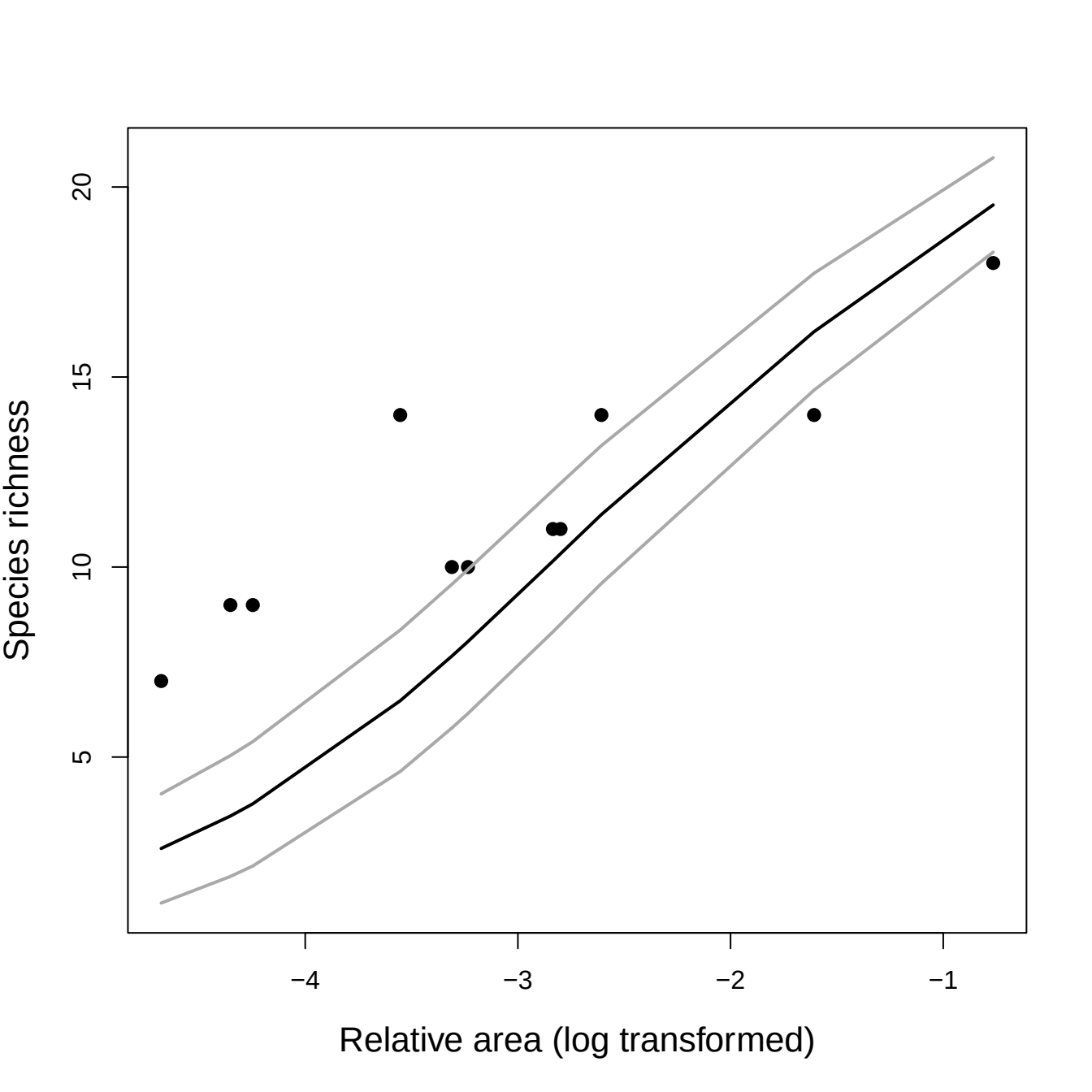
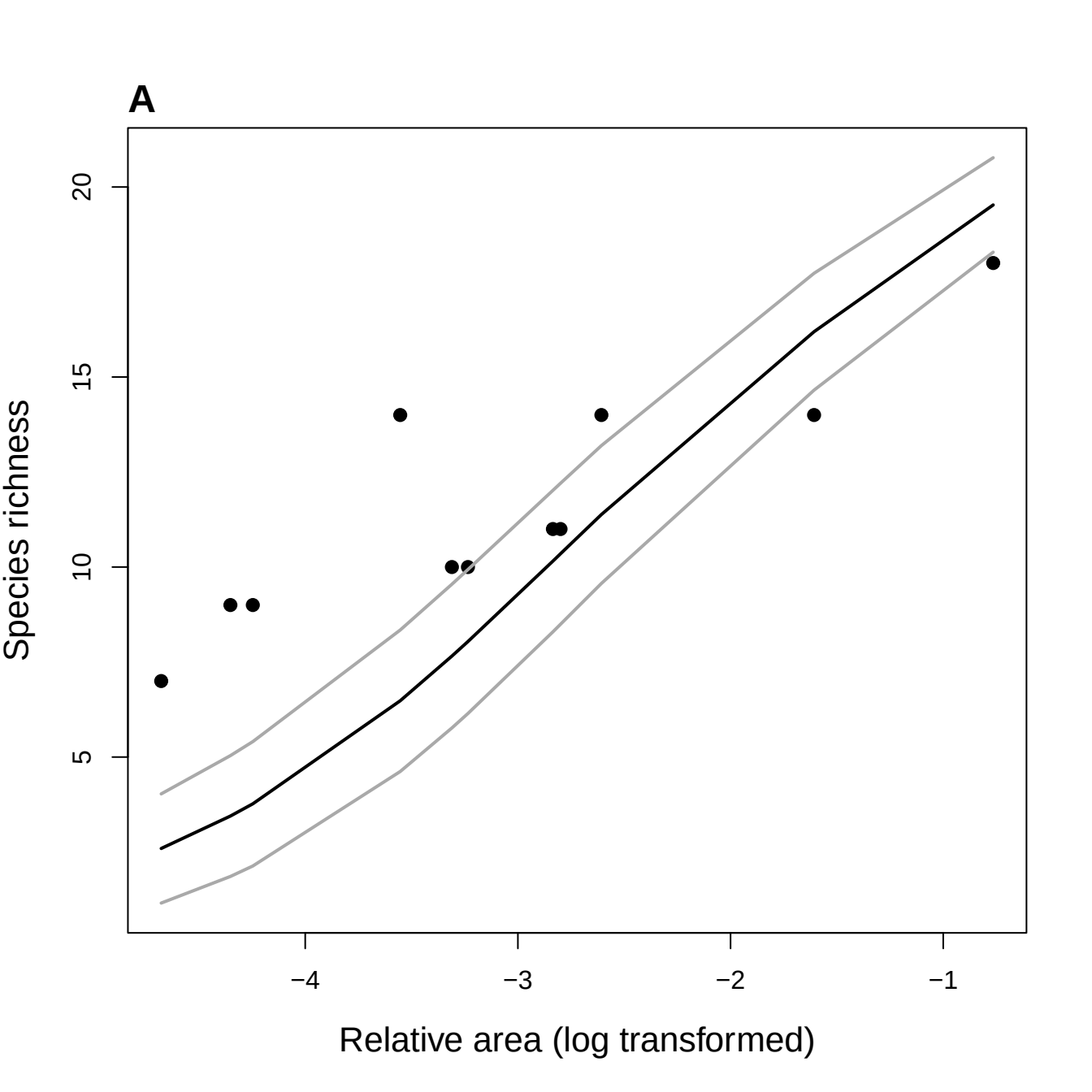
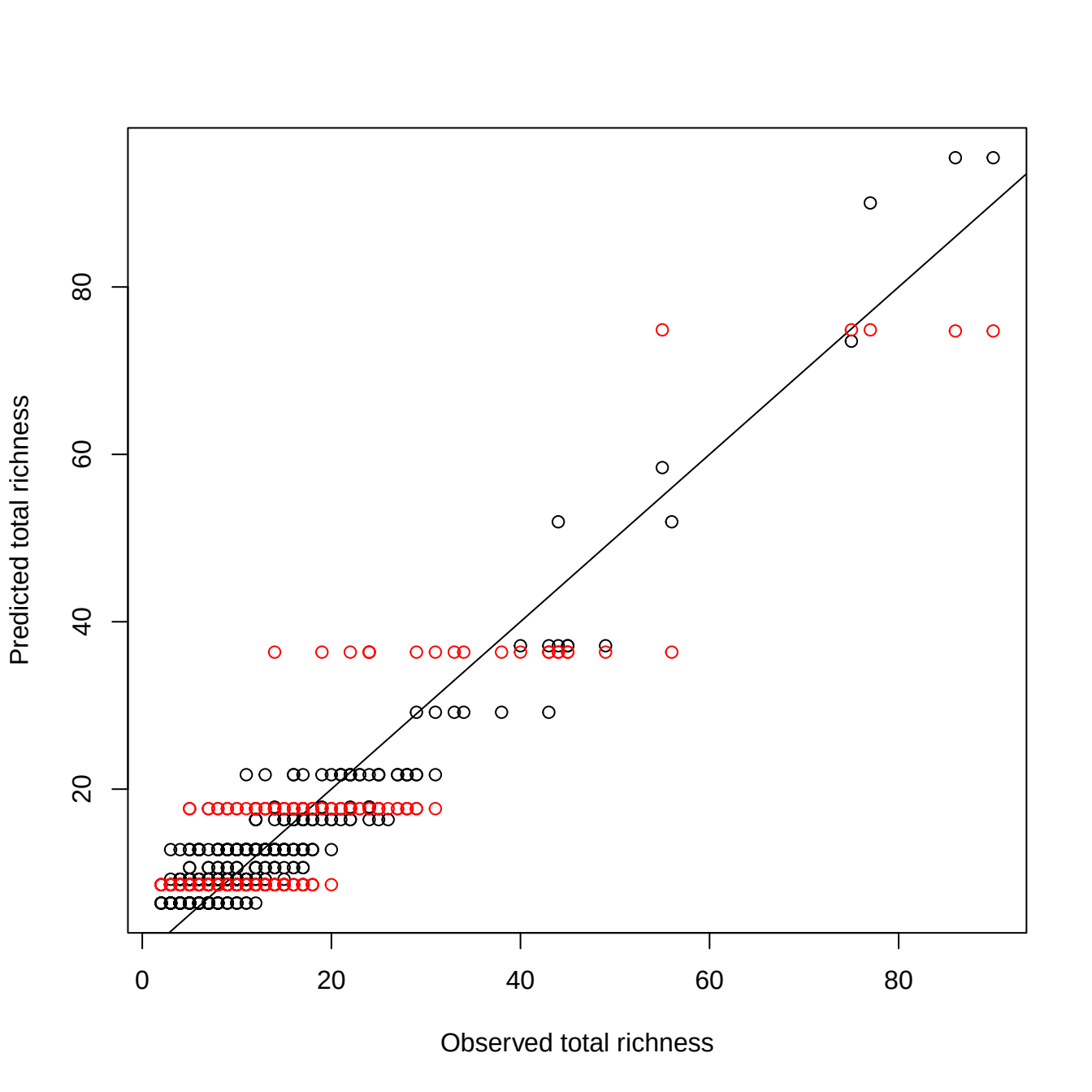
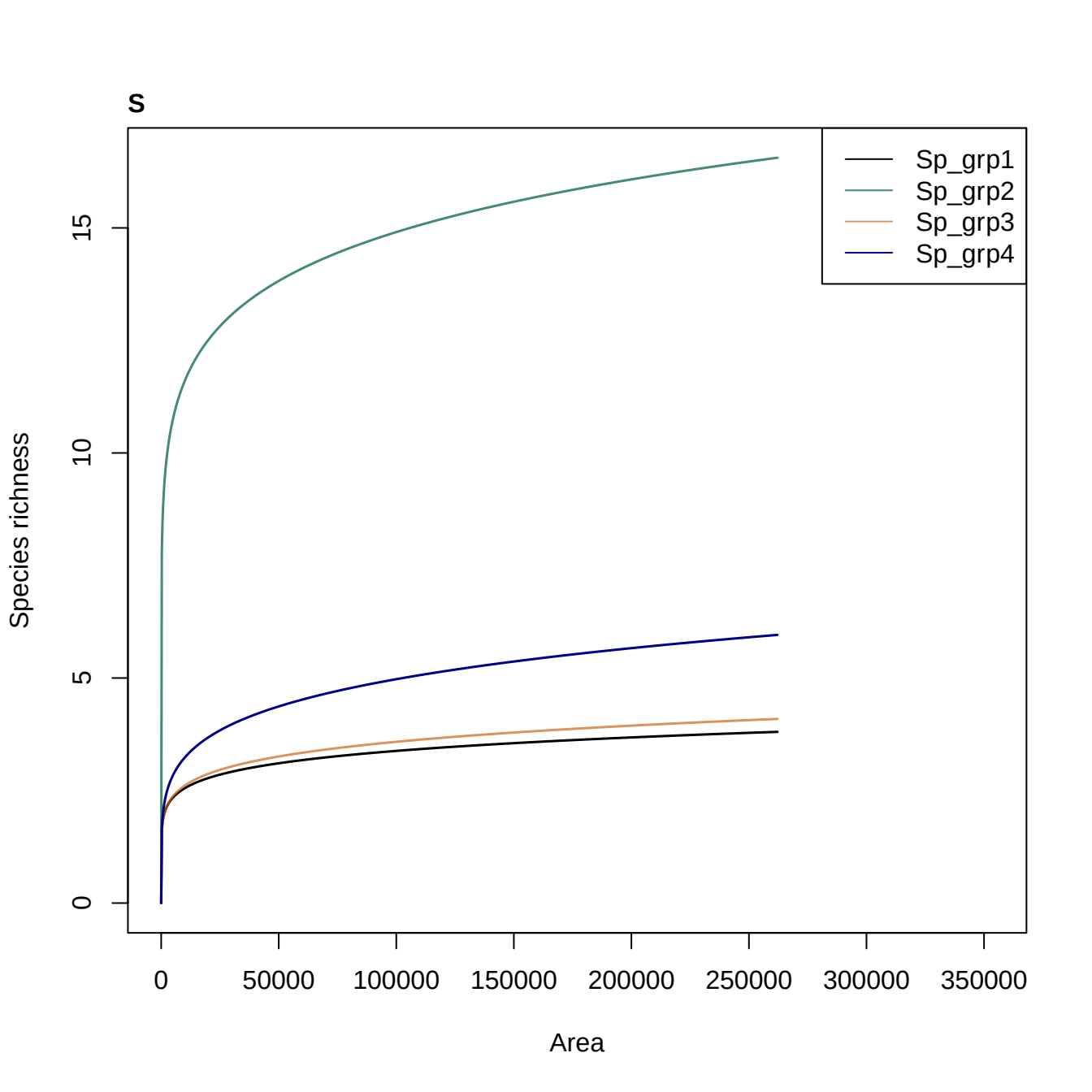
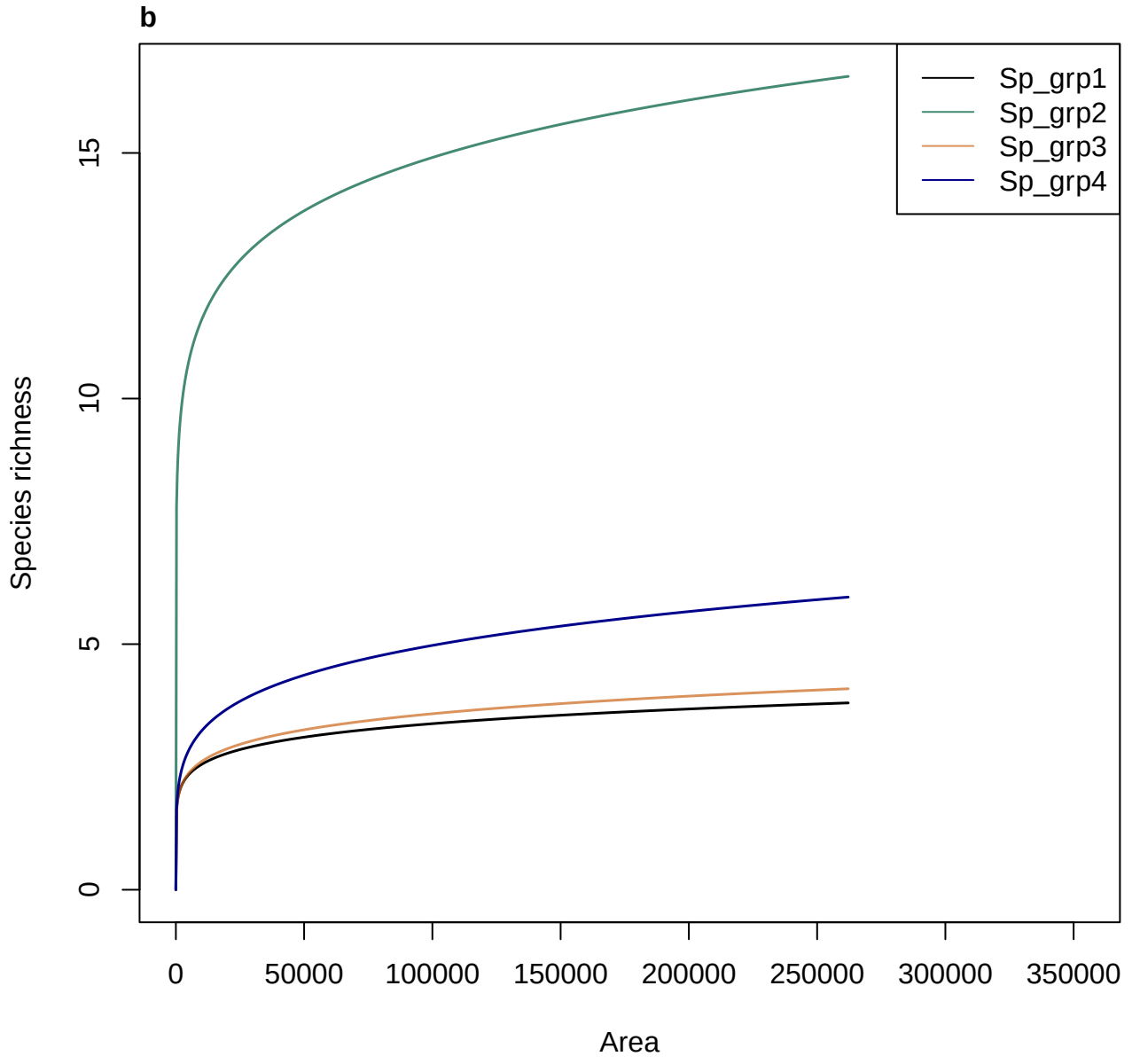
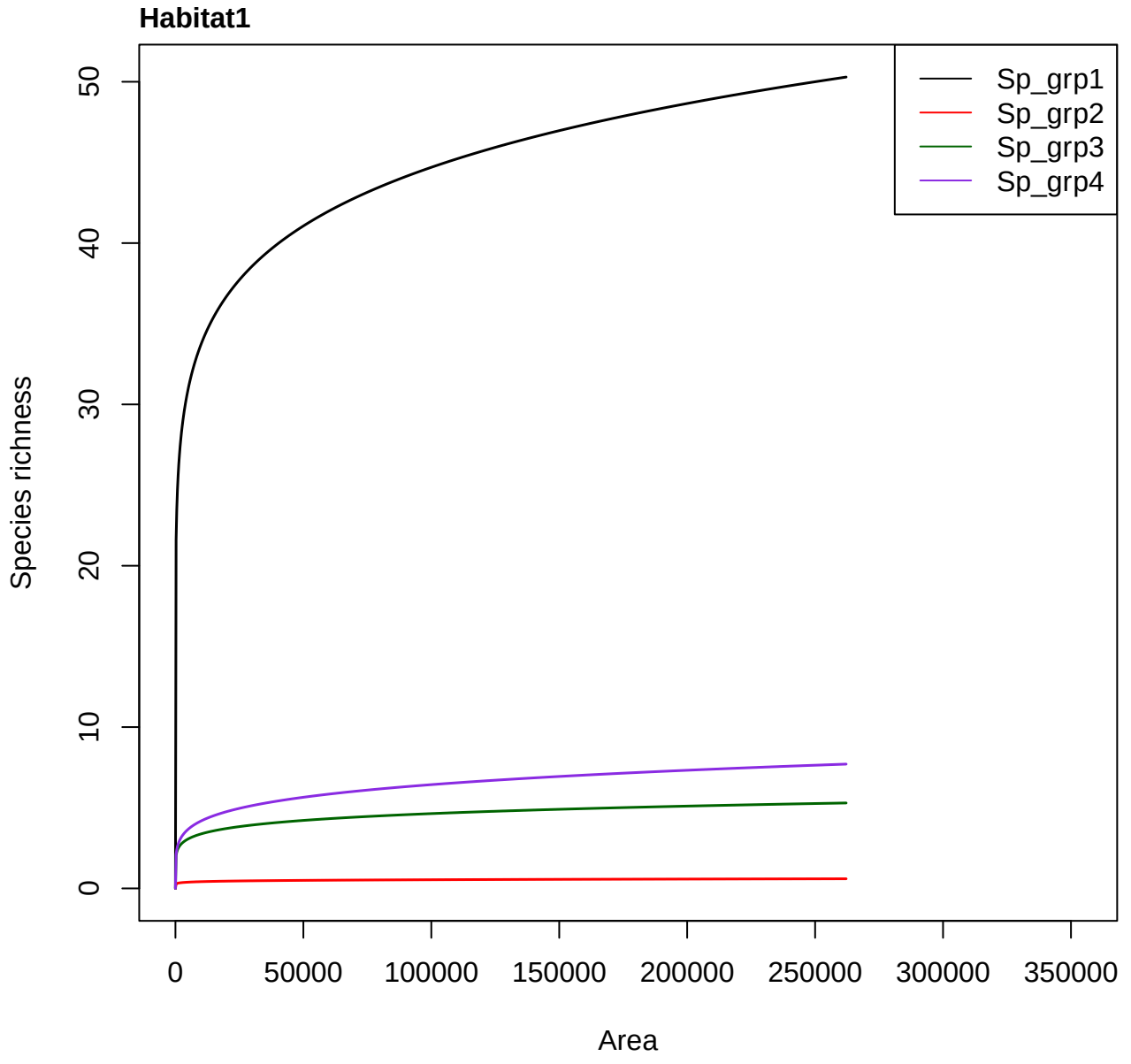

