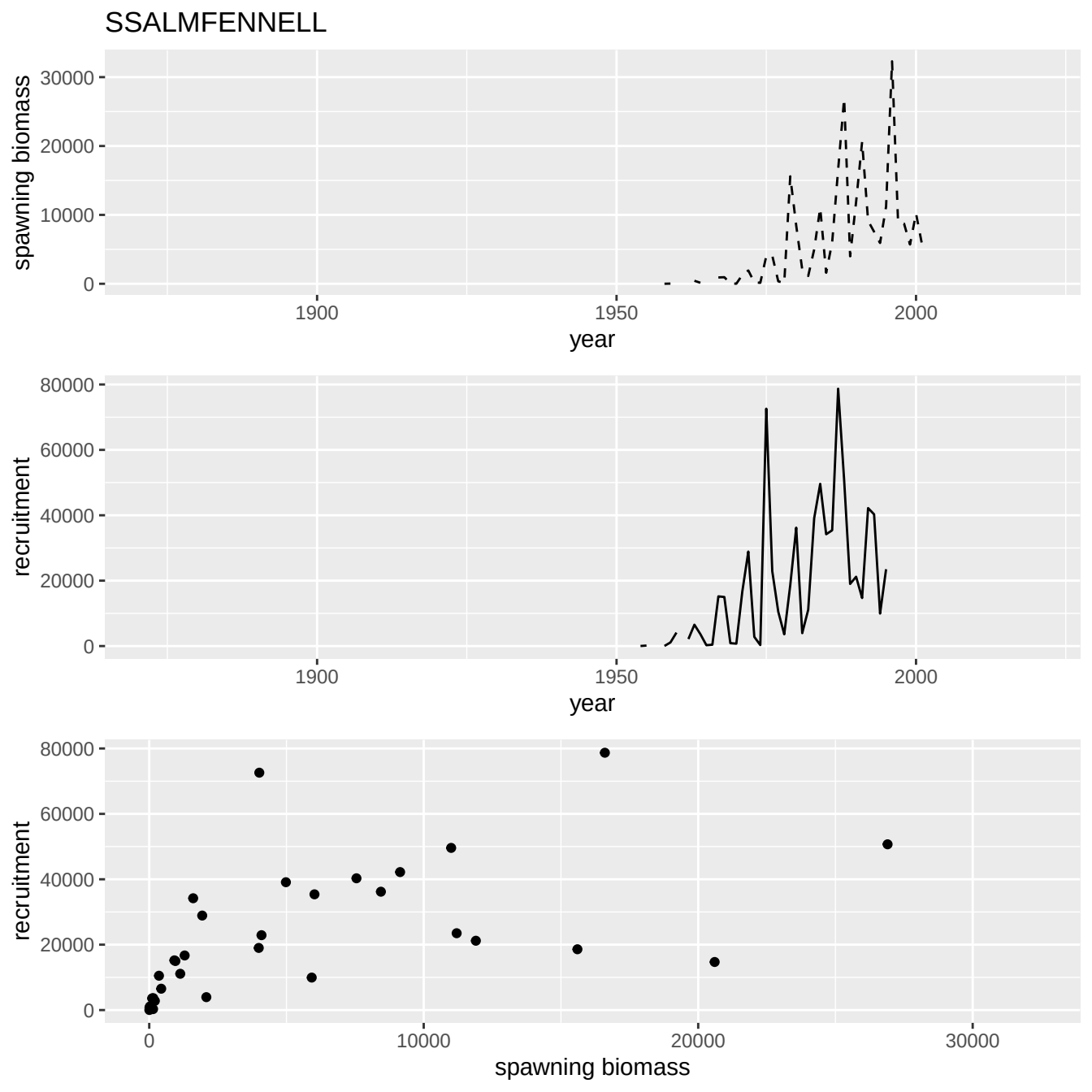

SSALMCHILKO
spawning biomass
1000000
750000
500000
250000
0
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
0e+00
0
250000
500000
750000
1000000
spawning biomass

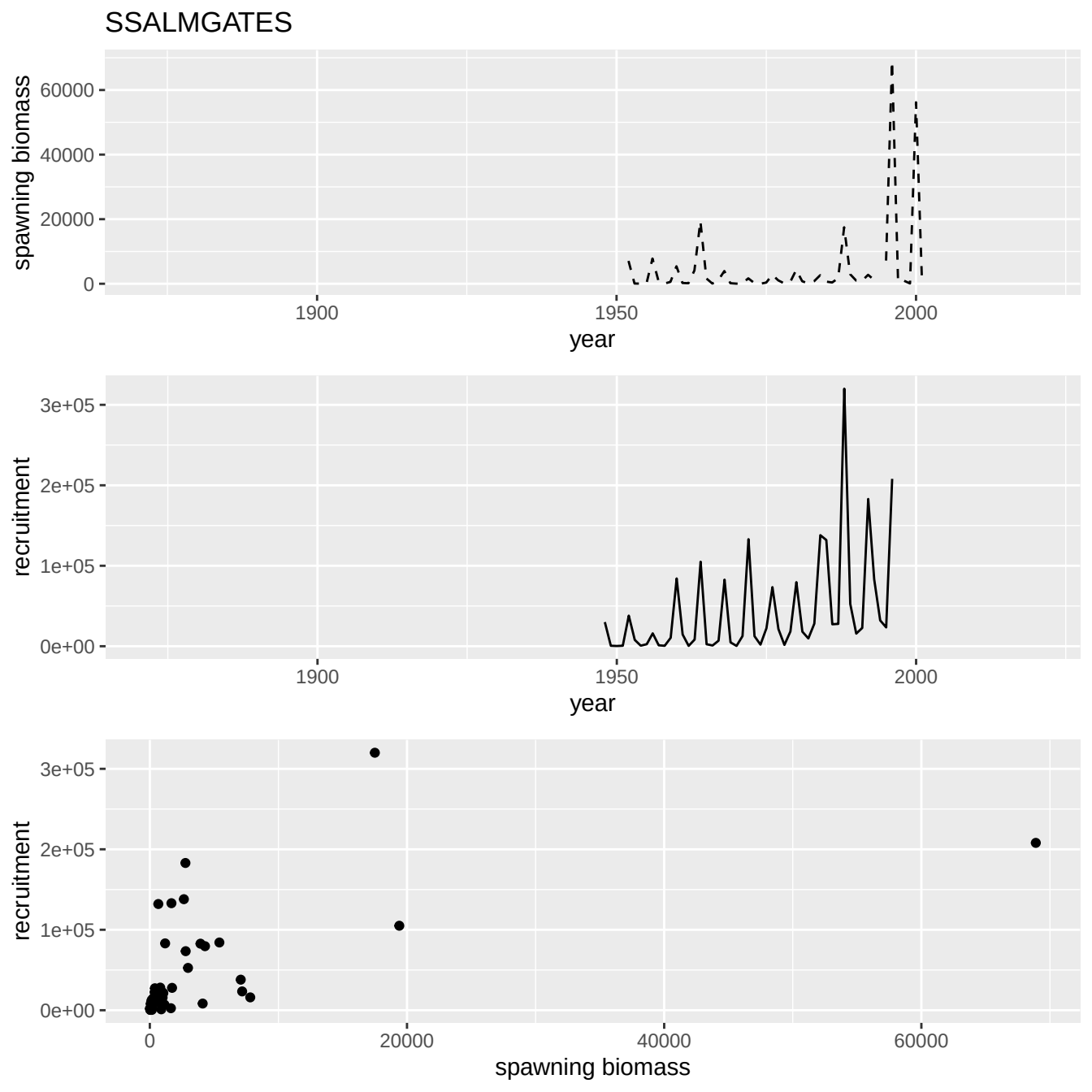

SSALMCULTUS
spawning biomass
50000
40000
30000
20000
10000
0
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
0e+00
0
10000
20000
30000
40000
5000
spawning biomass

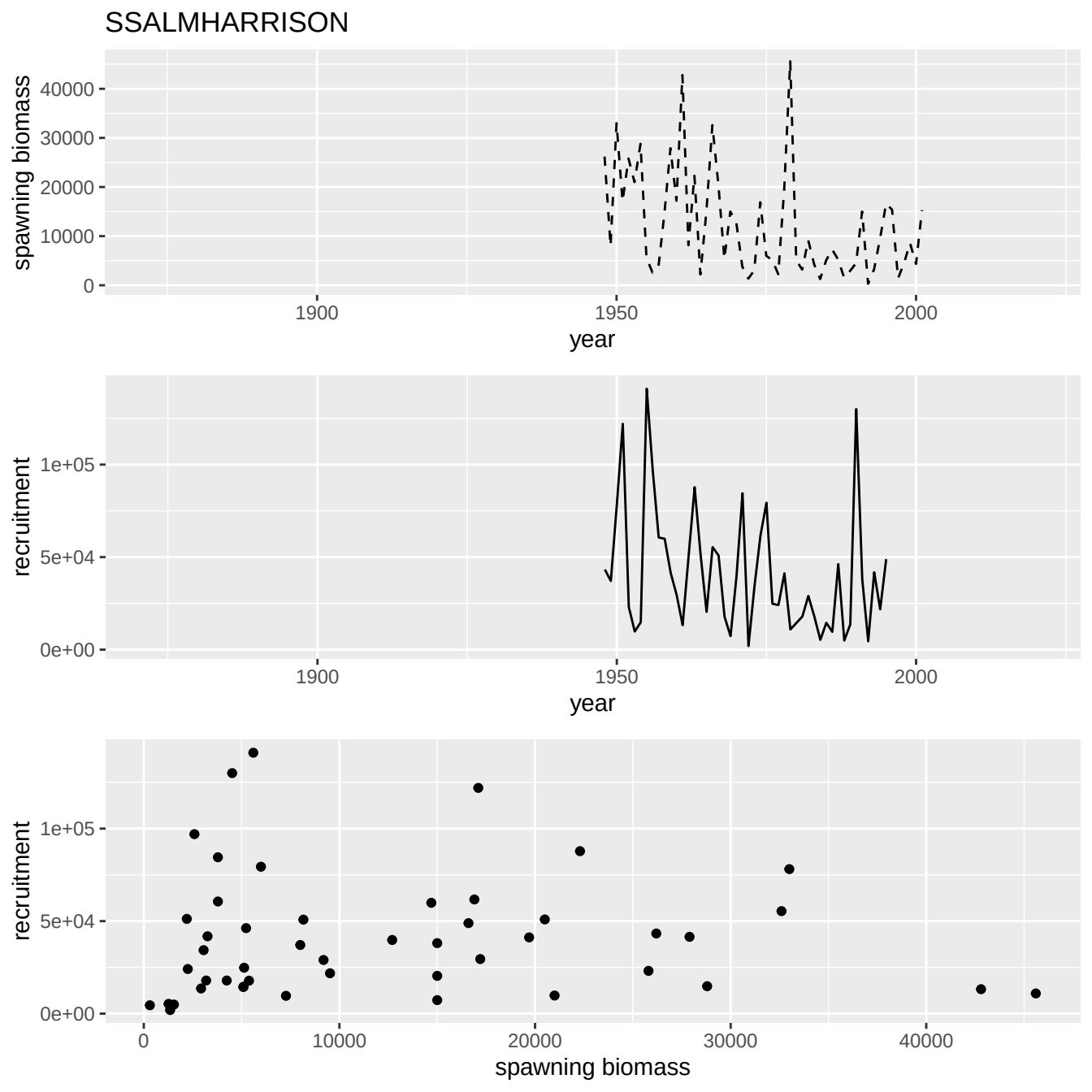

SSALMEALSEKDR
spawning biomass
90000
60000
30000
1900
1950
2000
year
recruitment
2e+05
1e+05
1900
1950
2000
year
recruitment
2e+05
1e+05
30000
60000
90000
spawning biomass

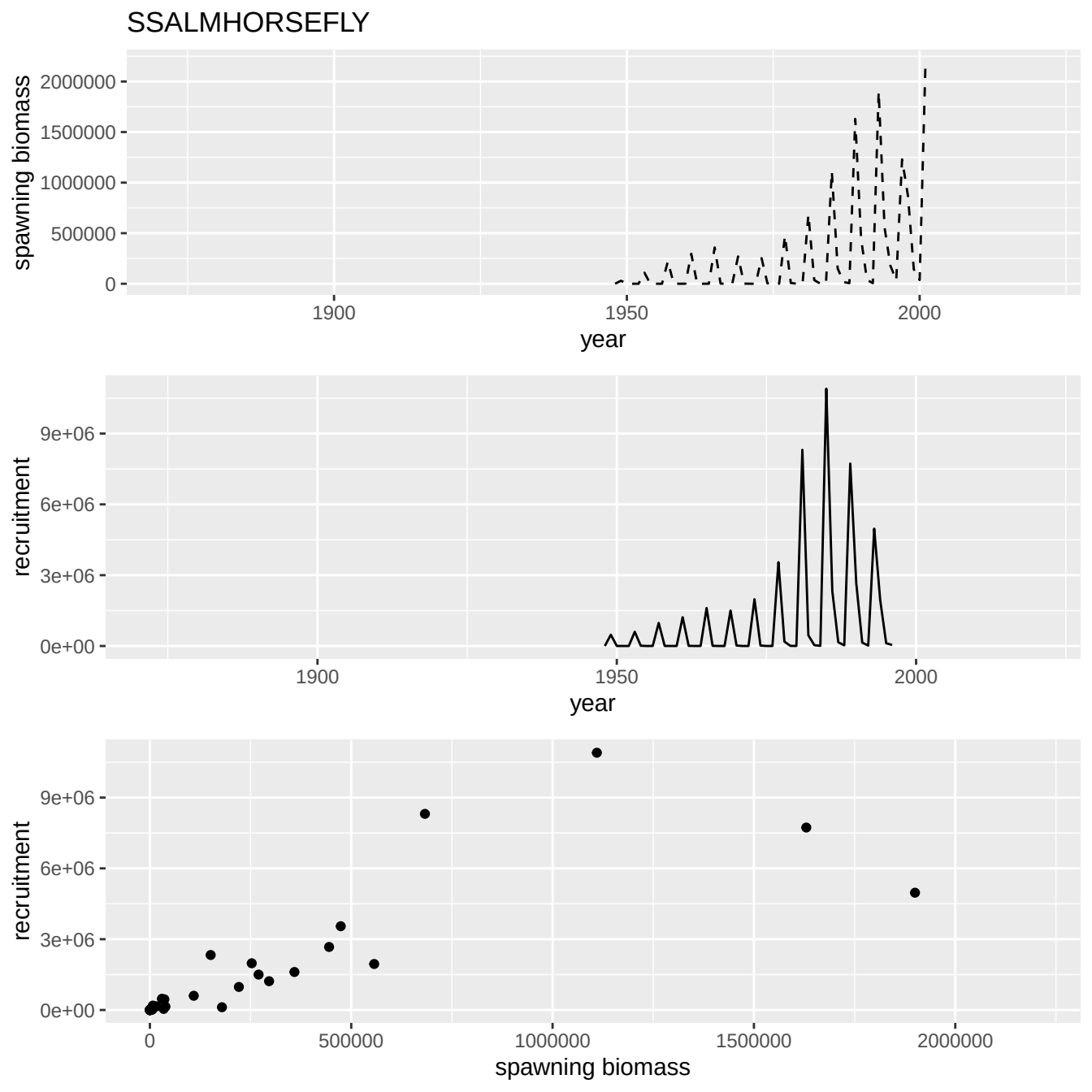

SSALMEGEGIK
spawning biomass
2e+06
1e+06
1900
1950
2000
year
recruitment
2e+07
1e+07
0e+00
1900
1950
2000
year
recruitment
2e+07
1e+07
0e+00
1e+06
2e+06
spawning biomass

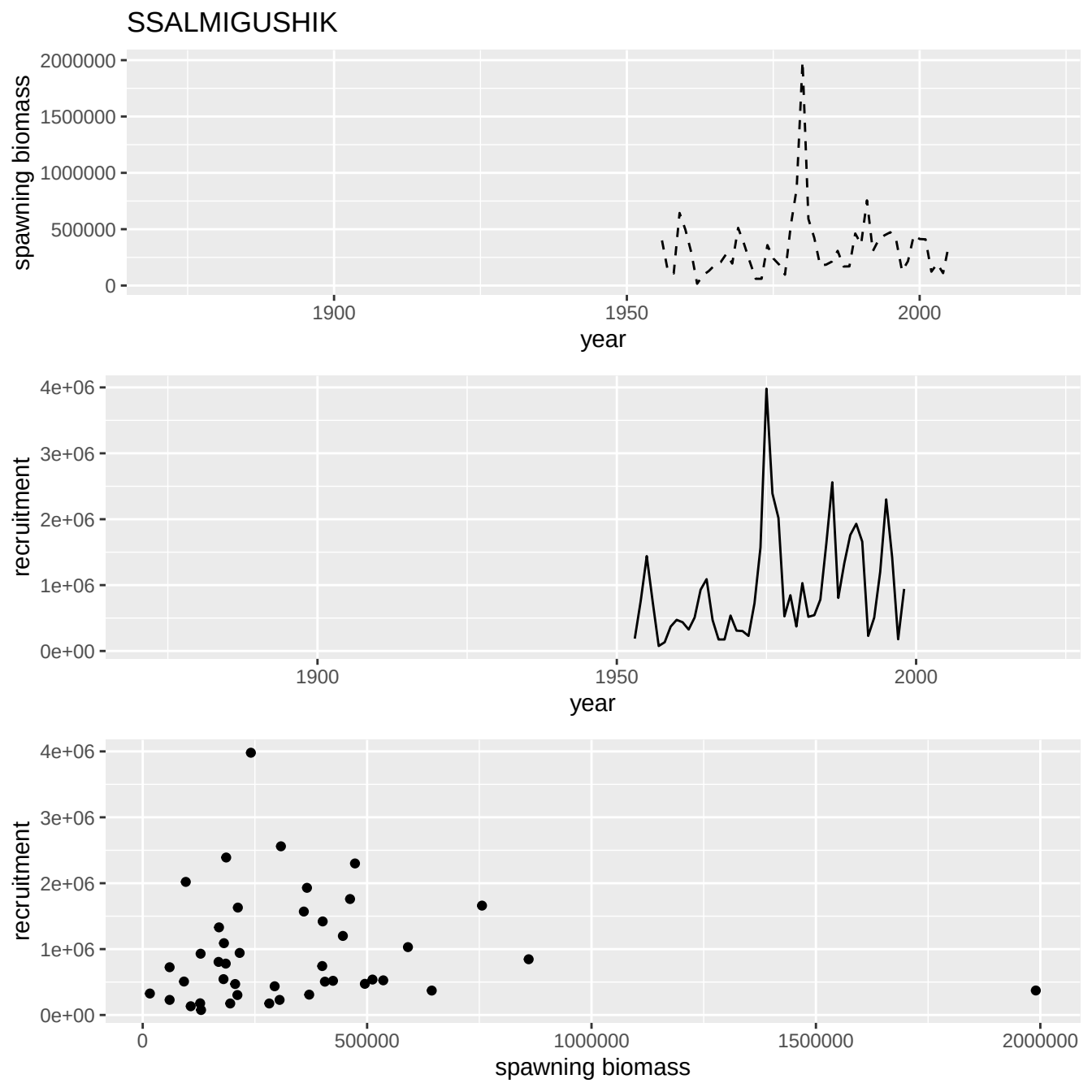

SSALMEUPPERS
spawning biomass
150000
100000
50000
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
50000
100000
150000
spawning biomass

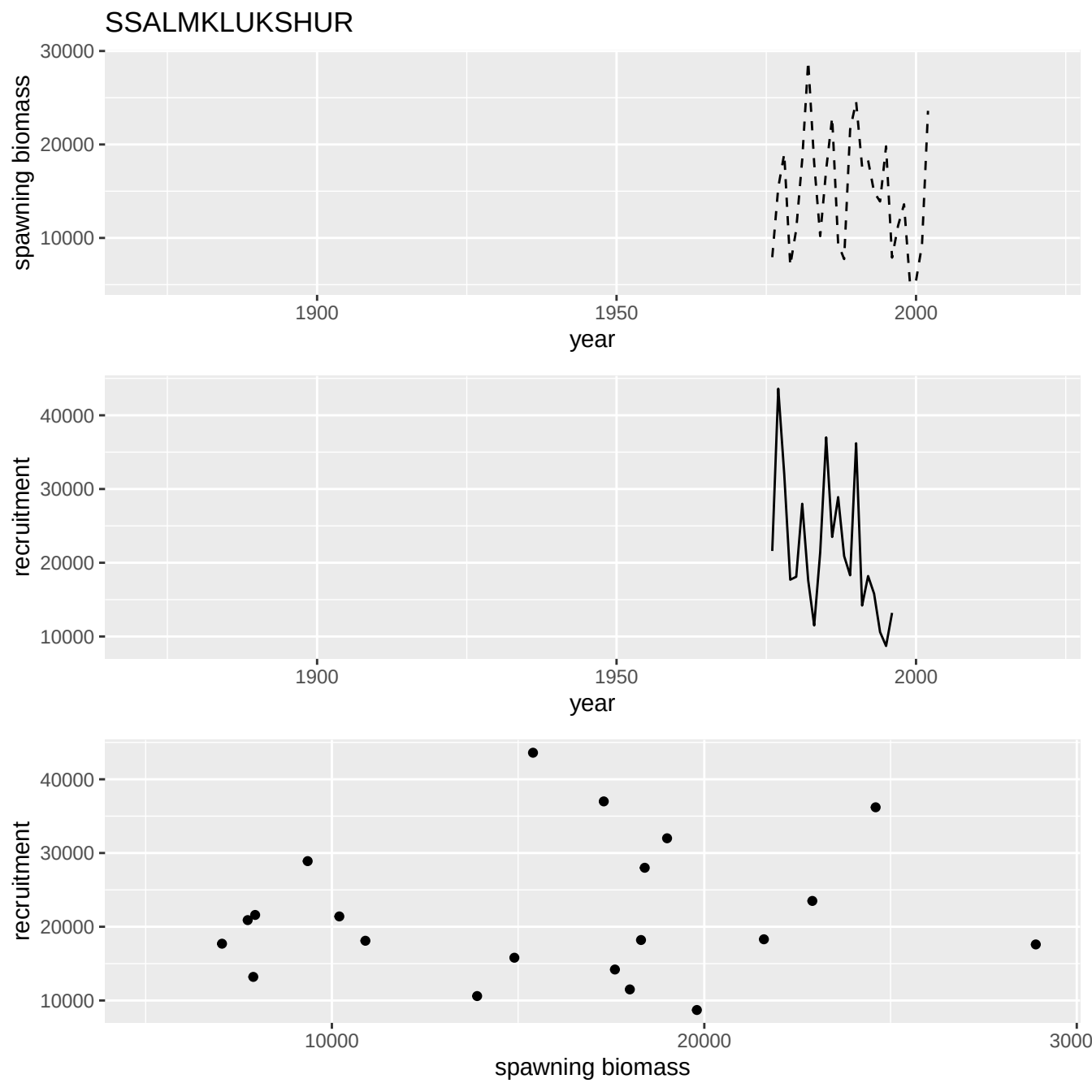

SSALMFENNELL
spawning biomass
30000
20000
10000
0
1900
1950
2000
year
recruitment
80000
60000
40000
20000
0
1900
1950
2000
year
recruitment
80000
60000
40000
20000
0
0
10000
20000
30000
spawning biomass

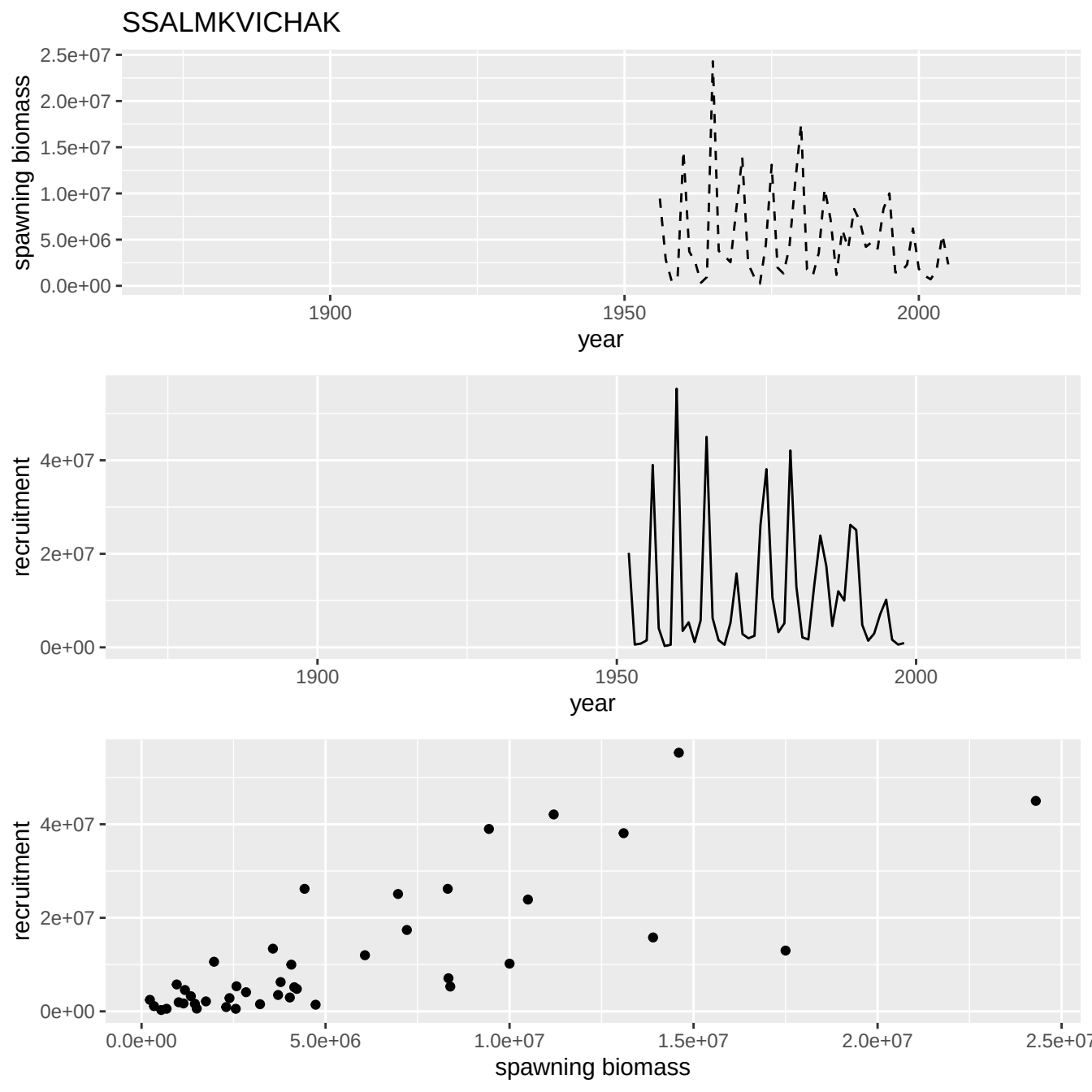

SSALMGATES
spawning biomass
60000
40000
20000
0
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
0
20000
40000
60000
spawning biomass

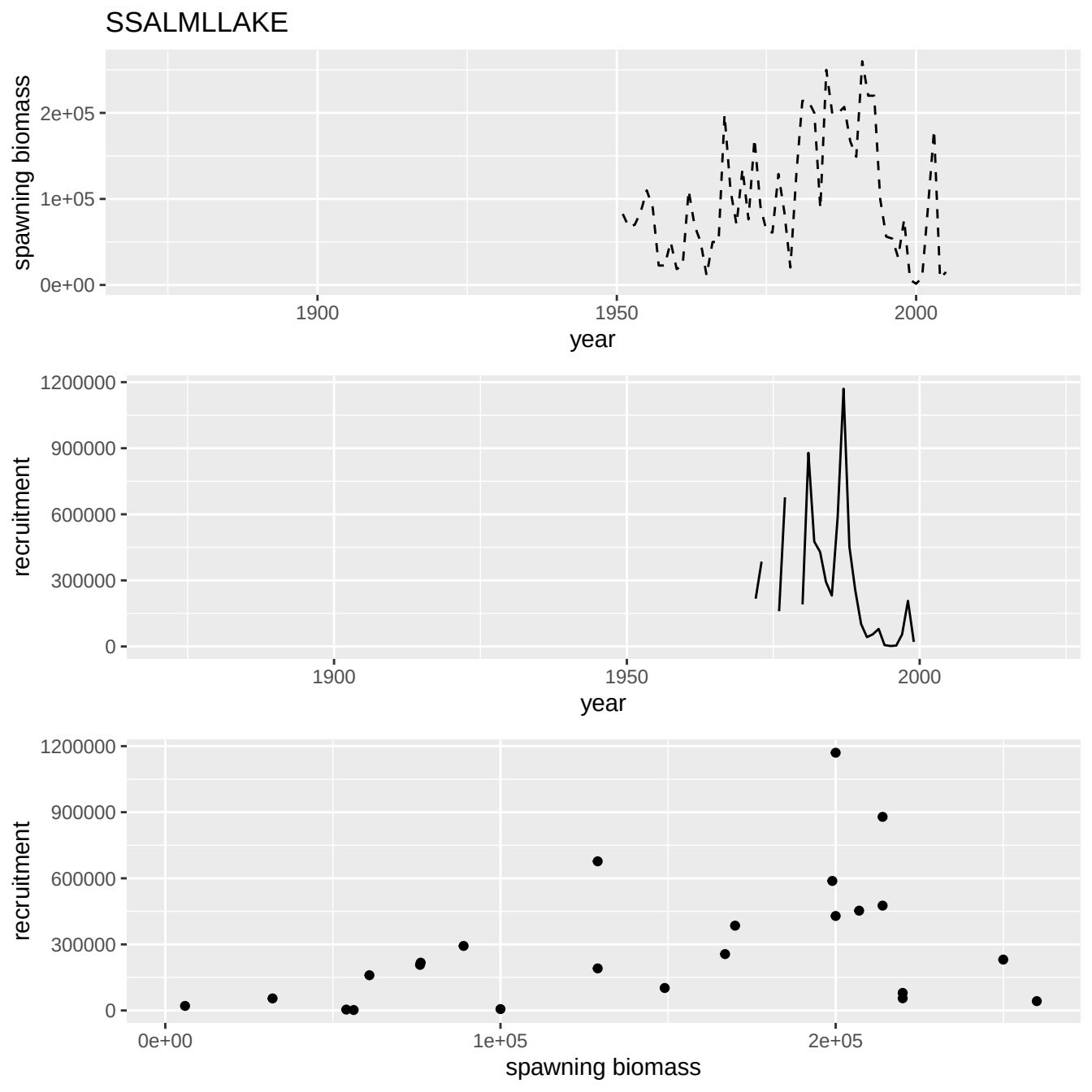

SSALMHARRISON
spawning biomass
40000
30000
20000
10000
0
1900
1950
2000
year
recruitment
1e+05
5e+04
0e+00
1900
1950
2000
year
recruitment
1e+05
5e+04
0e+00
0
10000
20000
30000
40000
spawning biomass


SSALMHORSEFLY
spawning biomass
2000000
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
9e+06
6e+06
3e+06
0e+00
1900
1950
2000
year
recruitment
9e+06
6e+06
3e+06
0e+00
0
500000
1000000
1500000
2000000
spawning biomass


SSALMIGUSHIK
spawning biomass
2000000
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
0e+00
0
500000
1000000
1500000
2000000
spawning biomass


SSALMKLUKSHUR
spawning biomass
30000
20000
10000
1900
1950
2000
year
recruitment
40000
30000
20000
10000
1900
1950
2000
year
recruitment
40000
30000
20000
10000
10000
20000
3000
spawning biomass


SSALMKVICHAK
spawning biomass
2.5e+07
2.0e+07
1.5e+07
1.0e+07
5.0e+06
0.0e+00
1900
1950
2000
year
recruitment
4e+07
2e+07
0e+00
1900
1950
2000
year
recruitment
4e+07
2e+07
0e+00
0.0e+00
5.0e+06
1.0e+07
1.5e+07
2.0e+07
2.5e+07
spawning biomass


SSALMLLAKE
spawning biomass
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
1200000
900000
600000
300000
0
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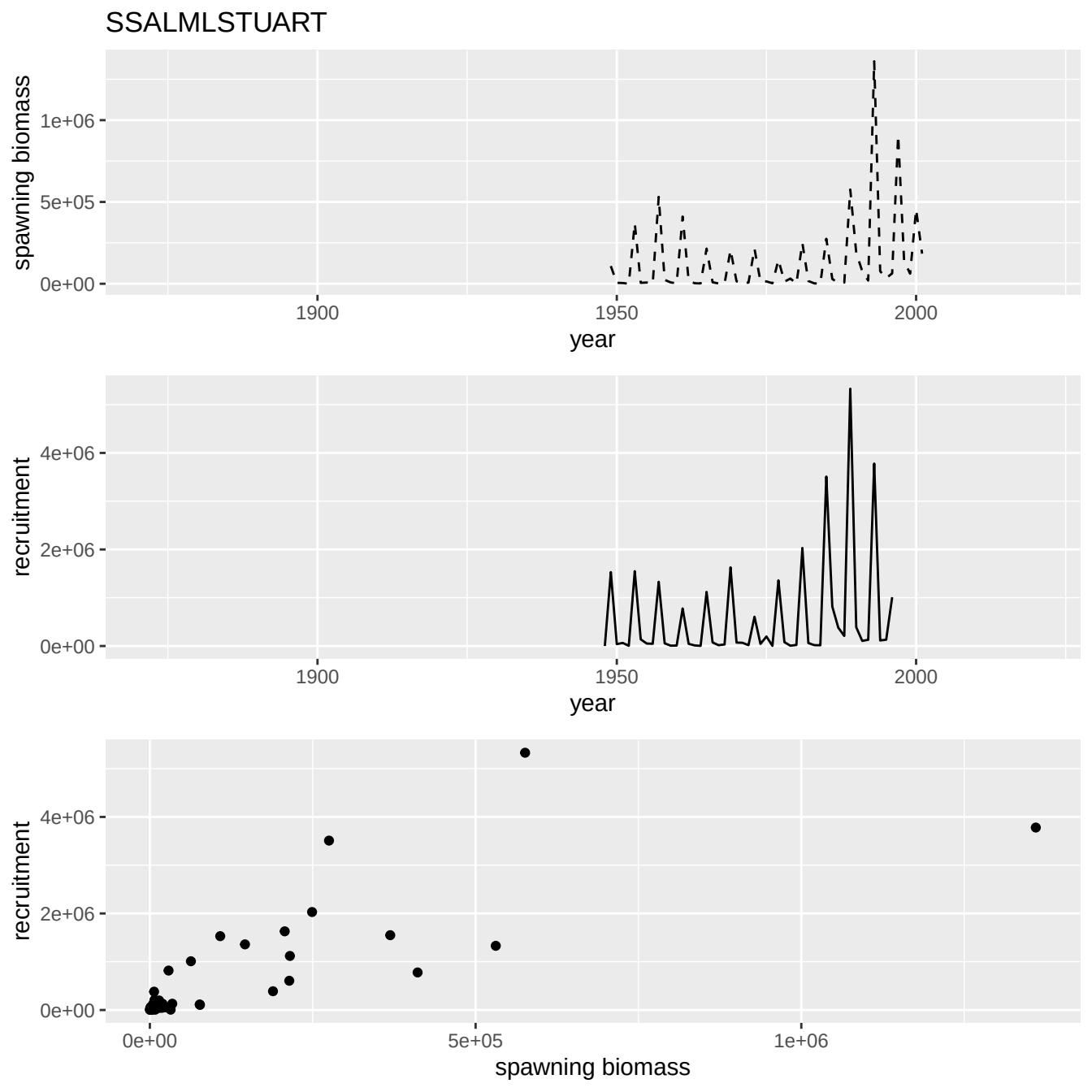
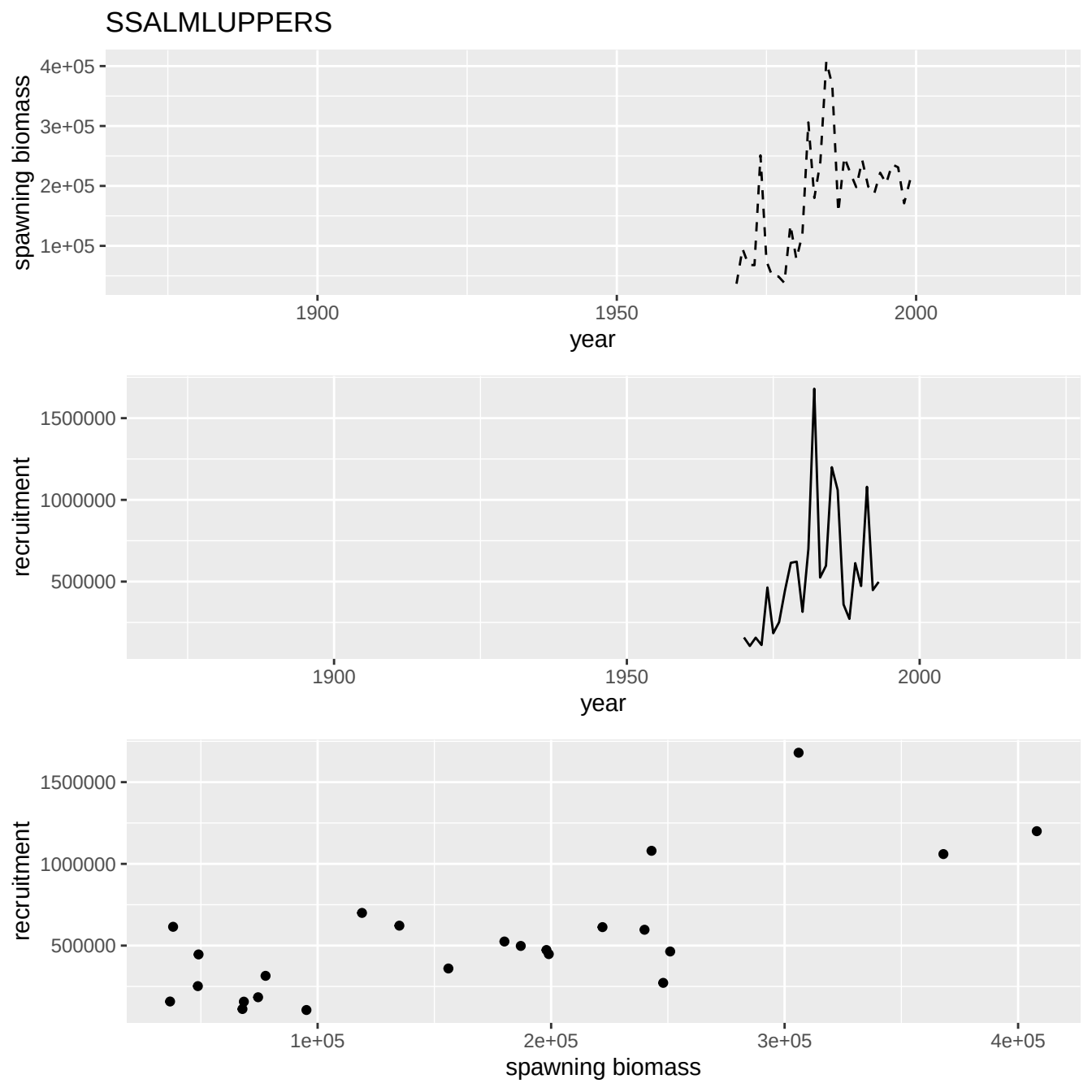
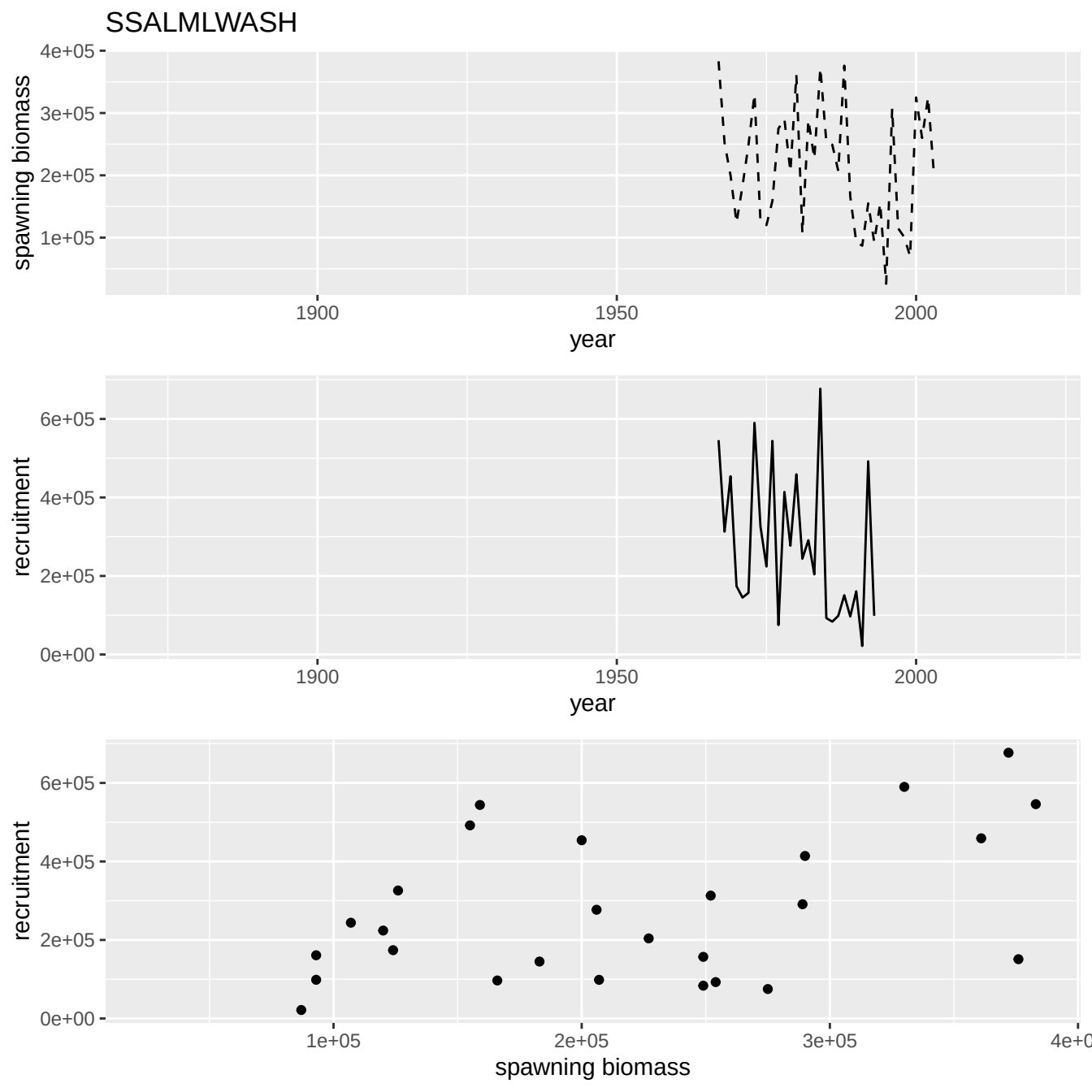
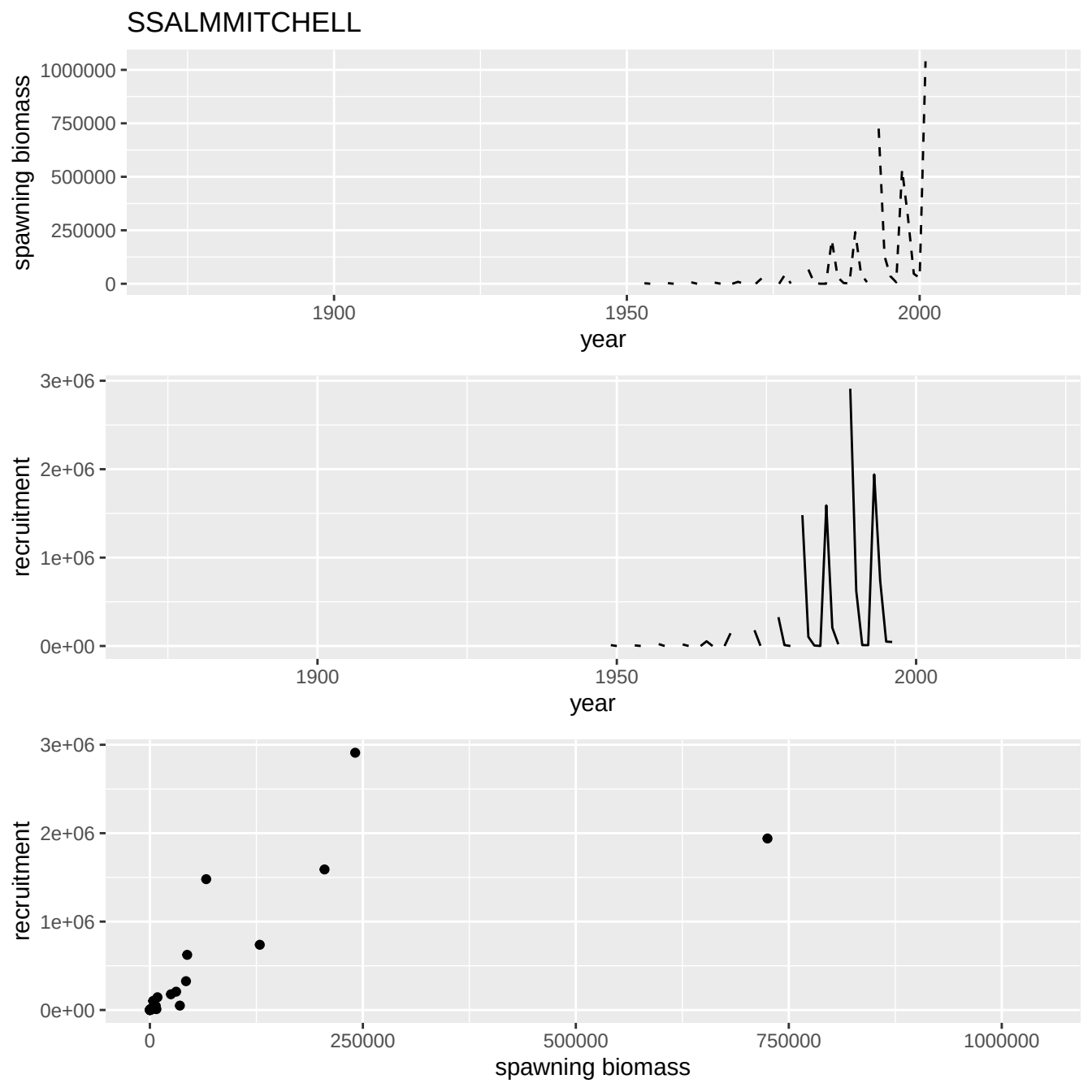
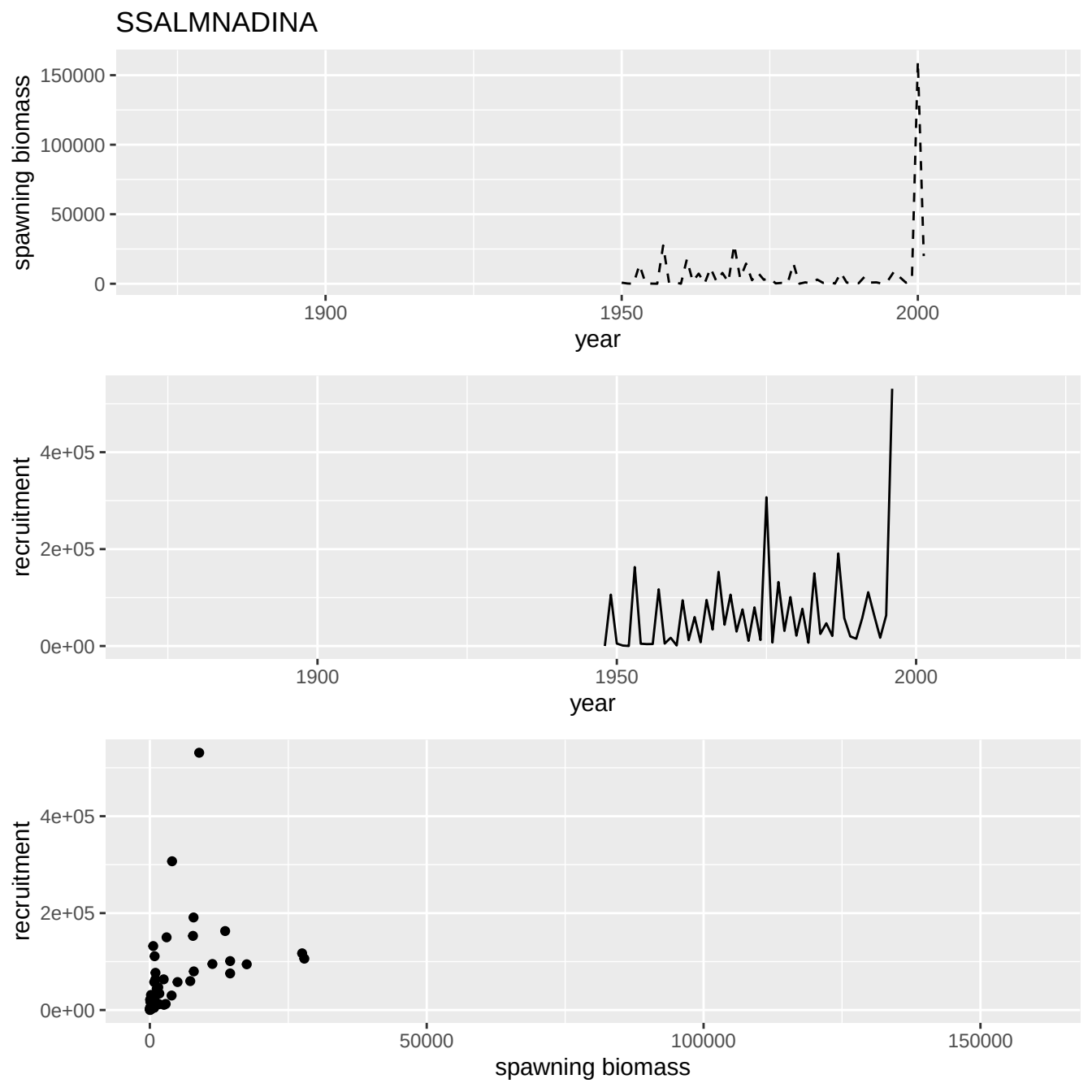
1950
2000
year
recruitment
1200000
900000
600000
300000
0
0e+00
1e+05
2e+05
spawning biomass