Species richness
5
10
15
20
−4
−3
−2
−1
Relative area (log transformed)

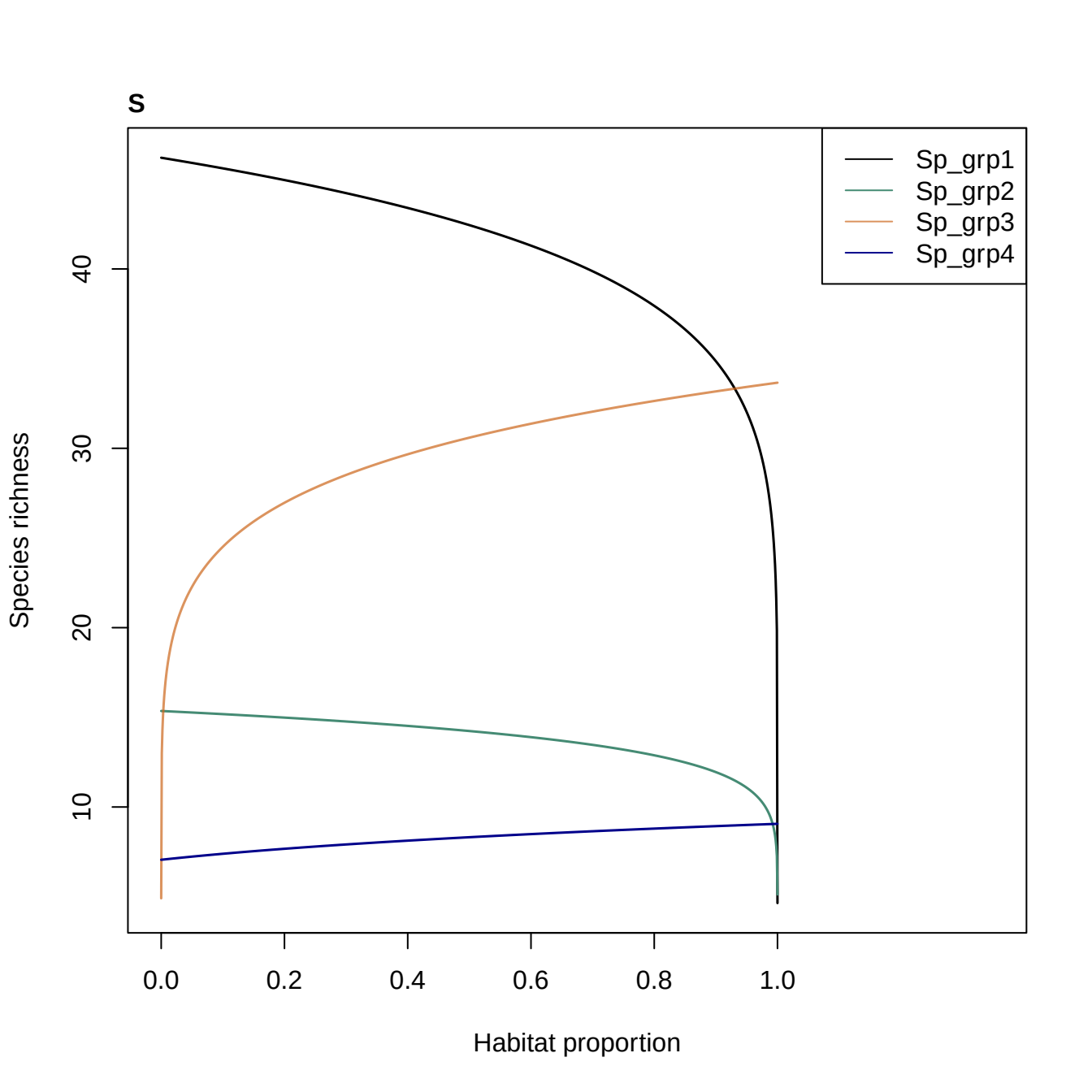

A
Species richness
5
10
15
20
−4
−3
−2
−1
Relative area (log transformed)

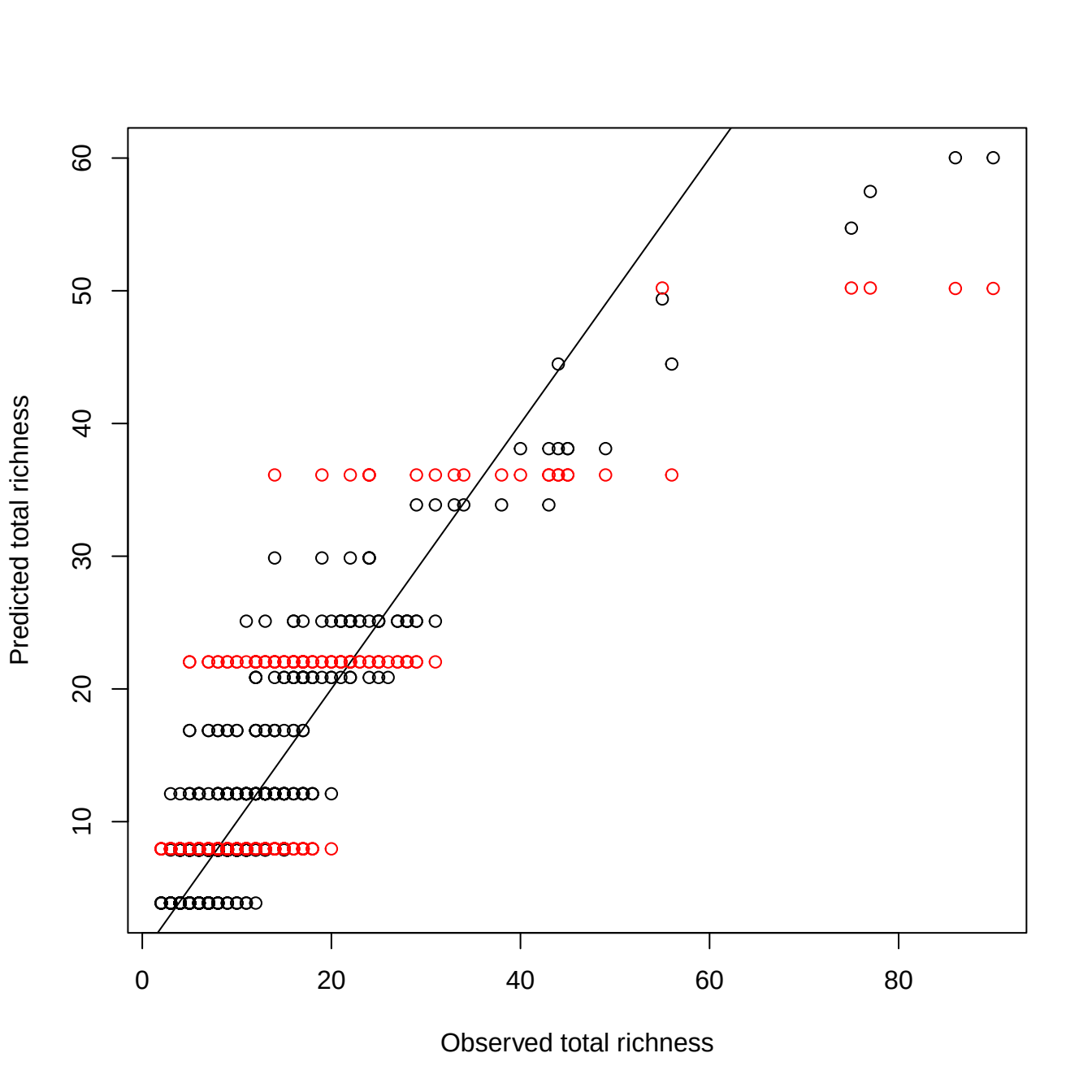

Predicted total richness
Observed total richness
0
20
40
60
80
20
40
60
80

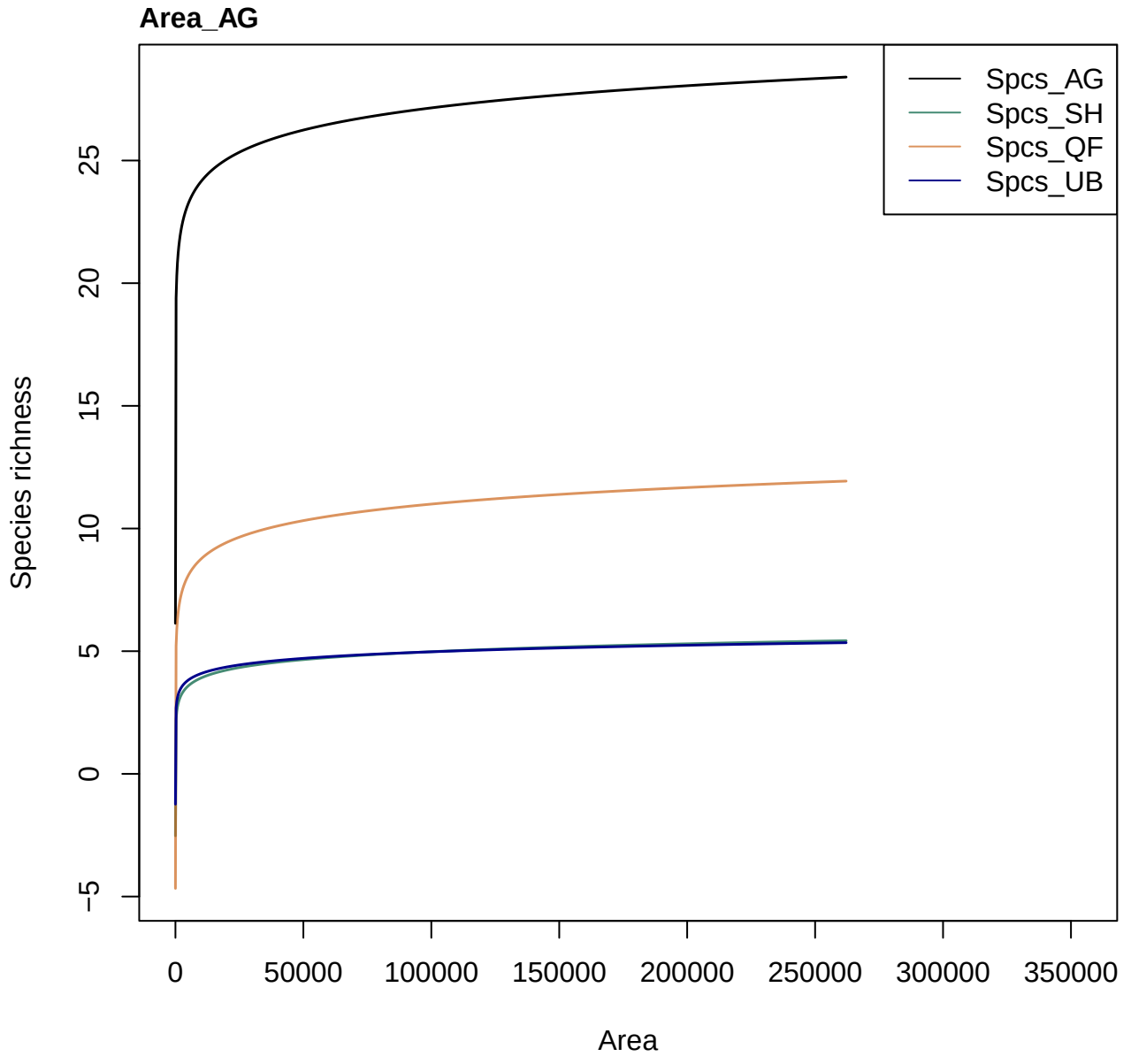

S
Sp_grp1
Sp_grp2
Sp_grp3
Sp_grp4
Species richness
0
5
10
15
0
50000
100000
150000
200000
250000
300000
350000
Area

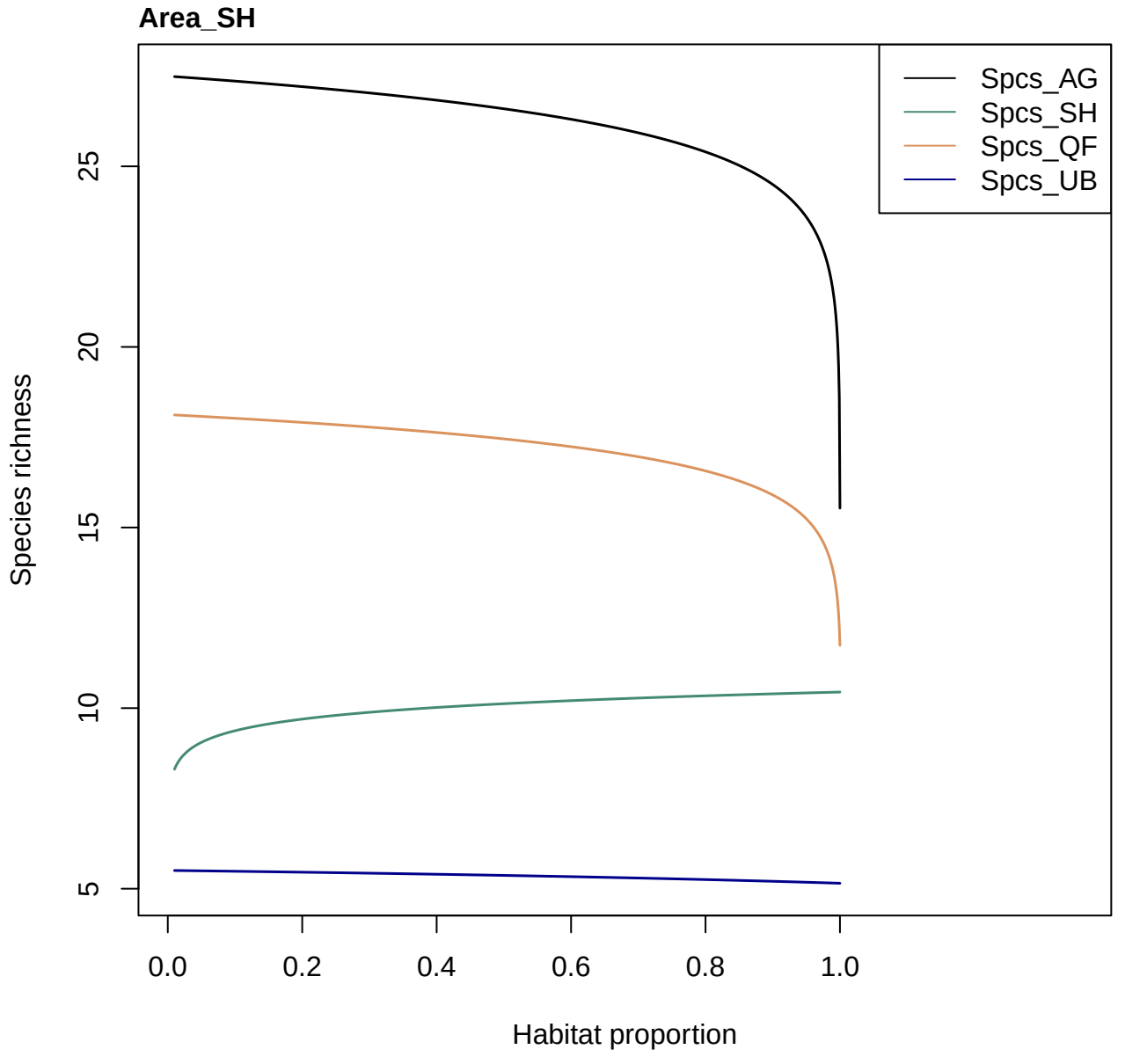

b
Sp_grp1
Sp_grp2
Sp_grp3
Sp_grp4
Species richness
0
5
10
15
0
50000
100000
150000
200000
250000
300000
350000
Area