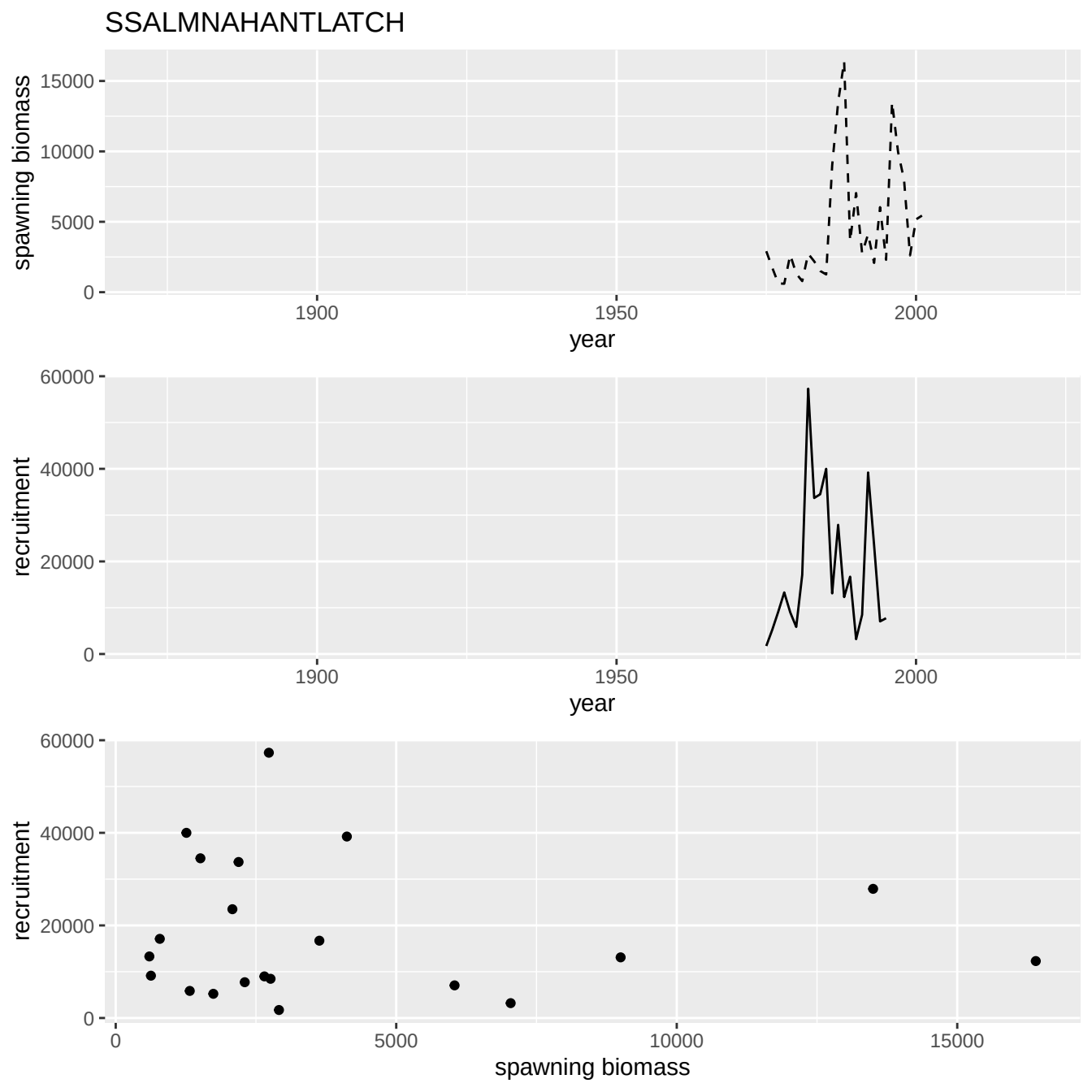

SSALMLSTUART
spawning biomass
1e+06
5e+05
0e+00
1900
1950
2000
year
recruitment
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
4e+06
2e+06
0e+00
0e+00
5e+05
1e+06
spawning biomass


SSALMLUPPERS
spawning biomass
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
1500000
1000000
500000
1900
1950
2000
year
recruitment
1500000
1000000
500000
1e+05
2e+05
3e+05
4e+05
spawning biomass


SSALMLWASH
spawning biomass
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
6e+05
4e+05
2e+05
0e+00
1e+05
2e+05
3e+05
4e+0
spawning biomass


SSALMMITCHELL
spawning biomass
1000000
750000
500000
250000
0
1900
1950
2000
year
recruitment
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
3e+06
2e+06
1e+06
0e+00
0
250000
500000
750000
1000000
spawning biomass


SSALMNADINA
spawning biomass
150000
100000
50000
0
1900
1950
2000
year
recruitment
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
4e+05
2e+05
0e+00
0
50000
100000
150000
spawning biomass


SSALMNAHANTLATCH
spawning biomass
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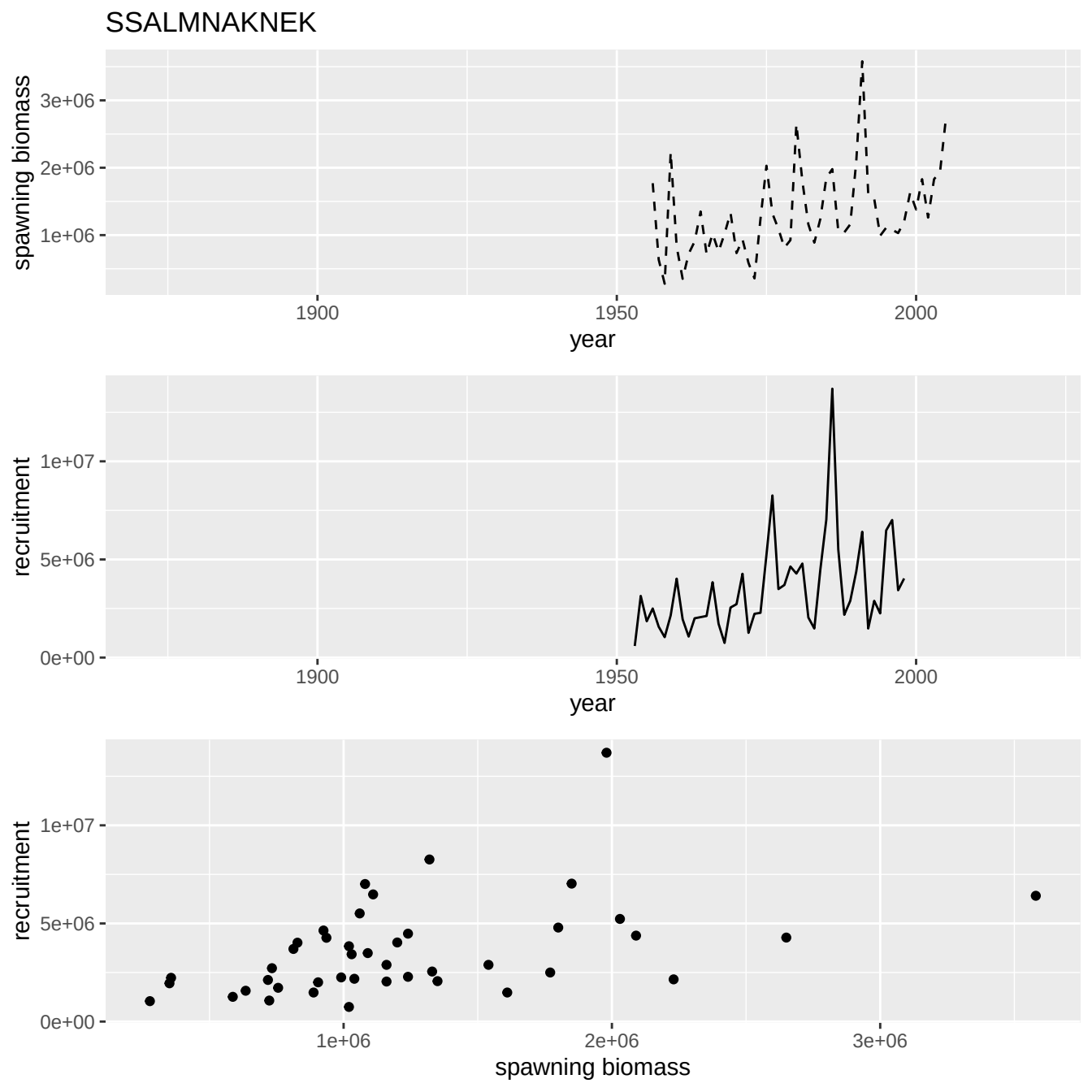
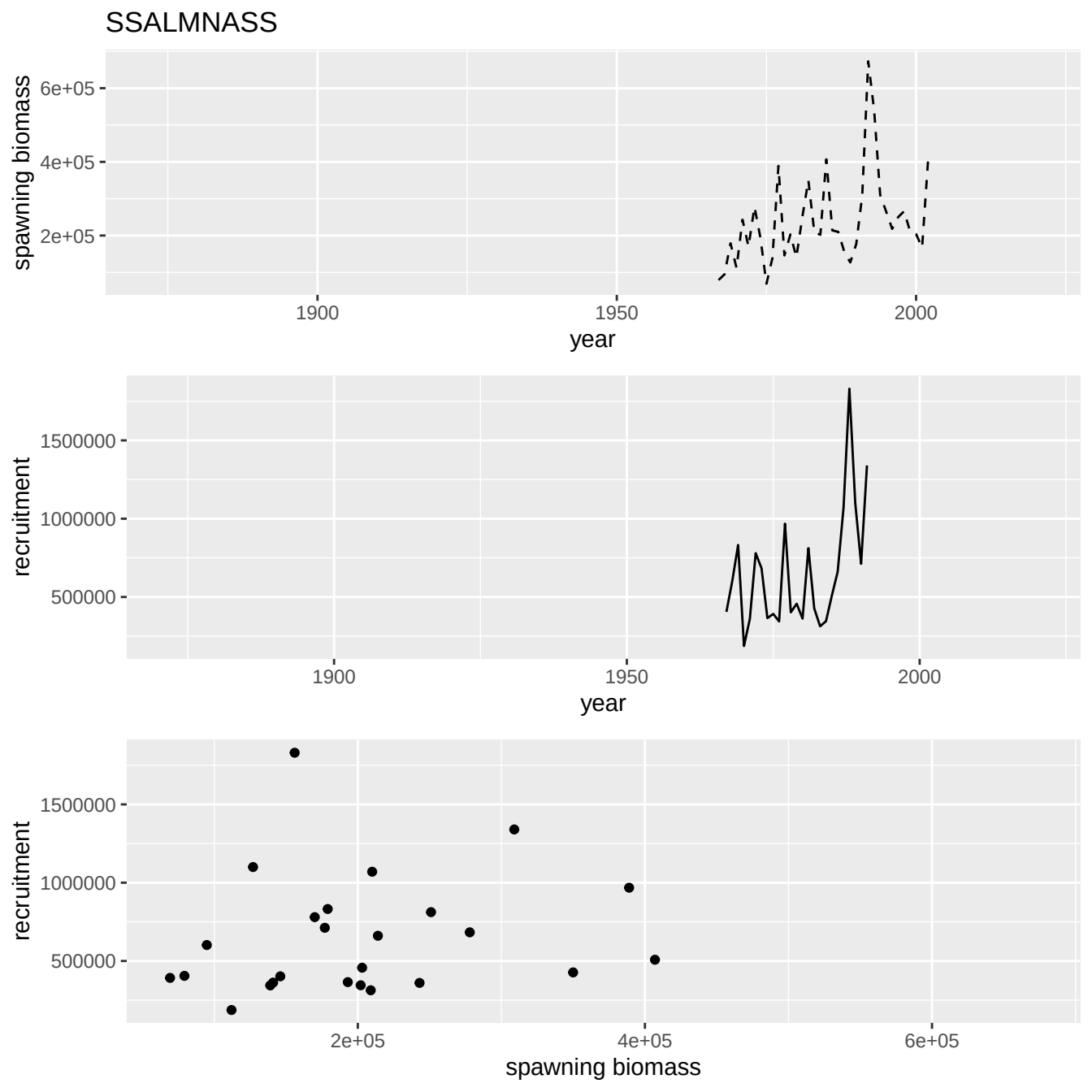
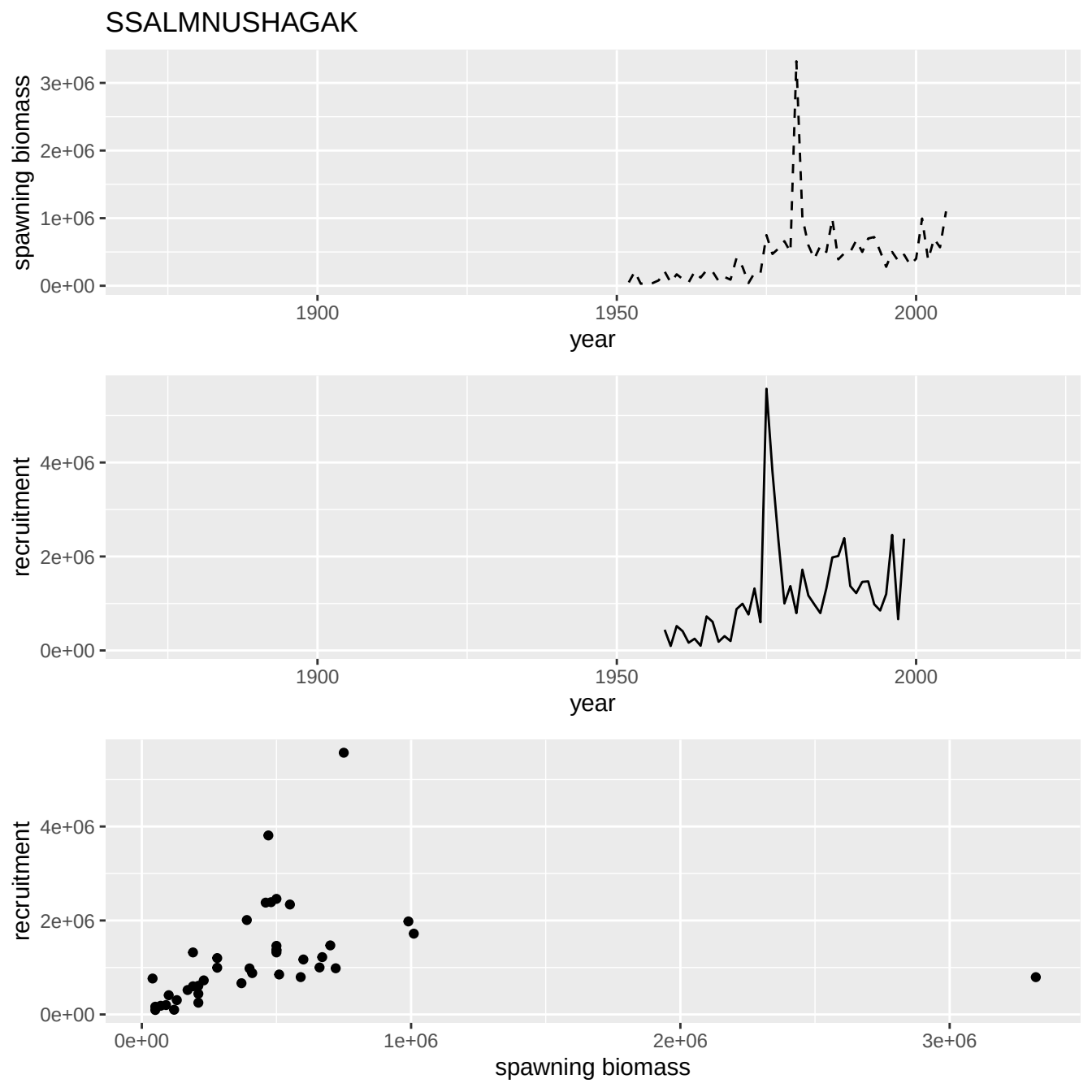
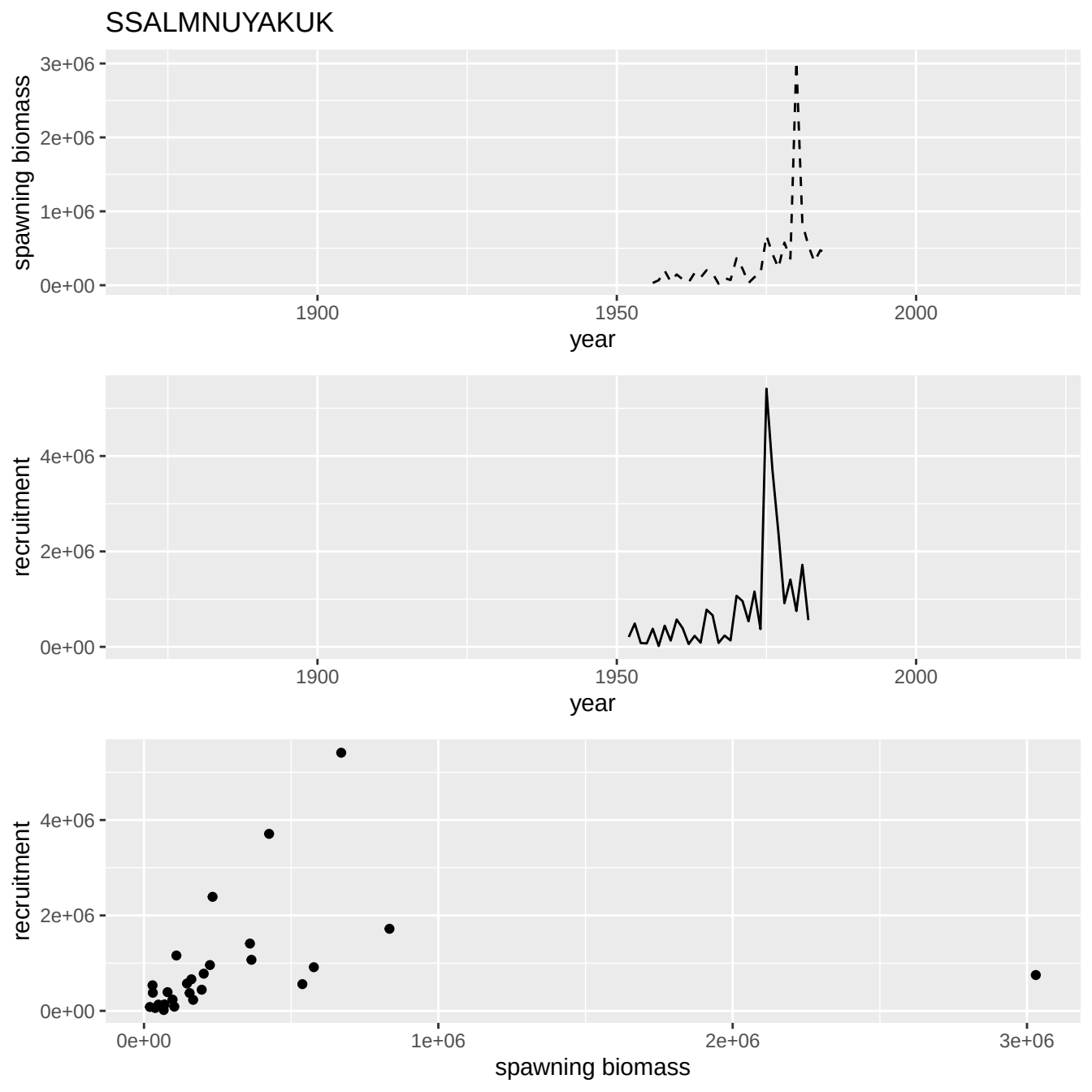
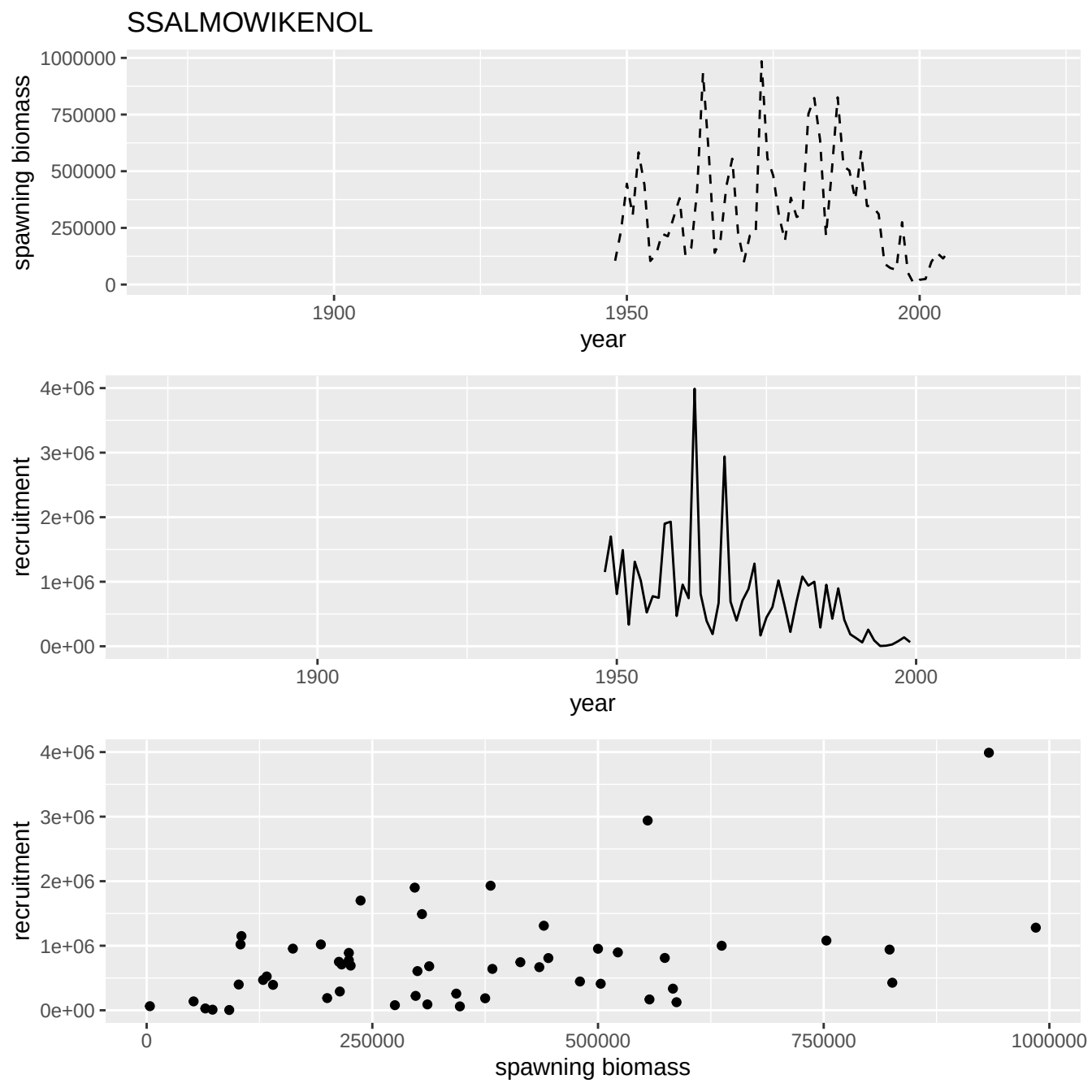
10000
5000
0
1900
1950
2000
year
recruitment
60000
40000
20000
0
1900
1950
2000
year
recruitment
60000
40000
20000
0
0
5000
10000
15000
spawning biomass

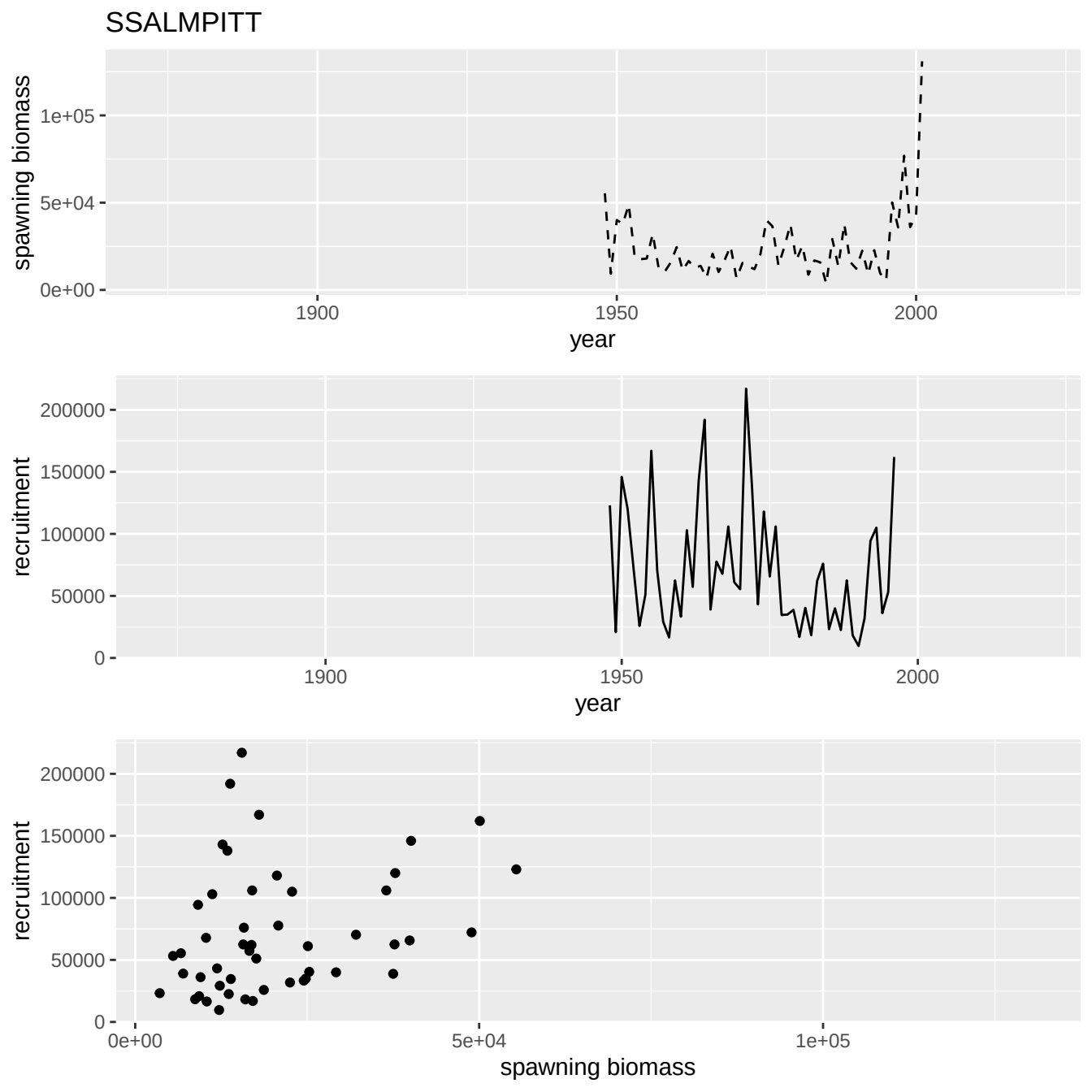

SSALMNAKNEK
spawning biomass
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
1e+07
5e+06
0e+00
1900
1950
2000
year
recruitment
1e+07
5e+06
0e+00
1e+06
2e+06
3e+06
spawning biomass


SSALMNASS
spawning biomass
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
1500000
1000000
500000
1900
1950
2000
year
recruitment
1500000
1000000
500000
2e+05
4e+05
6e+05
spawning biomass

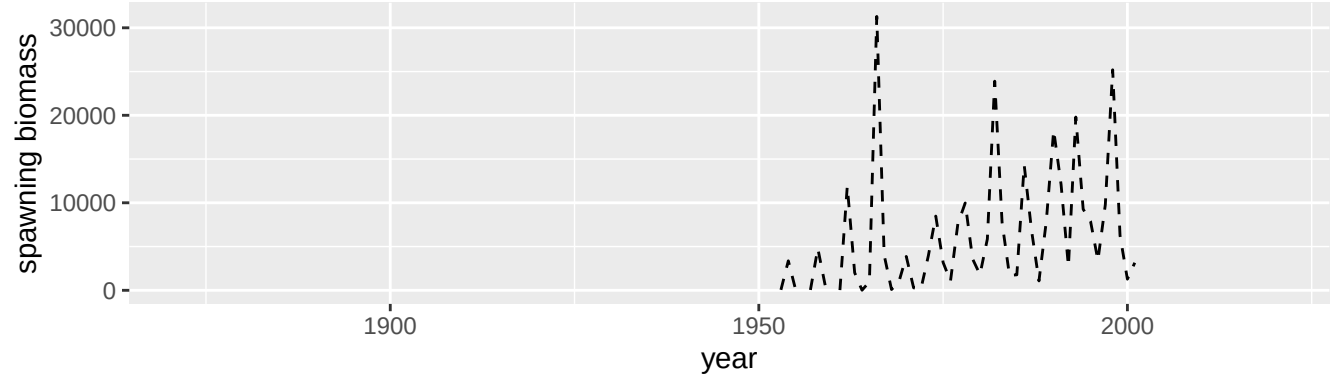

SSALMNUSHAGAK
spawning biomass
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
4e+06
2e+06
0e+00
0e+00
1e+06
2e+06
3e+06
spawning biomass

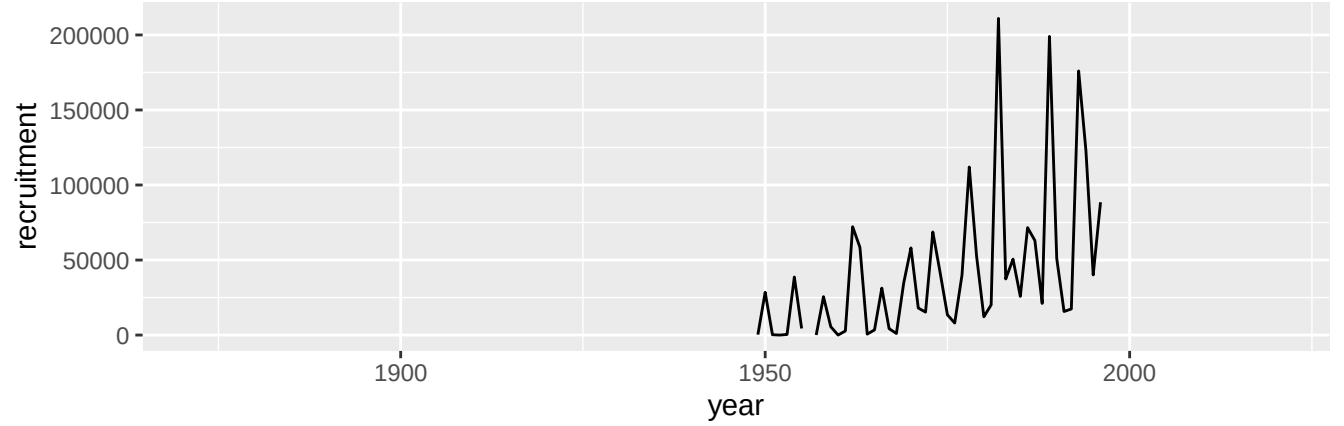

SSALMNUYAKUK
spawning biomass
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
4e+06
2e+06
0e+00
0e+00
1e+06
2e+06
3e+06
spawning biomass

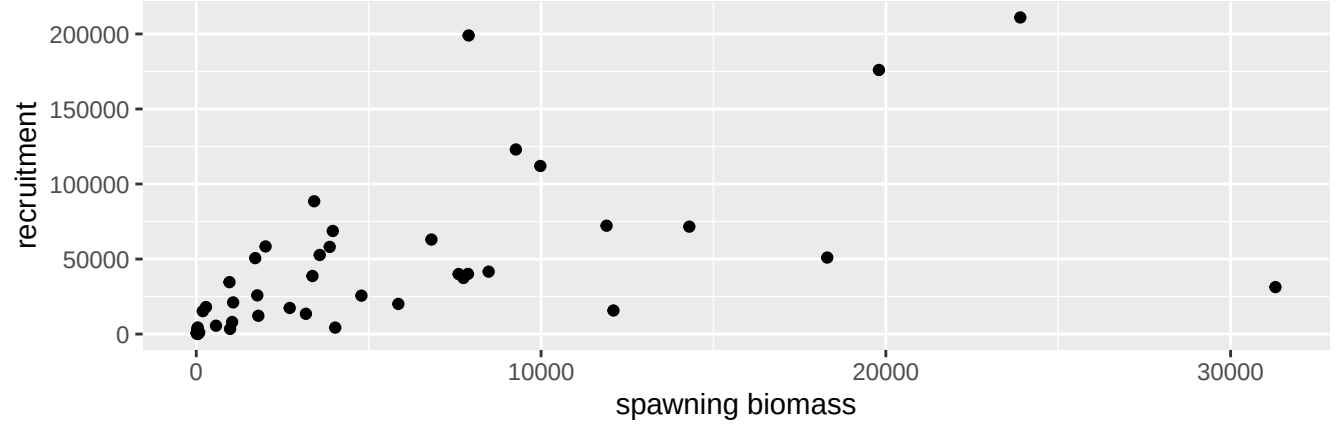

SSALMOWIKENOL
spawning biomass
1000000
750000
500000
250000
0
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
0e+00
0
250000
500000
750000
1000000
spawning biomass

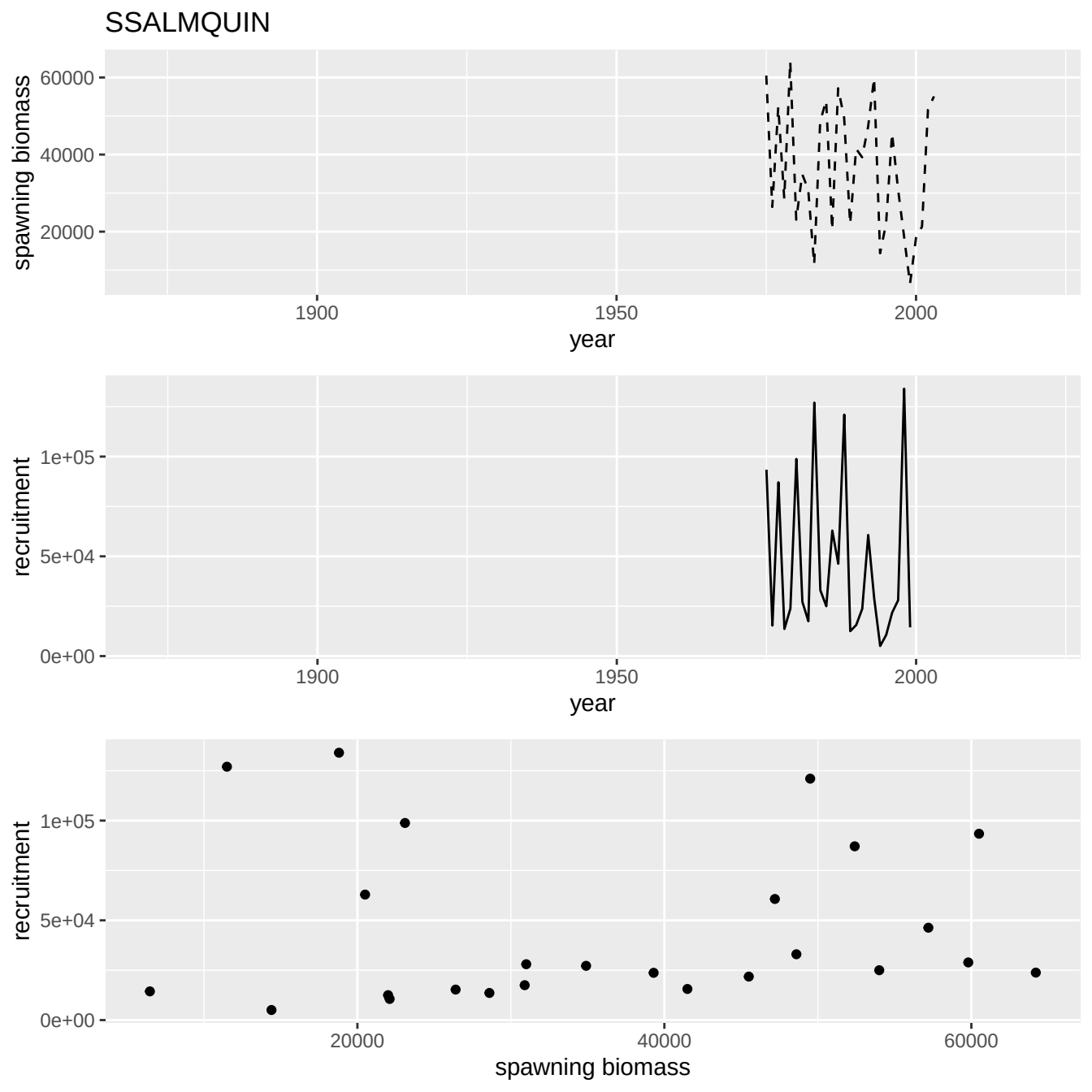

SSALMPITT
spawning biomass
1e+05
5e+04
0e+00
1900
1950
2000
year
recruitment
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
200000
150000
100000
50000
0
0e+00
5e+04
1e+05
spawning biomass

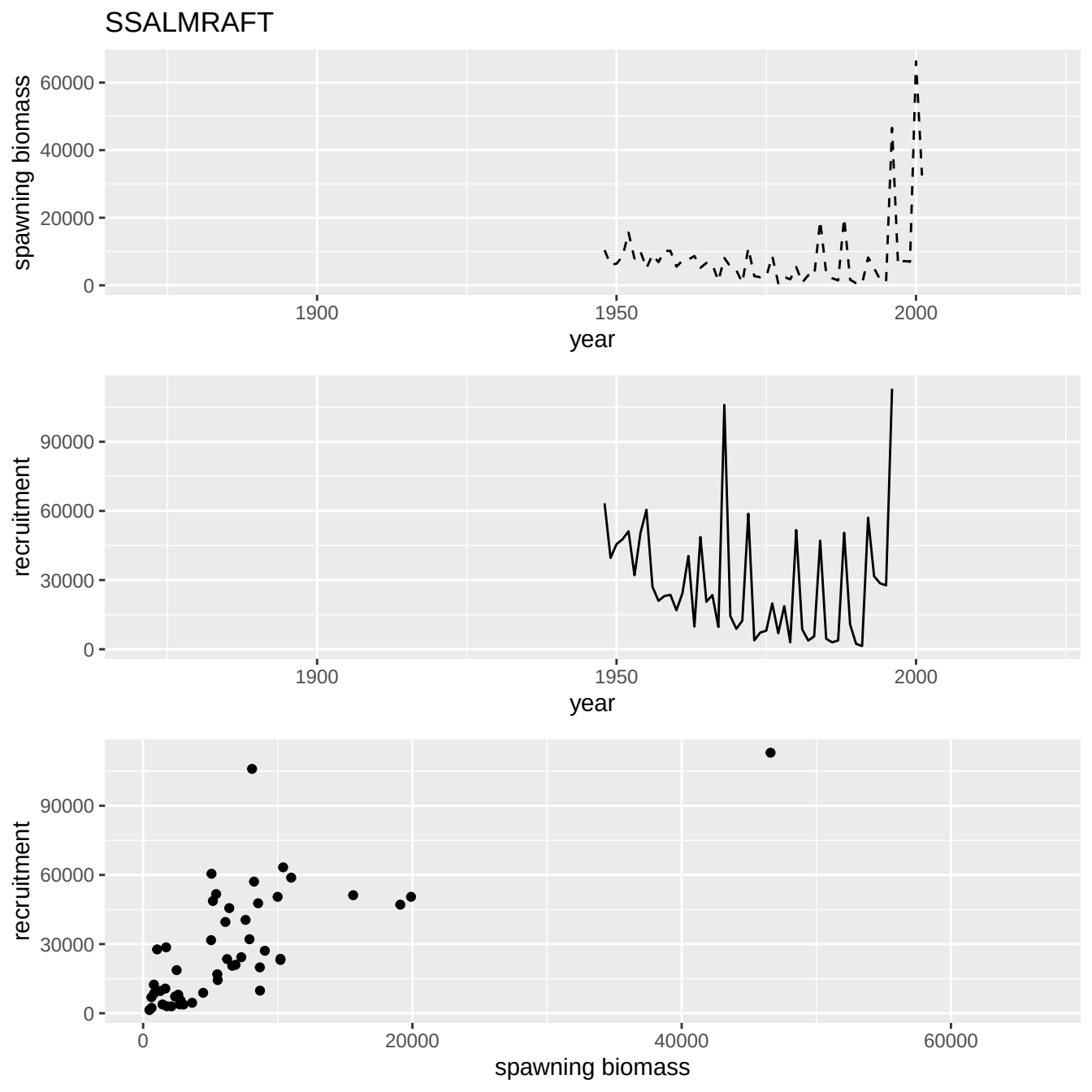
SSALMPORTAGE

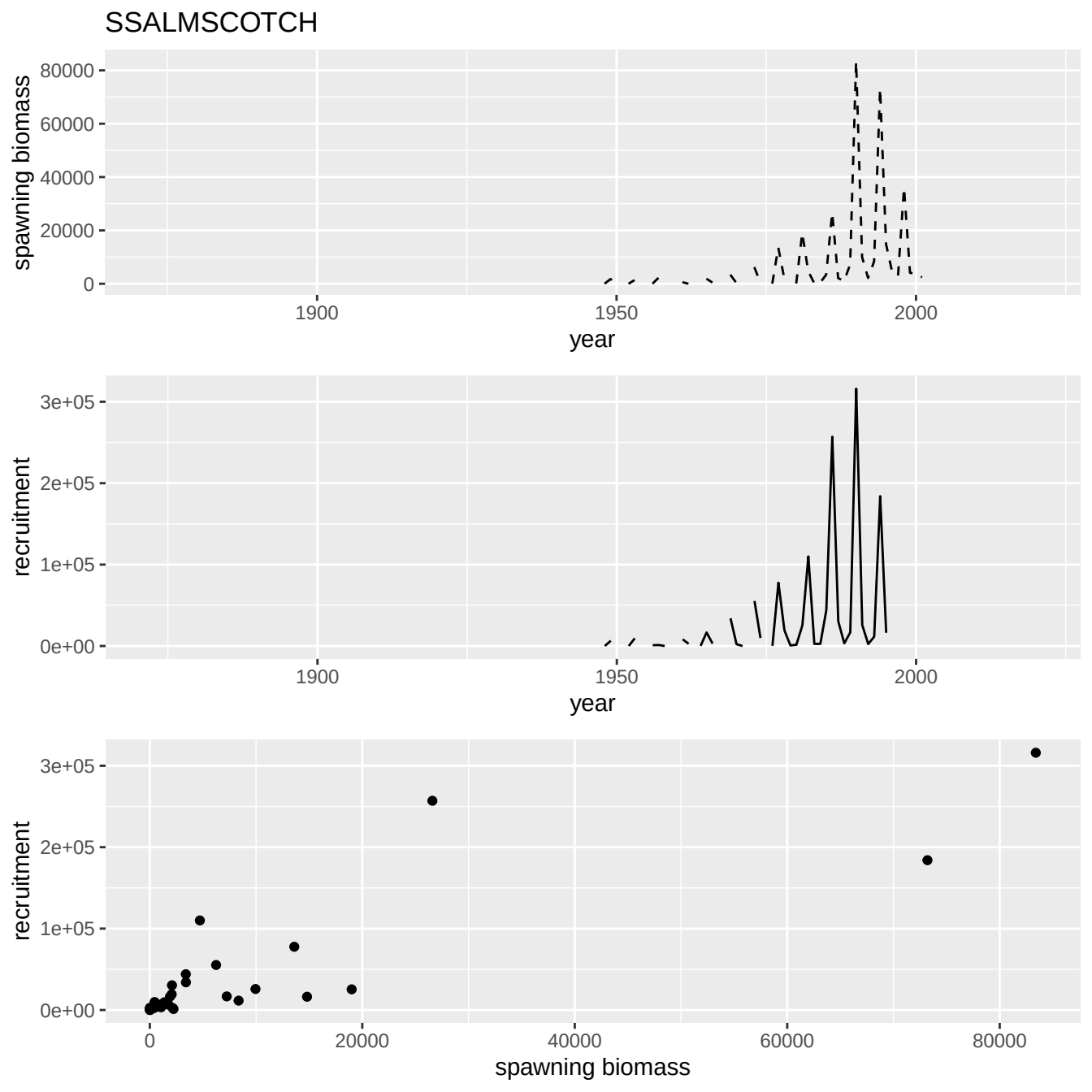


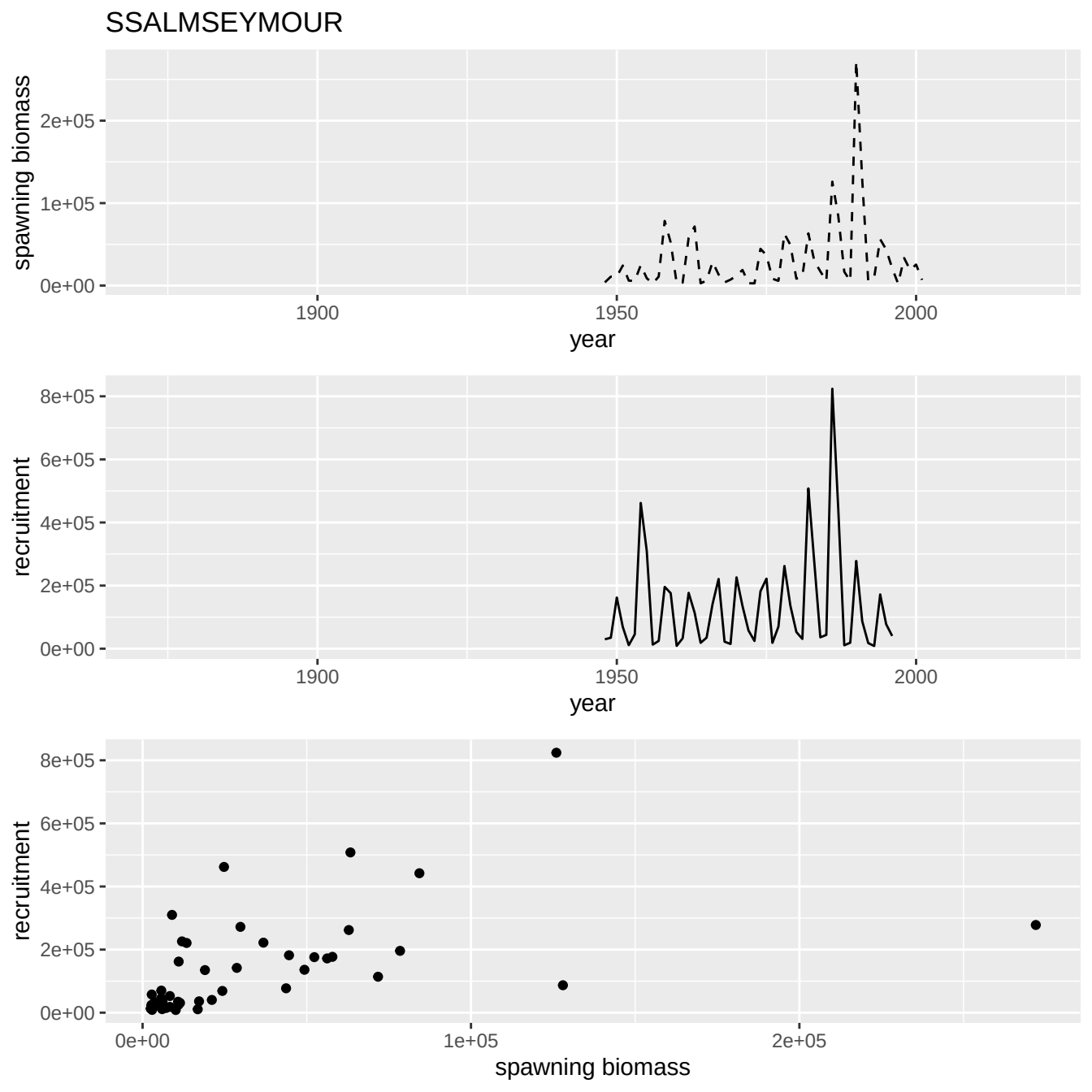


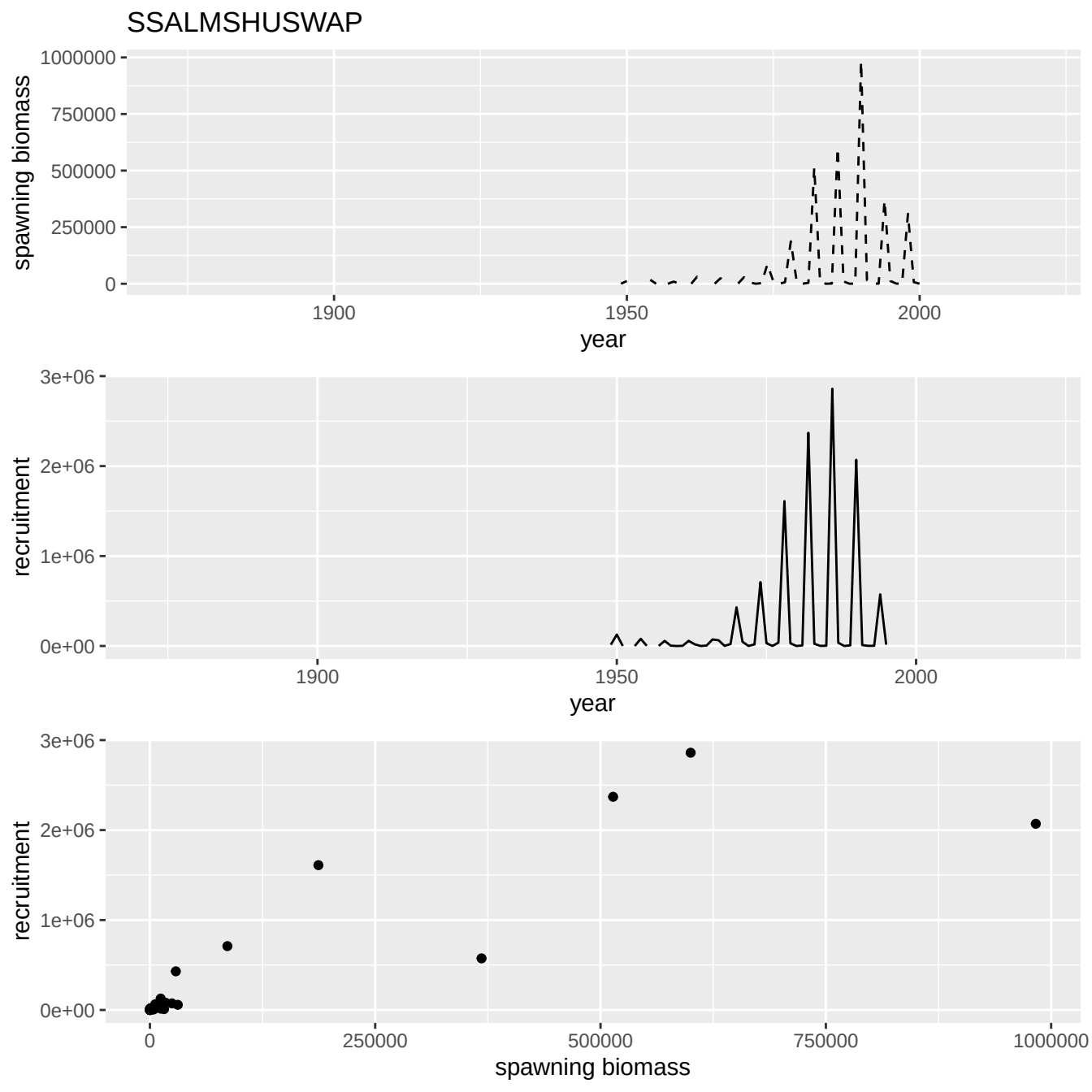



SSALMQUIN
spawning biomass
60000
40000
20000
1900
1950
2000
year
recruitment
1e+05
5e+04
0e+00
1900
1950
2000
year
recruitment
1e+05
5e+04
0e+00
20000
40000
60000
spawning biomass


SSALMRAFT
spawning biomass
60000
40000
20000
0
1900
1950
2000
year
recruitment
90000
60000
30000
0
1900
1950
2000
year
recruitment
90000
60000
30000
0
0
20000
40000
60000
spawning biomass


SSALMSCOTCH
spawning biomass
80000
60000
40000
20000
0
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
3e+05
2e+05
1e+05
0e+00
0
20000
40000
60000
80000
spawning biomass


SSALMSEYMOUR
spawning biomass
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
8e+05
6e+05
4e+05
2e+05
0e+00
1900
1950
2000
year
recruitment
8e+05
6e+05
4e+05
2e+05
0e+00
0e+00
1e+05
2e+05
spawning biomass


SSALMSHUSWAP
spawning biomass
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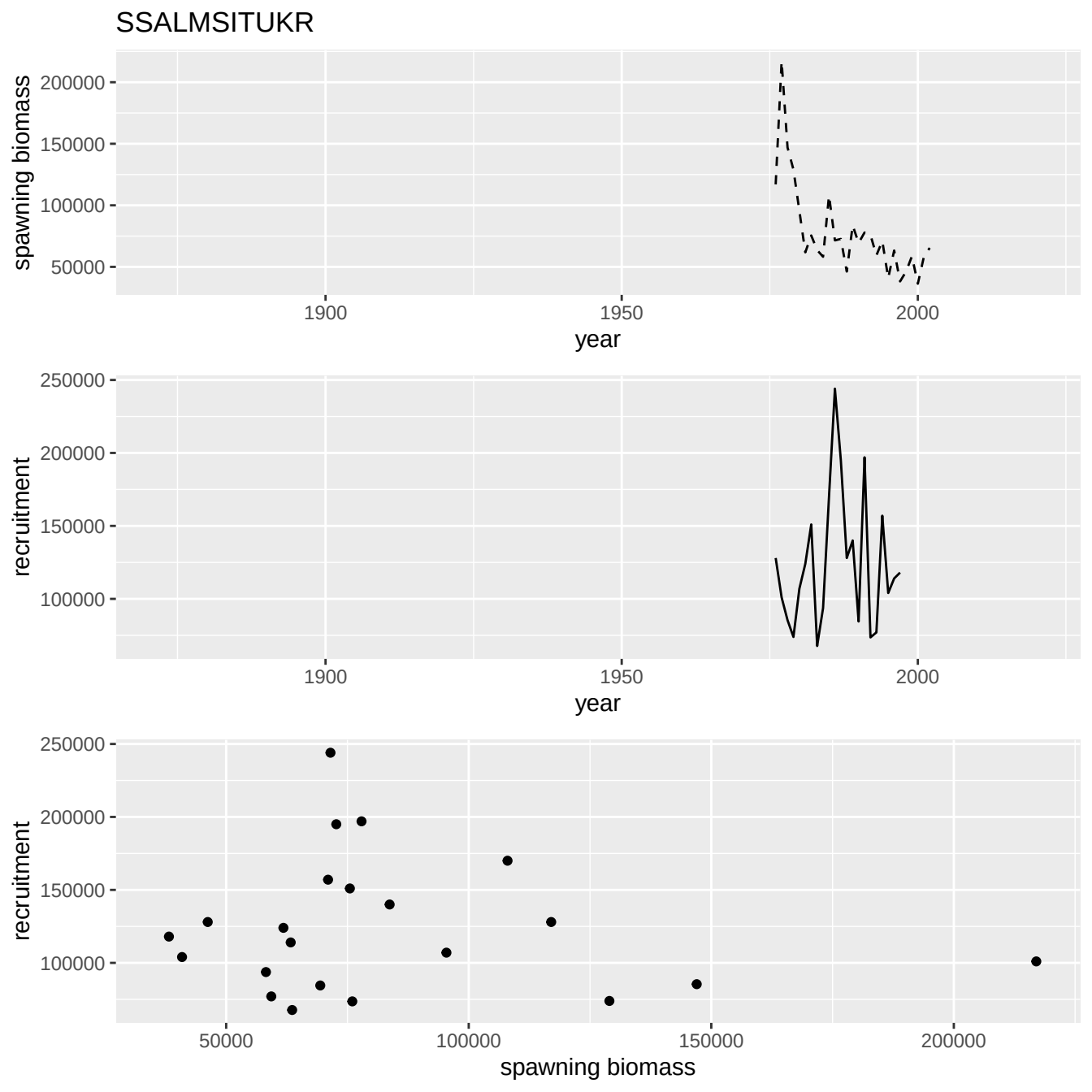
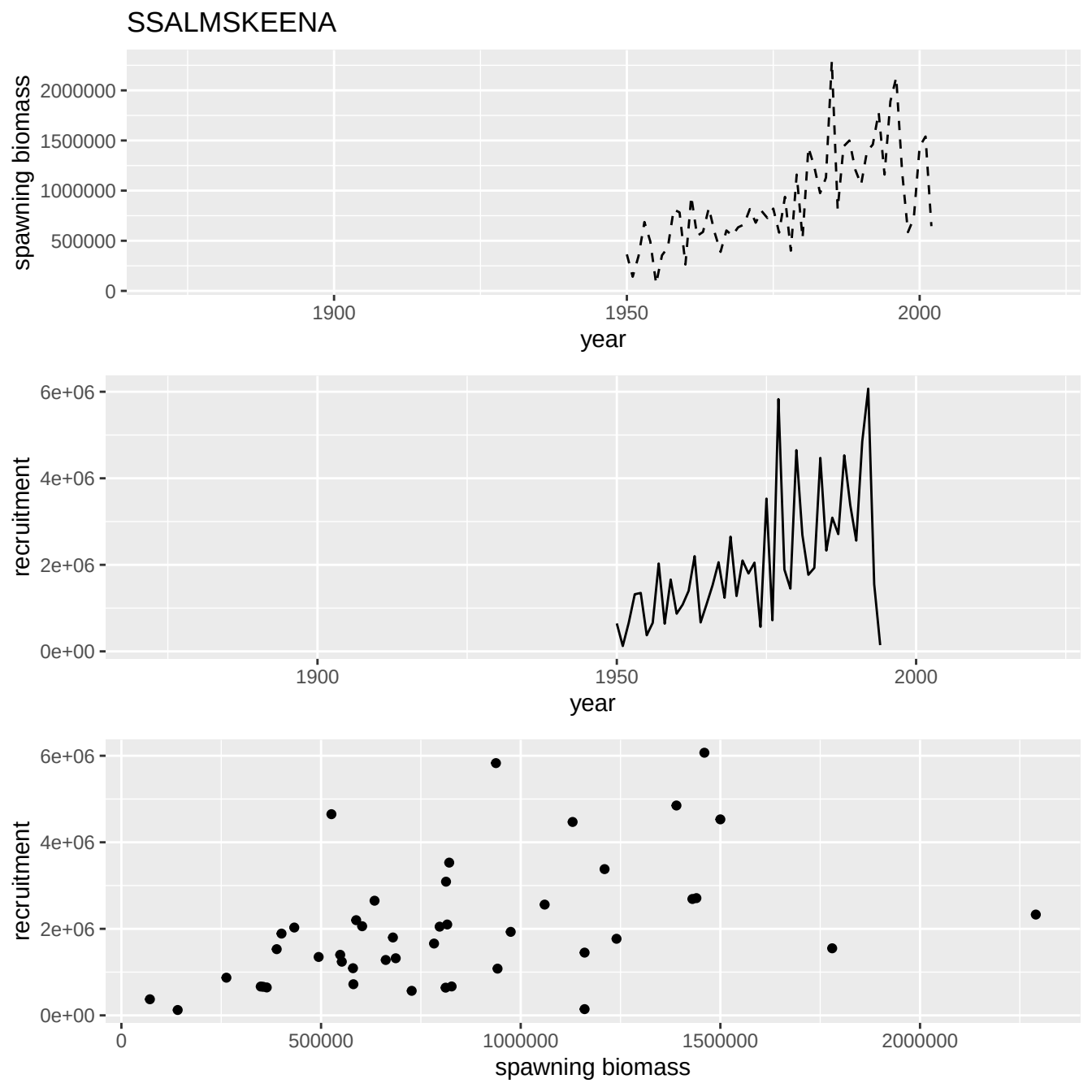
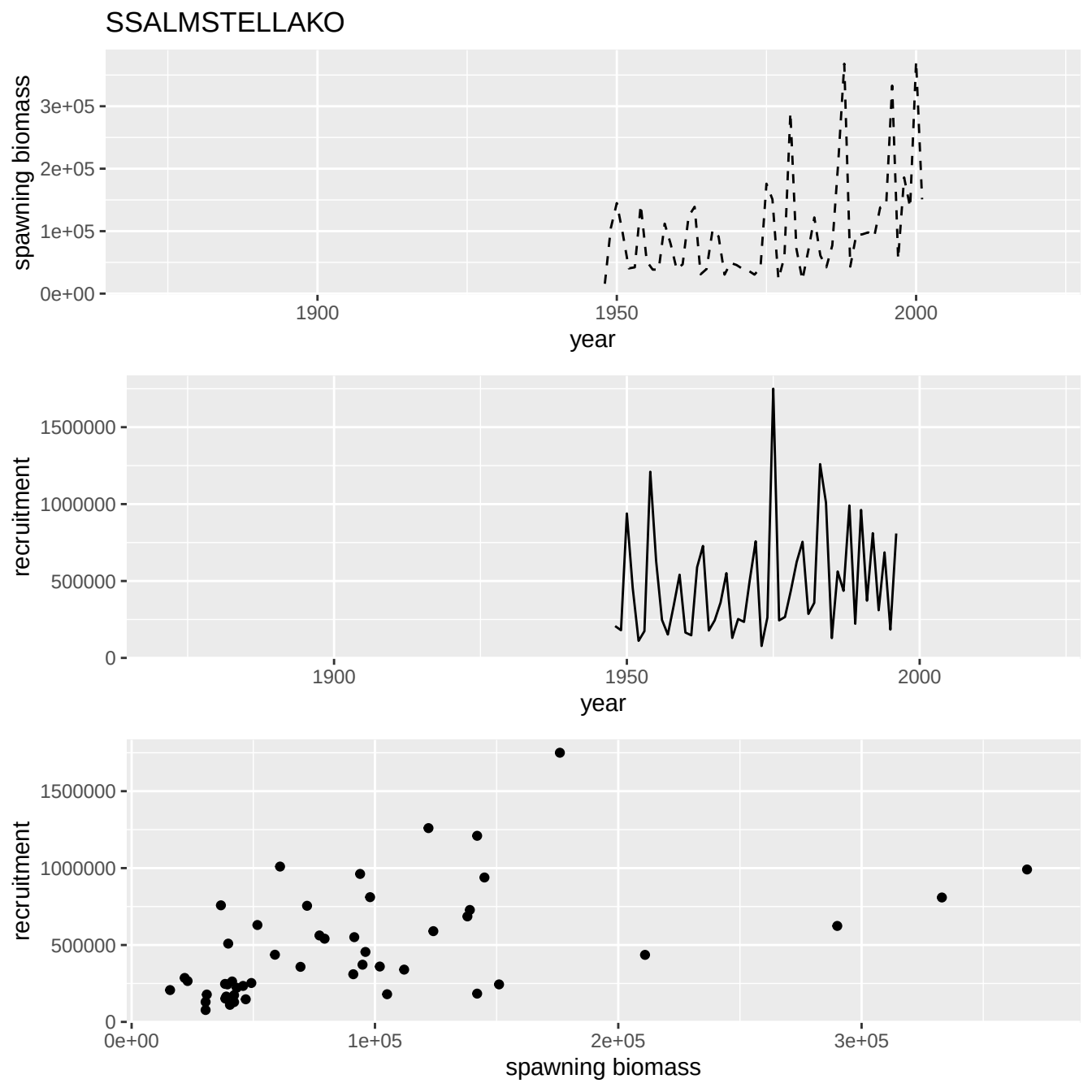
750000
500000
250000
0
1900
1950
2000
year
recruitment
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
3e+06
2e+06
1e+06
0e+00
0
250000
500000
750000
1000000
spawning biomass


SSALMSITUKR
spawning biomass
200000
150000
100000
50000
1900
1950
2000
year
recruitment
250000
200000
150000
100000
1900
1950
2000
year
recruitment
250000
200000
150000
100000
50000
100000
150000
200000
spawning biomass


SSALMSKEENA
spawning biomass
2000000
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
0e+00
0
500000
1000000
1500000
2000000
spawning biomass


SSALMSTELLAKO
spawning biomass
3e+05
2e+05
1e+05
0e+00
1900
1950
2000
year
recruitment
1500000
1000000
500000
0
1900
1950
2000
year
recruitment
1500000
1000000
500000
0
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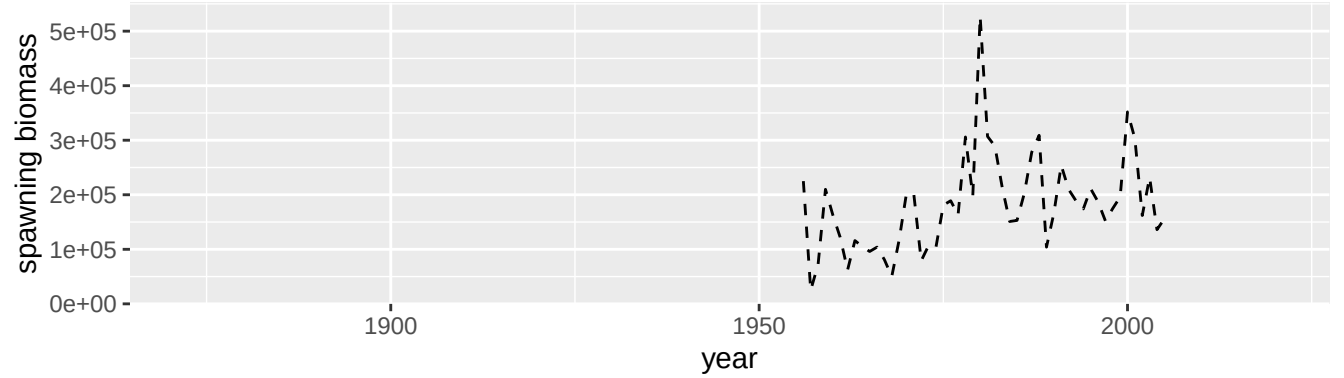
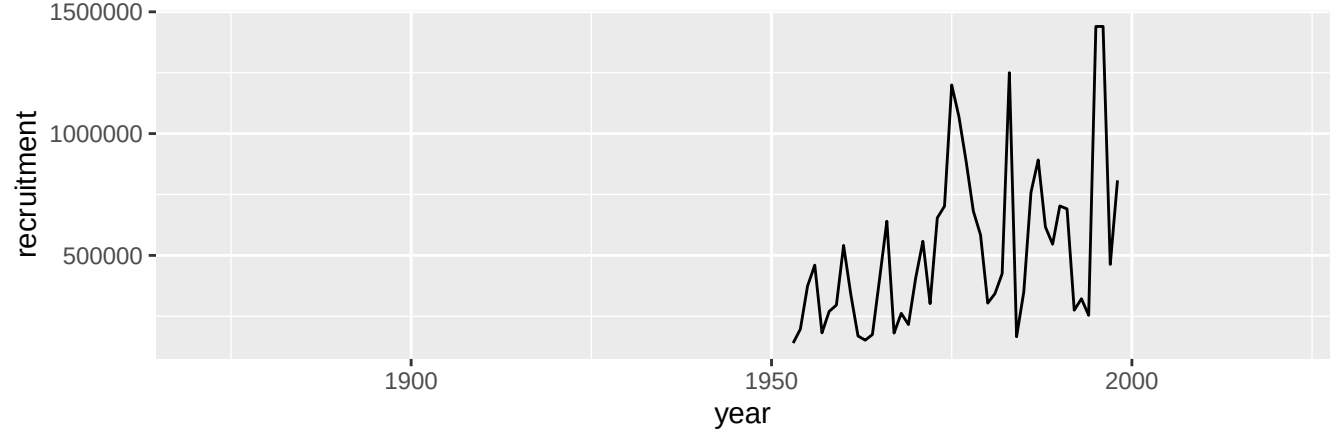
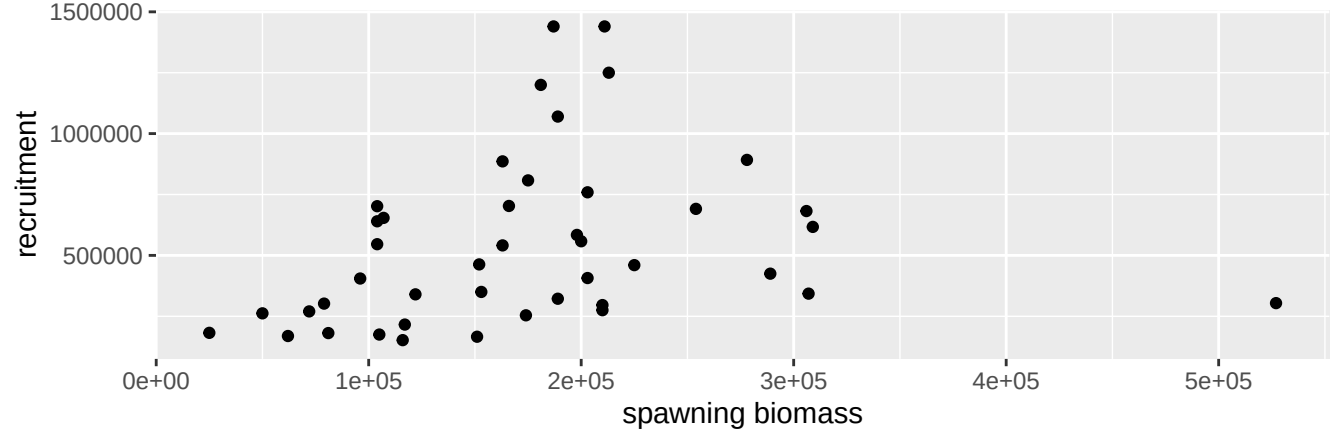
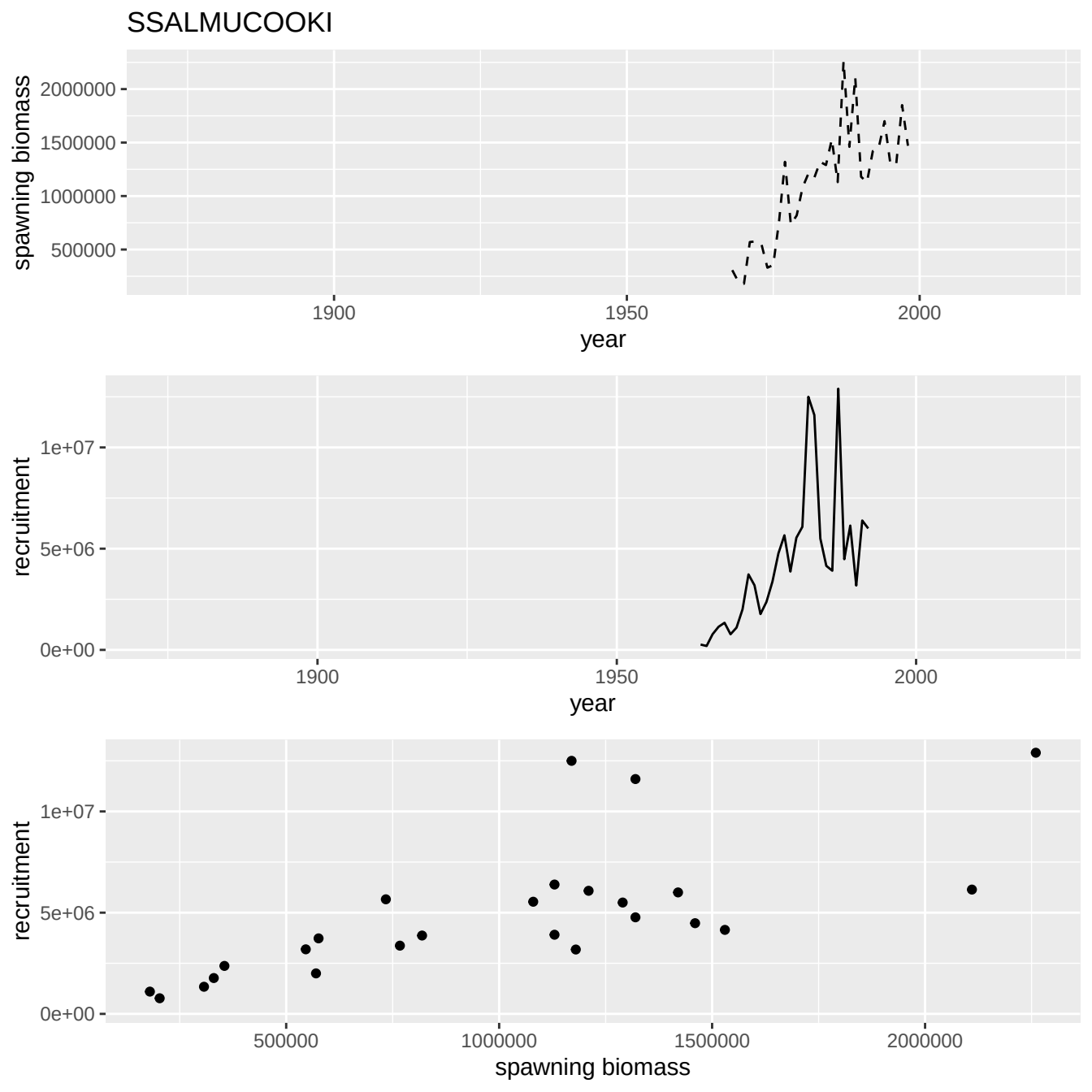
1e+05
2e+05
3e+05
spawning biomass

SSALMTOGIAK








SSALMUCOOKI
spawning biomass
2000000
1500000
1000000
500000
1900
1950
2000
year
recruitment
1e+07
5e+06
0e+00
1900
1950
2000
year
recruitment
1e+07
5e+06
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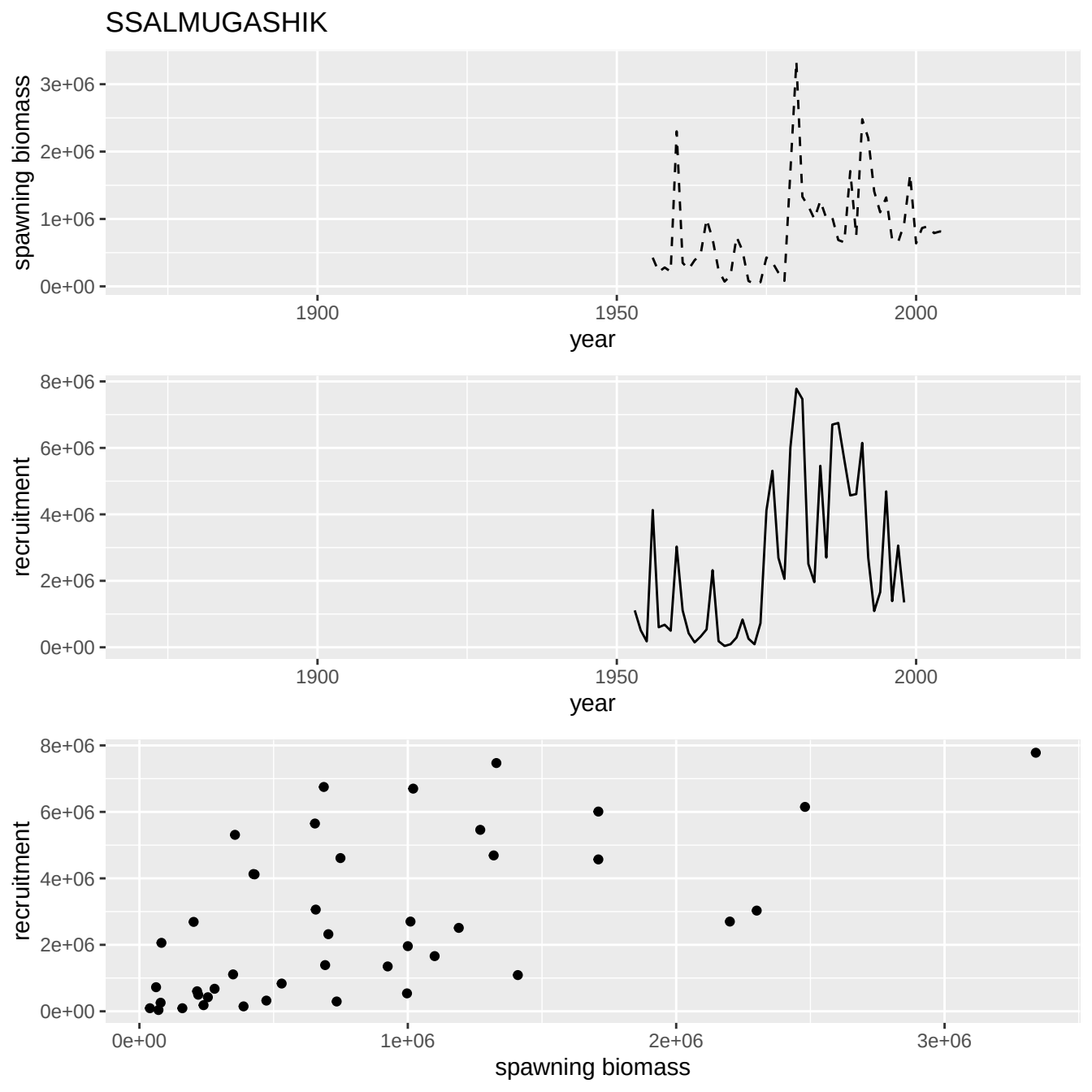
500000
1000000
1500000
2000000
spawning biomass


SSALMUGASHIK
spawning biomass
3e+06
2e+06
1e+06
0e+00
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
8e+06
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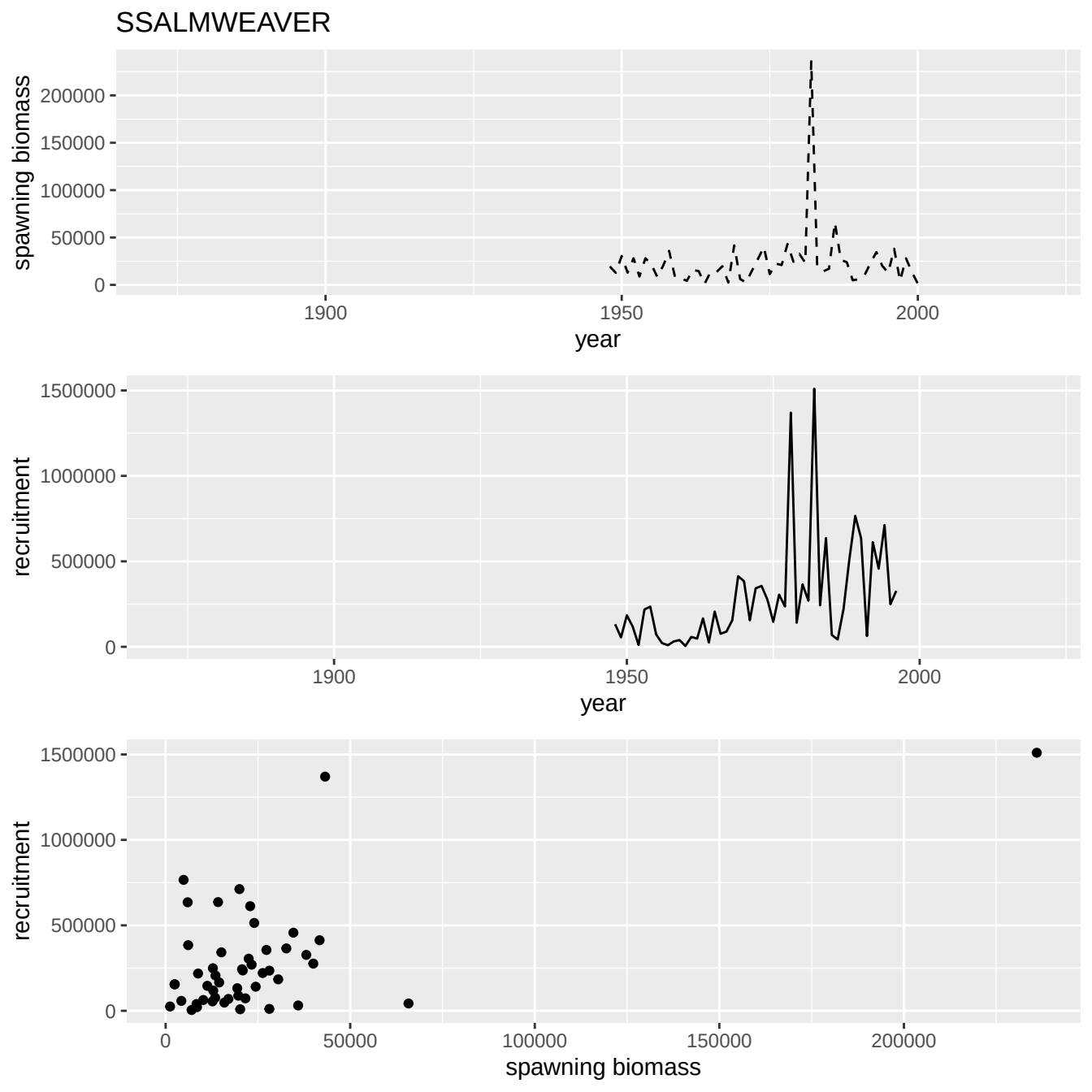
0e+00
1e+06
2e+06
3e+06
spawning biomass