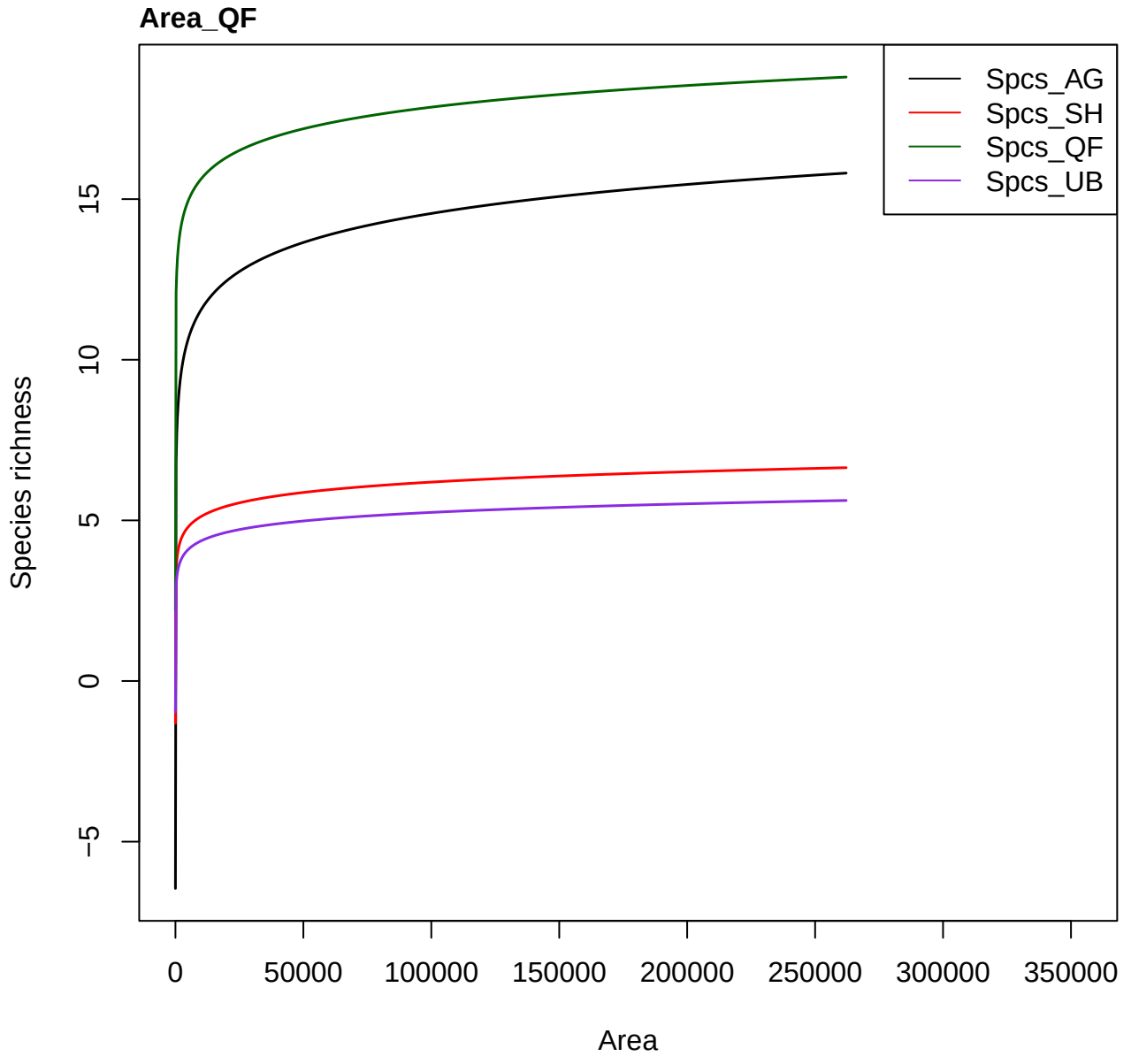

Habitat1
Sp_grp1
Sp_grp2
Sp_grp3
Sp_grp4
Species richness
0
10
20
30
40
50
0
50000
100000
150000
200000
250000
300000
350000
Area

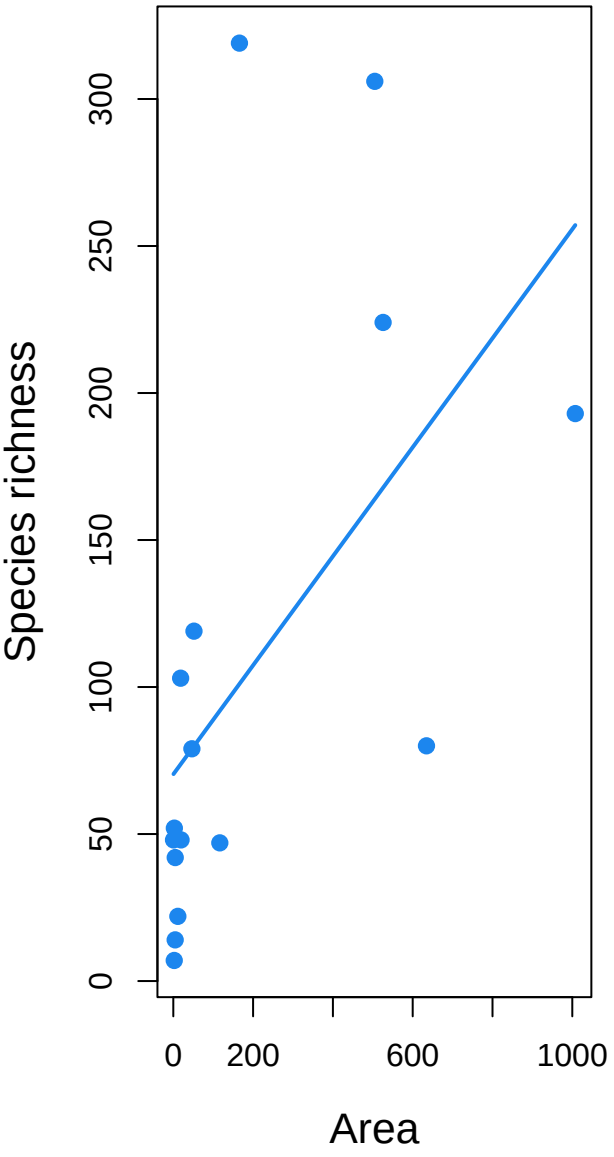

S
Sp_grp1
Sp_grp2
Sp_grp3
Sp_grp4
Species richness
10
20
30
40
0.0
0.2
0.4
0.6
0.8
1.0
Habitat proportion

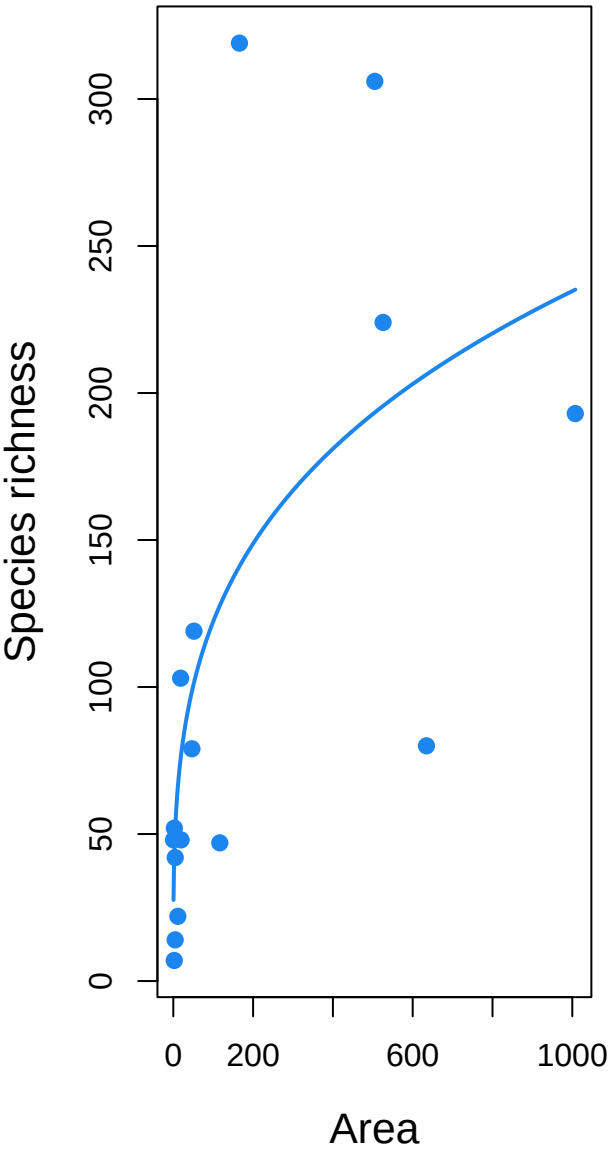

Predicted total richness
Observed total richness
0
20
40
60
80
10
20
30
40
50
60

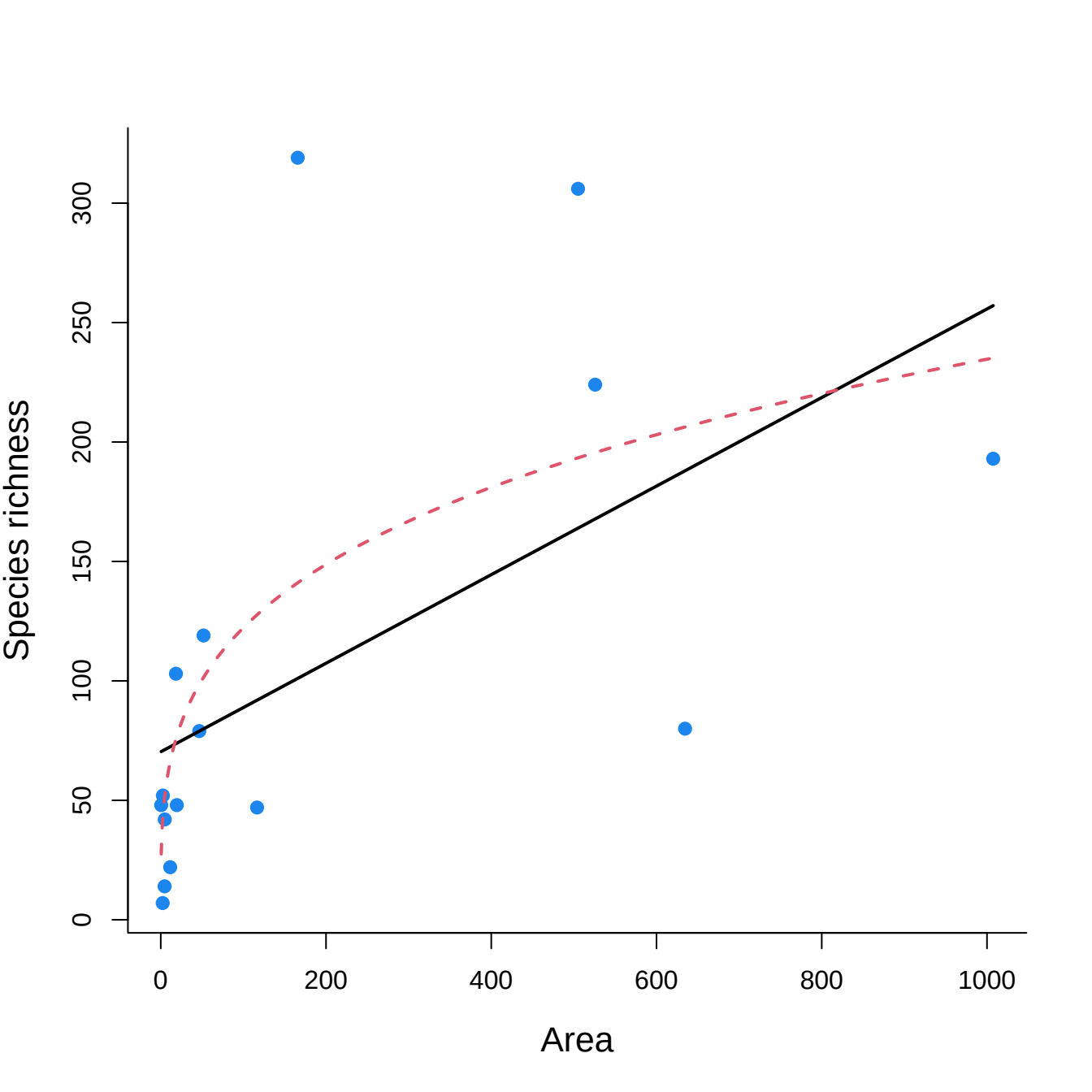

Area_AG
Spcs_AG
Spcs_SH
Spcs_QF
Spcs_UB
Species richness
−5
0
5
10
15
20
25
0
50000
100000
150000
200000
250000
300000
350000
Area

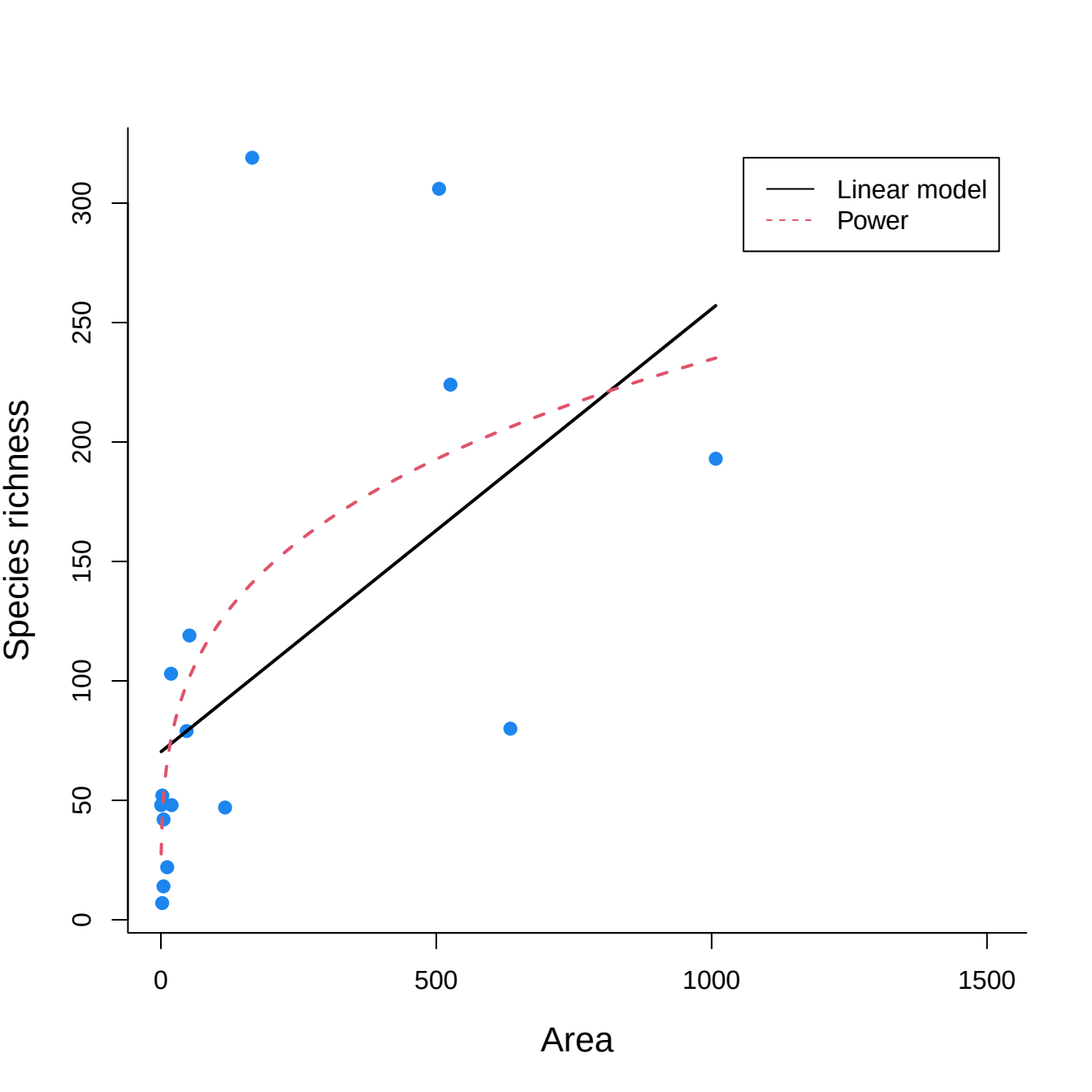

Area_SH
Spcs_AG
Spcs_SH
Spcs_QF
Spcs_UB
Species richness
5
10
15
20
25
0.0
0.2
0.4
0.6
0.8
1.0
Habitat proportion

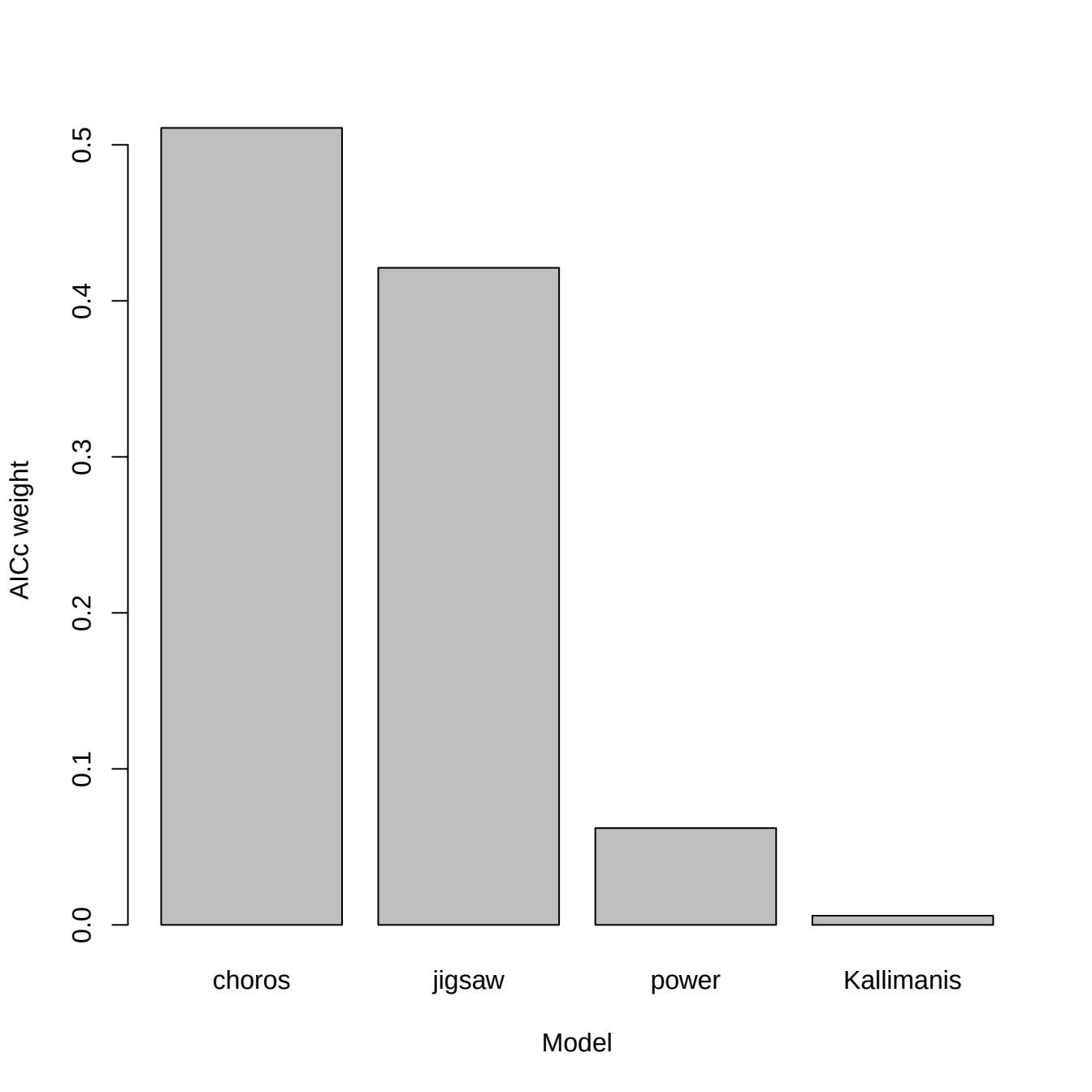

Area_QF
Spcs_AG
Spcs_SH
Spcs_QF
Spcs_UB
Species richness
−5
0
5
10
15
0
50000
100000
150000
200000
250000
300000
350000
Area