SSALMWEAVER
spawning biomass
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
1500000
1000000
500000
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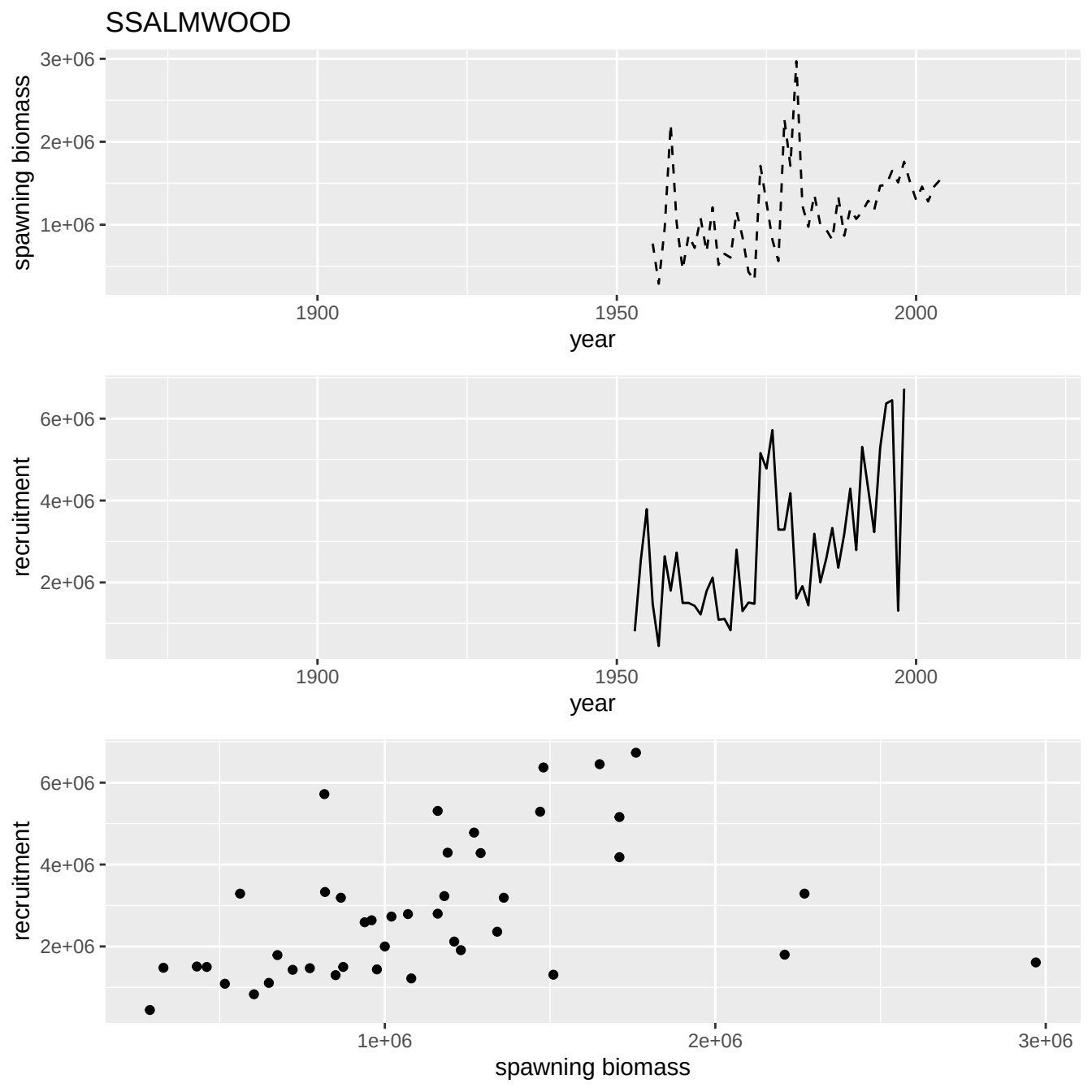
2000
year
recruitment
1500000
1000000
500000
0
0
50000
100000
150000
200000
spawning biomass


SSALMWOOD
spawning biomass
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
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1950
2000
year
recruitment
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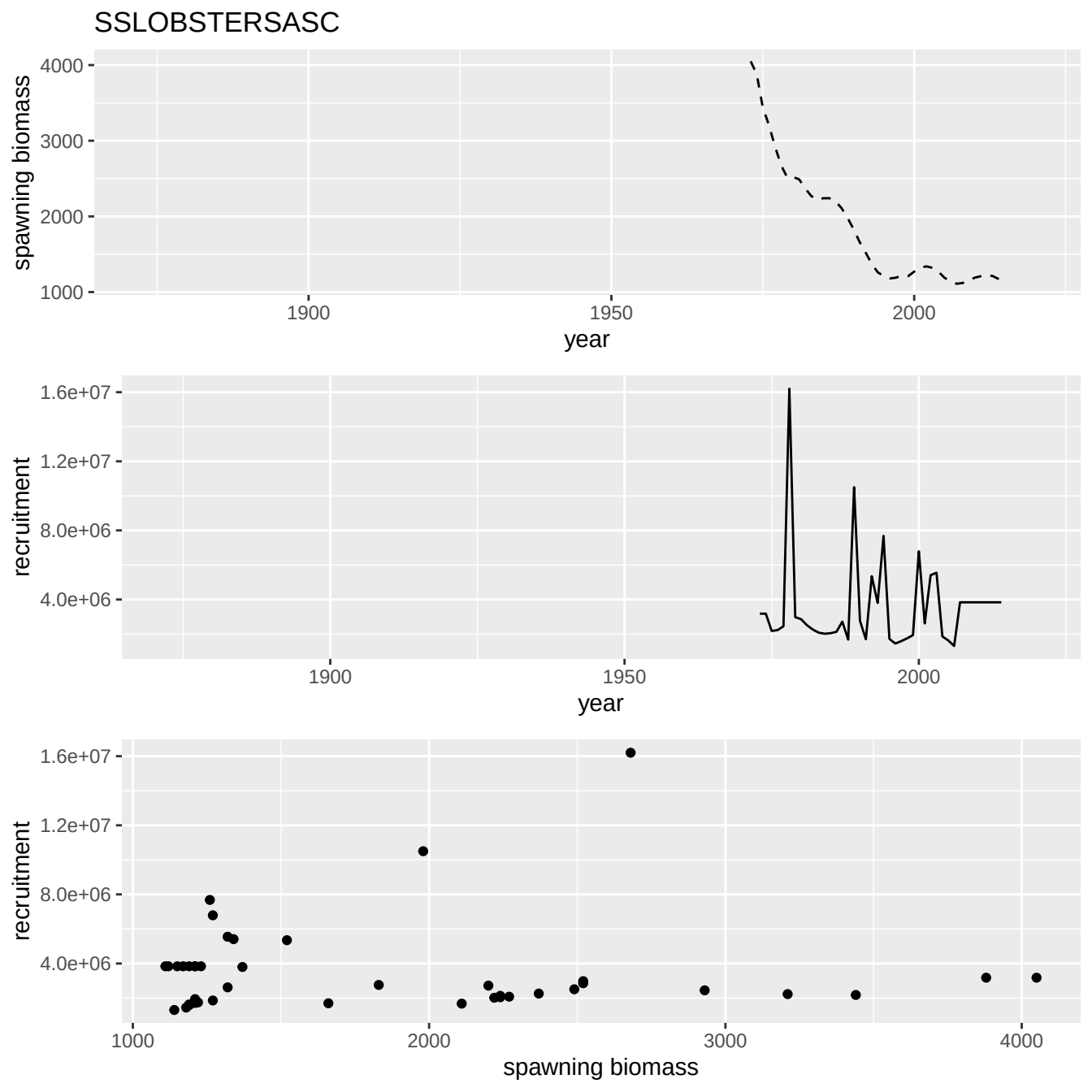
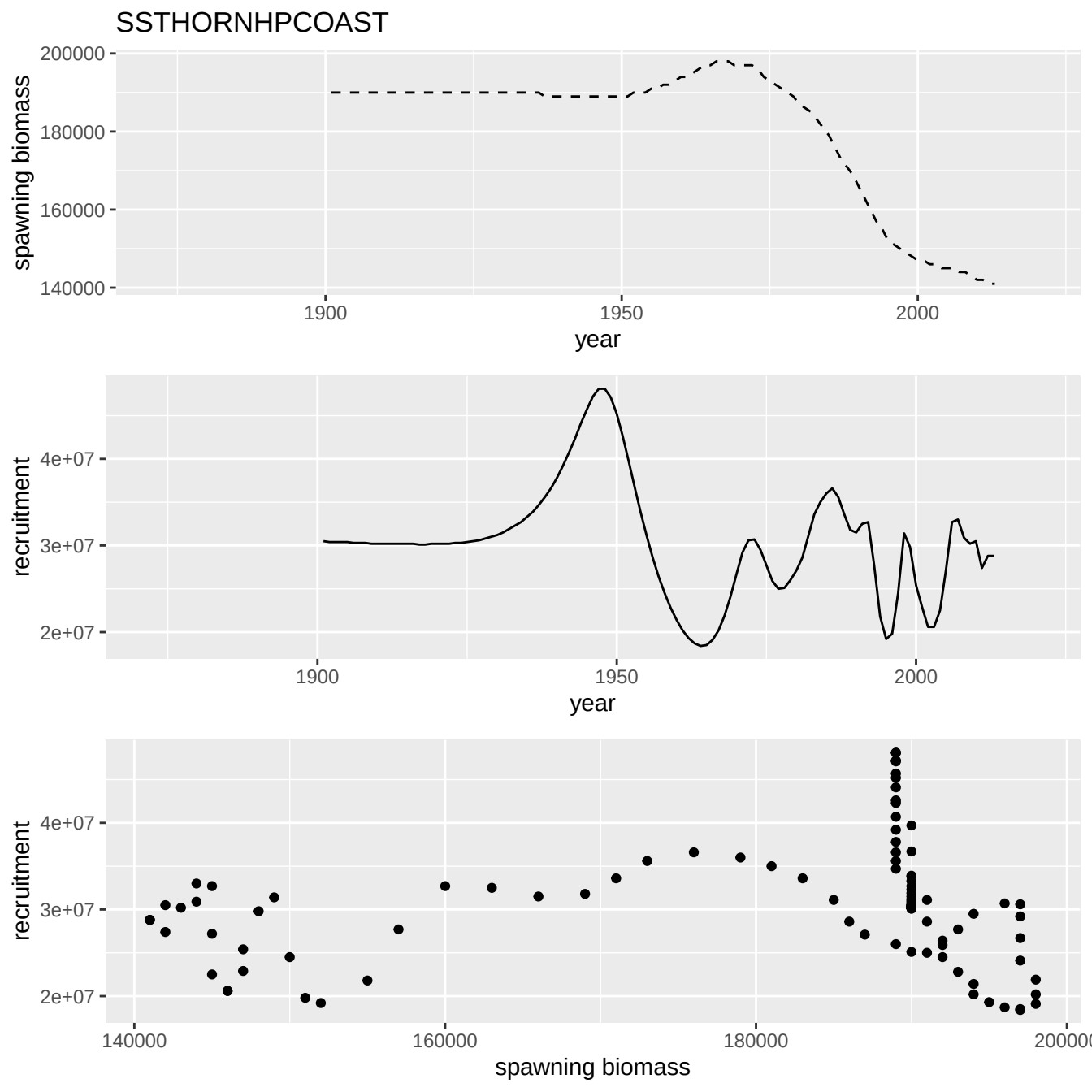
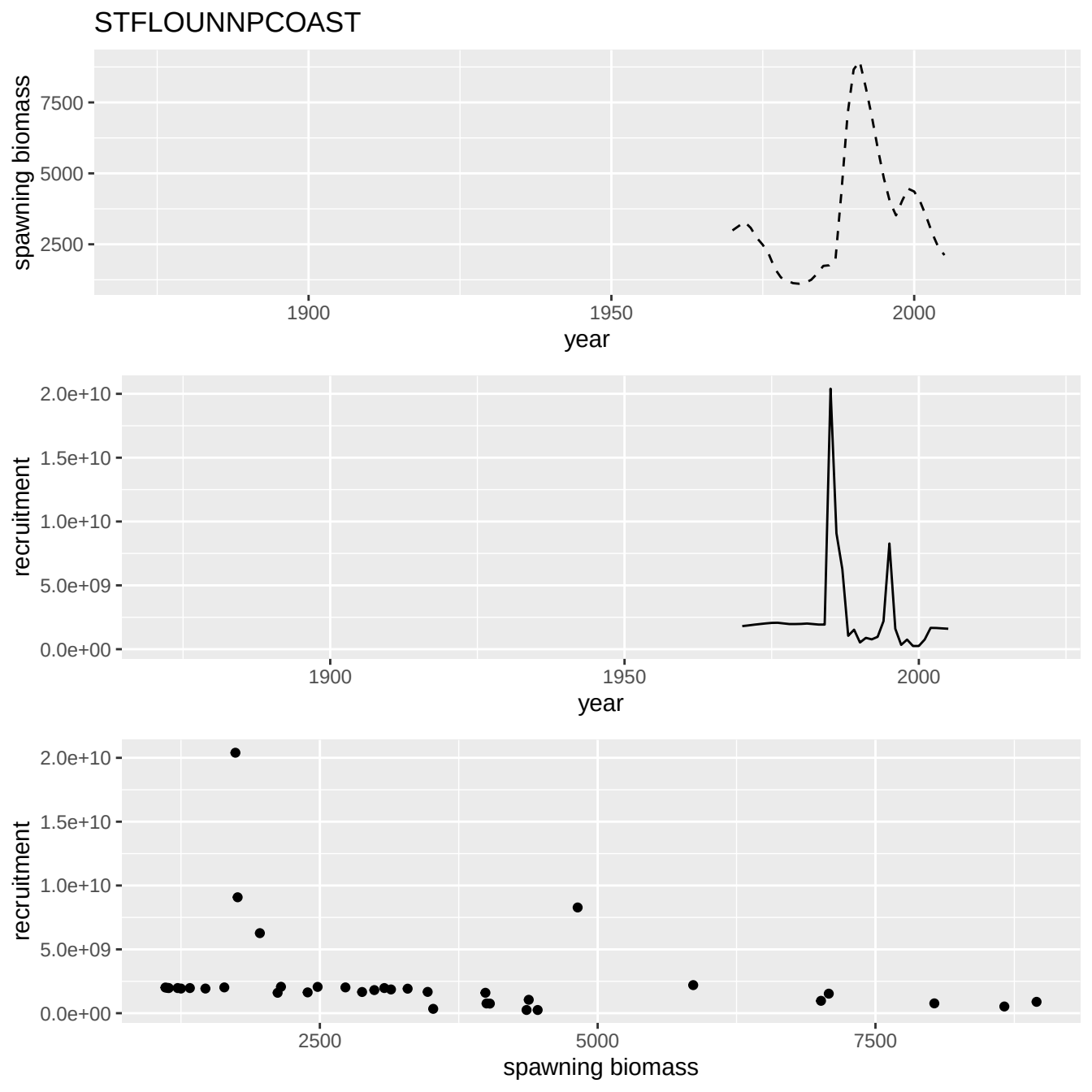
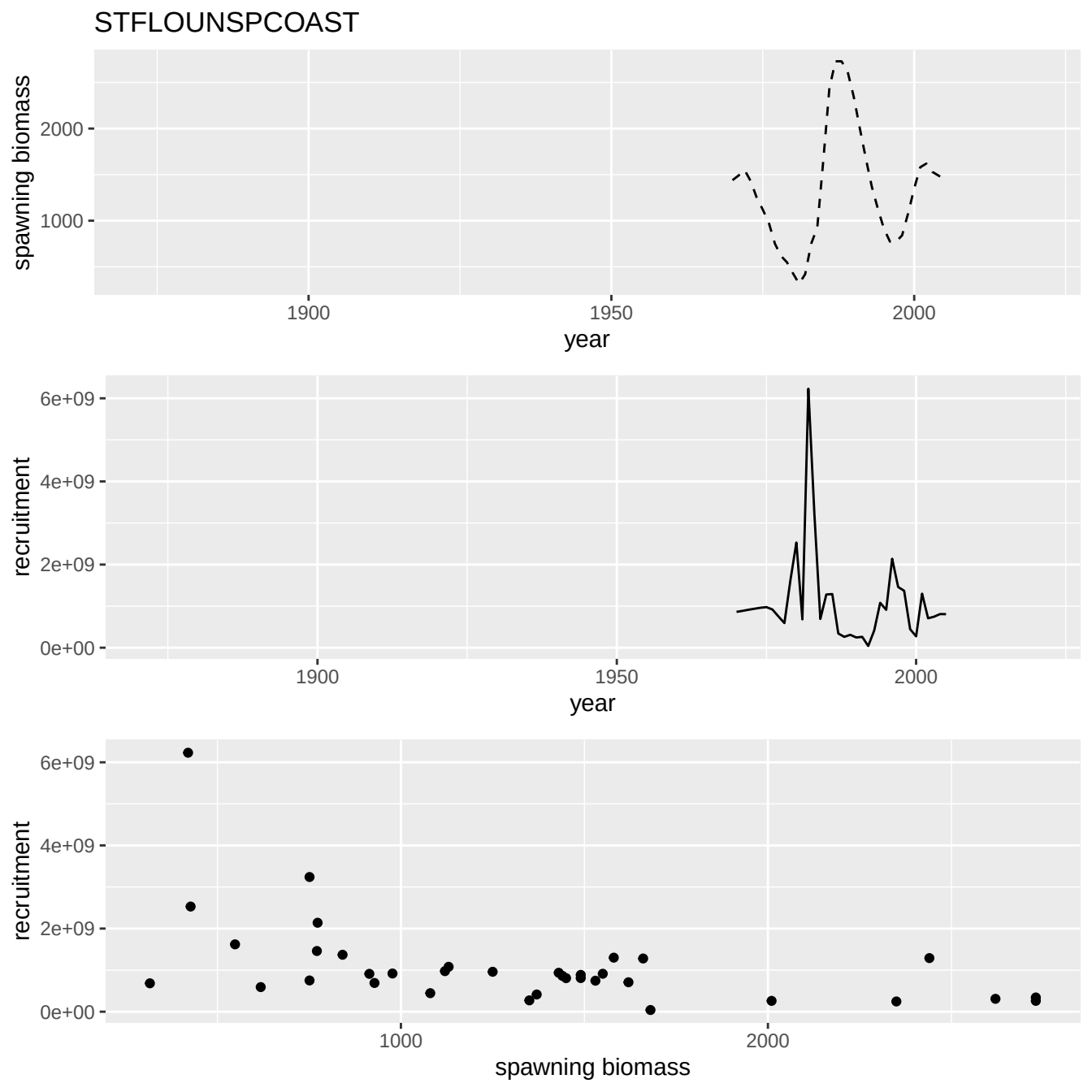
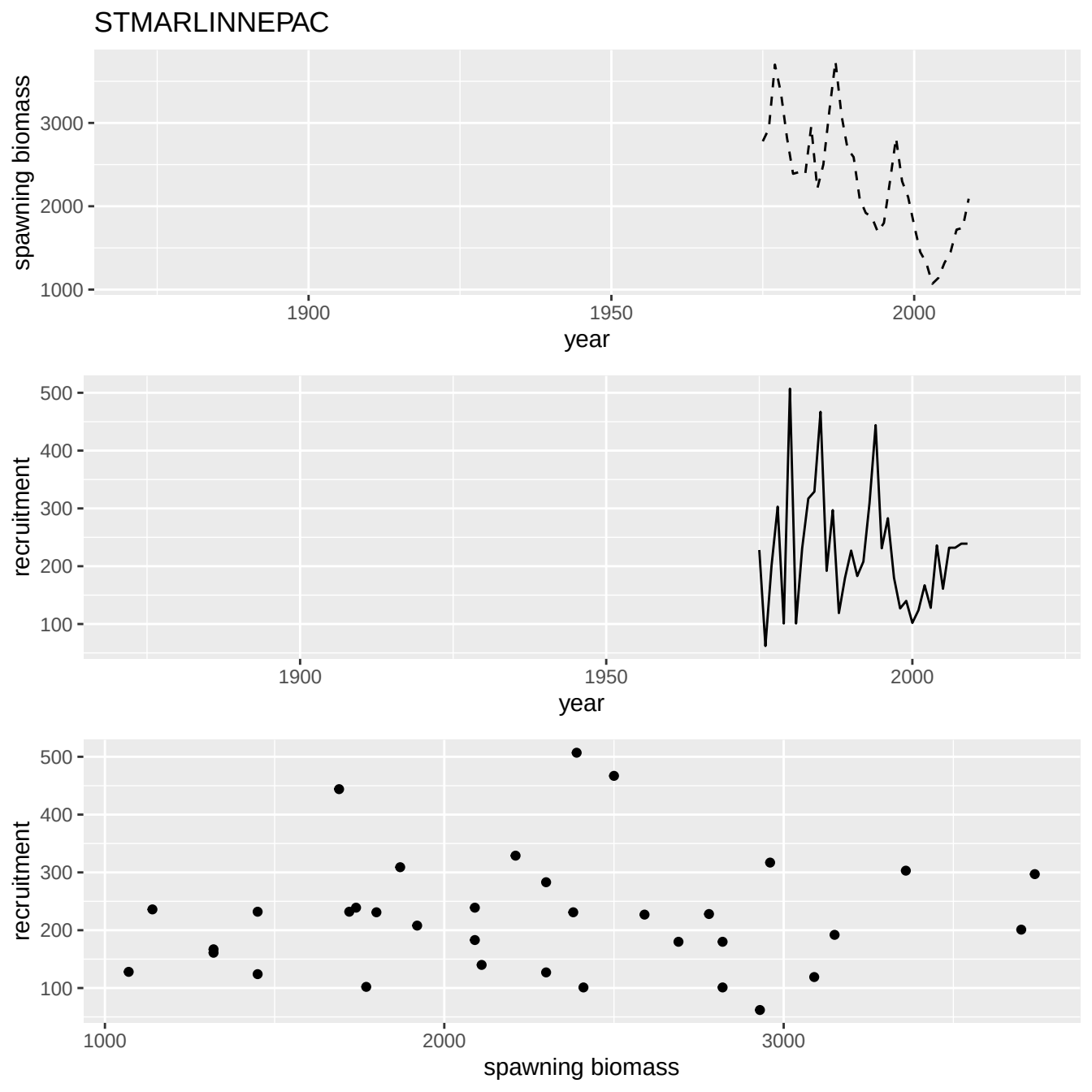
1e+06
2e+06
3e+06
spawning biomass

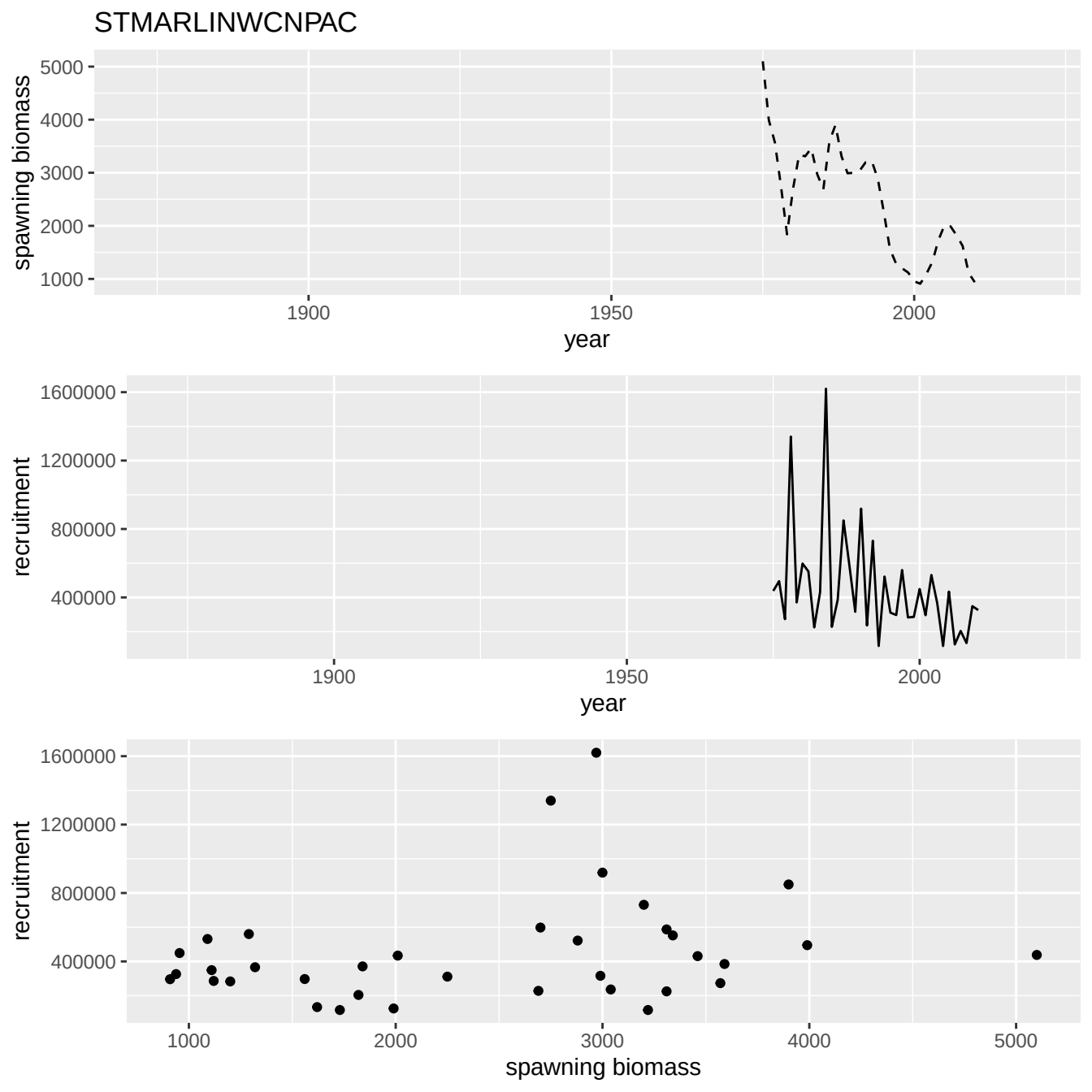

SSLOBSTERSASC
spawning biomass
4000
3000
2000
1000
1900
1950
2000
year
recruitment
1.6e+07
1.2e+07
8.0e+06
4.0e+06
1900
1950
2000
year
recruitment
1.6e+07
1.2e+07
8.0e+06
4.0e+06
1000
2000
3000
4000
spawning biomass

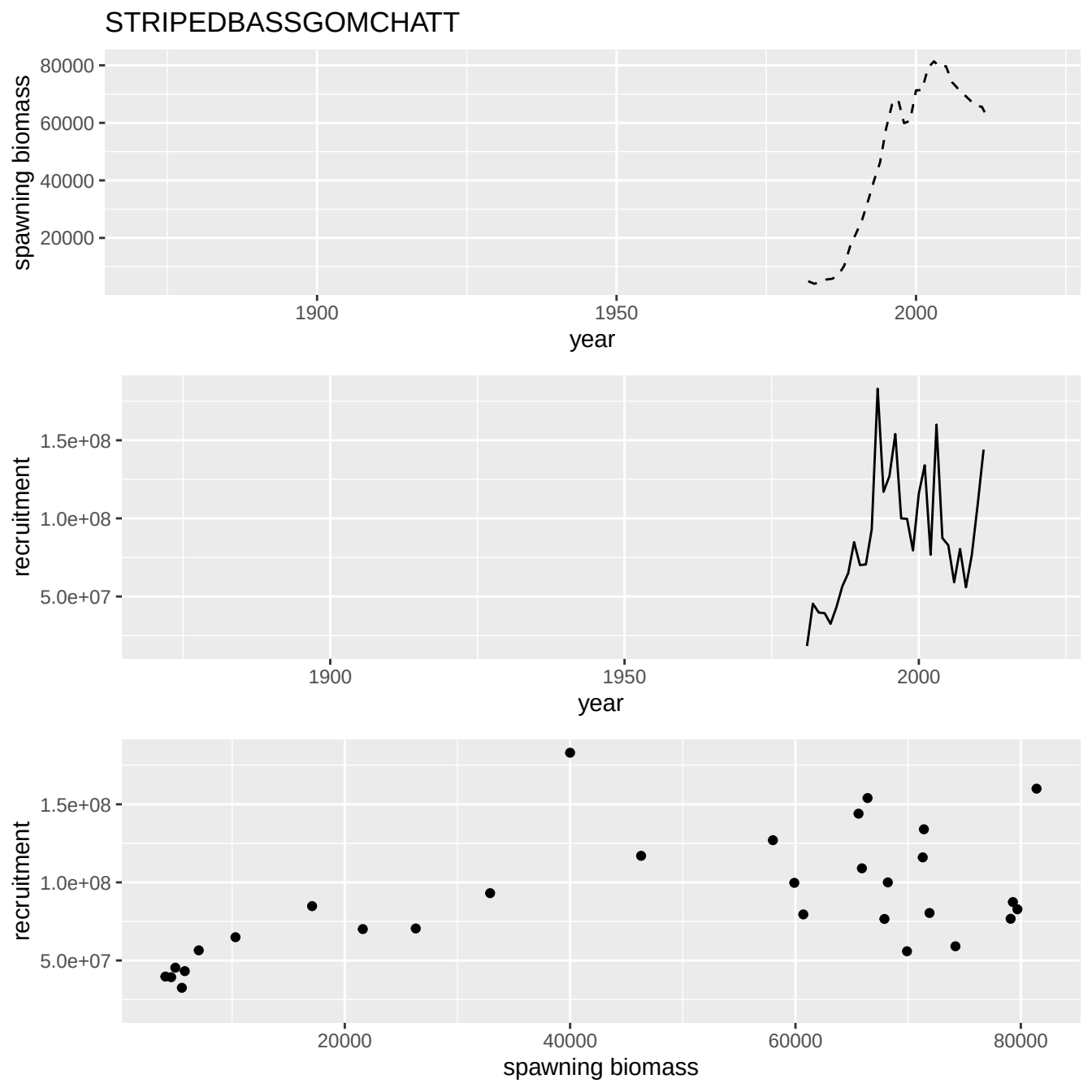

SSTHORNHPCOAST
spawning biomass
200000
180000
160000
140000
1900
1950
2000
year
recruitment
4e+07
3e+07
2e+07
1900
1950
2000
year
recruitment
4e+07
3e+07
2e+07
140000
160000
180000
200000
spawning biomass

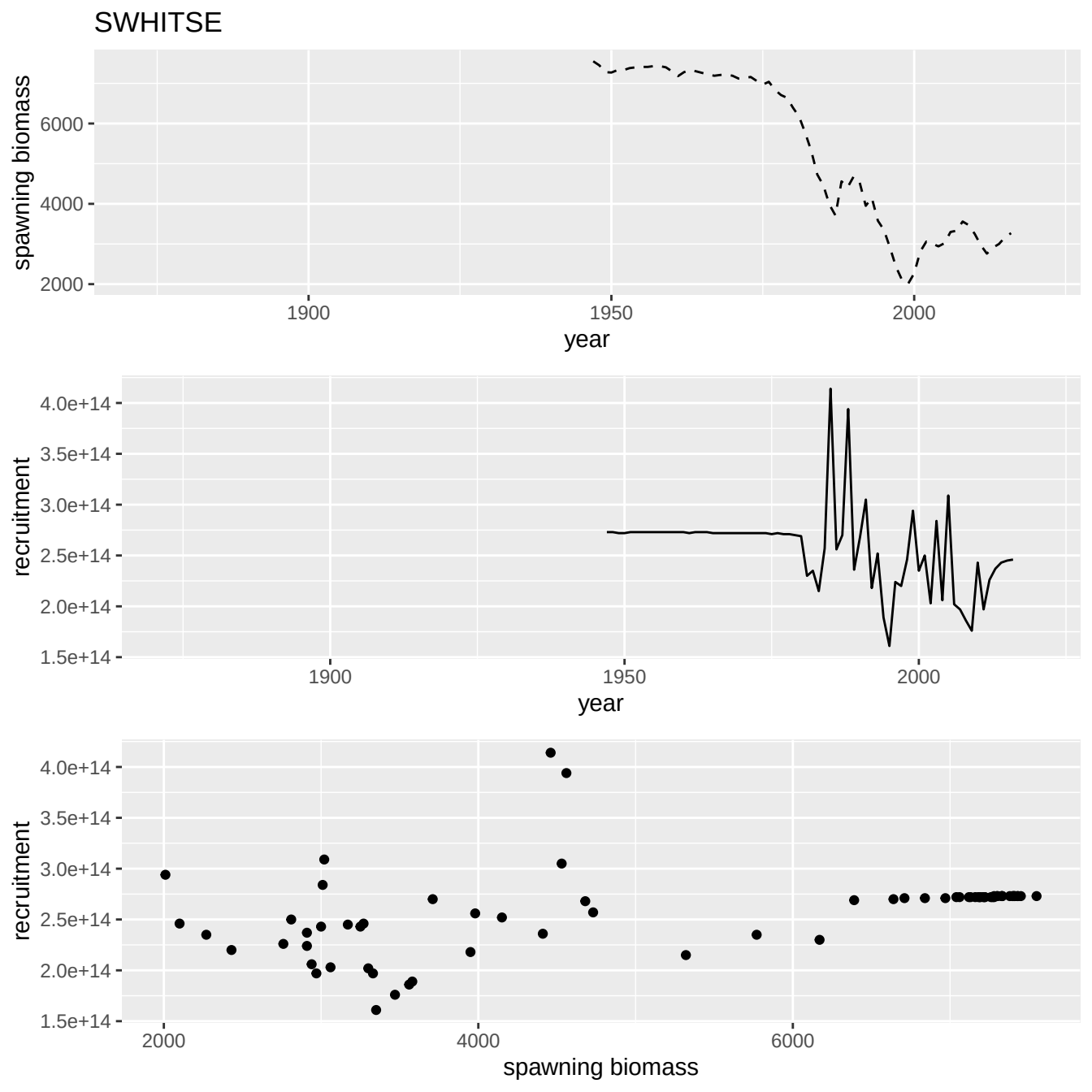

STFLOUNNPCOAST
spawning biomass
7500
5000
2500
1900
1950
2000
year
recruitment
2.0e+10
1.5e+10
1.0e+10
5.0e+09
0.0e+00
1900
1950
2000
year
recruitment
2.0e+10
1.5e+10
1.0e+10
5.0e+09
0.0e+00
2500
5000
7500
spawning biomass

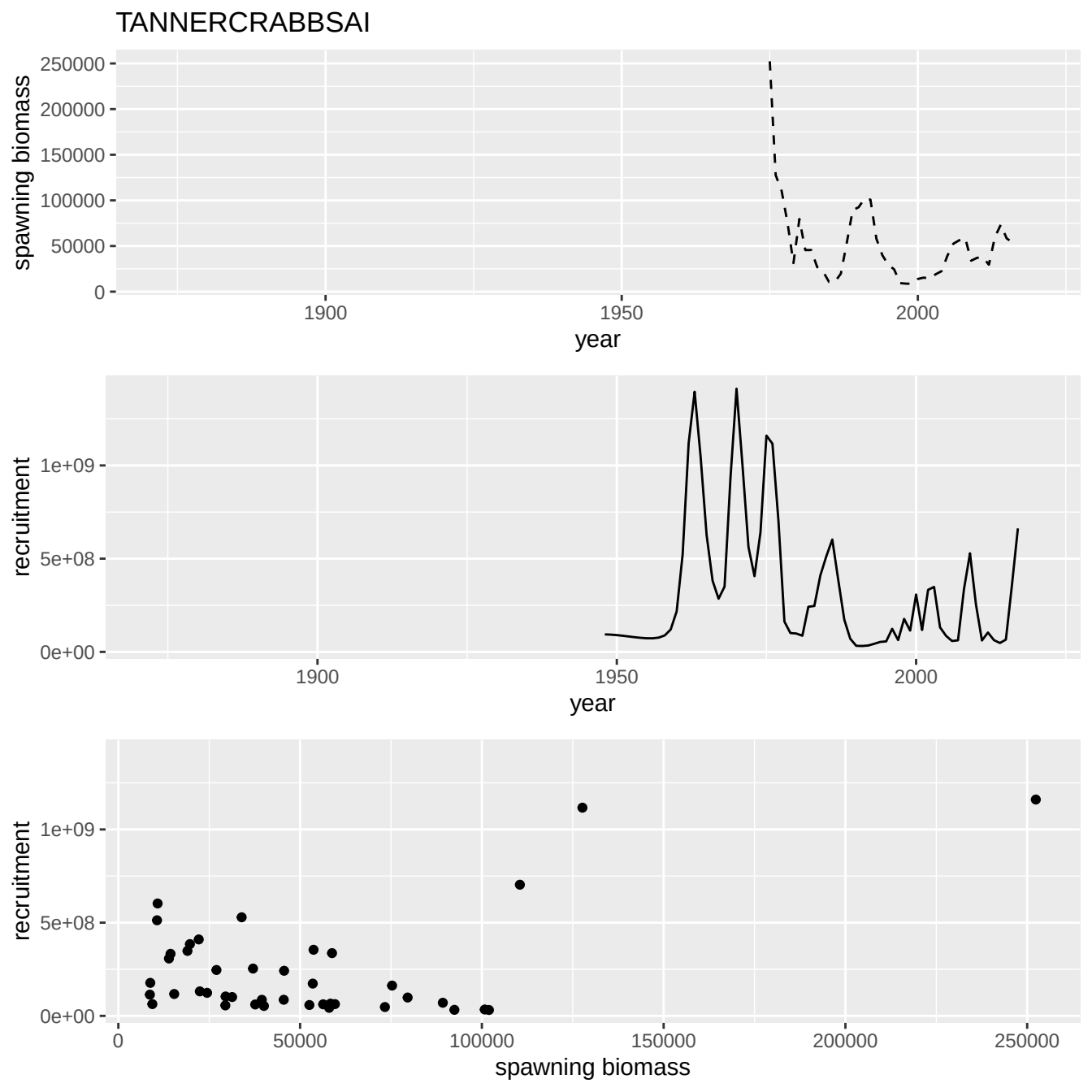

STFLOUNSPCOAST
spawning biomass
2000
1000
1900
1950
2000
year
recruitment
6e+09
4e+09
2e+09
0e+00
1900
1950
2000
year
recruitment
6e+09
4e+09
2e+09
0e+00
1000
2000
spawning biomass

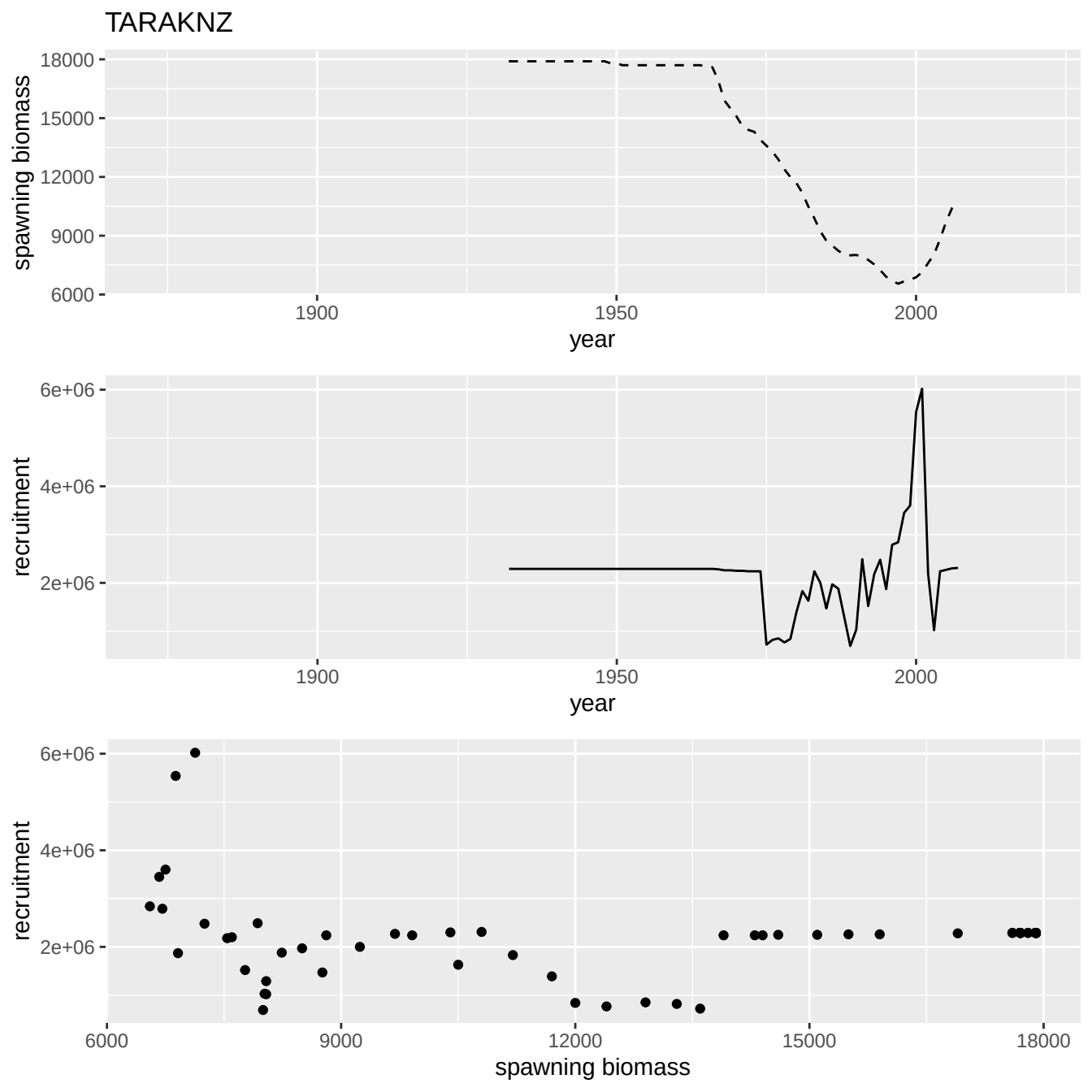

STMARLINNEPAC
spawning biomass
3000
2000
1000
1900
1950
2000
year
recruitment
500
400
300
200
100
1900
1950
2000
year
recruitment
500
400
300
200
100
1000
2000
3000
spawning biomass

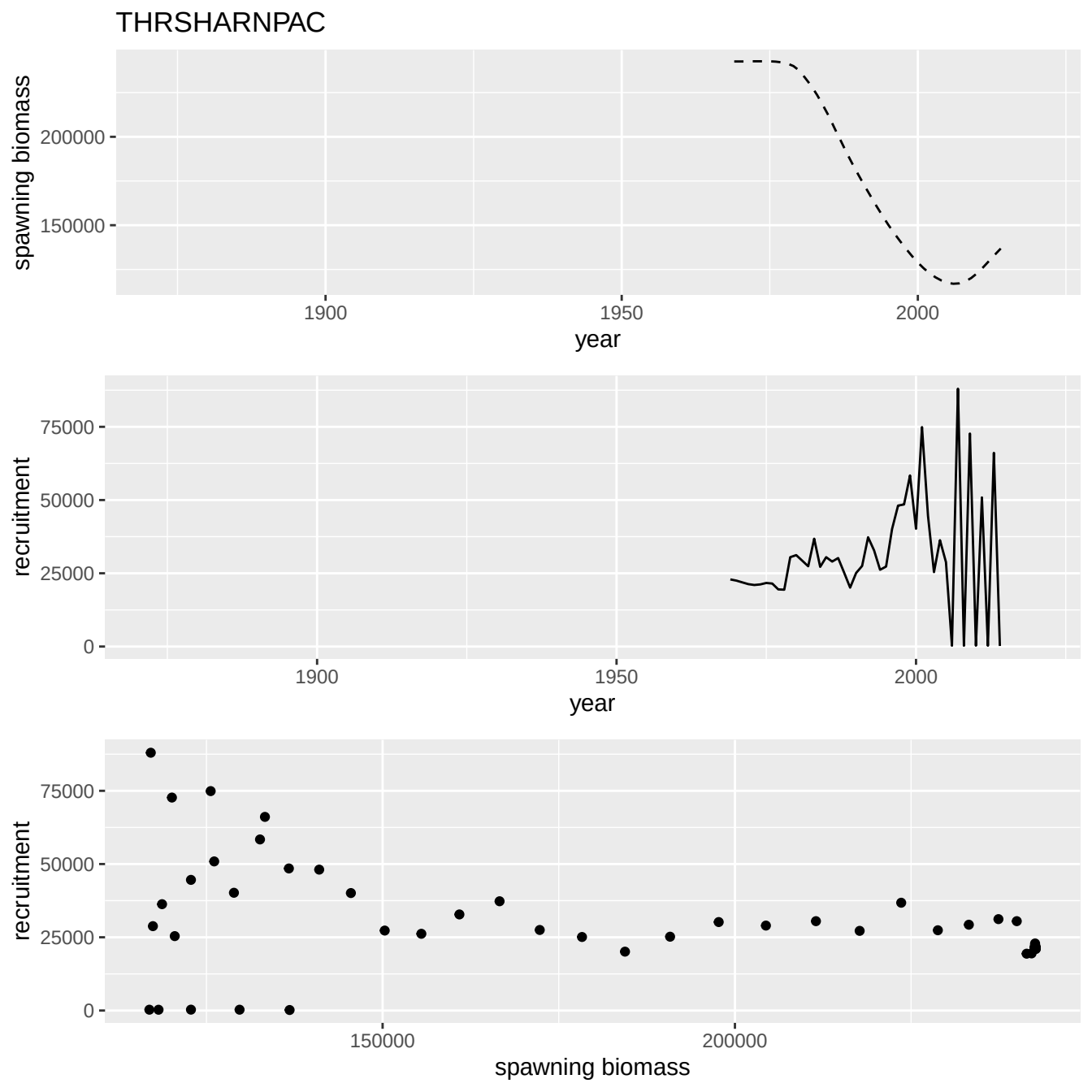

STMARLINWCNPAC
spawning biomass
5000
4000
3000
2000
1000
1900
1950
2000
year
recruitment
1600000
1200000
800000
400000
1900
1950
2000
year
recruitment
1600000
1200000
800000
400000
1000
2000
3000
4000
5000
spawning biomass

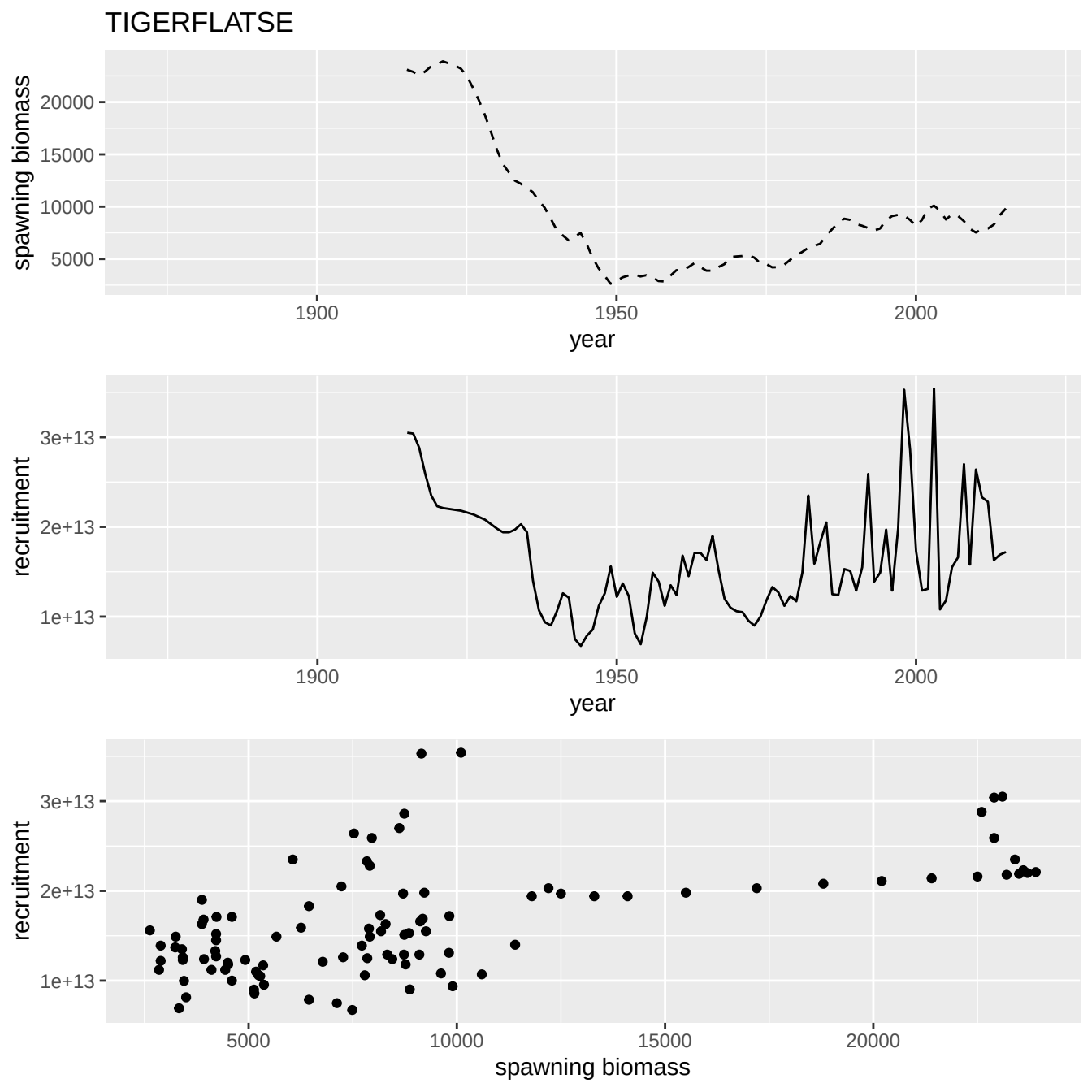

STRIPEDBASSGOMCHATT
spawning biomass
80000
60000
40000
20000
1900
1950
2000
year
recruitment
1.5e+08
1.0e+08
5.0e+07
1900
1950
2000
year
recruitment
1.5e+08
1.0e+08
5.0e+07
20000
40000
60000
80000
spawning biomass

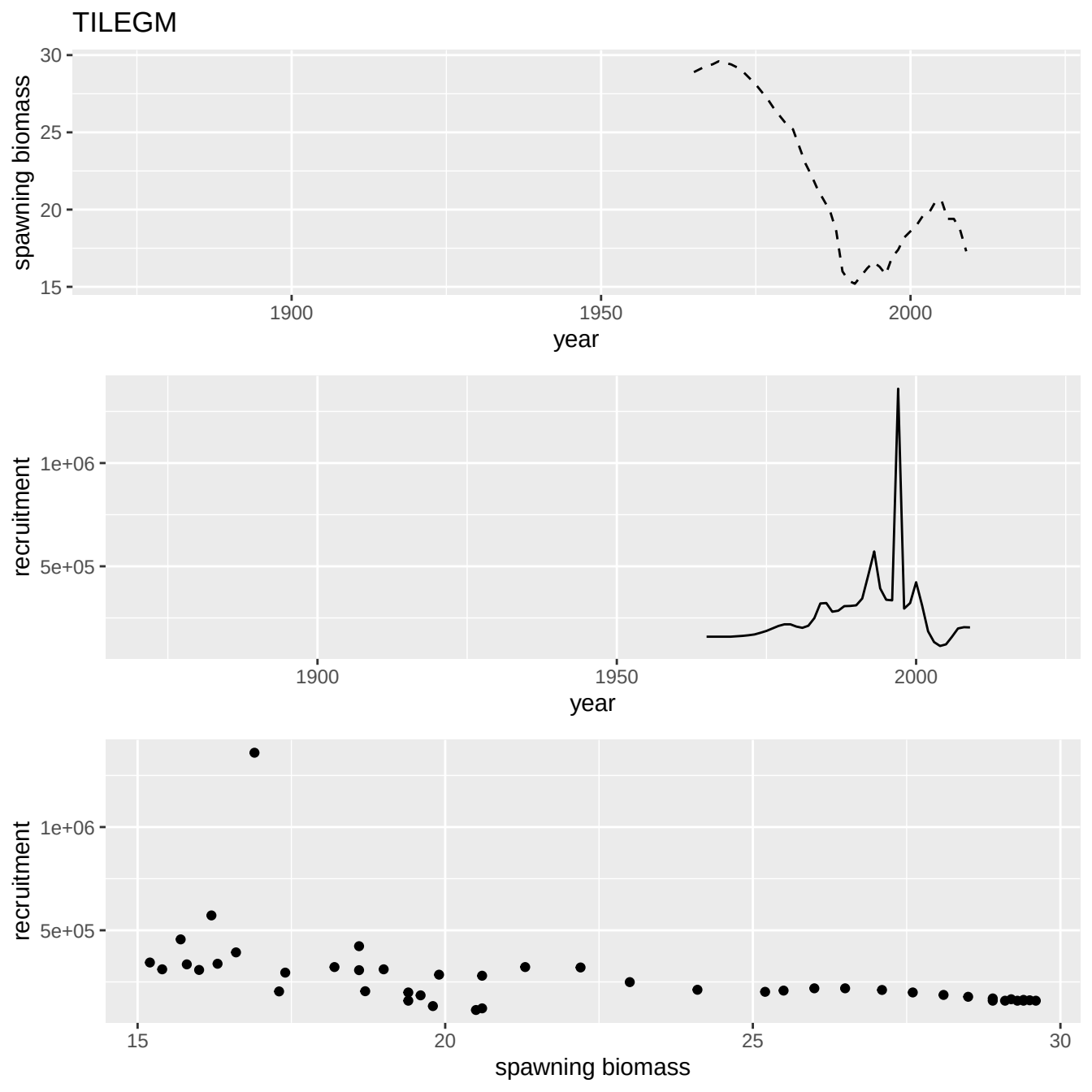

SWHITSE
spawning biomass
6000
4000
2000
1900
1950
2000
year
recruitment
4.0e+14
3.5e+14
3.0e+14
2.5e+14
2.0e+14
1.5e+14
1900
1950
2000
year
recruitment
4.0e+14
3.5e+14
3.0e+14
2.5e+14
2.0e+14
1.5e+14
2000
4000
6000
spawning biomass

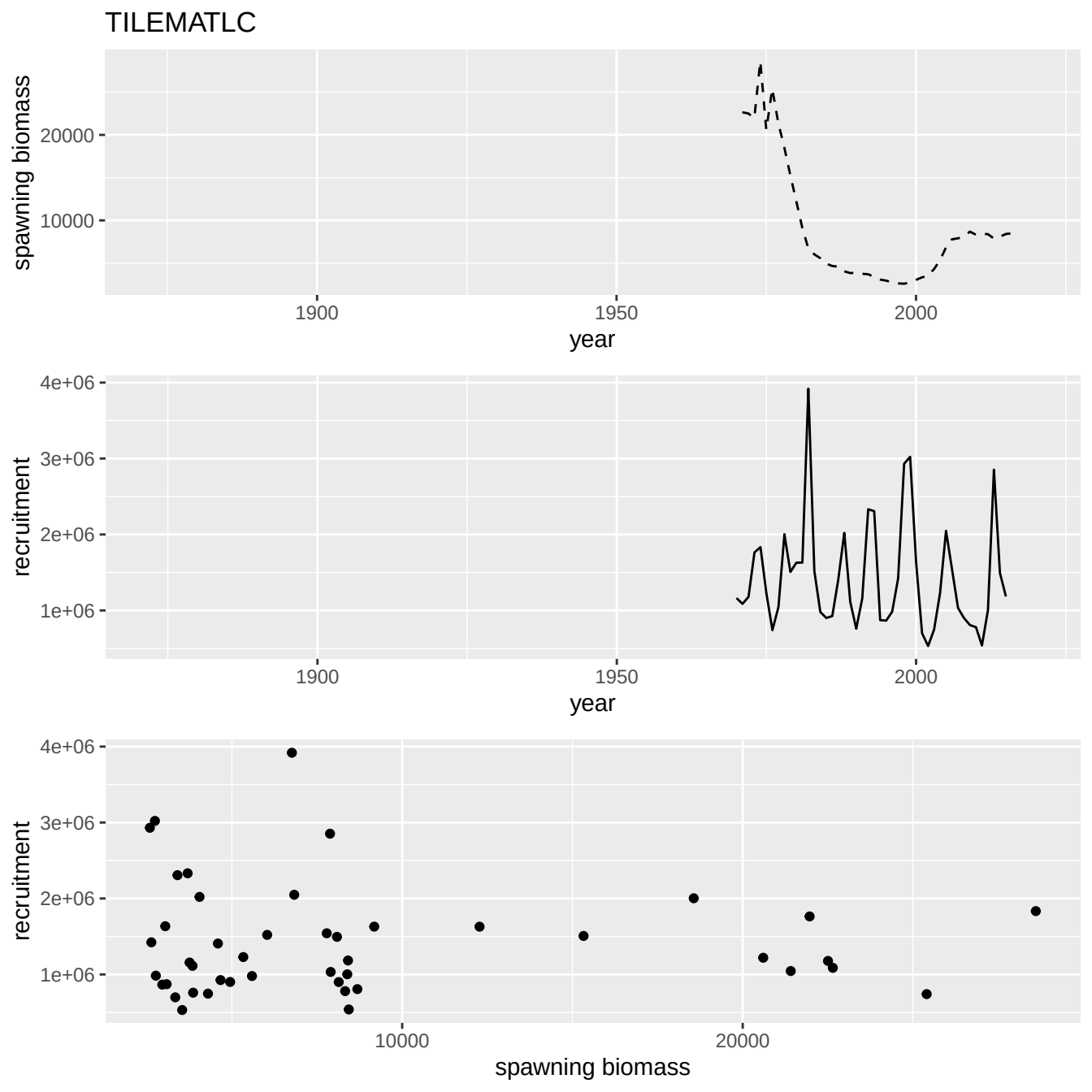

TANNERCRABBSAI
spawning biomass
250000
200000
150000
100000
50000
0
1900
1950
2000
year
recruitment
1e+09
5e+08
0e+00
1900
1950
2000
year
recruitment
1e+09
5e+08
0e+00
0
50000
100000
150000
200000
250000
spawning biomass

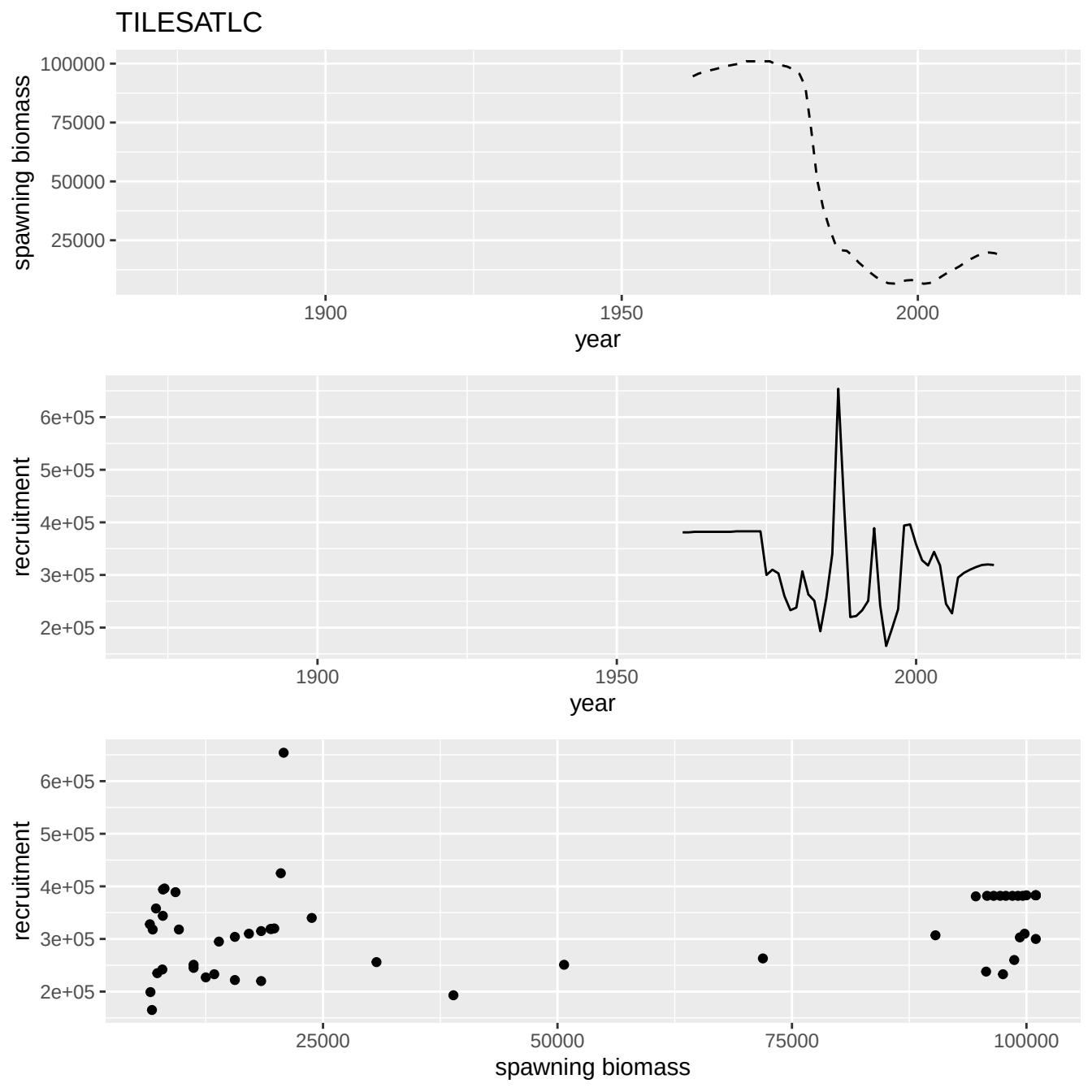

TARAKNZ
spawning biomass
18000
15000
12000
9000
6000
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
6000
9000
12000
15000
18000
spawning biomass

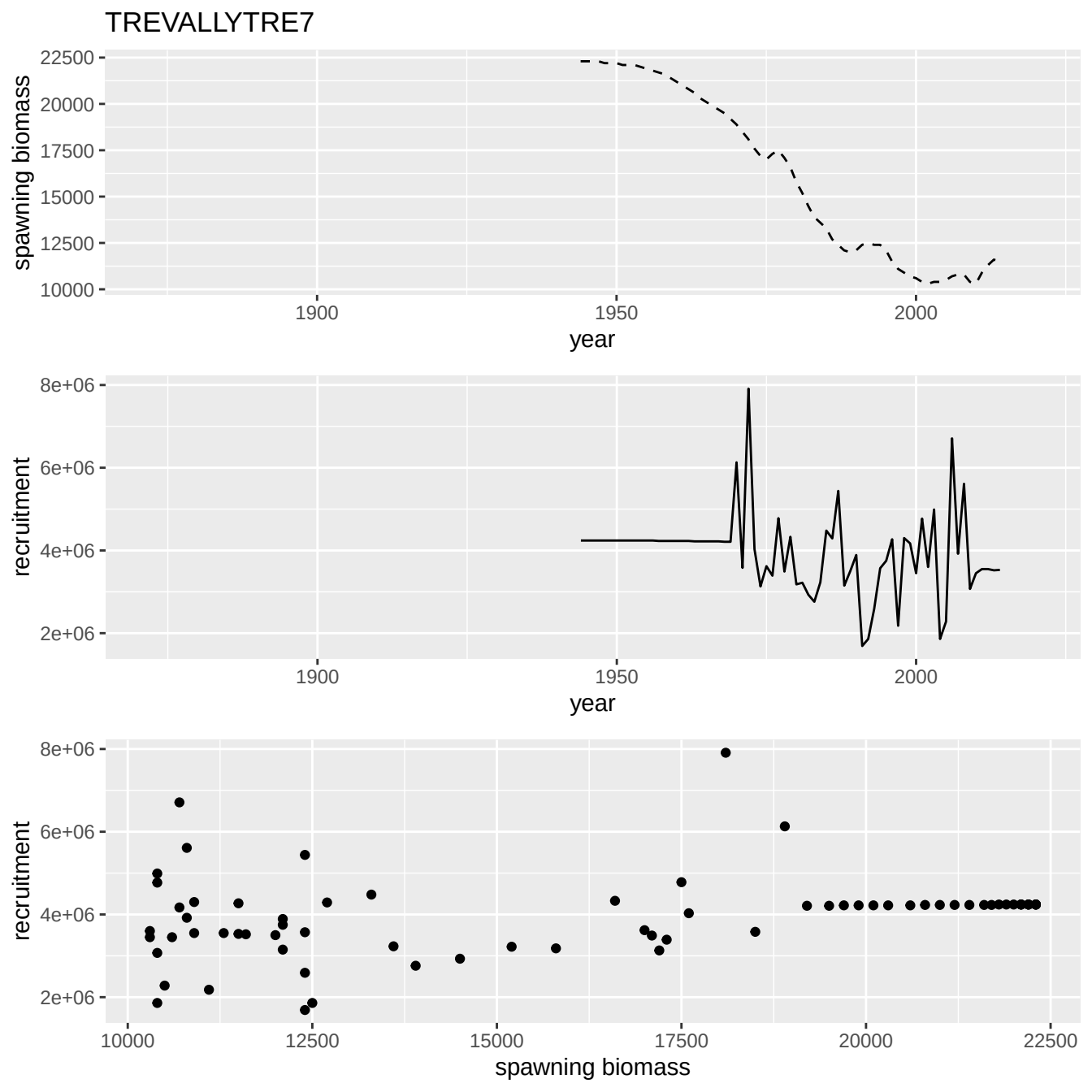

THRSHARNPAC
spawning biomass
200000
150000
1900
1950
2000
year
recruitment
75000
50000
25000
0
1900
1950
2000
year
recruitment
75000
50000
25000
0
150000
200000
spawning biomass

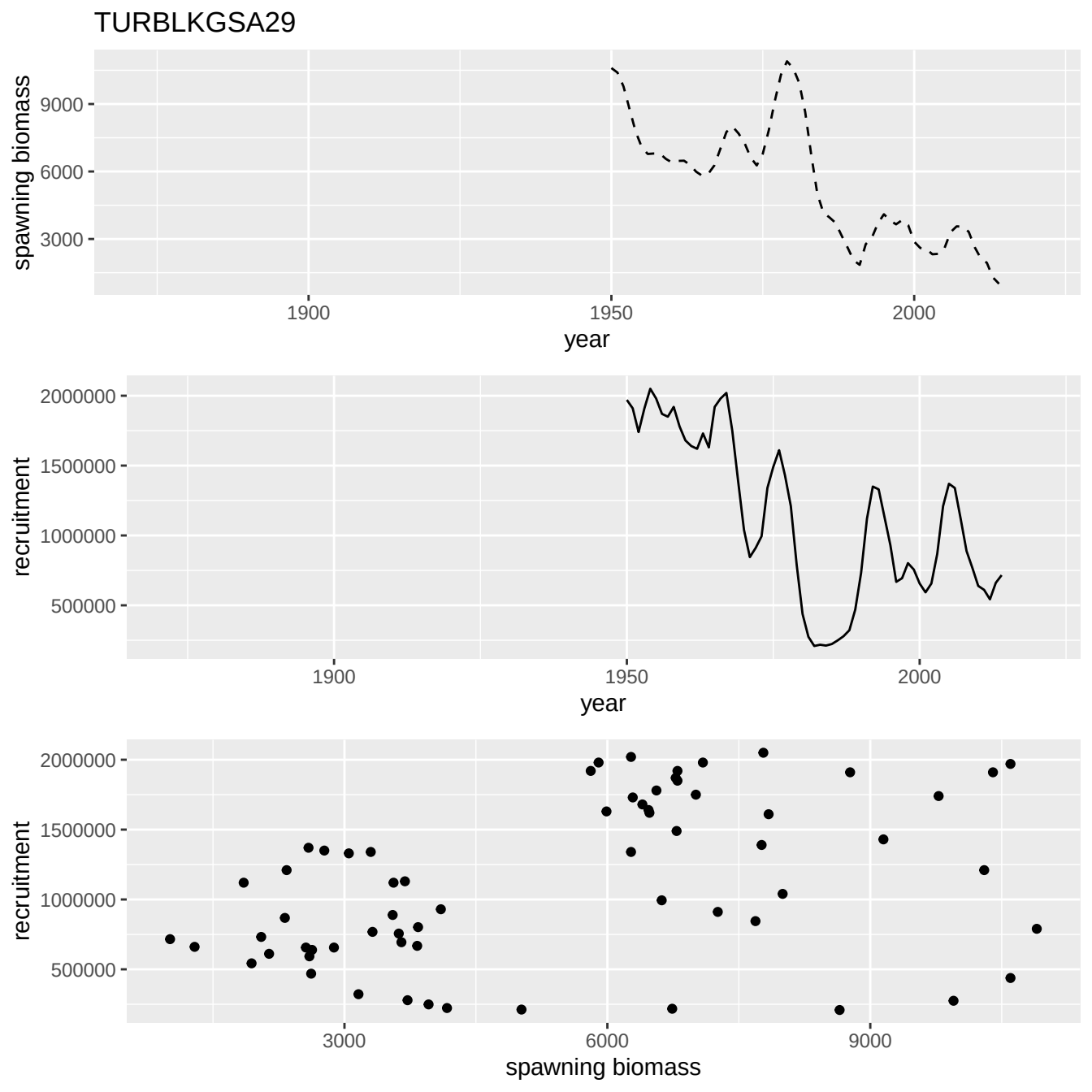

TIGERFLATSE
spawning biomass
20000
15000
10000
5000
1900
1950
2000
year
recruitment
3e+13
2e+13
1e+13
1900
1950
2000
year
recruitment
3e+13
2e+13
1e+13
5000
10000
15000
20000
spawning biomass

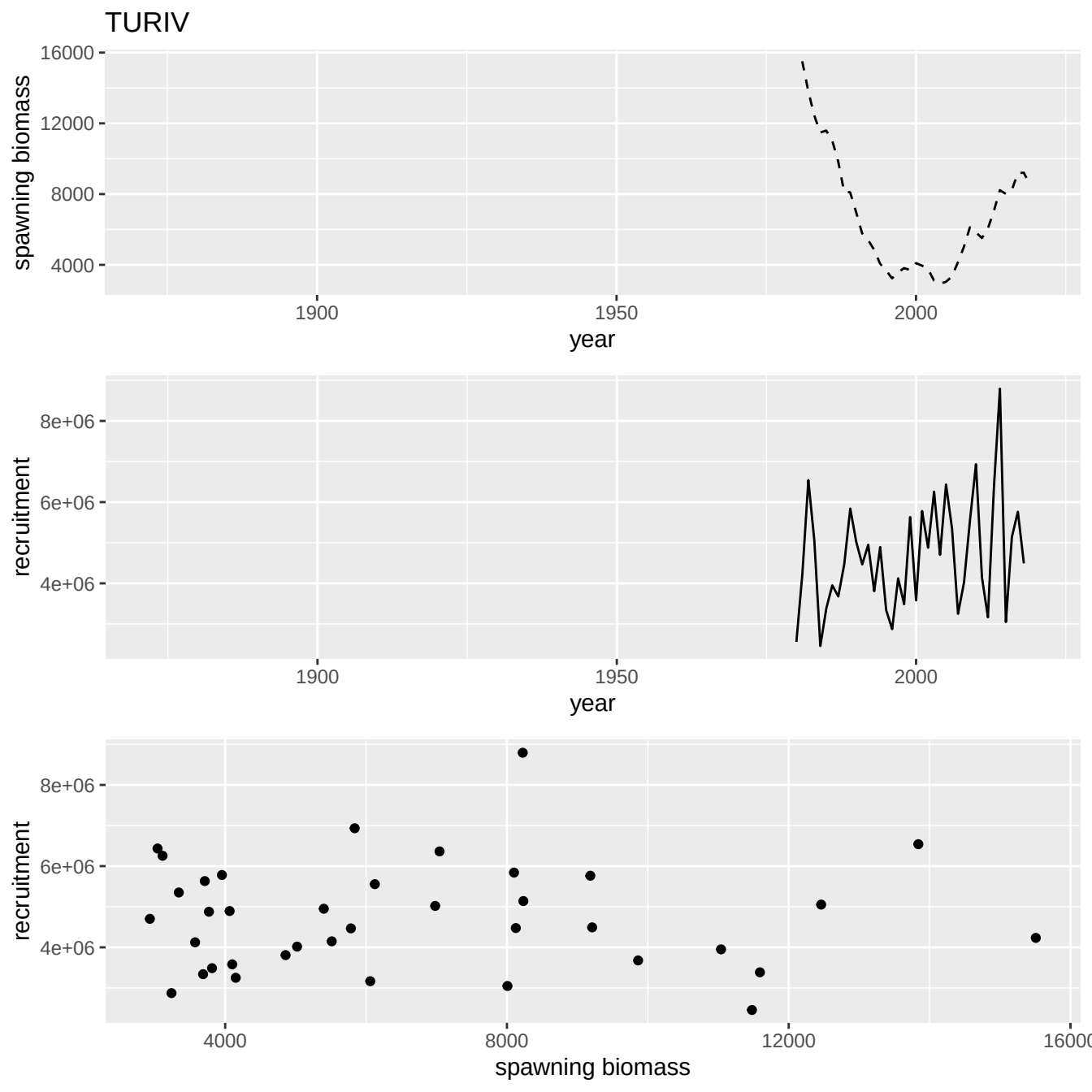

TILEGM
spawning biomass
30
25
20
15
1900
1950
2000
year
recruitment
1e+06
5e+05
1900
1950
2000
year
recruitment
1e+06
5e+05
15
20
25
30
spawning biomass

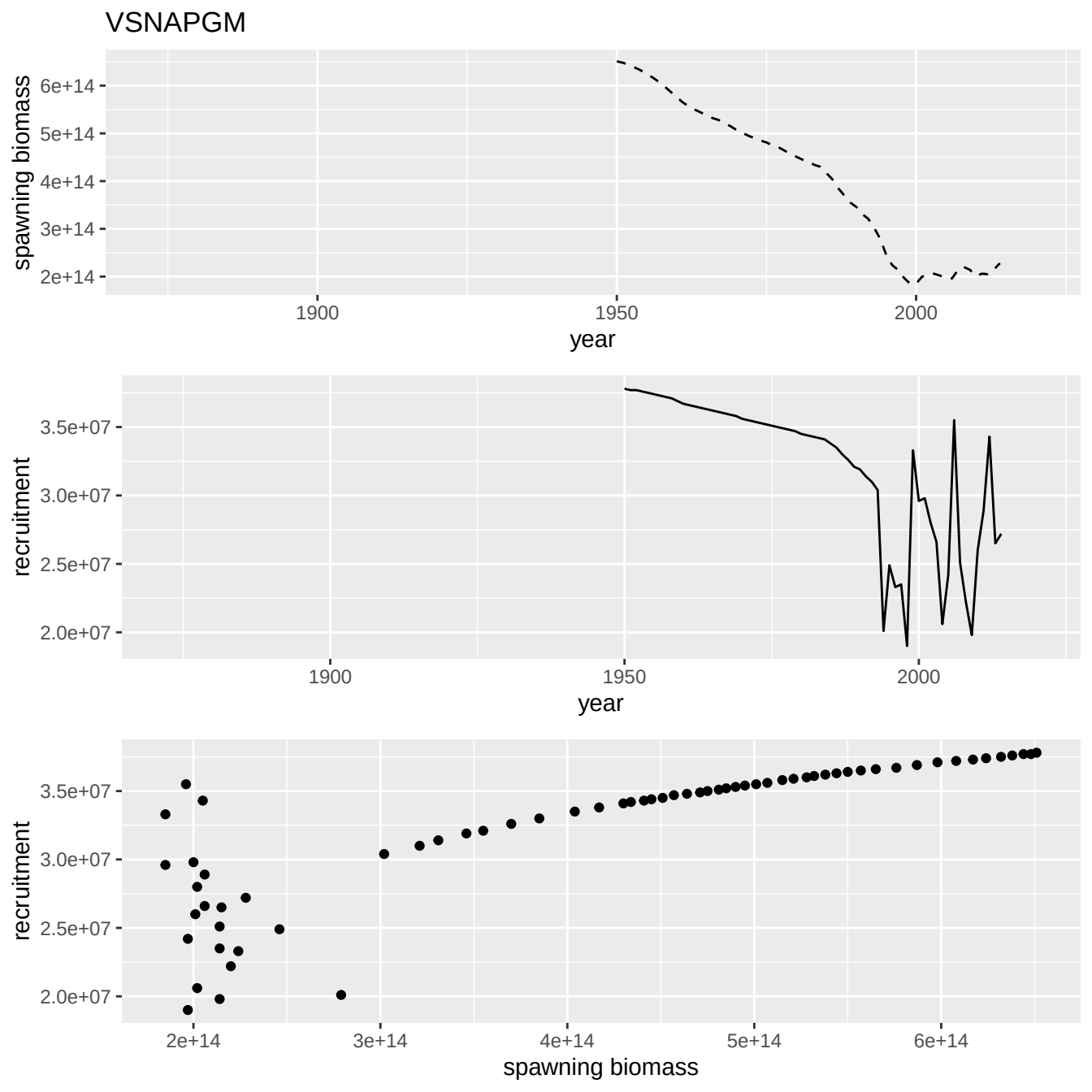

TILEMATLC
spawning biomass
20000
10000
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
4e+06
3e+06
2e+06
1e+06
10000
20000
spawning biomass

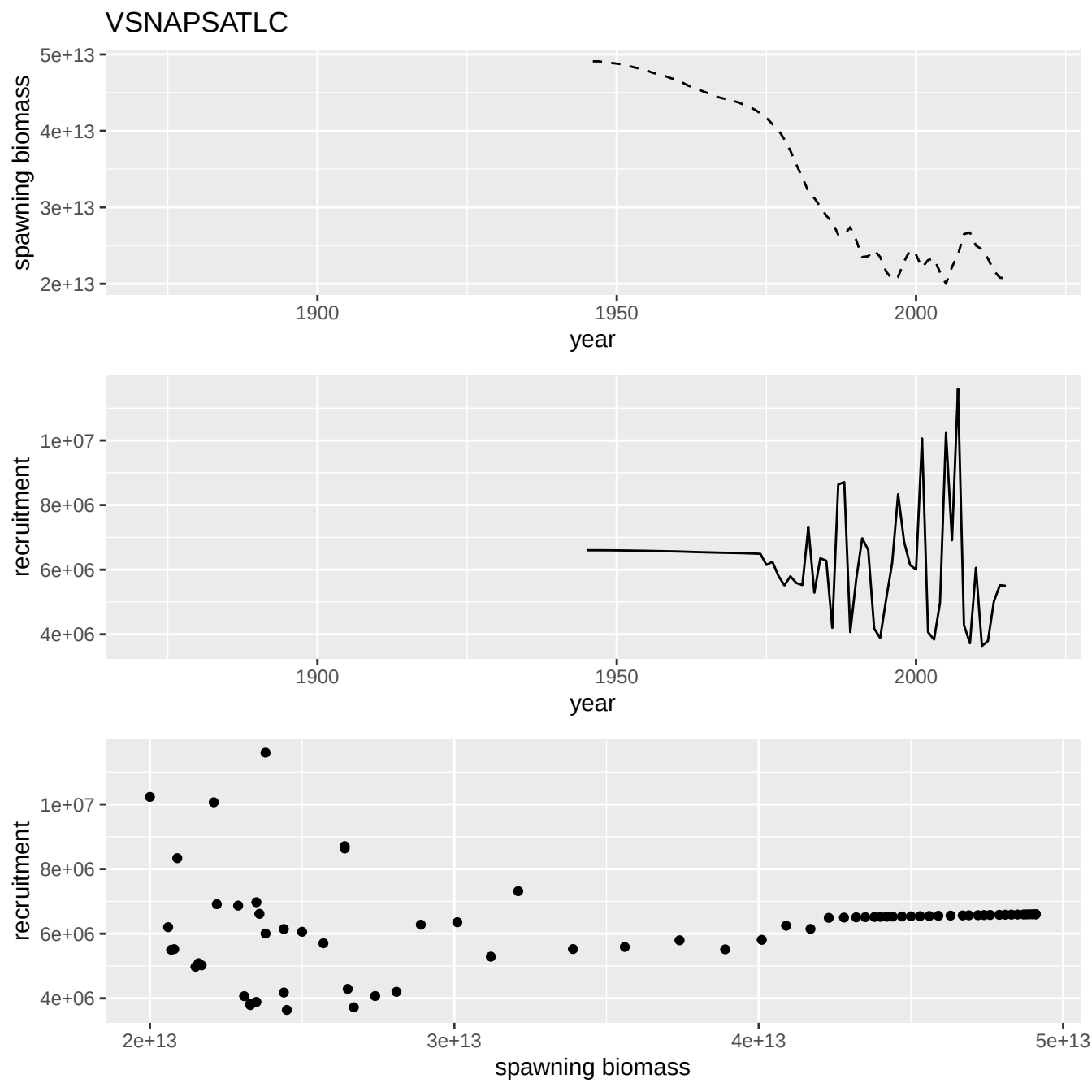

TILESATLC
spawning biomass
100000
75000
50000
25000
1900
1950
2000
year
recruitment
6e+05
5e+05
4e+05
3e+05
2e+05
1900
1950
2000
year
recruitment
6e+05
5e+05
4e+05
3e+05
2e+05
25000
50000
75000
100000
spawning biomass

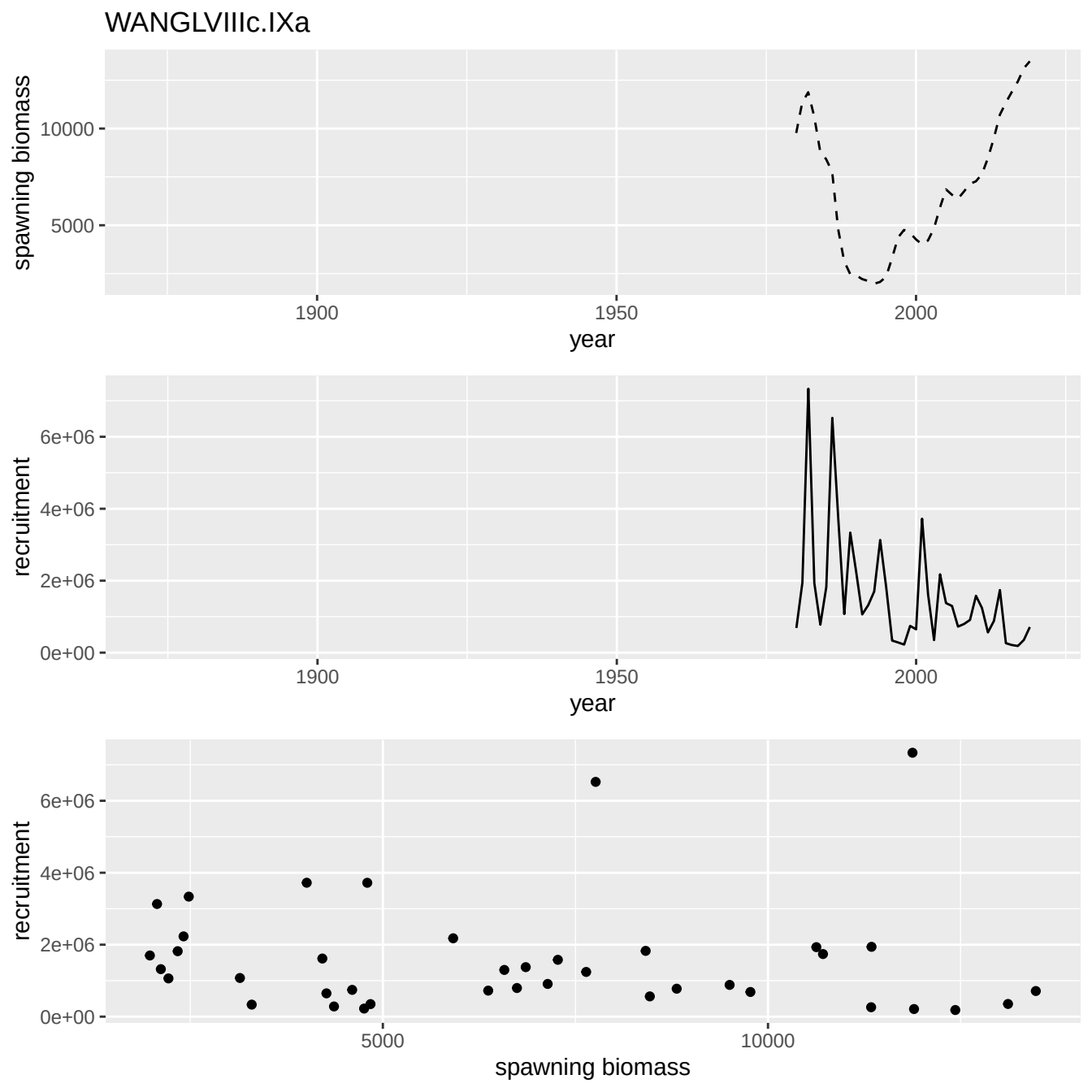

TREVALLYTRE7
spawning biomass
22500
20000
17500
15000
12500
10000
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
2e+06
10000
12500
15000
17500
20000
22500
spawning biomass