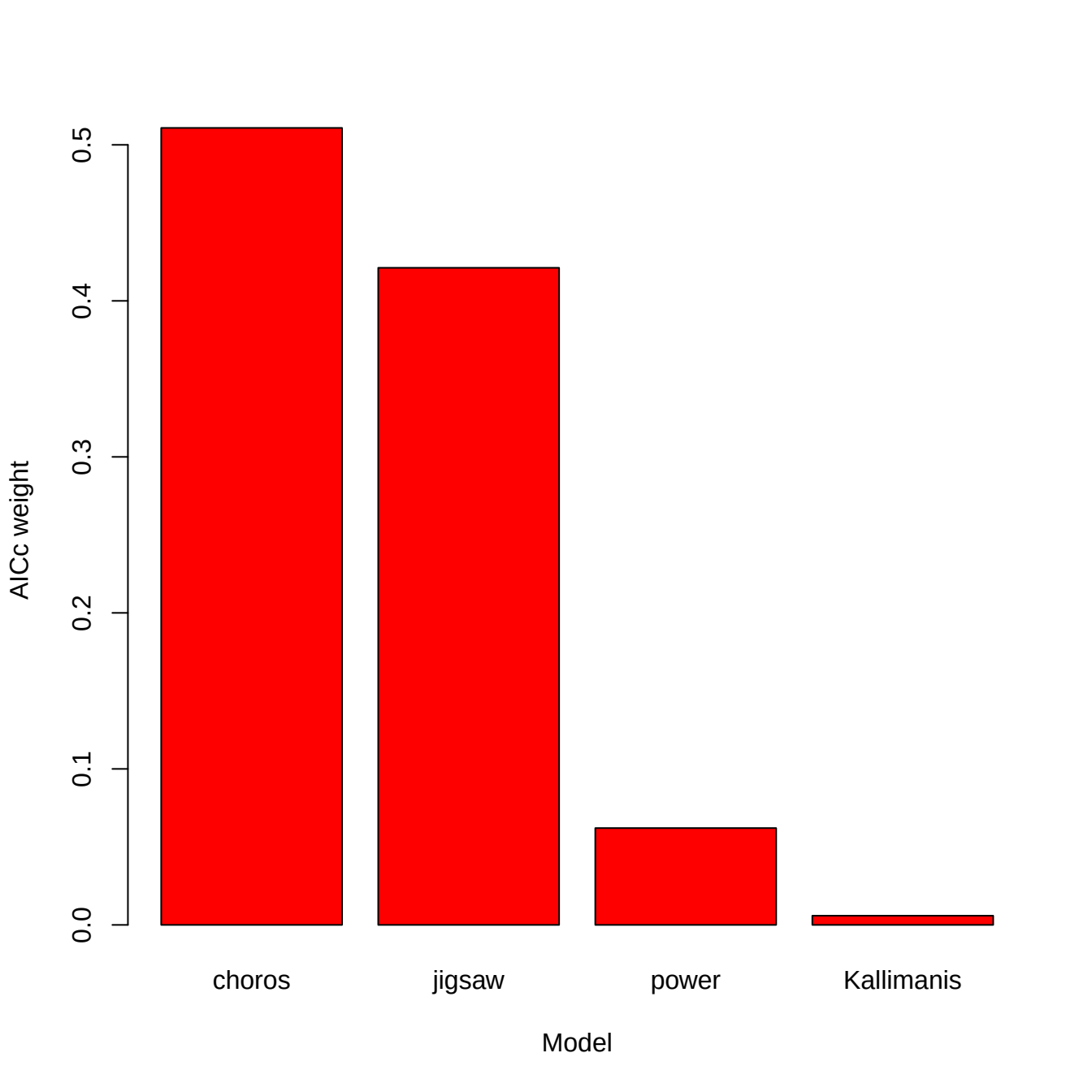

Species richness
0
50
100
150
200
250
300
0
200
600
1000
Area

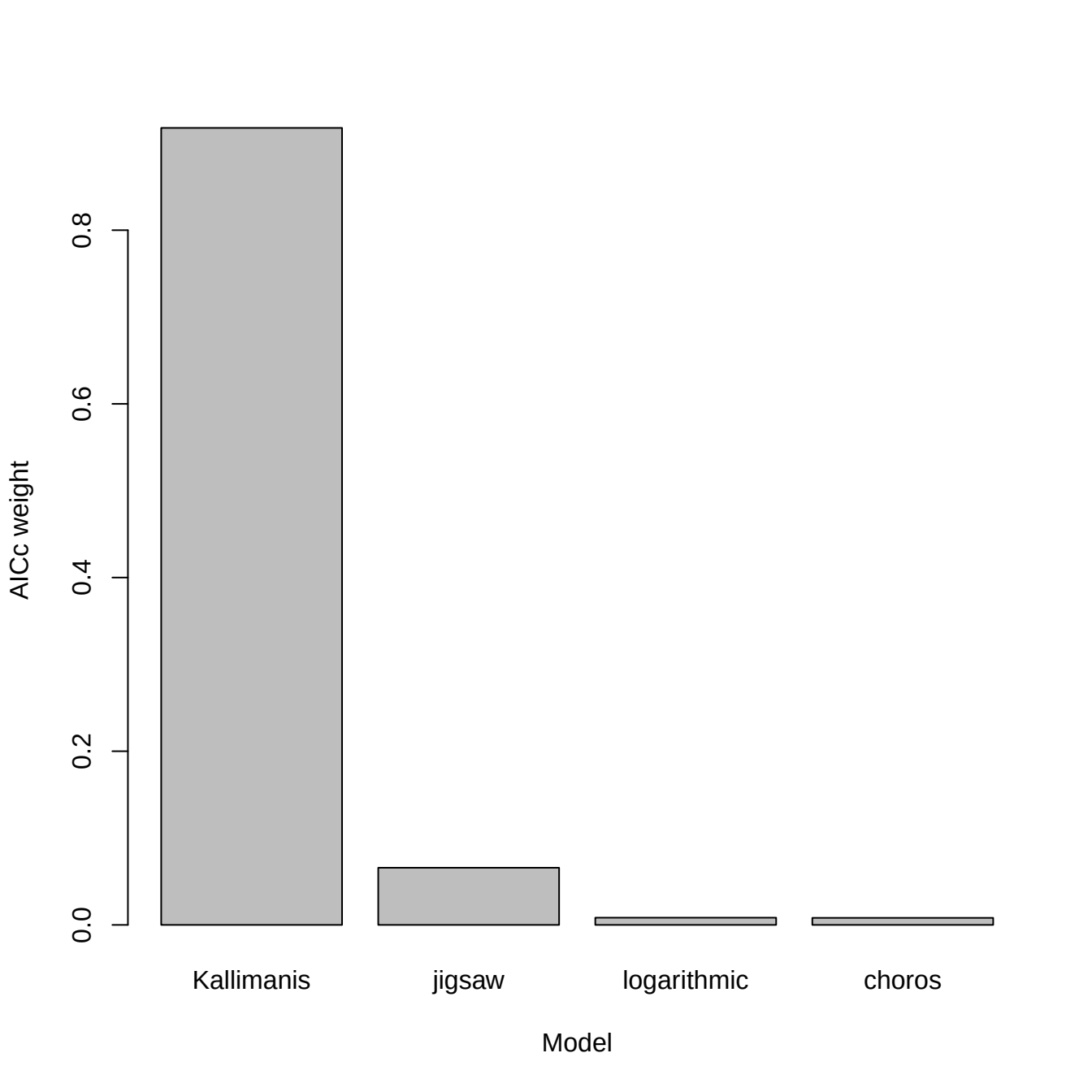

Species richness
0
50
100
150
200
250
300
0
200
600
1000
Area

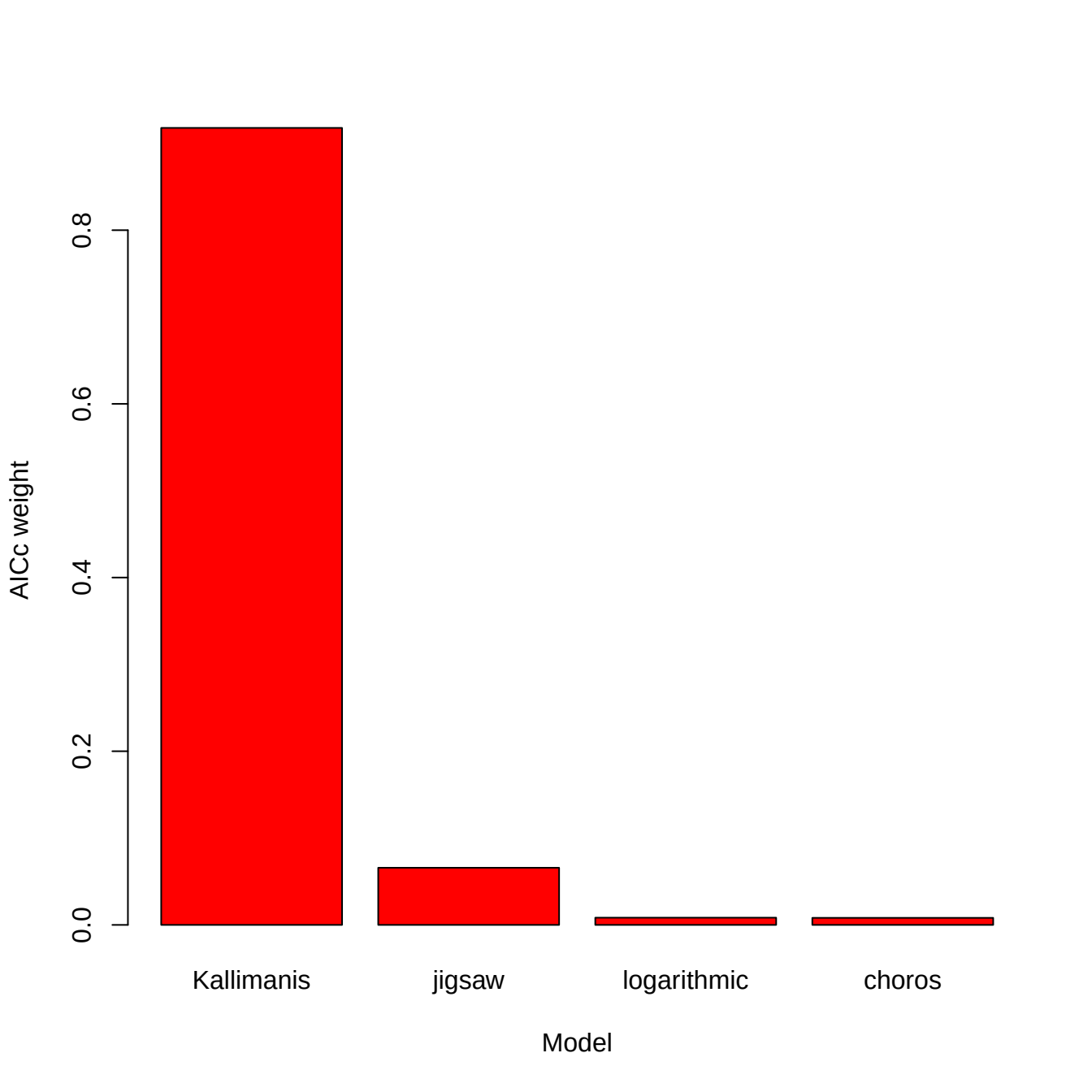

Species richness
0
50
100
150
200
250
300
0
200
400
600
800
1000
Area

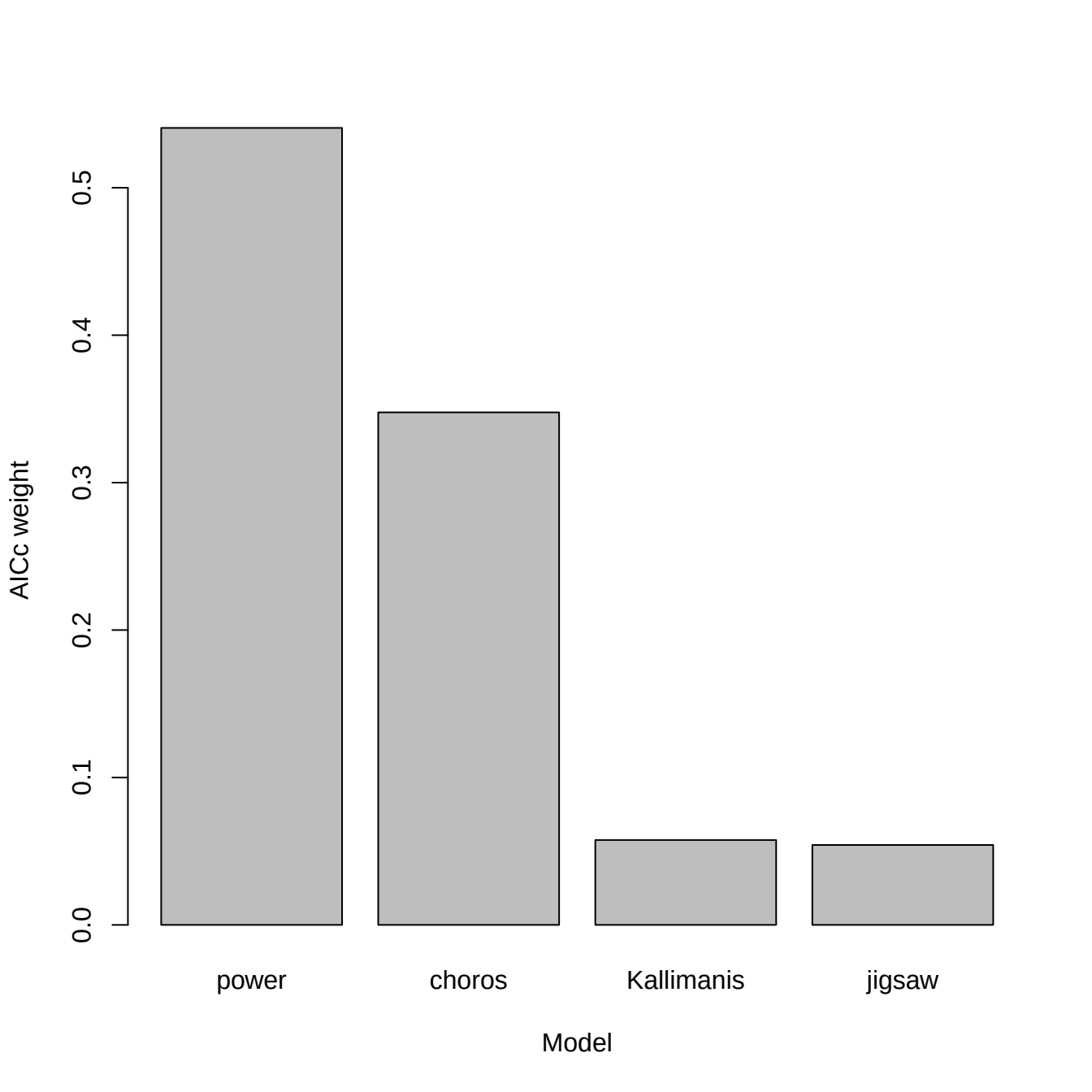

Linear model
Power
Species richness
Area
0
50
100
150
200
250
300
0
500
1000
1500