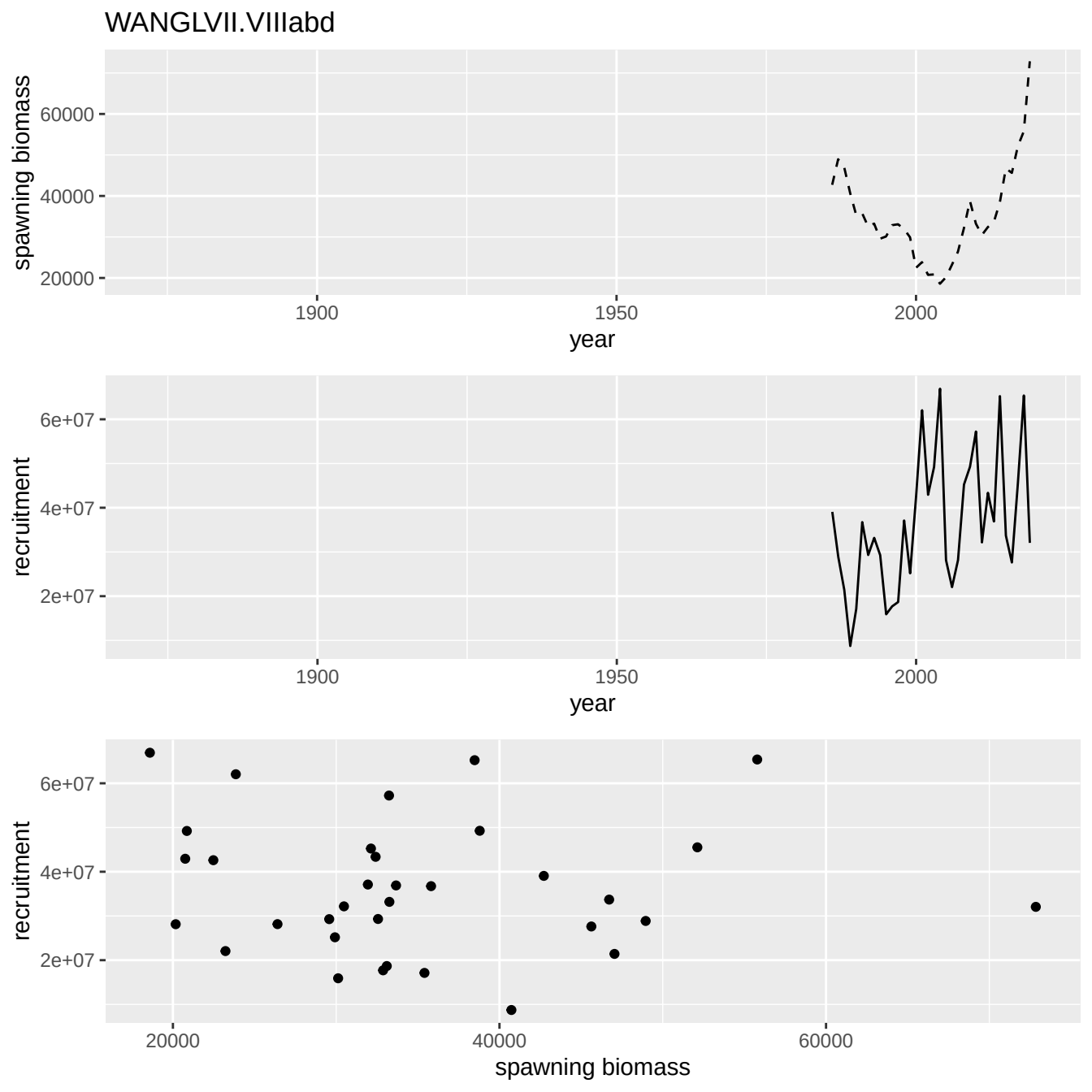

TURBLKGSA29
spawning biomass
9000
6000
3000
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
1900
1950
2000
year
recruitment
2000000
1500000
1000000
500000
3000
6000
9000
spawning biomass

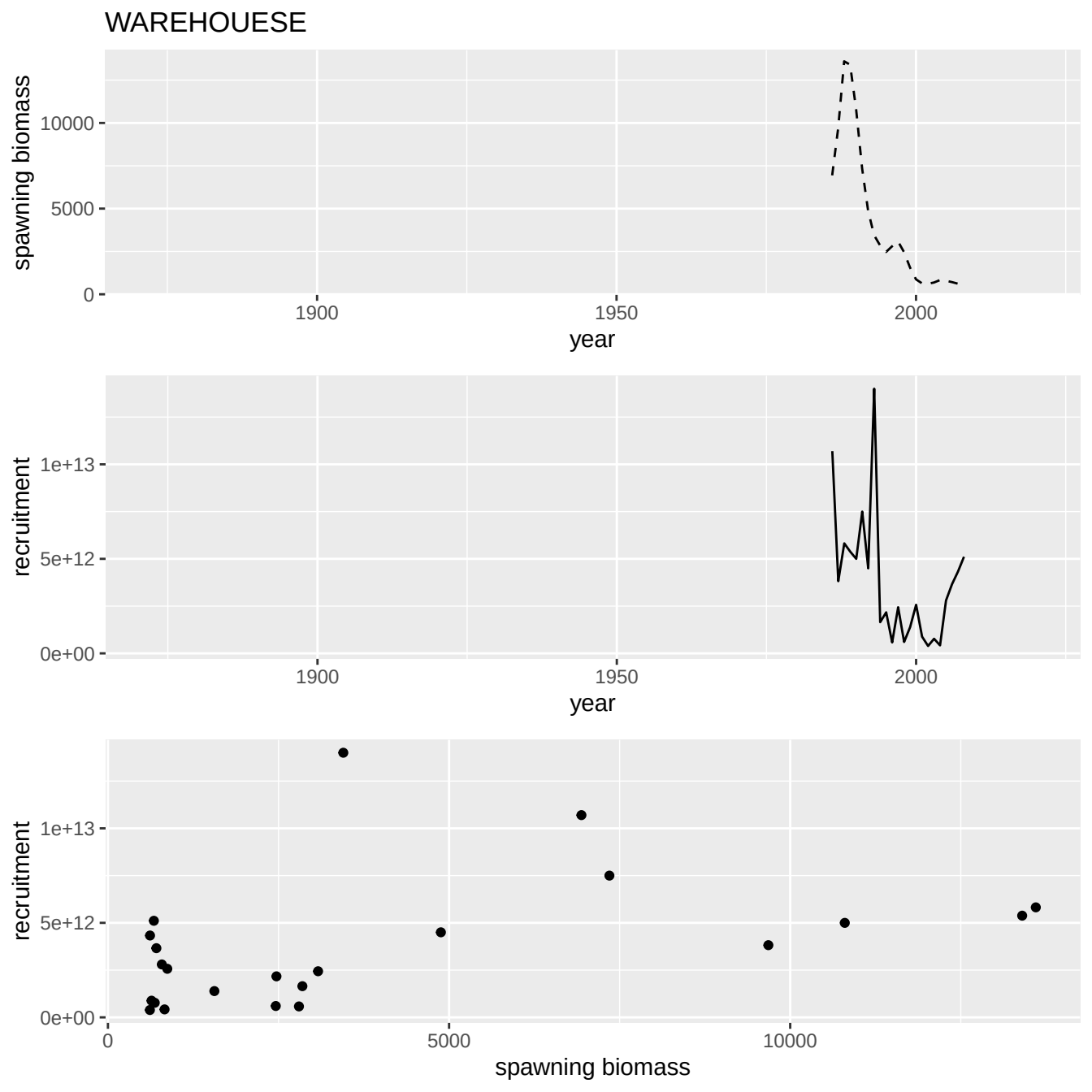

TURIV
spawning biomass
16000
12000
8000
4000
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
1900
1950
2000
year
recruitment
8e+06
6e+06
4e+06
4000
8000
12000
16000
spawning biomass

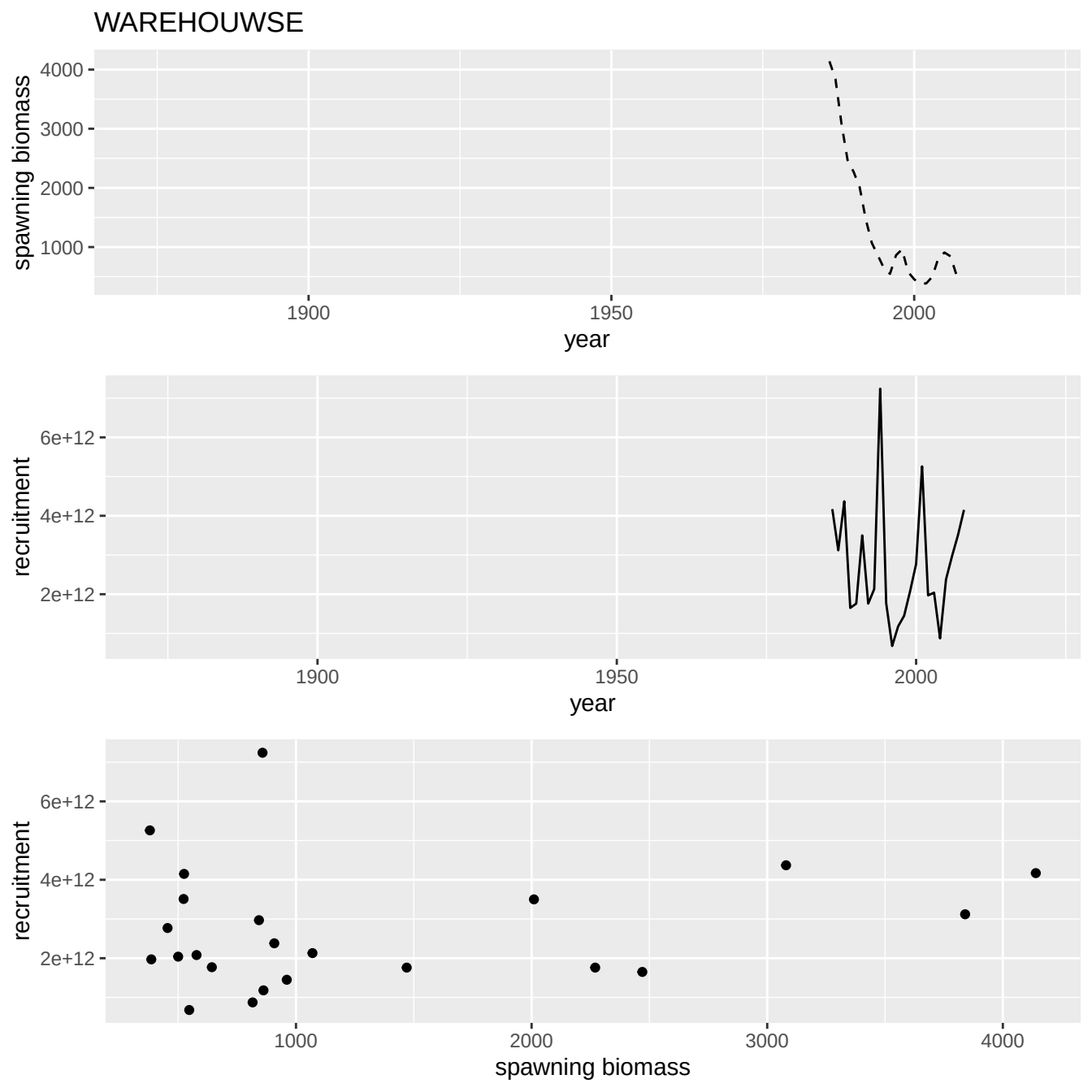

VSNAPGM
spawning biomass
6e+14
5e+14
4e+14
3e+14
2e+14
1900
1950
2000
year
recruitment
3.5e+07
3.0e+07
2.5e+07
2.0e+07
1900
1950
2000
year
recruitment
3.5e+07
3.0e+07
2.5e+07
2.0e+07
2e+14
3e+14
4e+14
5e+14
6e+14
spawning biomass

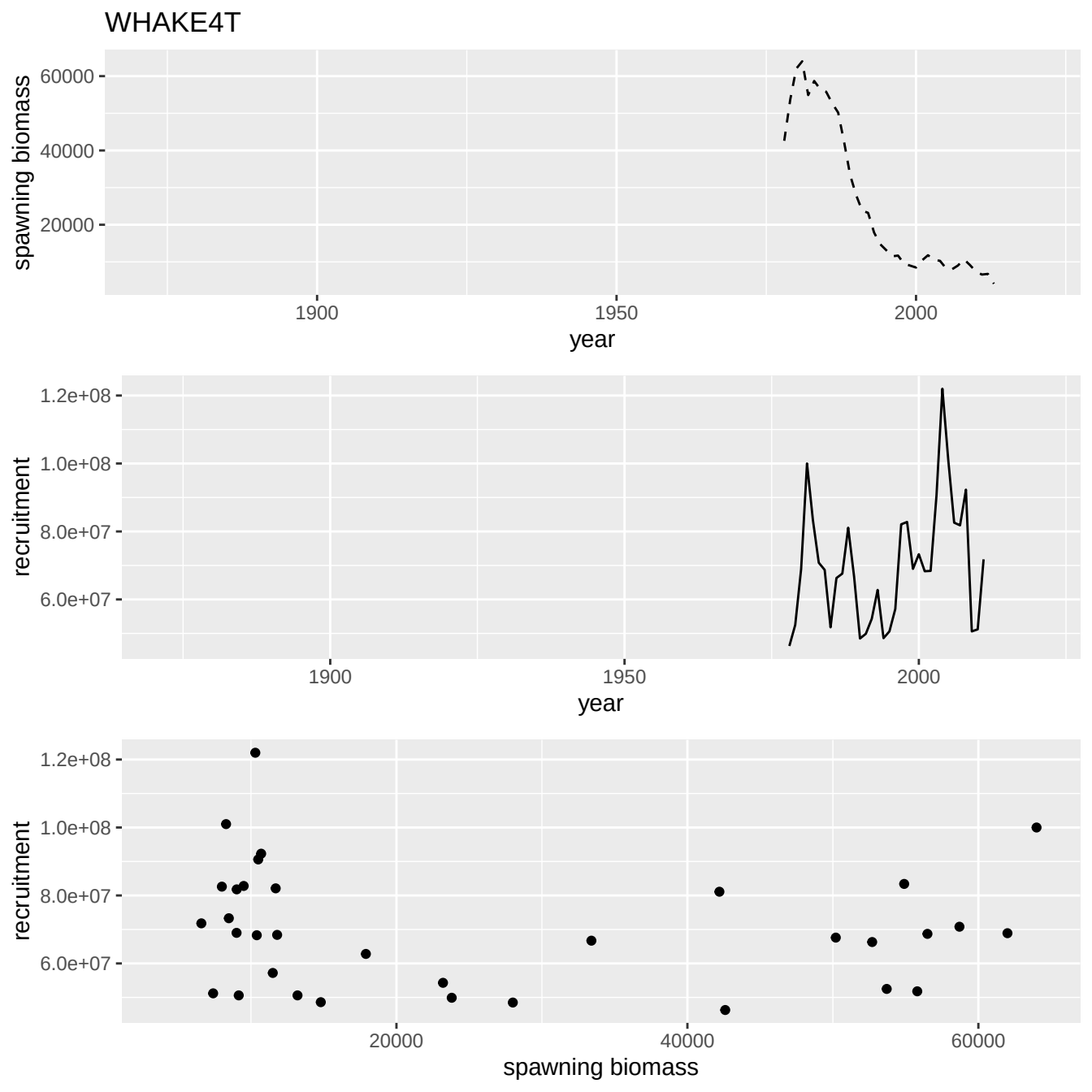

VSNAPSATLC
spawning biomass
5e+13
4e+13
3e+13
2e+13
1900
1950
2000
year
recruitment
1e+07
8e+06
6e+06
4e+06
1900
1950
2000
year
recruitment
1e+07
8e+06
6e+06
4e+06
2e+13
3e+13
4e+13
5e+13
spawning biomass

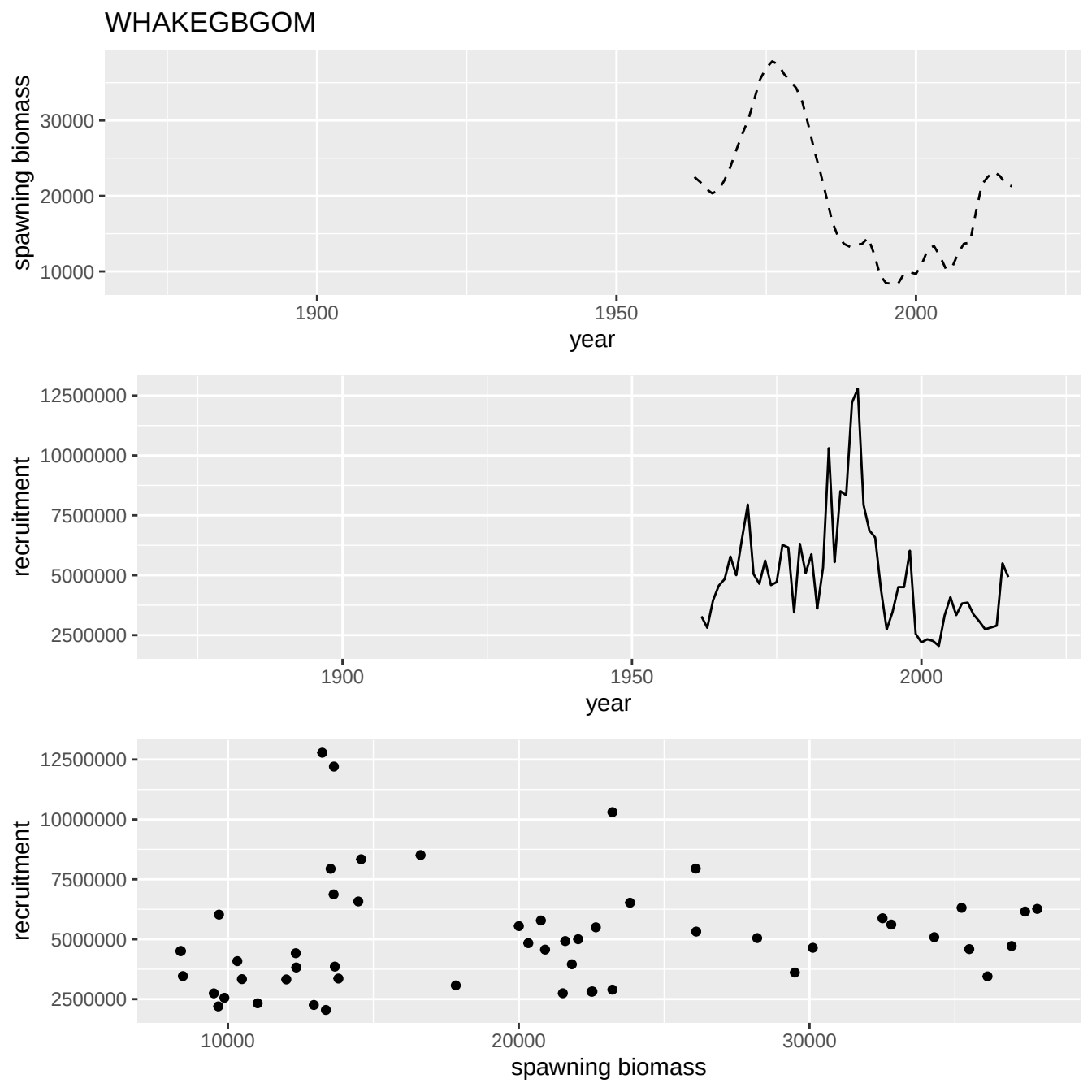

WANGLVIIIc.IXa
spawning biomass
10000
5000
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
0e+00
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
0e+00
5000
10000
spawning biomass

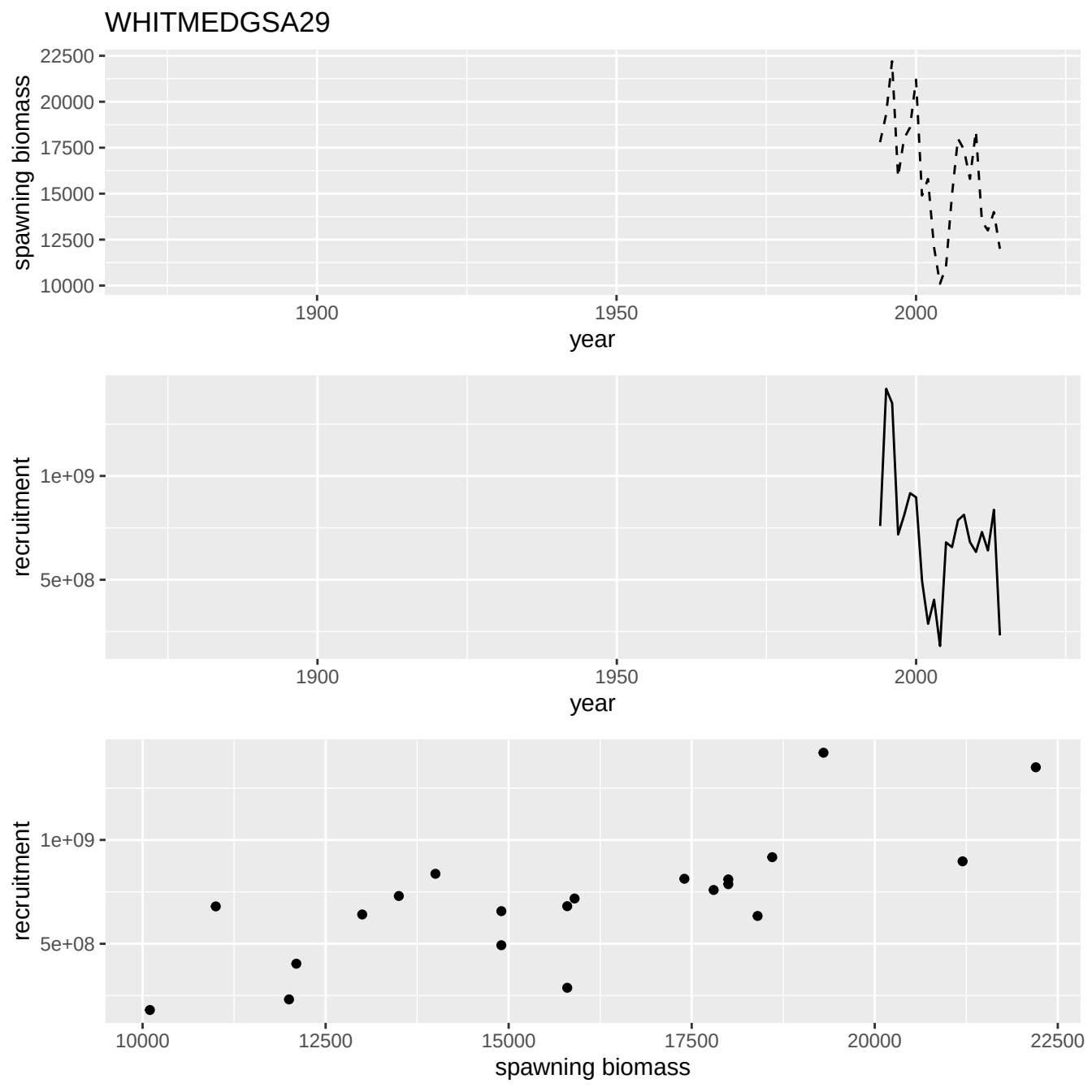

WANGLVII.VIIIabd
spawning biomass
60000
40000
20000
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
20000
40000
60000
spawning biomass

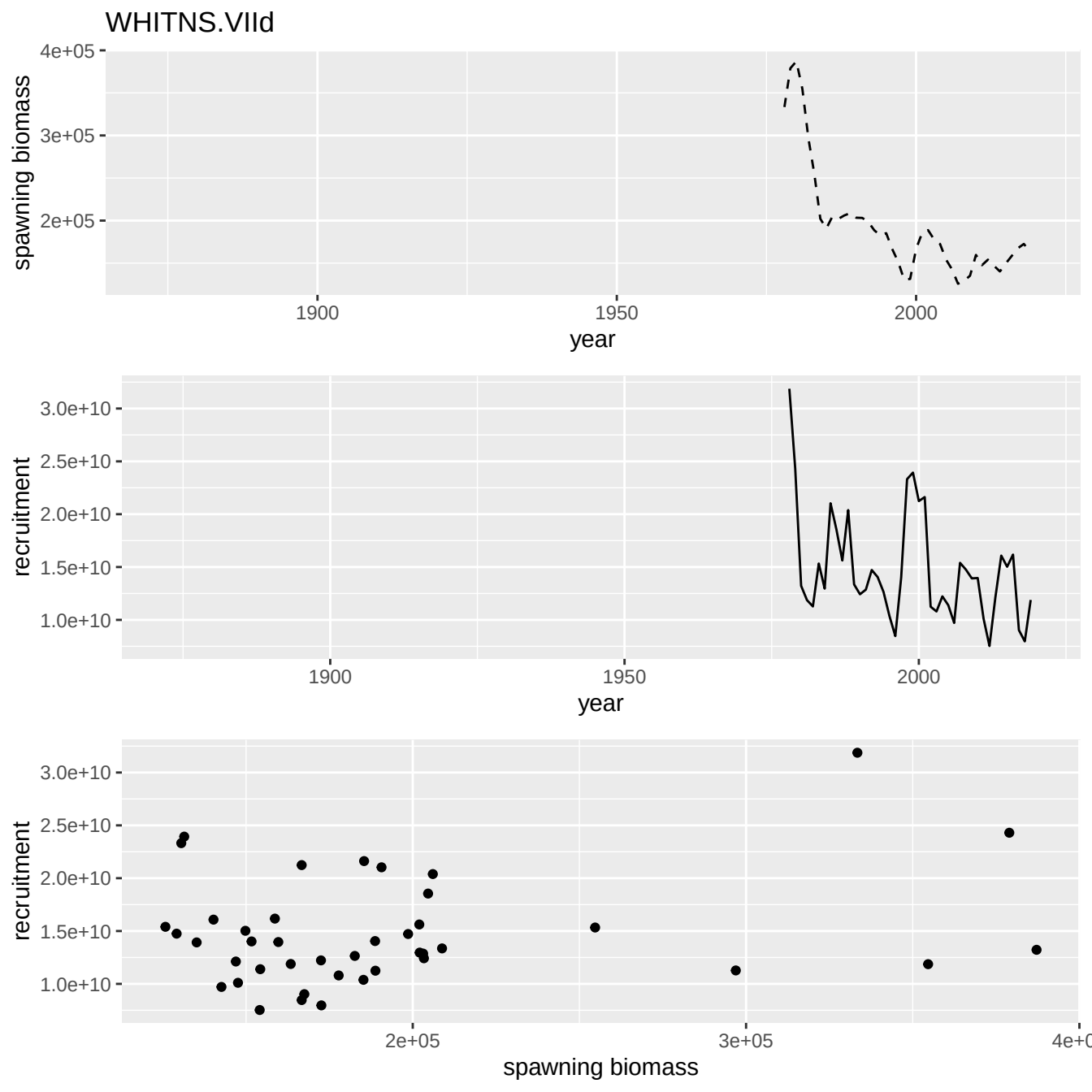

WAREHOUESE
spawning biomass
10000
5000
0
1900
1950
2000
year
recruitment
1e+13
5e+12
0e+00
1900
1950
2000
year
recruitment
1e+13
5e+12
0e+00
0
5000
10000
spawning biomass

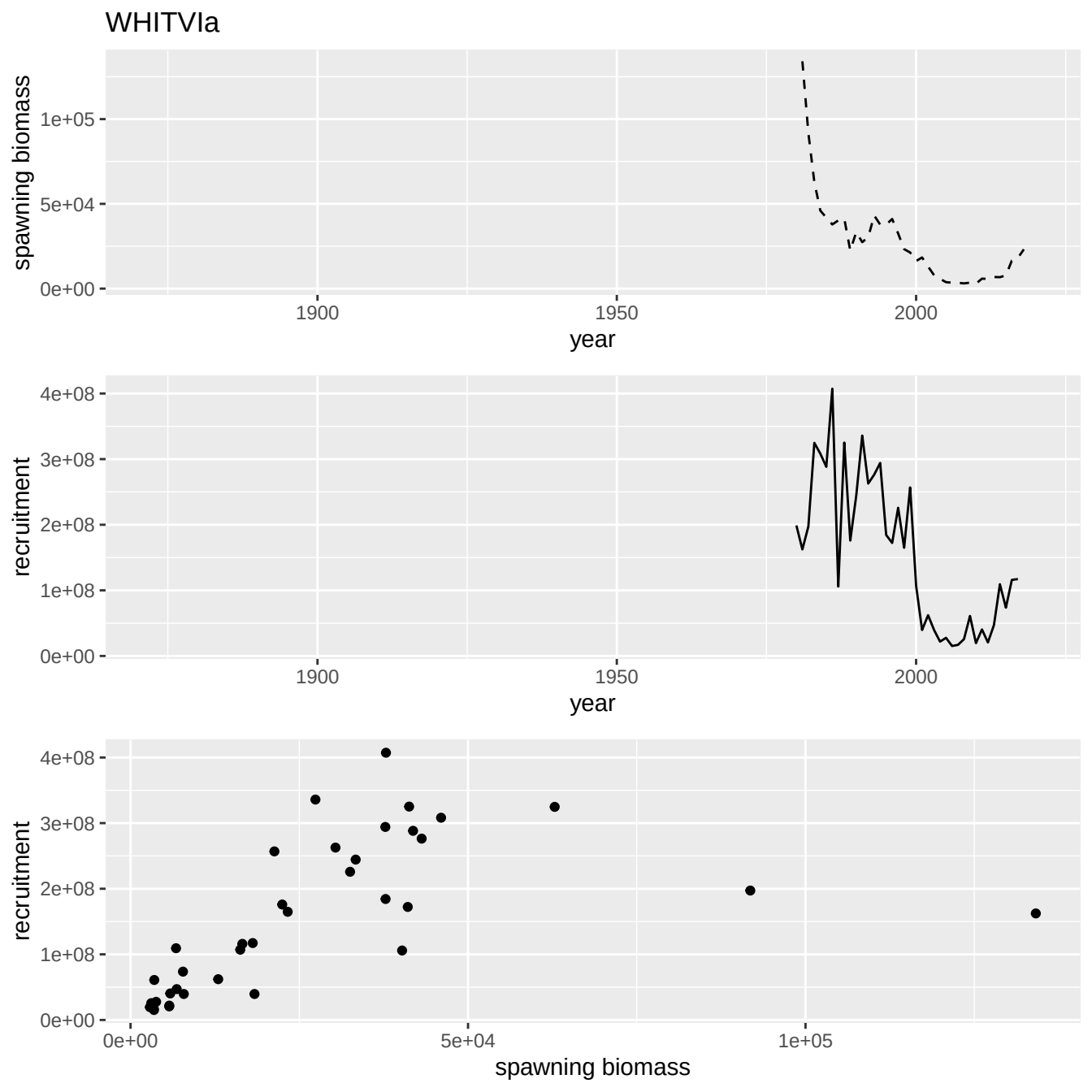

WAREHOUWSE
spawning biomass
4000
3000
2000
1000
1900
1950
2000
year
recruitment
6e+12
4e+12
2e+12
1900
1950
2000
year
recruitment
6e+12
4e+12
2e+12
1000
2000
3000
4000
spawning biomass

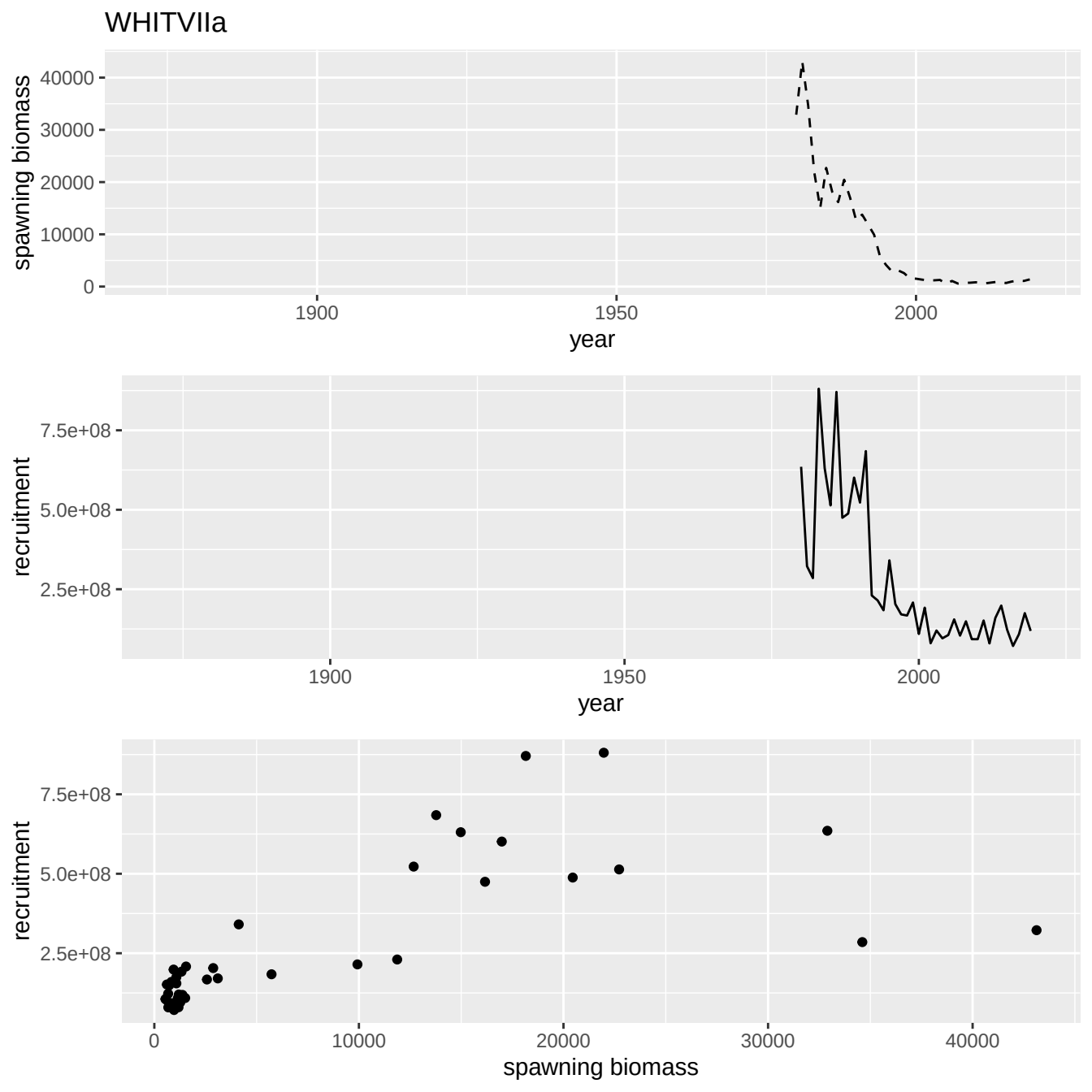

WHAKE4T
spawning biomass
60000
40000
20000
1900
1950
2000
year
recruitment
1.2e+08
1.0e+08
8.0e+07
6.0e+07
1900
1950
2000
year
recruitment
1.2e+08
1.0e+08
8.0e+07
6.0e+07
20000
40000
60000
spawning biomass

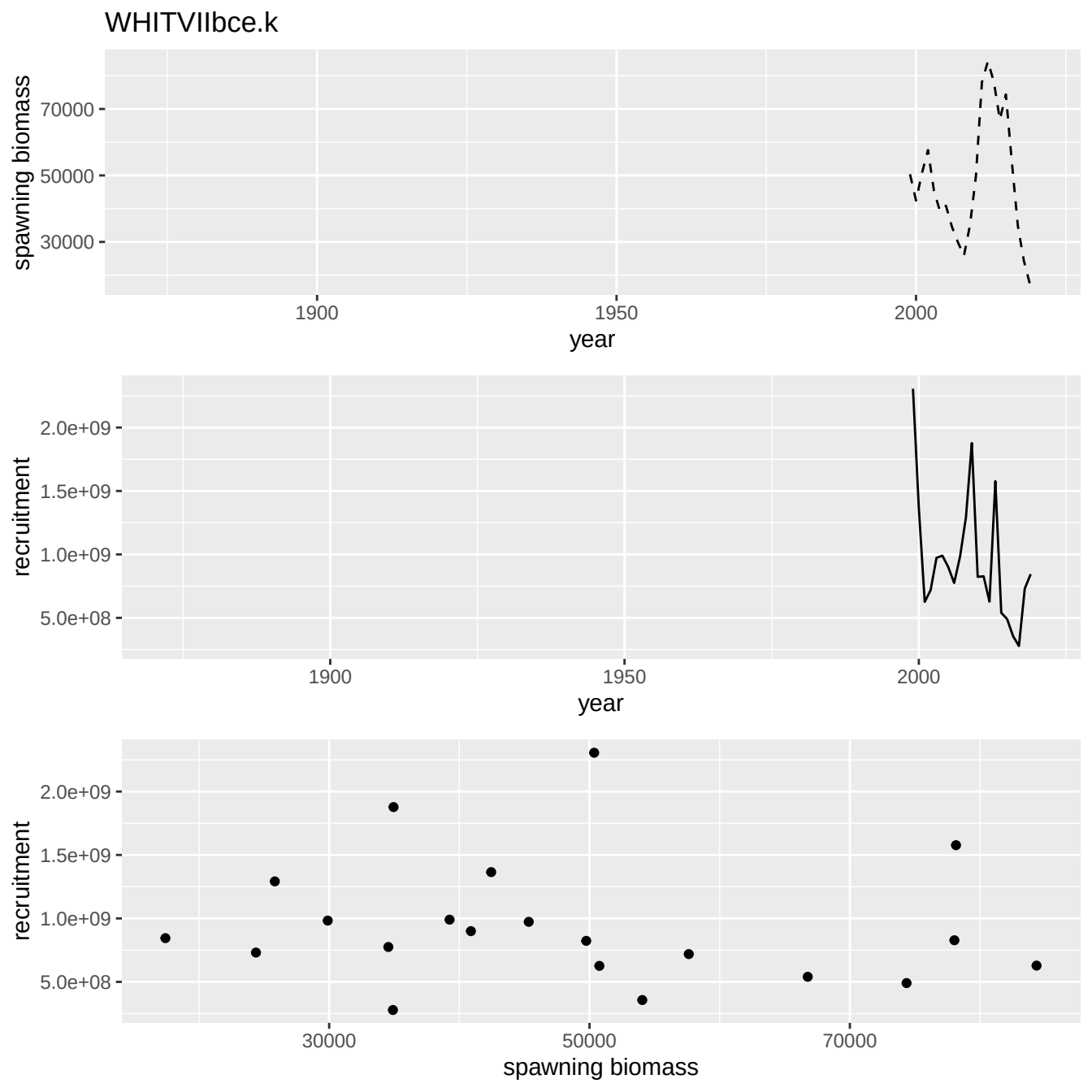

WHAKEGBGOM
spawning biomass
30000
20000
10000
1900
1950
2000
year
recruitment
12500000
10000000
7500000
5000000
2500000
1900
1950
2000
year
recruitment
12500000
10000000
7500000
5000000
2500000
10000
20000
30000
spawning biomass

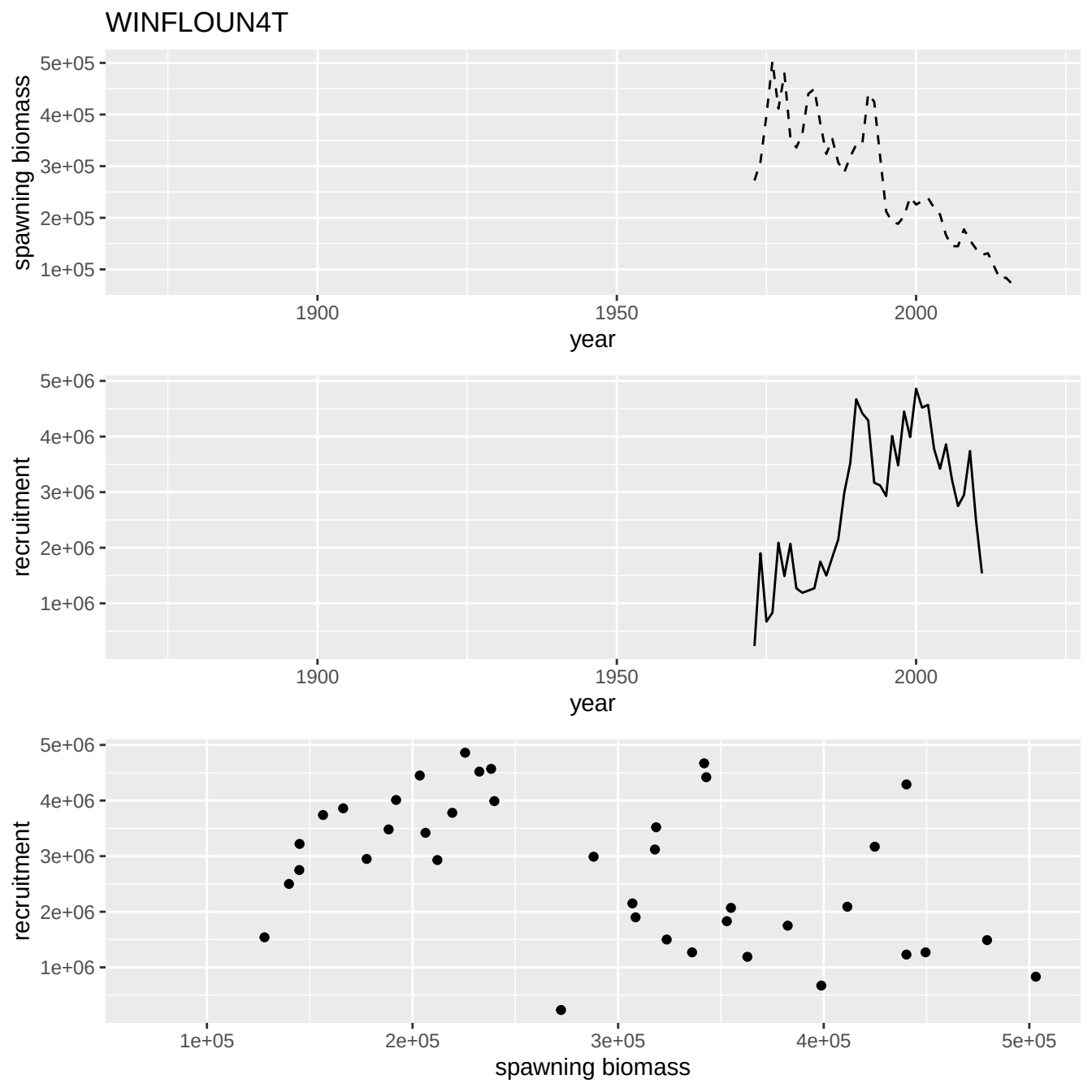

WHITMEDGSA29
spawning biomass
22500
20000
17500
15000
12500
10000
1900
1950
2000
year
recruitment
1e+09
5e+08
1900
1950
2000
year
recruitment
1e+09
5e+08
10000
12500
15000
17500
20000
22500
spawning biomass

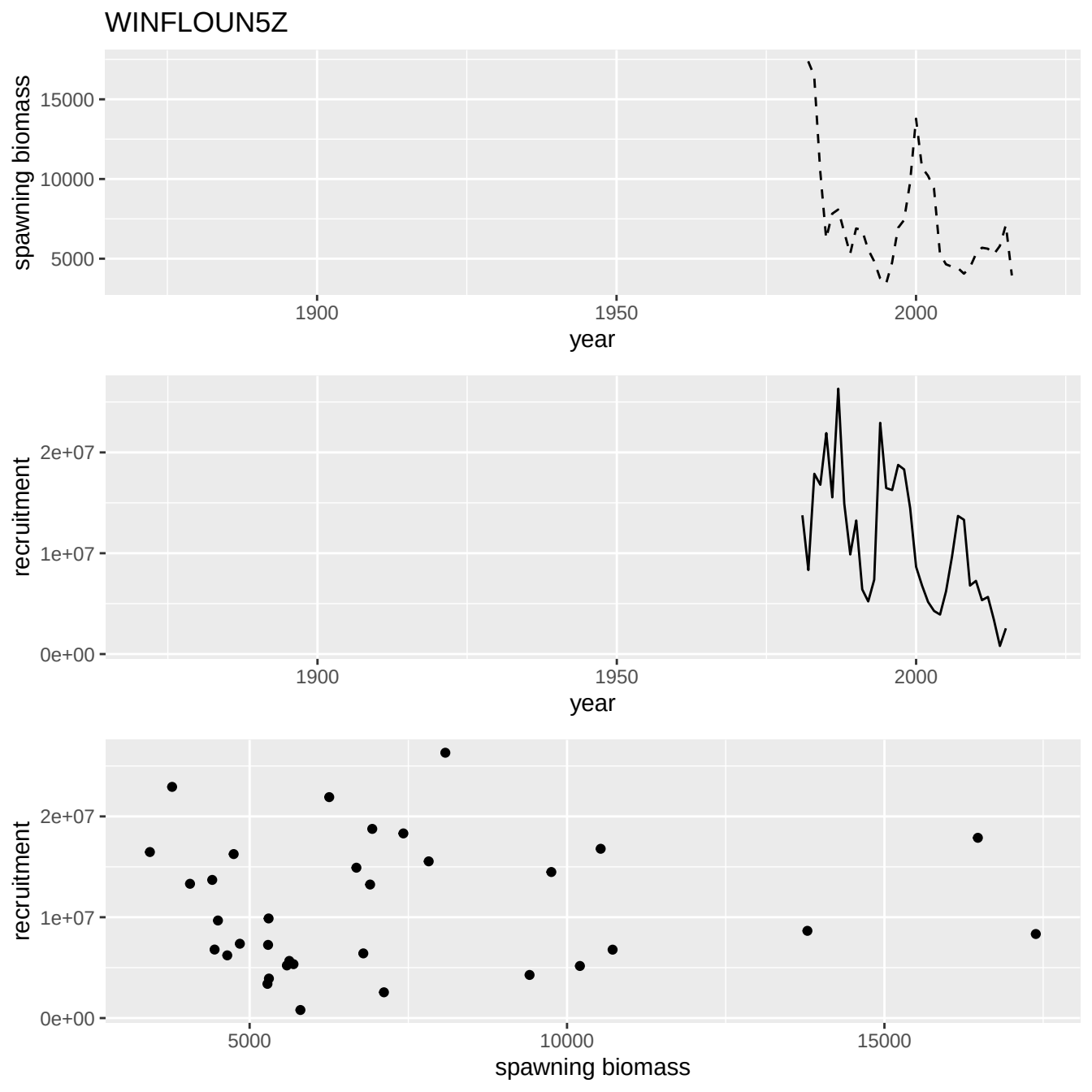

WHITNS.VIId
spawning biomass
4e+05
3e+05
2e+05
1900
1950
2000
year
recruitment
3.0e+10
2.5e+10
2.0e+10
1.5e+10
1.0e+10
1900
1950
2000
year
recruitment
3.0e+10
2.5e+10
2.0e+10
1.5e+10
1.0e+10
2e+05
3e+05
4e+0
spawning biomass

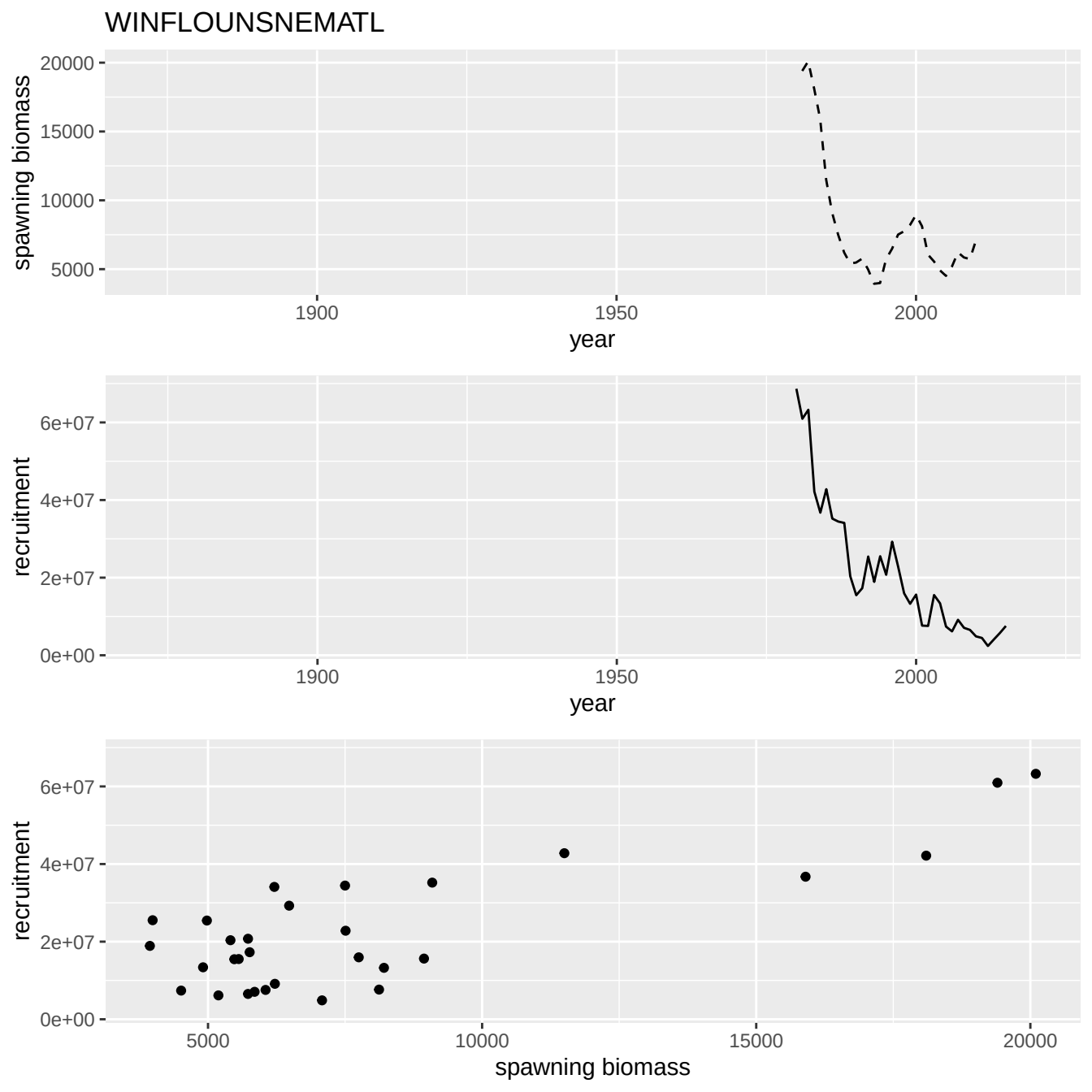

WHITVIa
spawning biomass
1e+05
5e+04
0e+00
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
0e+00
1900
1950
2000
year
recruitment
4e+08
3e+08
2e+08
1e+08
0e+00
0e+00
5e+04
1e+05
spawning biomass

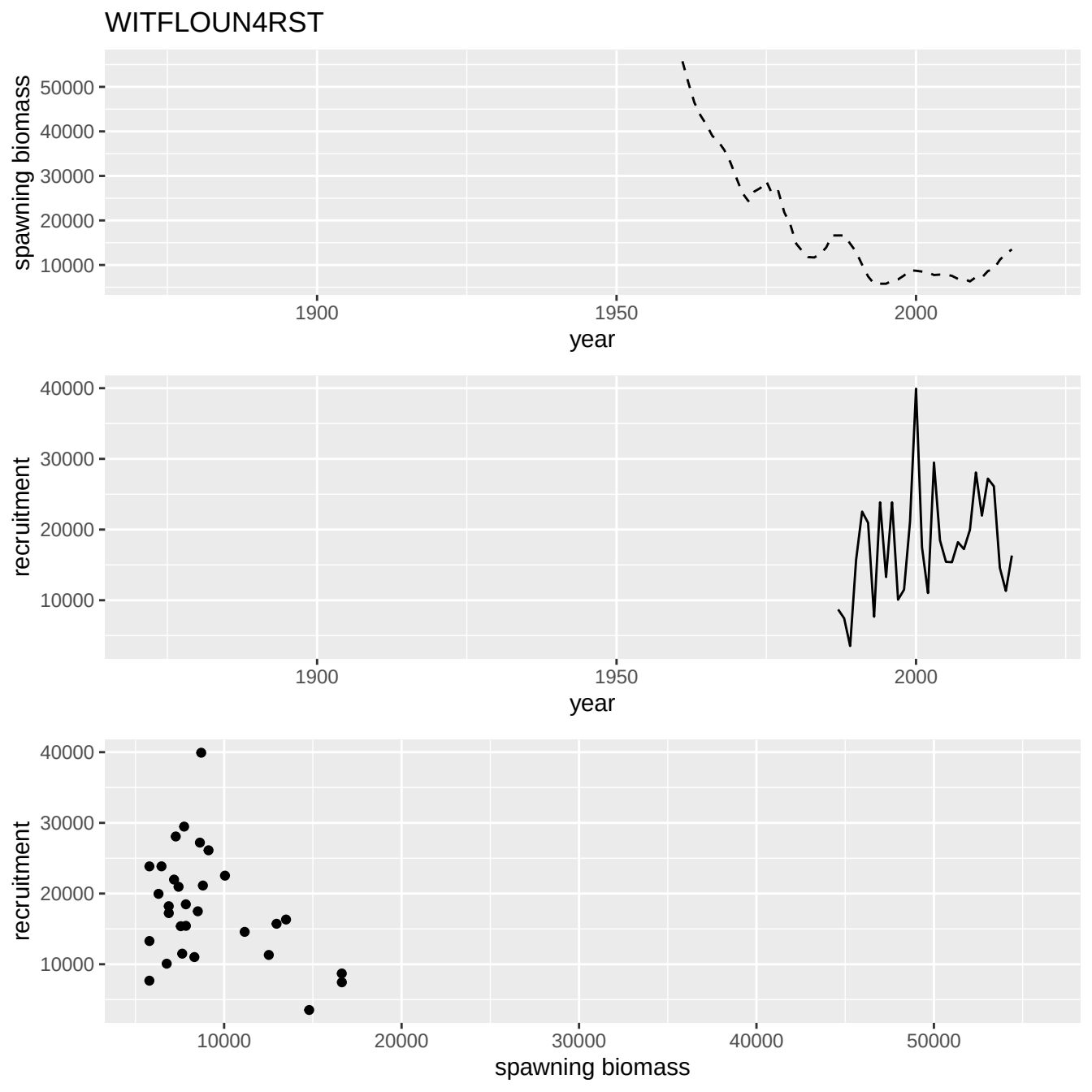

WHITVIIa
spawning biomass
40000
30000
20000
10000
0
1900
1950
2000
year
recruitment
7.5e+08
5.0e+08
2.5e+08
1900
1950
2000
year
recruitment
7.5e+08
5.0e+08
2.5e+08
0
10000
20000
30000
40000
spawning biomass

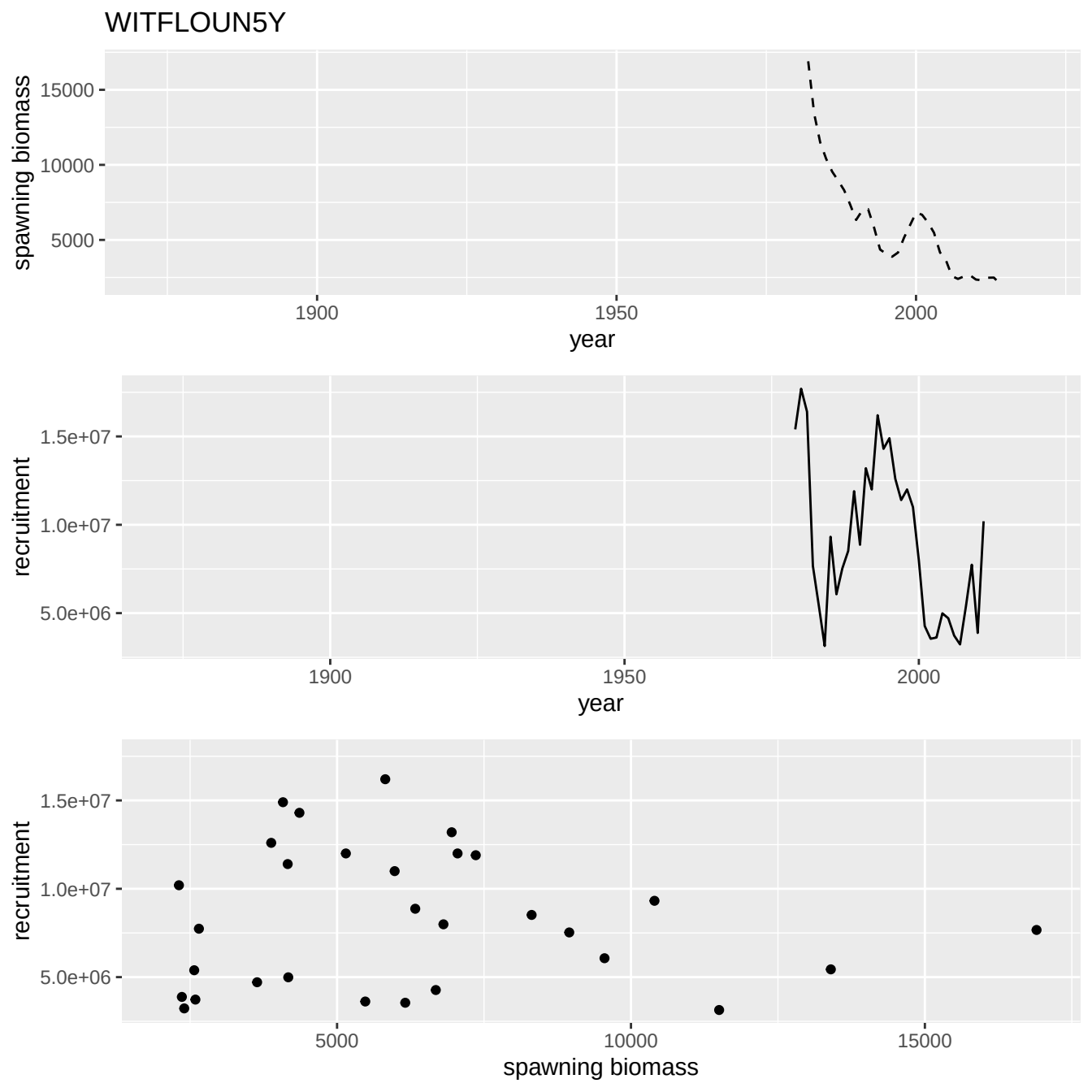

WHITVIIbce.k
spawning biomass
70000
50000
30000
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
1900
1950
2000
year
recruitment
2.0e+09
1.5e+09
1.0e+09
5.0e+08
30000
50000
70000
spawning biomass

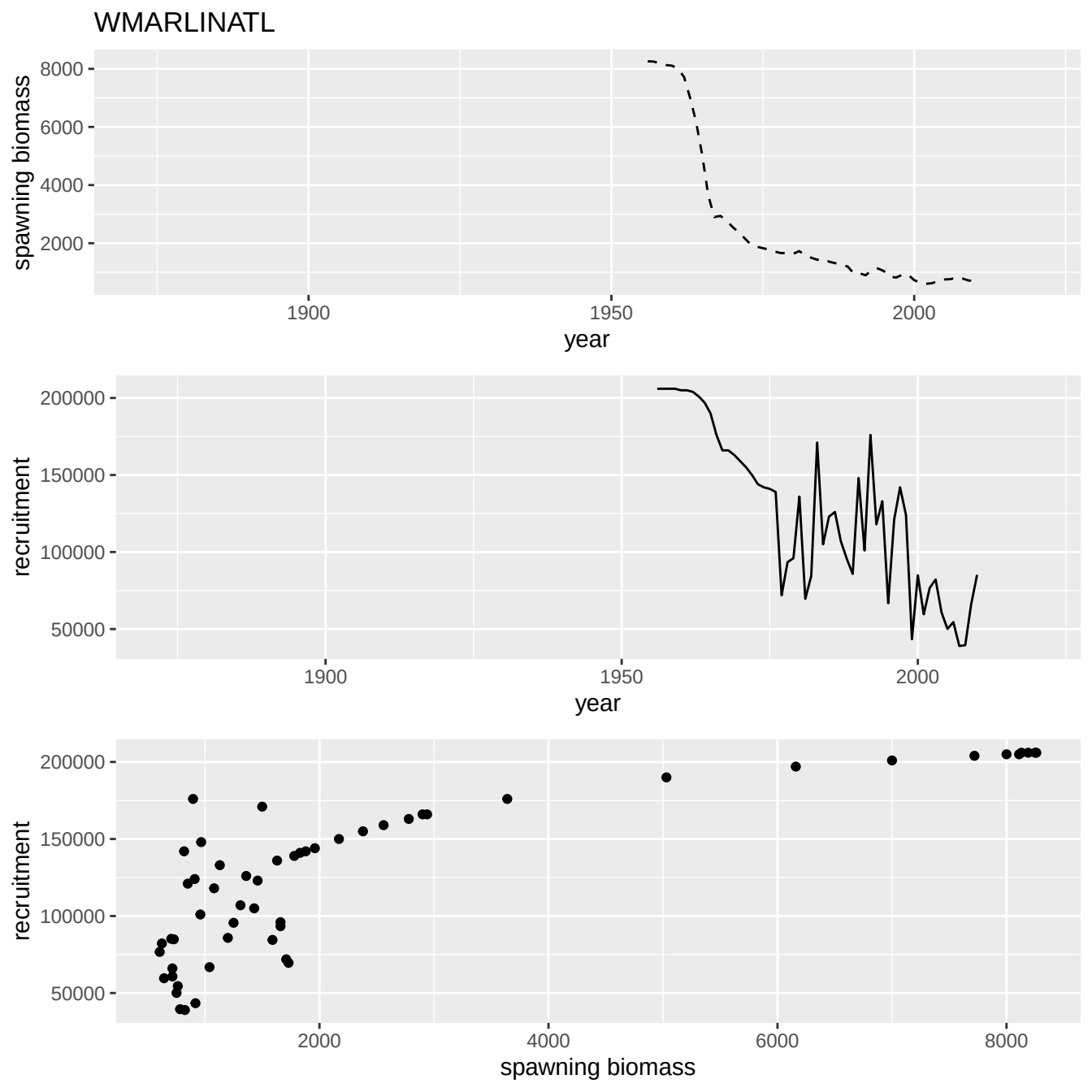

WINFLOUN4T
spawning biomass
5e+05
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
5e+06
4e+06
3e+06
2e+06
1e+06
1e+05
2e+05
3e+05
4e+05
5e+05
spawning biomass

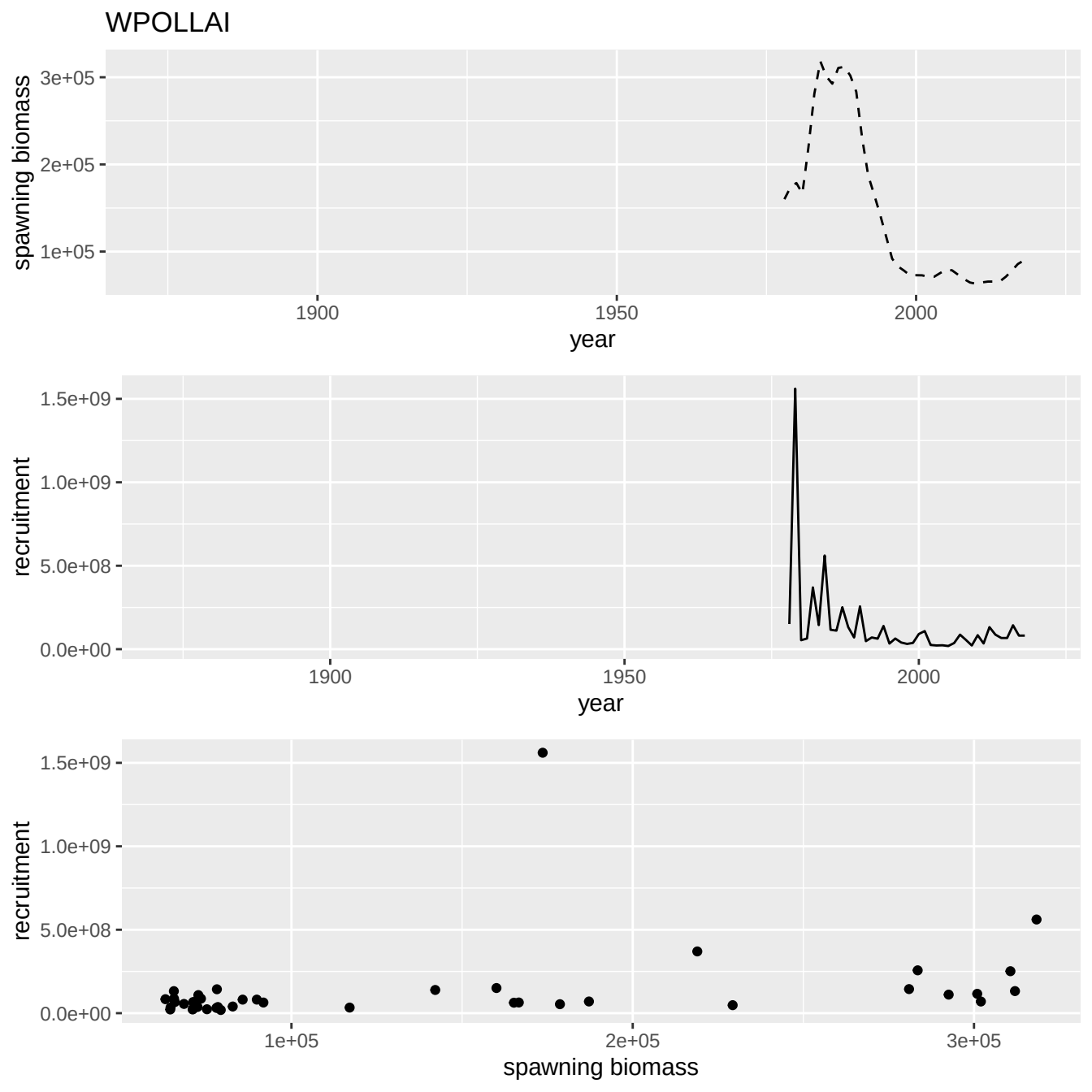

WINFLOUN5Z
spawning biomass
15000
10000
5000
1900
1950
2000
year
recruitment
2e+07
1e+07
0e+00
1900
1950
2000
year
recruitment
2e+07
1e+07
0e+00
5000
10000
15000
spawning biomass

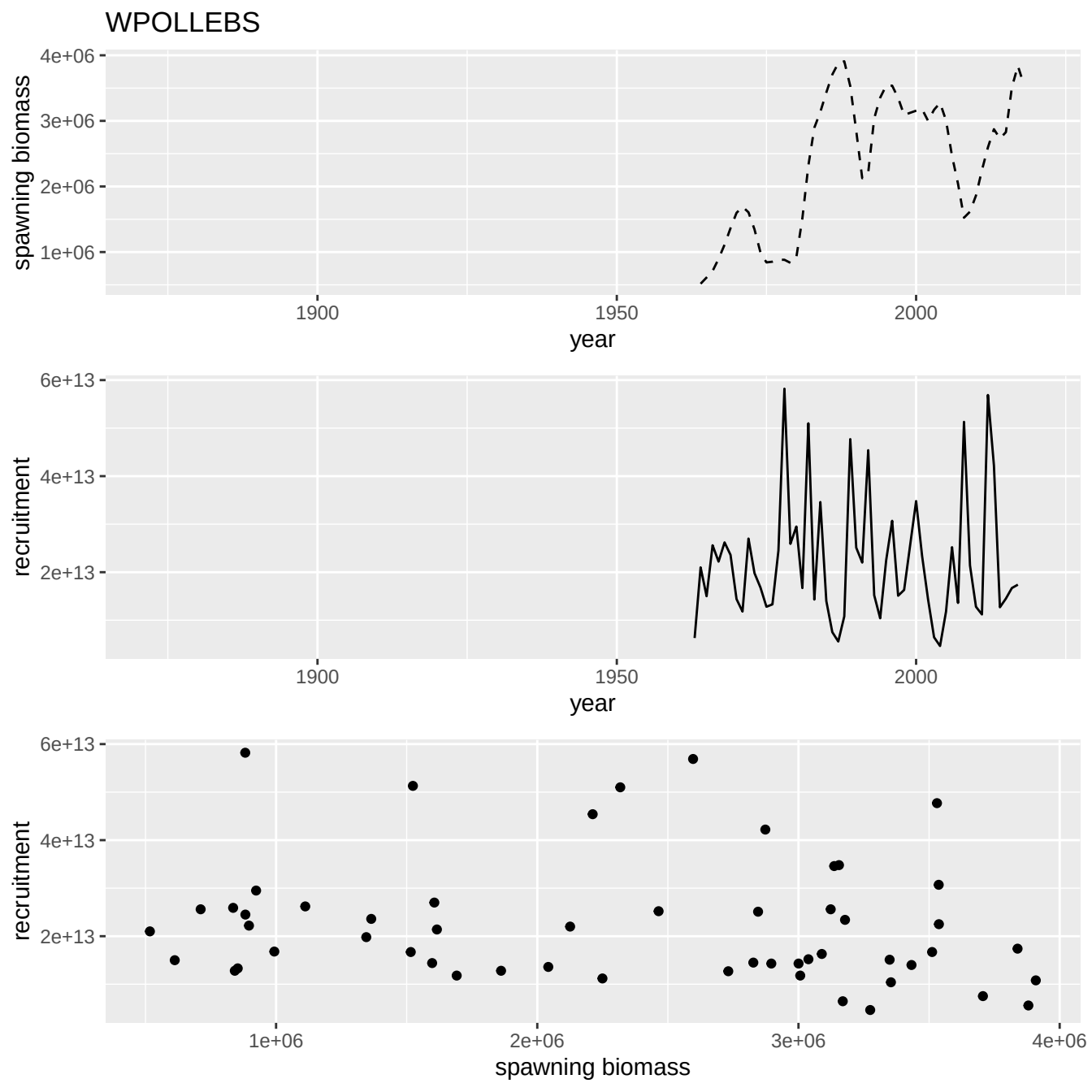

WINFLOUNSNEMATL
spawning biomass
20000
15000
10000
5000
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
0e+00
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
0e+00
5000
10000
15000
20000
spawning biomass

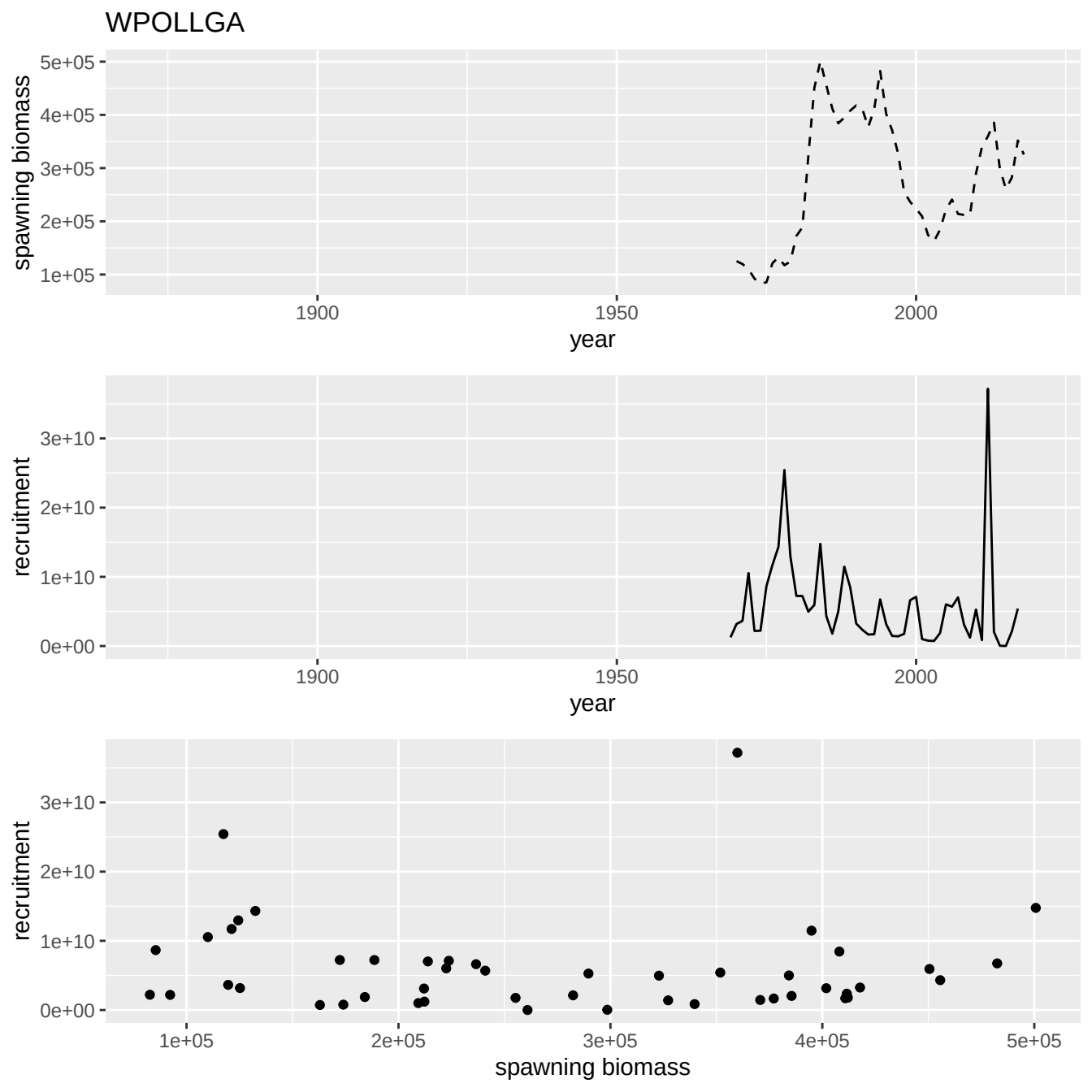

WITFLOUN4RST
spawning biomass
50000
40000
30000
20000
10000
1900
1950
2000
year
recruitment
40000
30000
20000
10000
1900
1950
2000
year
recruitment
40000
30000
20000
10000
10000
20000
30000
40000
50000
spawning biomass

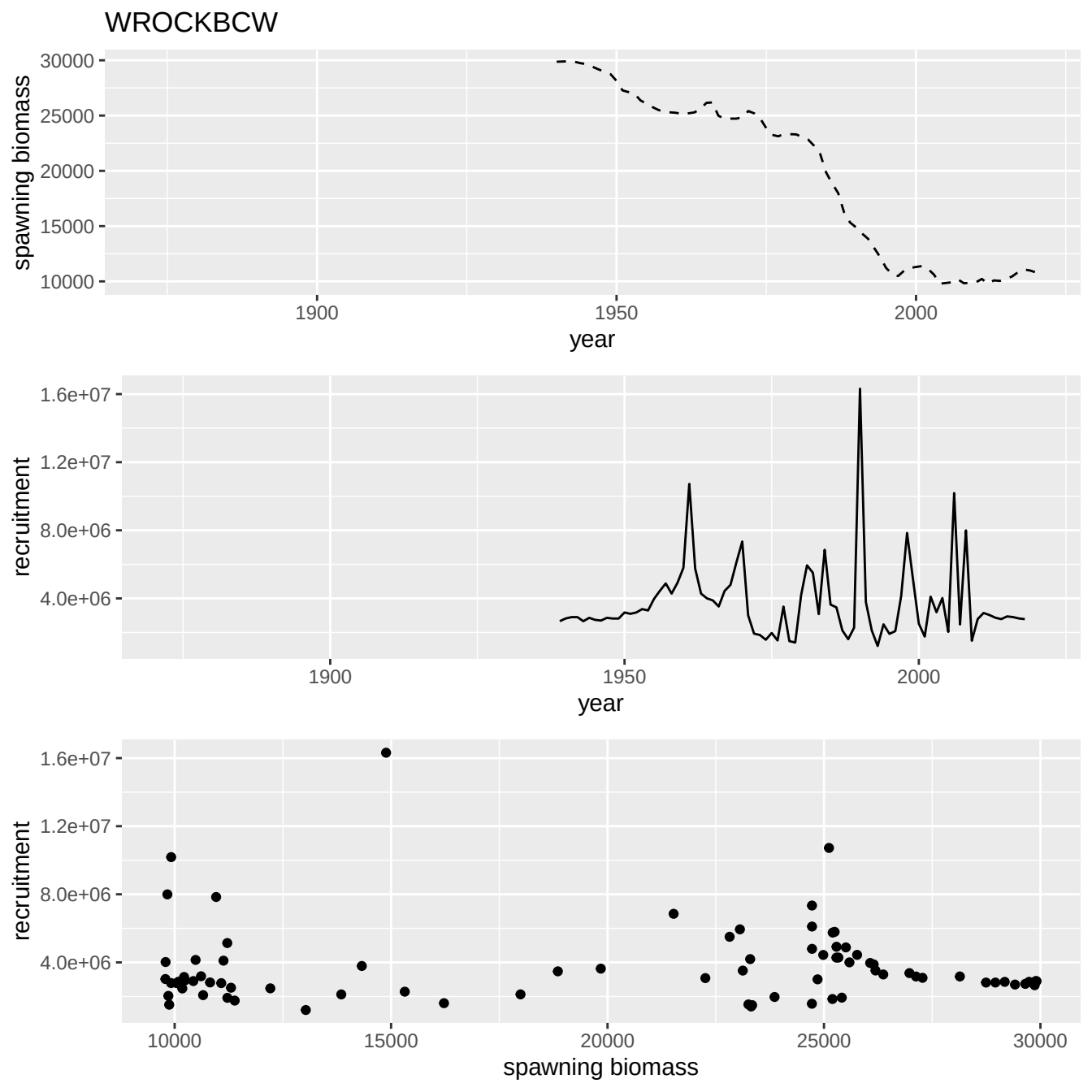

WITFLOUN5Y
spawning biomass
15000
10000
5000
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
1900
1950
2000
year
recruitment
1.5e+07
1.0e+07
5.0e+06
5000
10000
15000
spawning biomass

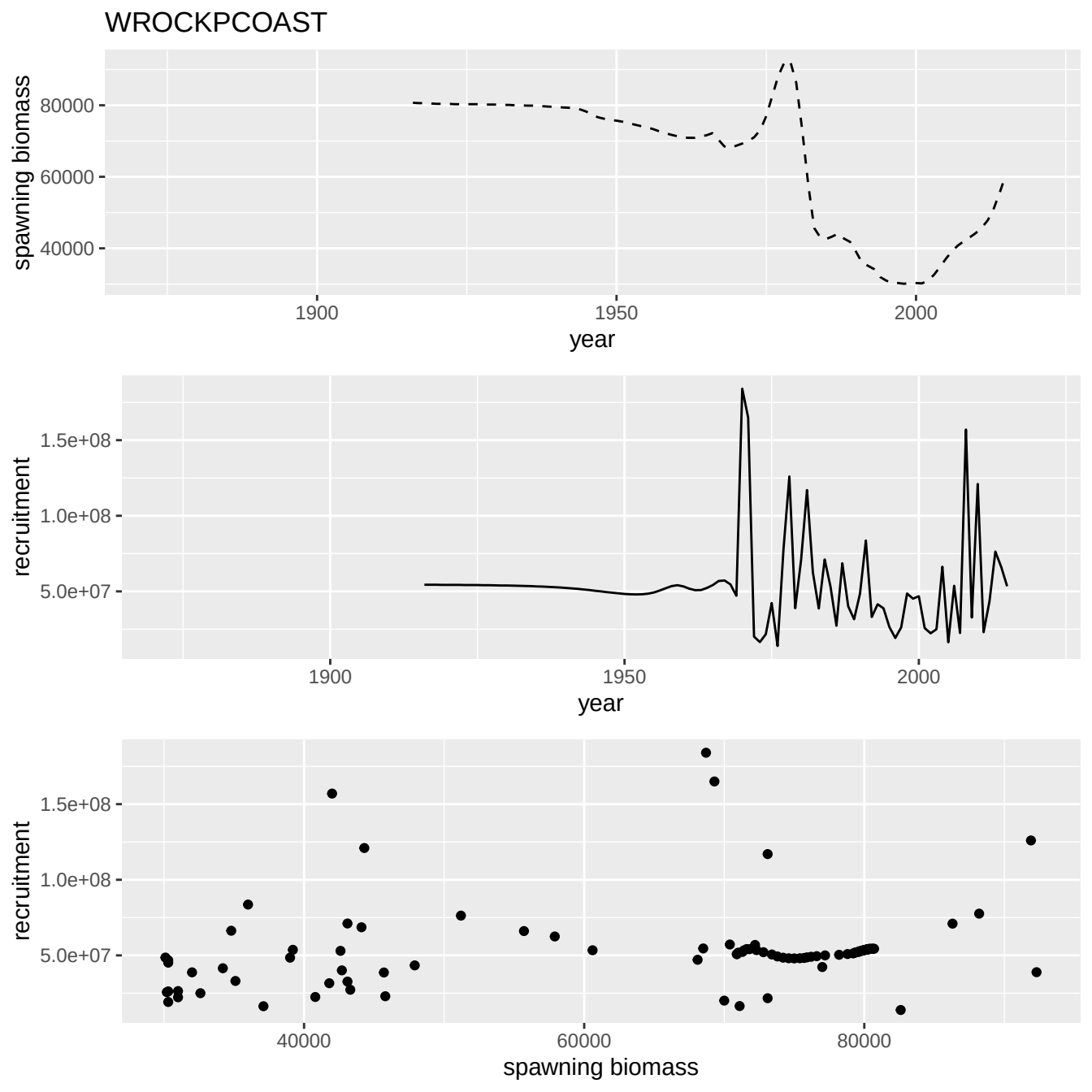

WMARLINATL
spawning biomass
8000
6000
4000
2000
1900
1950
2000
year
recruitment
200000
150000
100000
50000
1900
1950
2000
year
recruitment
200000
150000
100000
50000
2000
4000
6000
8000
spawning biomass

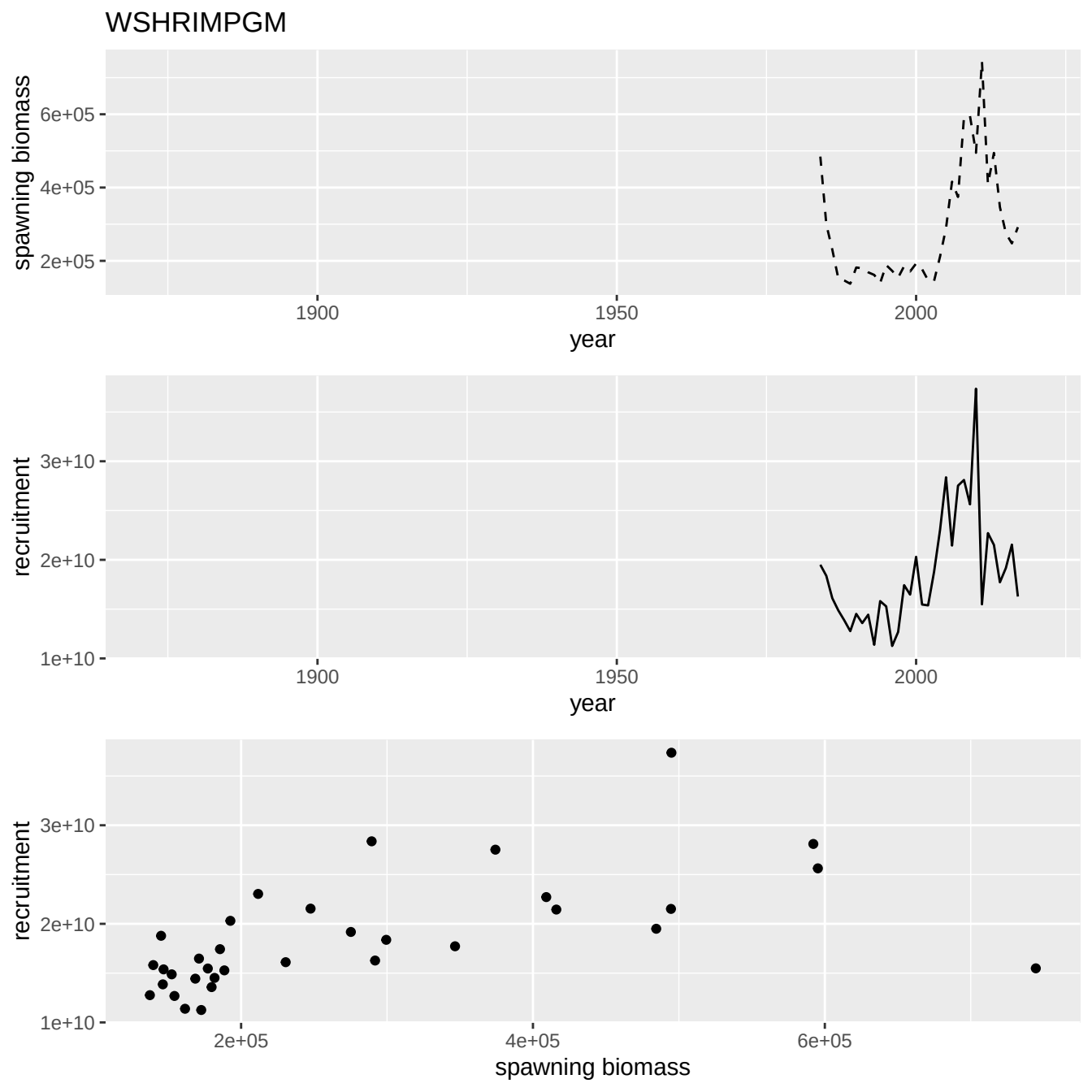

WPOLLAI
spawning biomass
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1900
1950
2000
year
recruitment
1.5e+09
1.0e+09
5.0e+08
0.0e+00
1e+05
2e+05
3e+05
spawning biomass