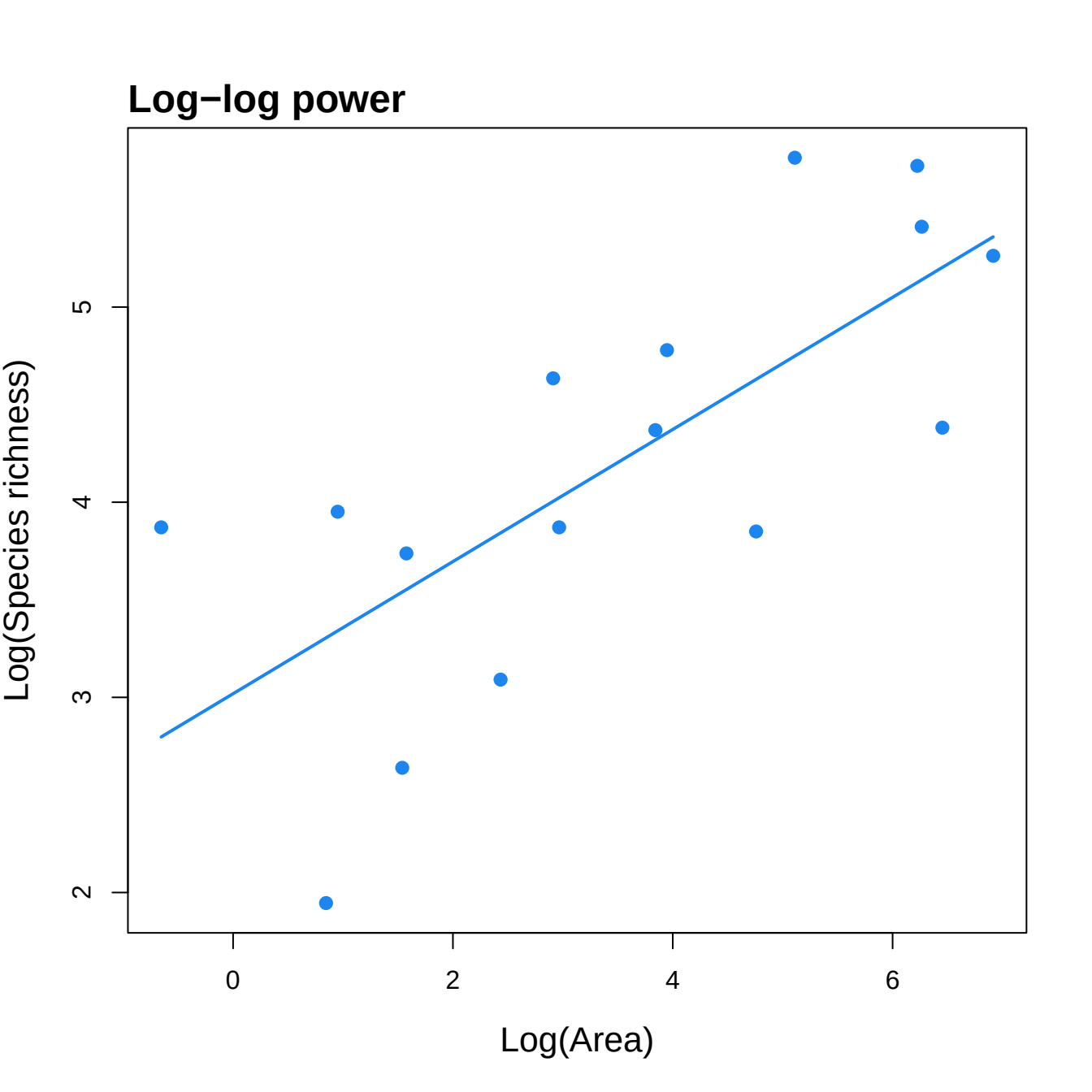

AICc weight
0.0
0.1
0.2
0.3
0.4
0.5
choros
jigsaw
power
Kallimanis
Model

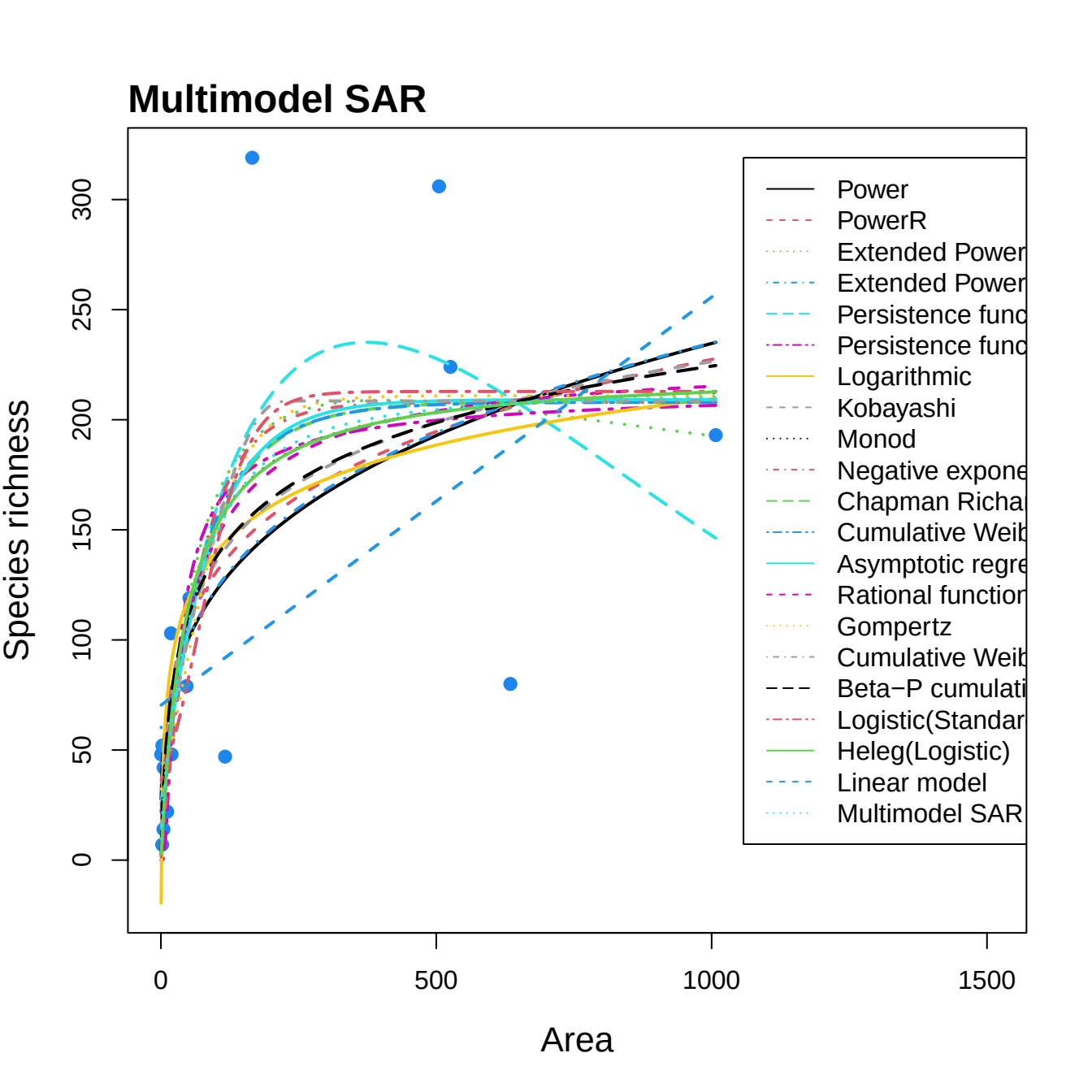

AICc weight
0.0
0.1
0.2
0.3
0.4
0.5
choros
jigsaw
power
Kallimanis
Model

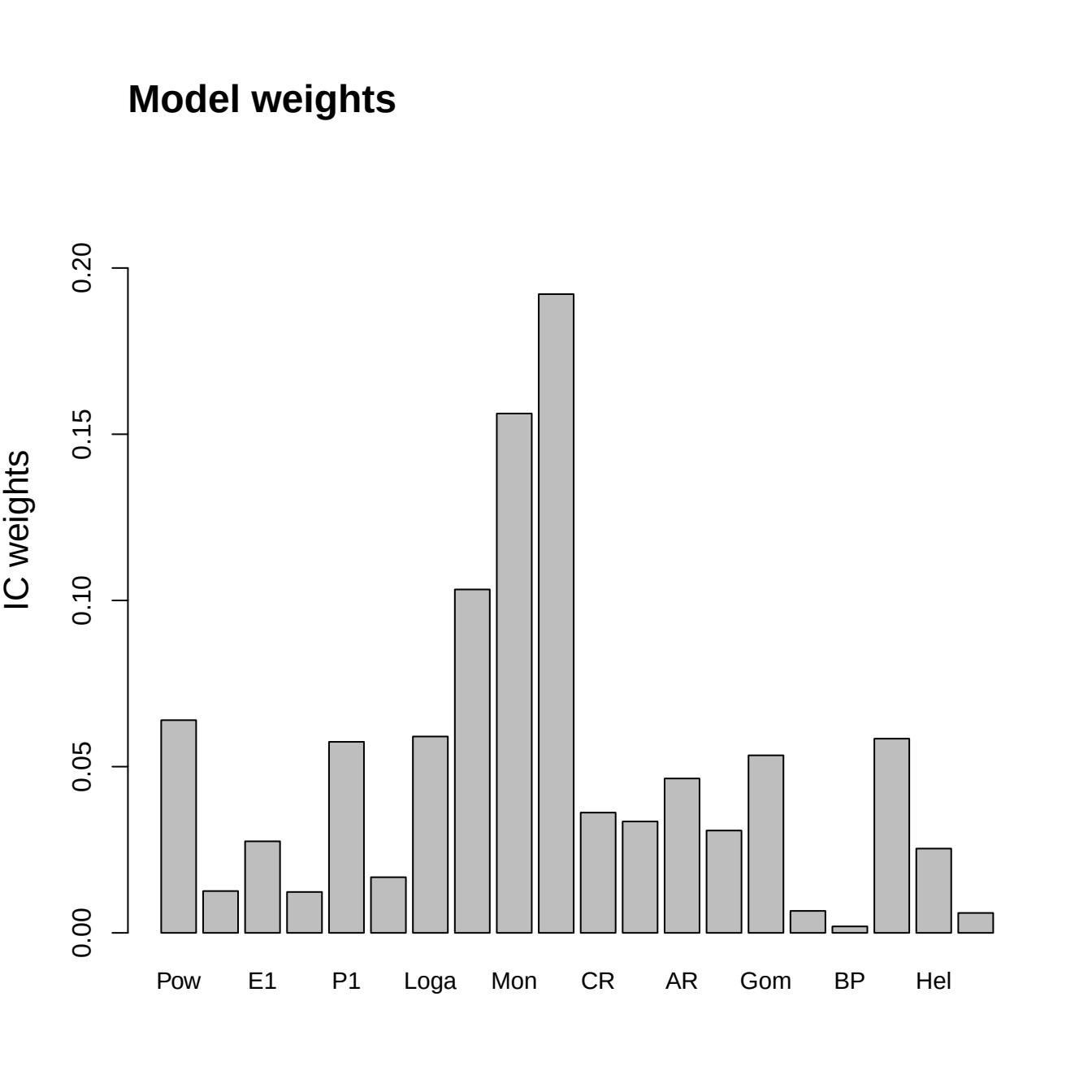

AICc weight
0.0
0.2
0.4
0.6
0.8
Kallimanis
jigsaw
logarithmic
choros
Model

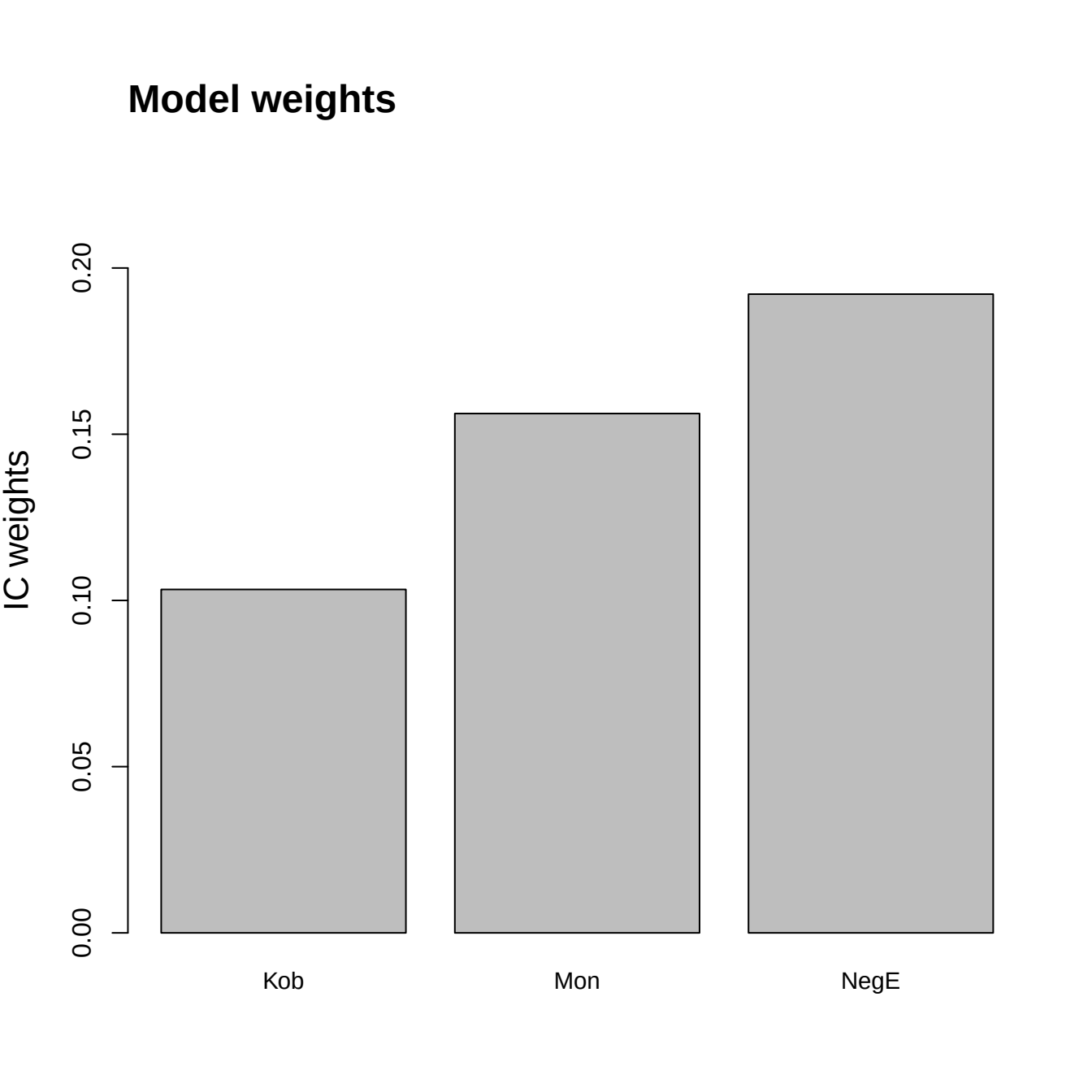

AICc weight
0.0
0.2
0.4
0.6
0.8
Kallimanis
jigsaw
logarithmic
choros
Model

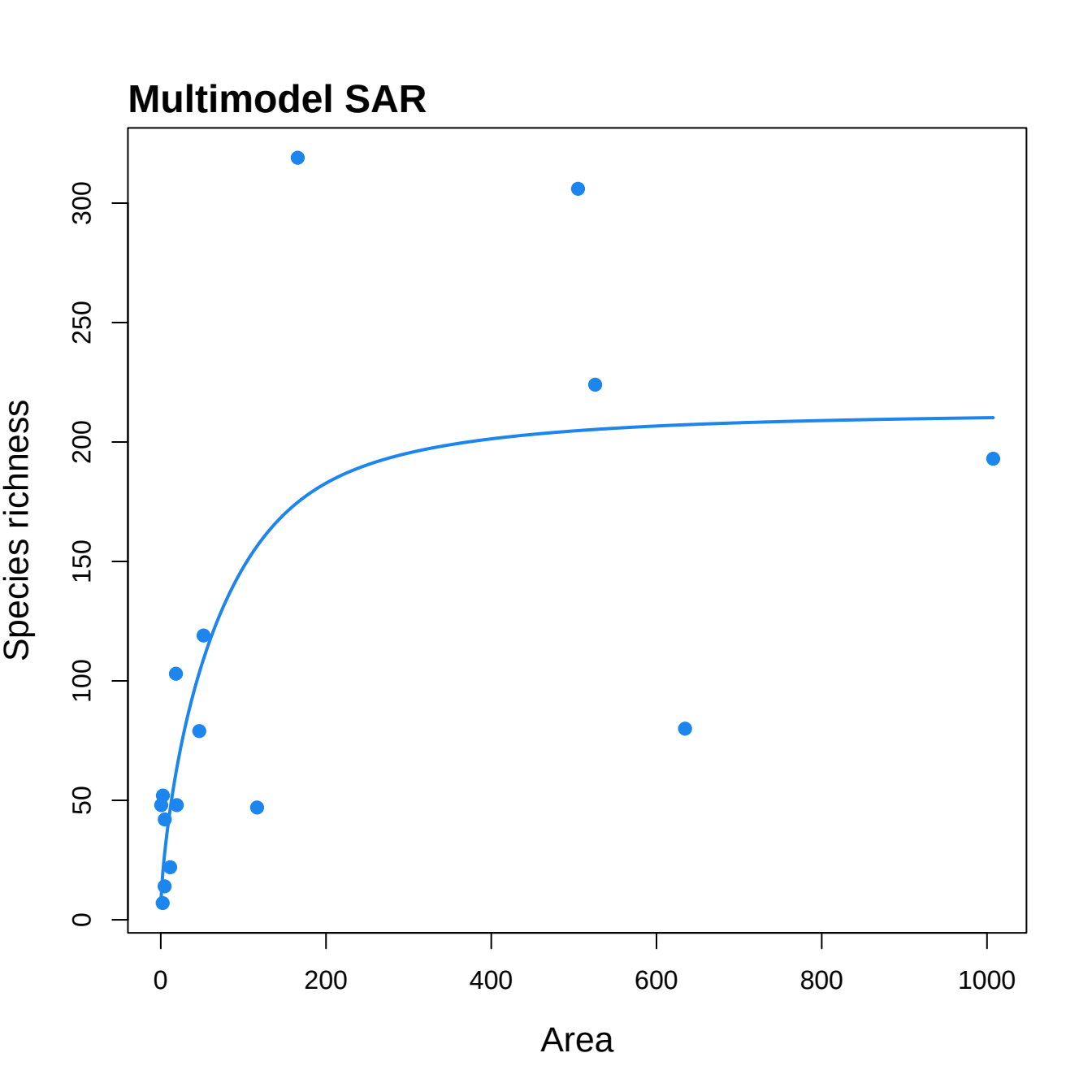

AICc weight
0.0
0.1
0.2
0.3
0.4
0.5