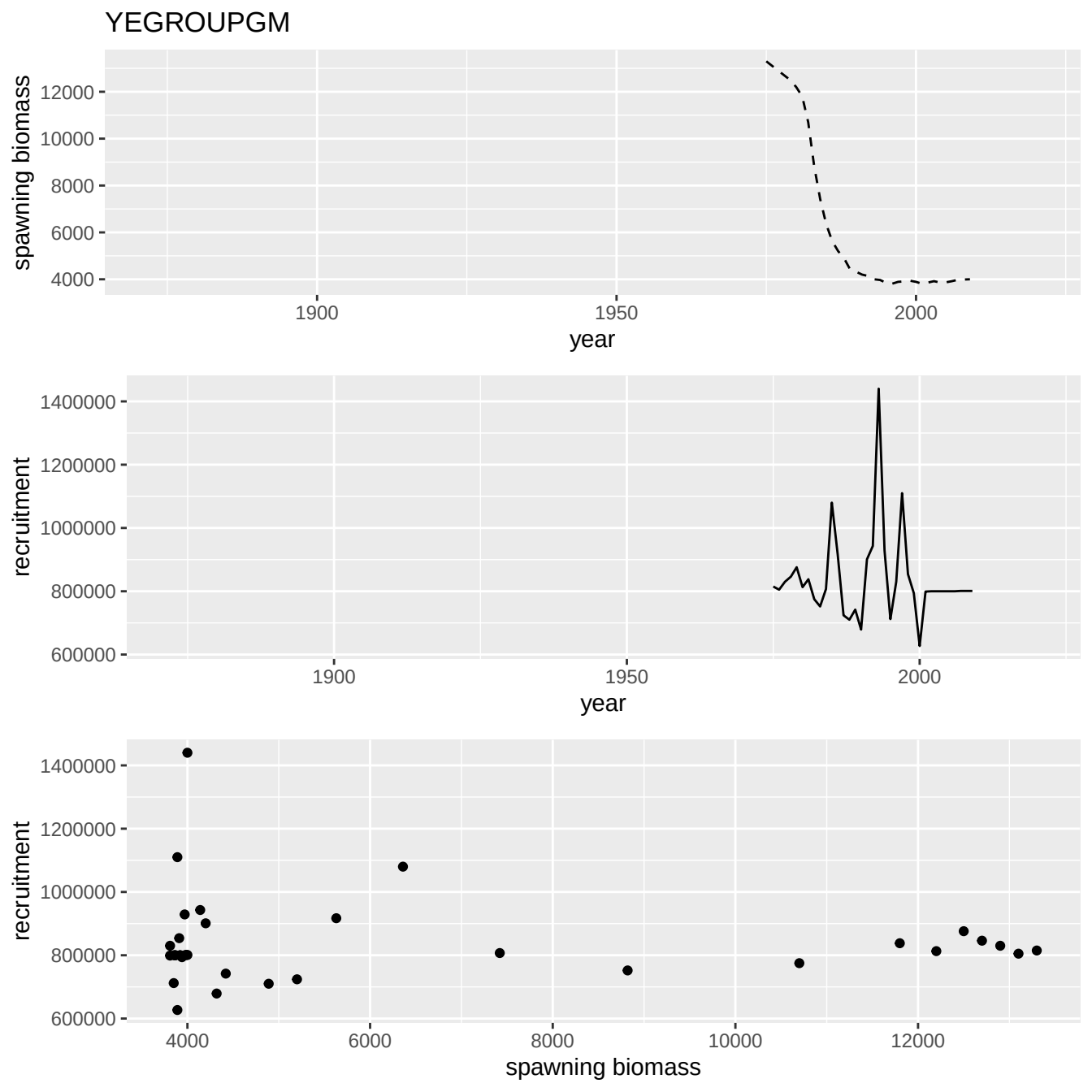

WPOLLEBS
spawning biomass
4e+06
3e+06
2e+06
1e+06
1900
1950
2000
year
recruitment
6e+13
4e+13
2e+13
1900
1950
2000
year
recruitment
6e+13
4e+13
2e+13
1e+06
2e+06
3e+06
4e+06
spawning biomass

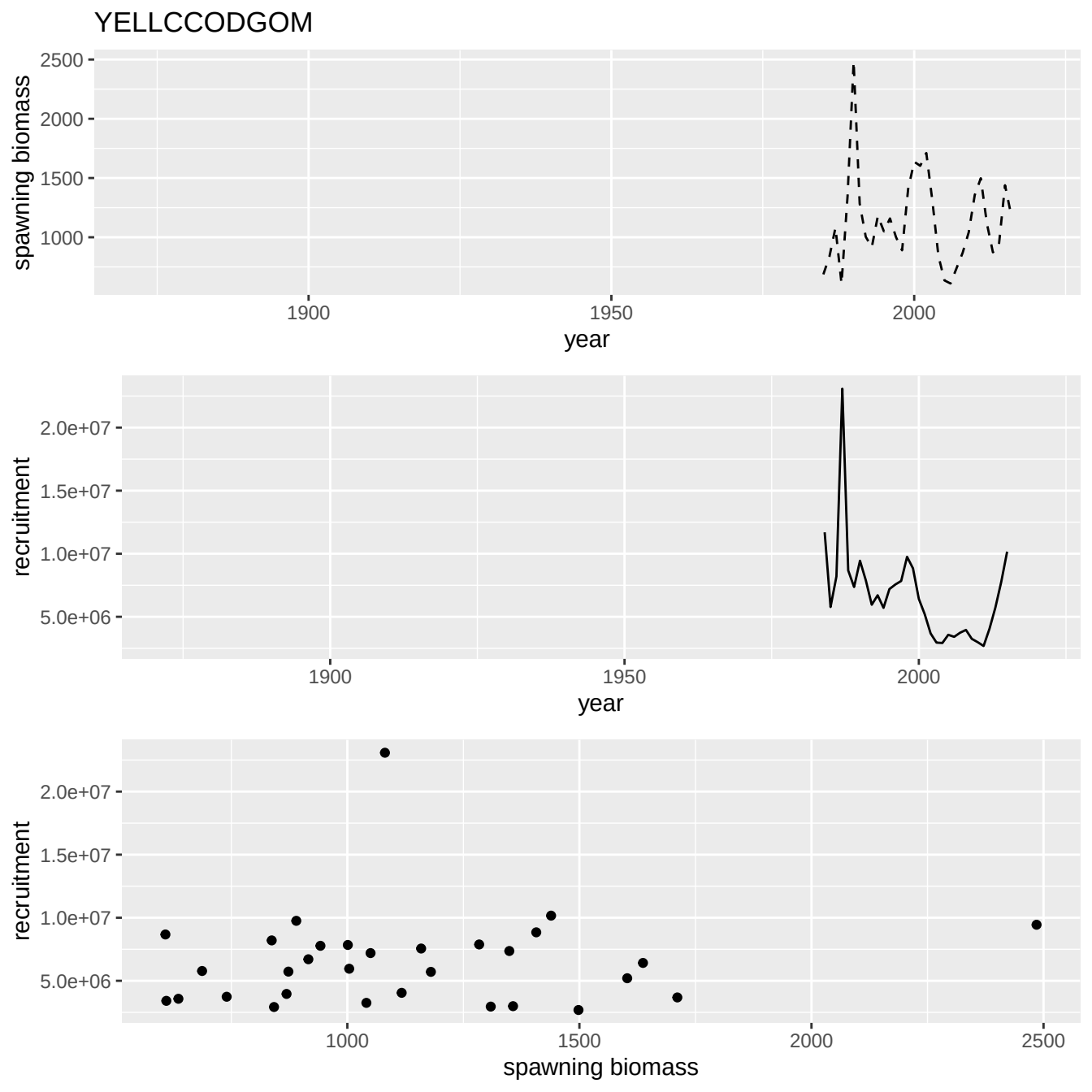

WPOLLGA
spawning biomass
5e+05
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
3e+10
2e+10
1e+10
0e+00
1900
1950
2000
year
recruitment
3e+10
2e+10
1e+10
0e+00
1e+05
2e+05
3e+05
4e+05
5e+05
spawning biomass

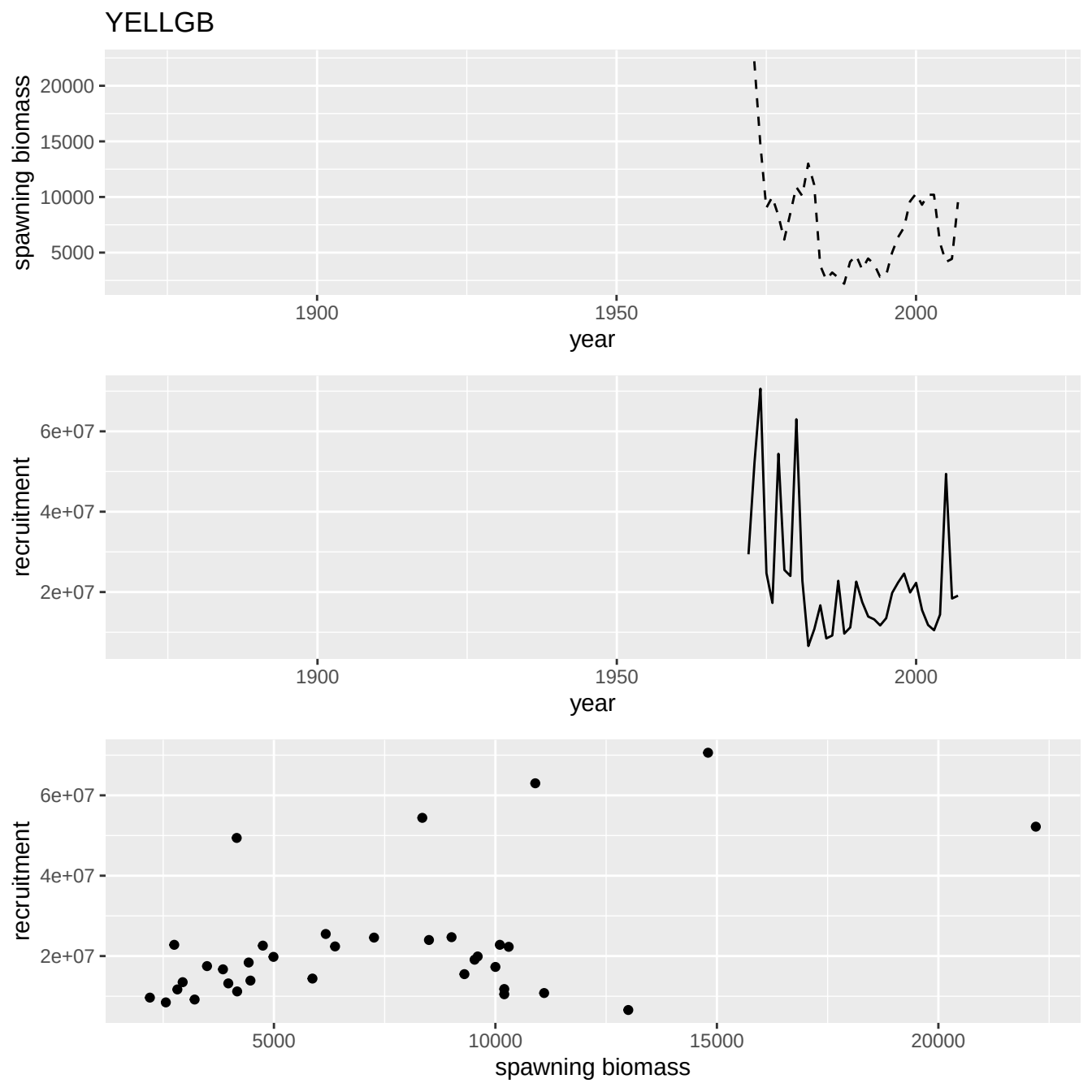

WROCKBCW
spawning biomass
30000
25000
20000
15000
10000
1900
1950
2000
year
recruitment
1.6e+07
1.2e+07
8.0e+06
4.0e+06
1900
1950
2000
year
recruitment
1.6e+07
1.2e+07
8.0e+06
4.0e+06
10000
15000
20000
25000
30000
spawning biomass

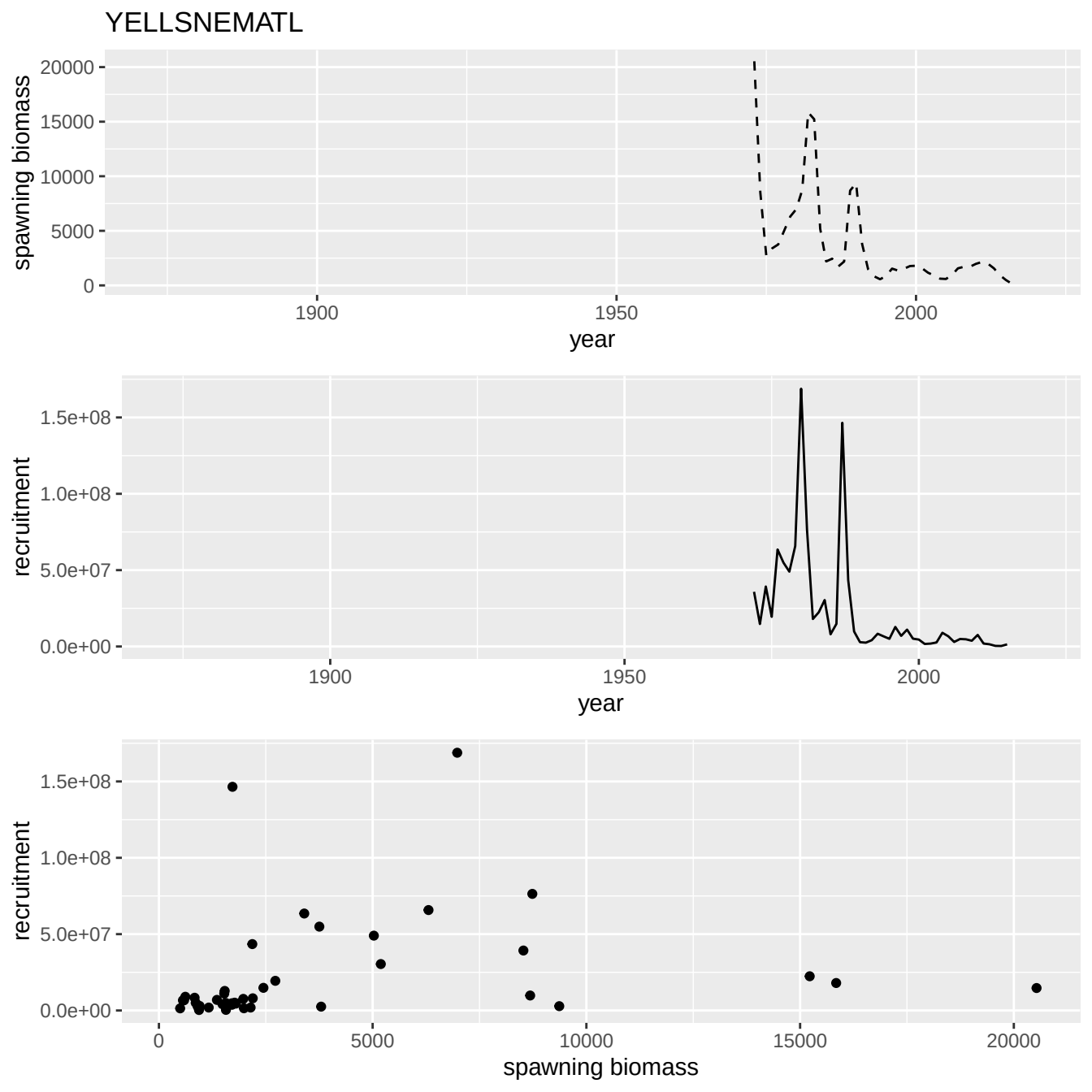

WROCKPCOAST
spawning biomass
80000
60000
40000
1900
1950
2000
year
recruitment
1.5e+08
1.0e+08
5.0e+07
1900
1950
2000
year
recruitment
1.5e+08
1.0e+08
5.0e+07
40000
60000
80000
spawning biomass

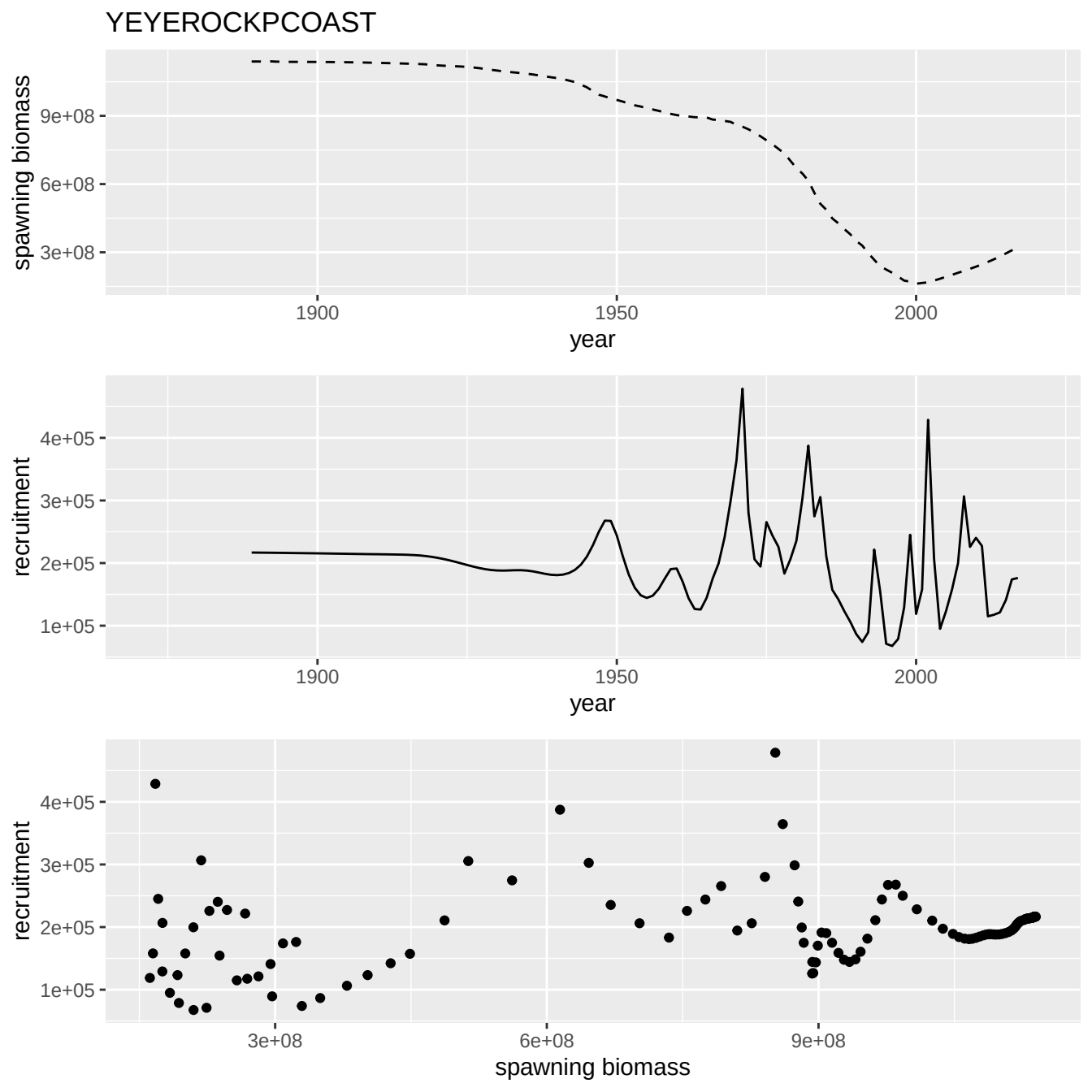

WSHRIMPGM
spawning biomass
6e+05
4e+05
2e+05
1900
1950
2000
year
recruitment
3e+10
2e+10
1e+10
1900
1950
2000
year
recruitment
3e+10
2e+10
1e+10
2e+05
4e+05
6e+05
spawning biomass

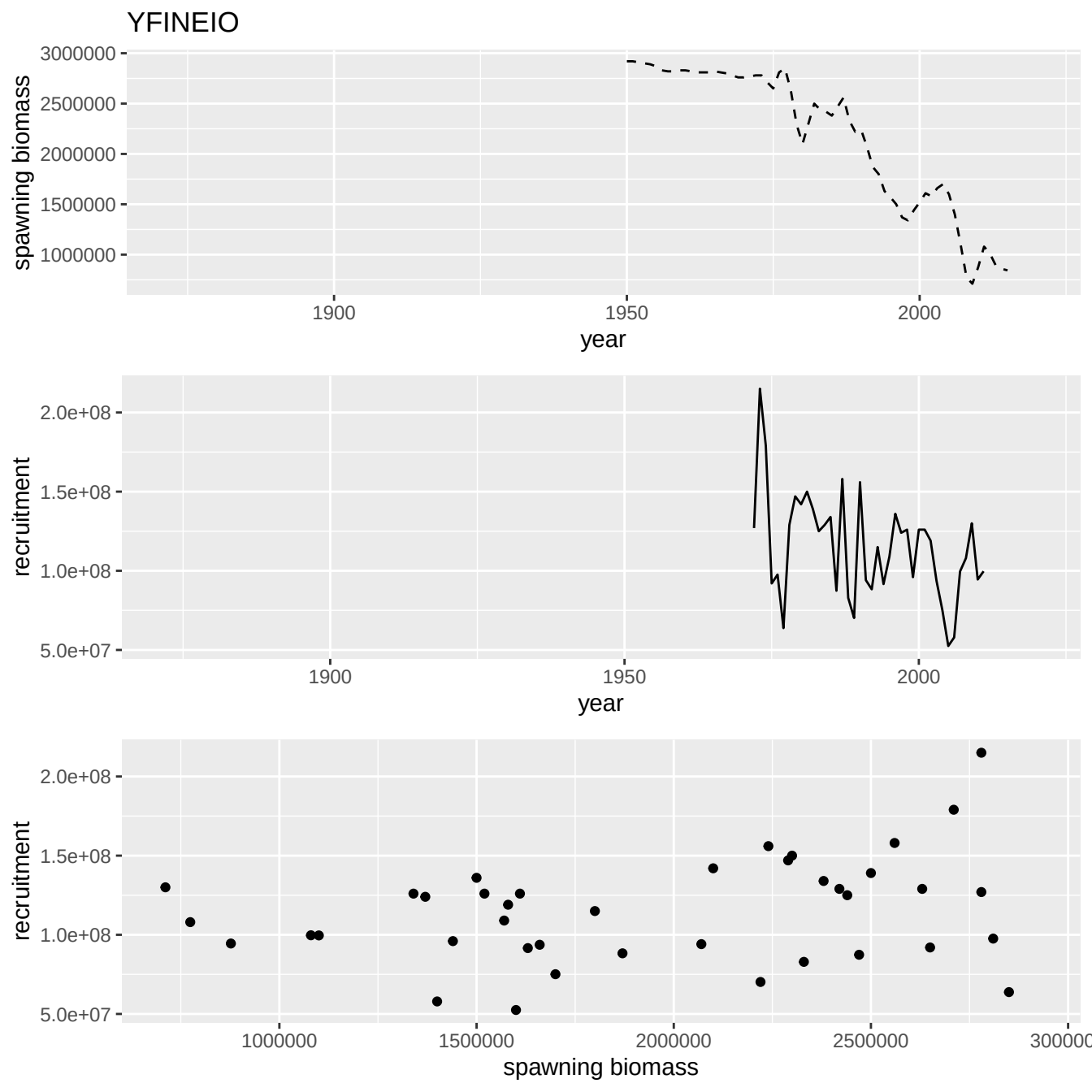

YEGROUPGM
spawning biomass
12000
10000
8000
6000
4000
1900
1950
2000
year
recruitment
1400000
1200000
1000000
800000
600000
1900
1950
2000
year
recruitment
1400000
1200000
1000000
800000
600000
4000
6000
8000
10000
12000
spawning biomass

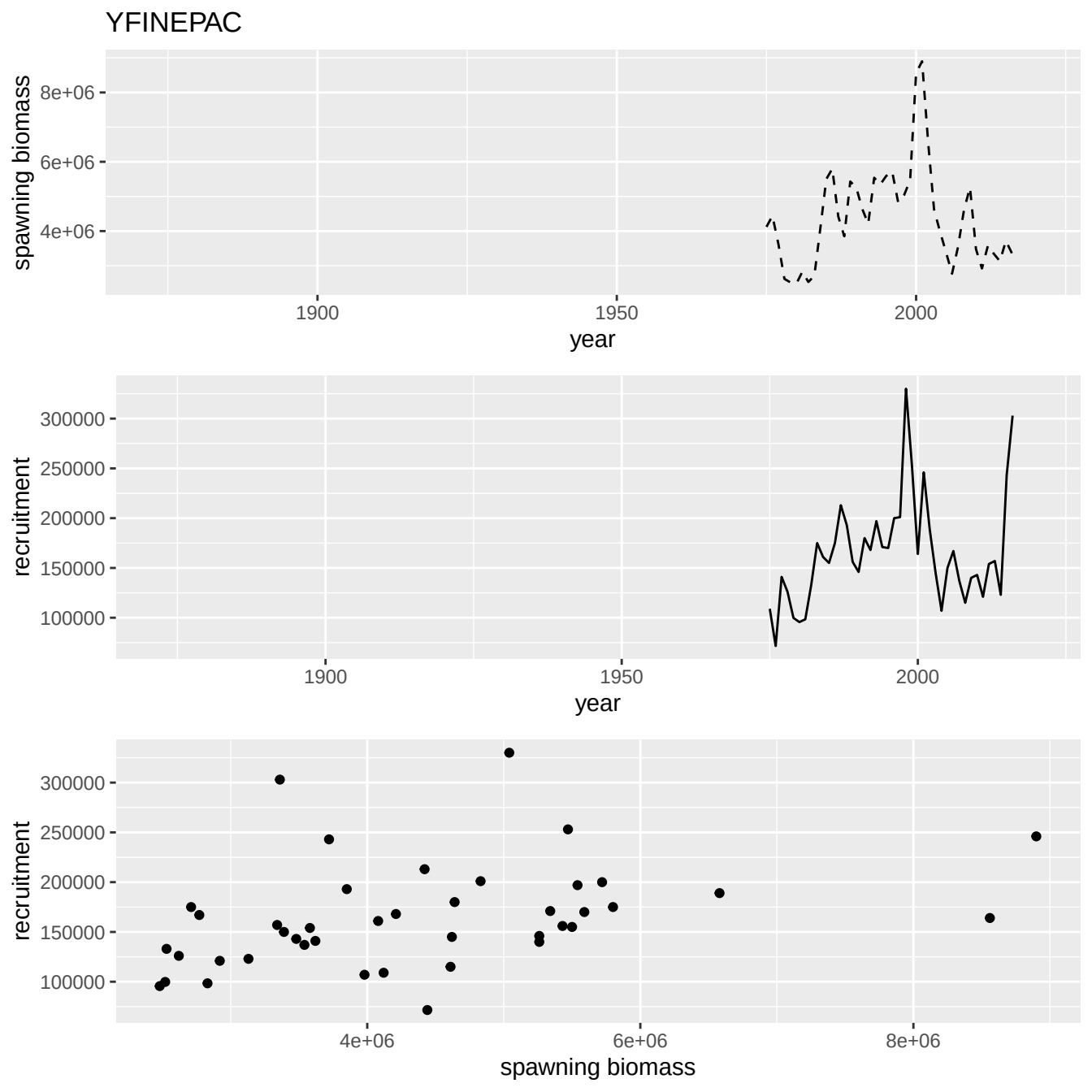

YELLCCODGOM
spawning biomass
2500
2000
1500
1000
1900
1950
2000
year
recruitment
2.0e+07
1.5e+07
1.0e+07
5.0e+06
1900
1950
2000
year
recruitment
2.0e+07
1.5e+07
1.0e+07
5.0e+06
1000
1500
2000
2500
spawning biomass

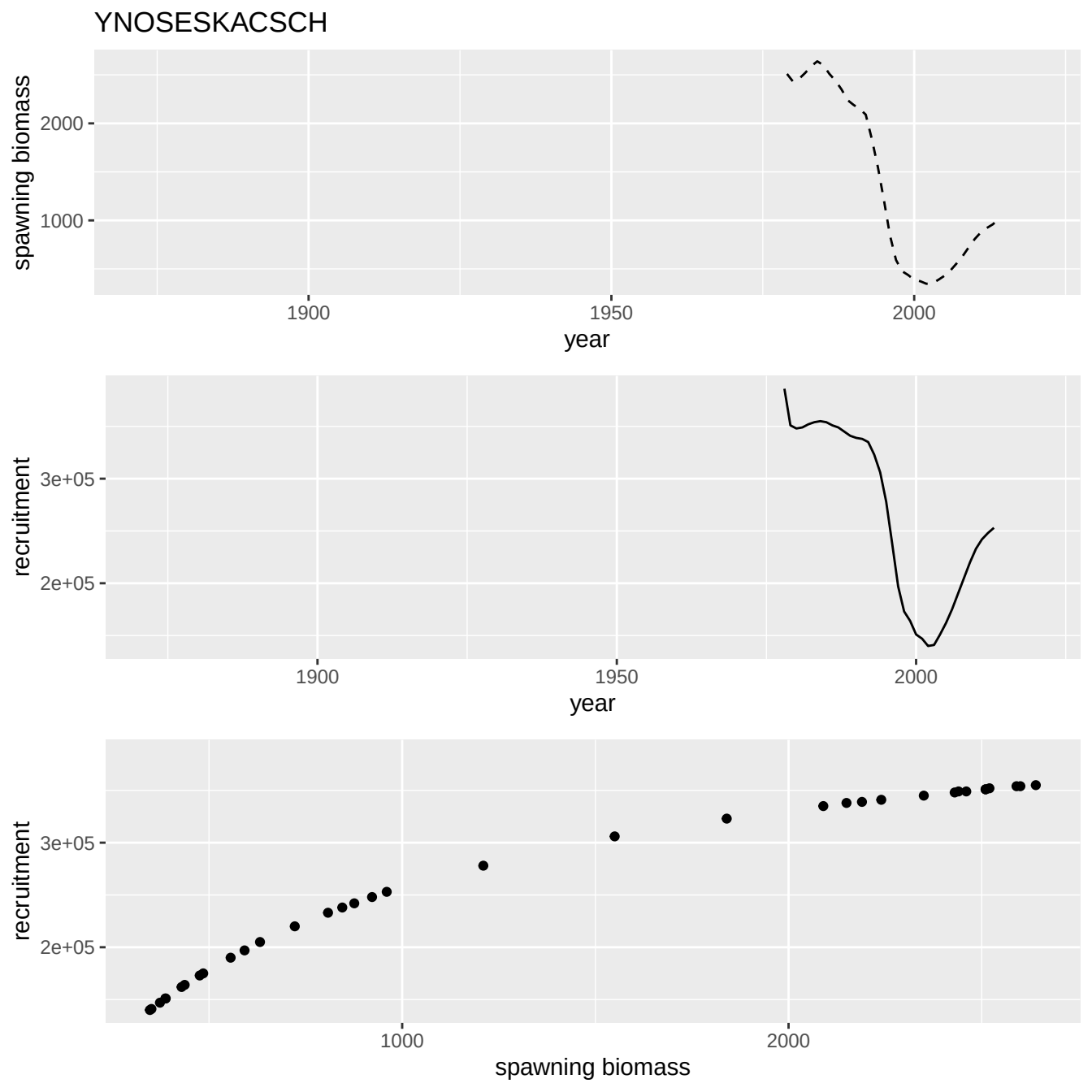

YELLGB
spawning biomass
20000
15000
10000
5000
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
1900
1950
2000
year
recruitment
6e+07
4e+07
2e+07
5000
10000
15000
20000
spawning biomass

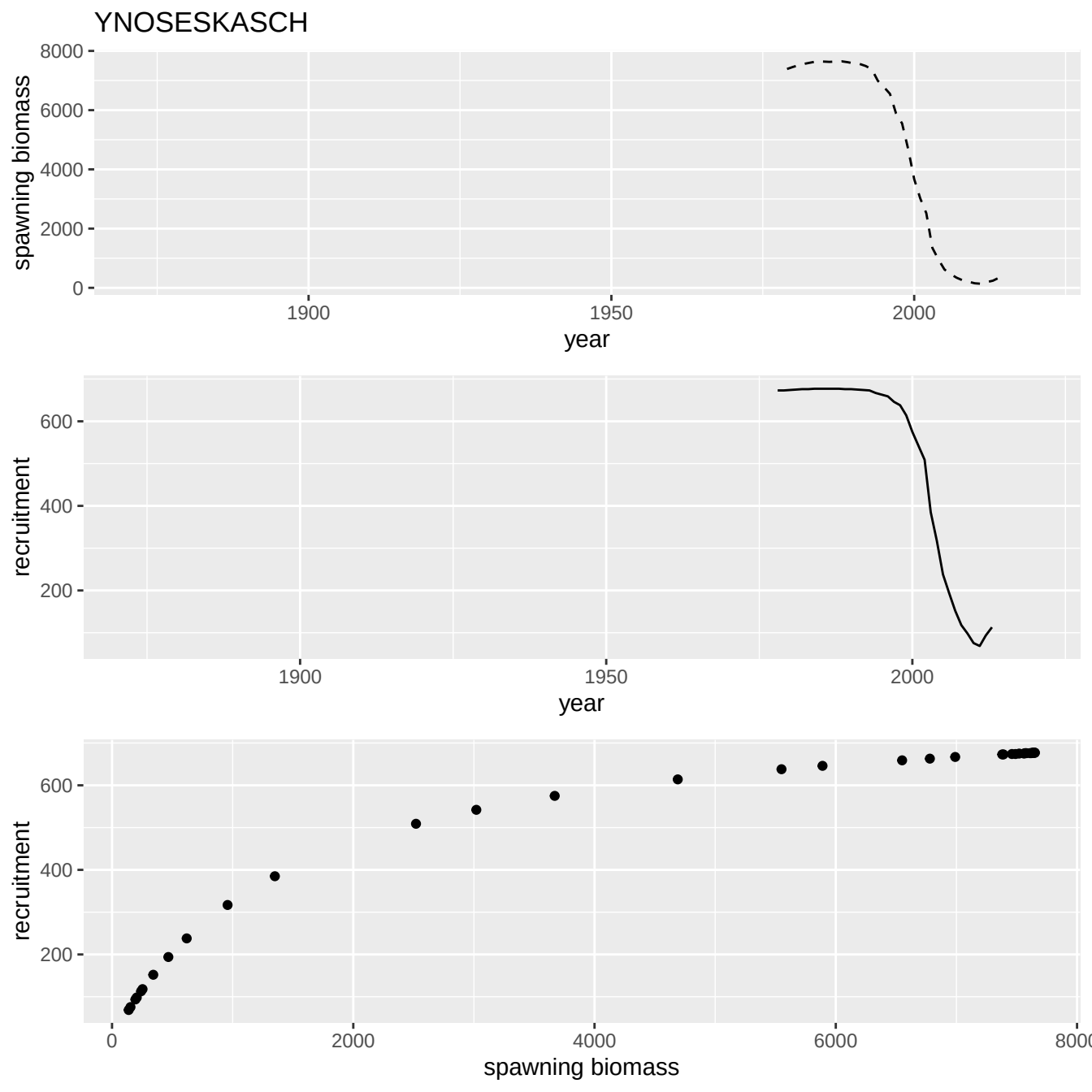

YELLSNEMATL
spawning biomass
20000
15000
10000
5000
0
1900
1950
2000
year
recruitment
1.5e+08
1.0e+08
5.0e+07
0.0e+00
1900
1950
2000
year
recruitment
1.5e+08
1.0e+08
5.0e+07
0.0e+00
0
5000
10000
15000
20000
spawning biomass

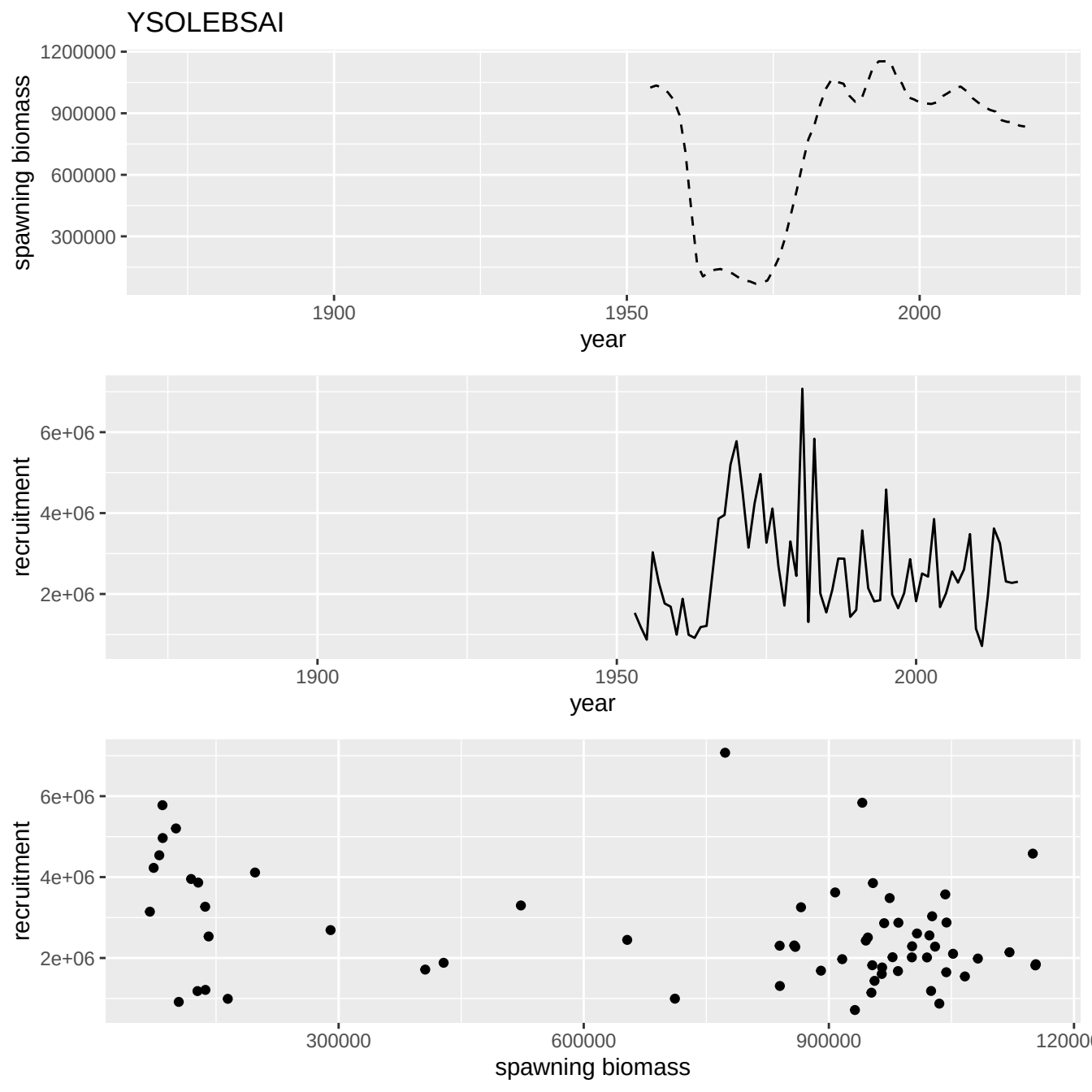

YEYEROCKPCOAST
spawning biomass
9e+08
6e+08
3e+08
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
1900
1950
2000
year
recruitment
4e+05
3e+05
2e+05
1e+05
3e+08
6e+08
9e+08
spawning biomass

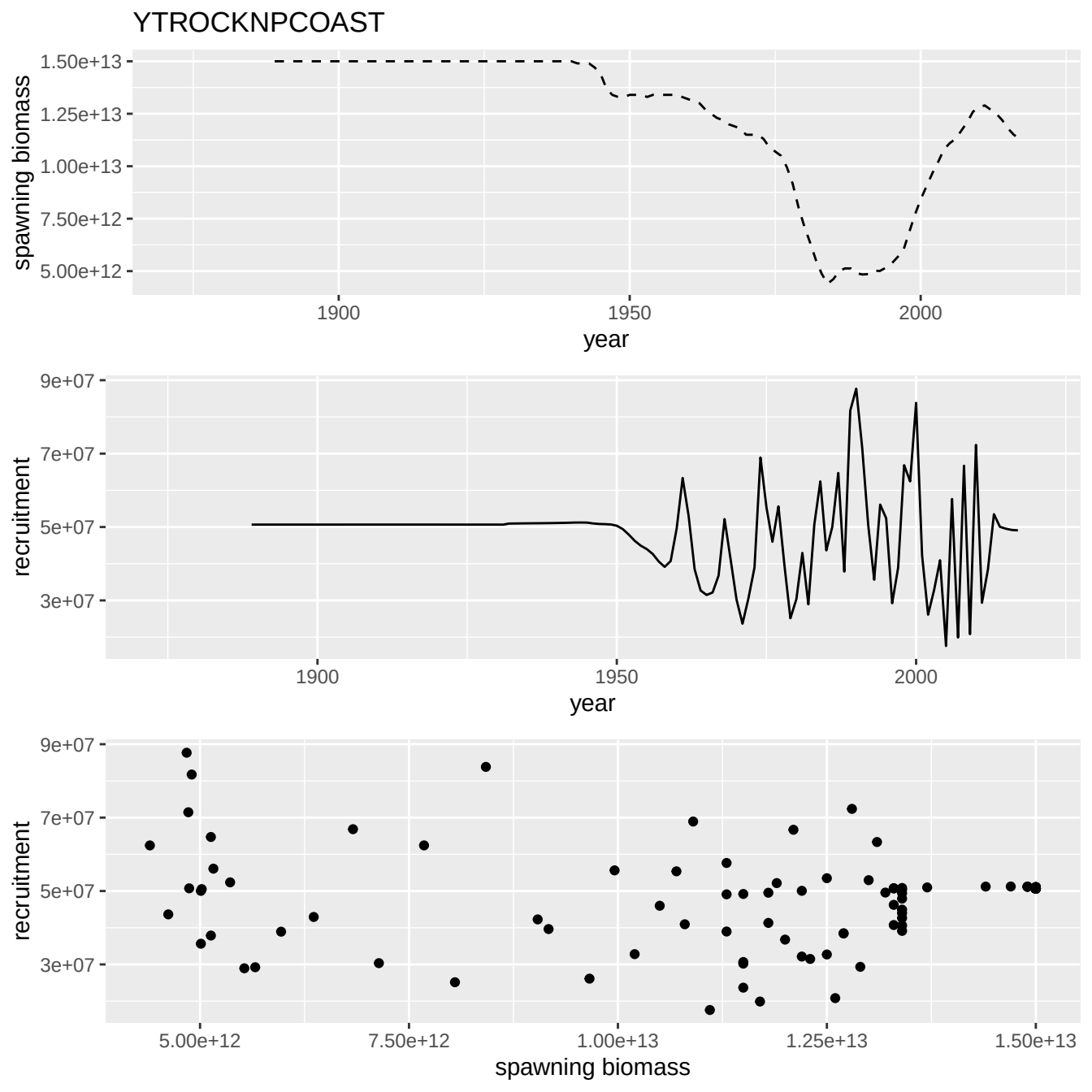

YFINEIO
spawning biomass
3000000
2500000
2000000
1500000
1000000
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
5.0e+07
1900
1950
2000
year
recruitment
2.0e+08
1.5e+08
1.0e+08
5.0e+07
1000000
1500000
2000000
2500000
spawning biomass


YFINEPAC
spawning biomass
8e+06
6e+06
4e+06
1900
1950
2000
year
recruitment
300000
250000
200000
150000
100000
1900
1950
2000
year
recruitment
300000
250000
200000
150000
100000
4e+06
6e+06
8e+06
spawning biomass


YNOSESKACSCH
spawning biomass
2000
1000
1900
1950
2000
year
recruitment
3e+05
2e+05
1900
1950
2000
year
recruitment
3e+05
2e+05
1000
2000
spawning biomass


YNOSESKASCH
spawning biomass
8000
6000
4000
2000
0
1900
1950
2000
year
recruitment
600
400
200
1900
1950
2000
year
recruitment
600
400
200
0
2000
4000
6000
8000
spawning biomass


YSOLEBSAI
spawning biomass
1200000
900000
600000
300000
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
1900
1950
2000
year
recruitment
6e+06
4e+06
2e+06
300000
600000
900000
spawning biomass


YTROCKNPCOAST
spawning biomass
1.50e+13
1.25e+13
1.00e+13
7.50e+12
5.00e+12
1900
1950
2000
year
recruitment
9e+07
7e+07
5e+07
3e+07
1900
1950
2000
year
recruitment
9e+07
7e+07
5e+07
3e+07
5.00e+12
7.50e+12
1.00e+13
1.25e+13
1.50e+13
spawning biomass