power
choros
Kallimanis
jigsaw
Model

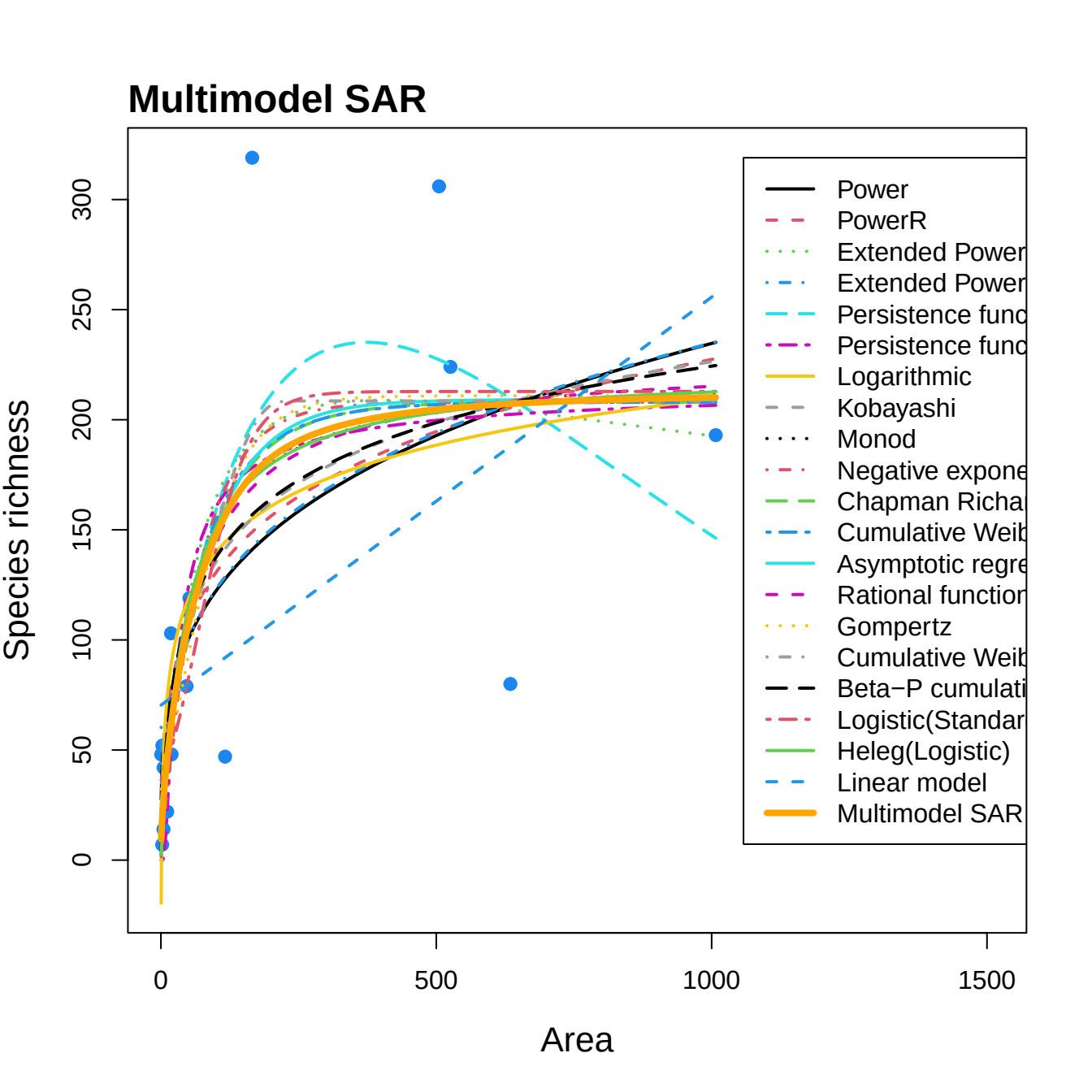

Log−log power
Log(Species richness)
2
3
4
5
0
2
4
6
Log(Area)

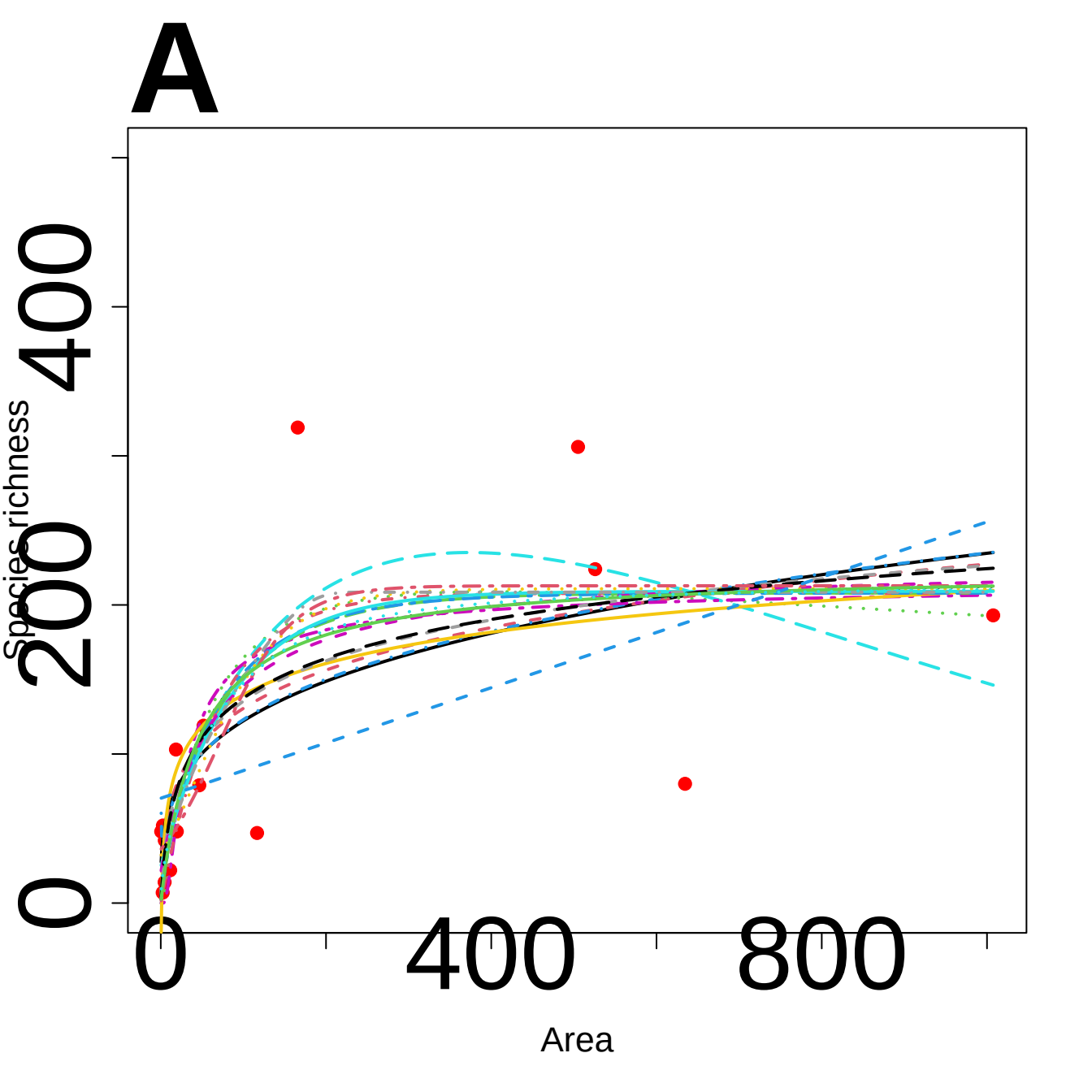

Multimodel SAR
Species richness
Area
0
50
100
150
200
250
300
0
500
1000
1500
Power
PowerR
Extended Power
Extended Power
Persistence func
Persistence func
Logarithmic
Kobayashi
Monod
Negative expone
Chapman Richa
Cumulative Weib
Asymptotic regre
Rational functior
Gompertz
Cumulative Weib
Beta−P cumulati
Logistic(Standar
Heleg(Logistic)
Linear model
Multimodel SAR

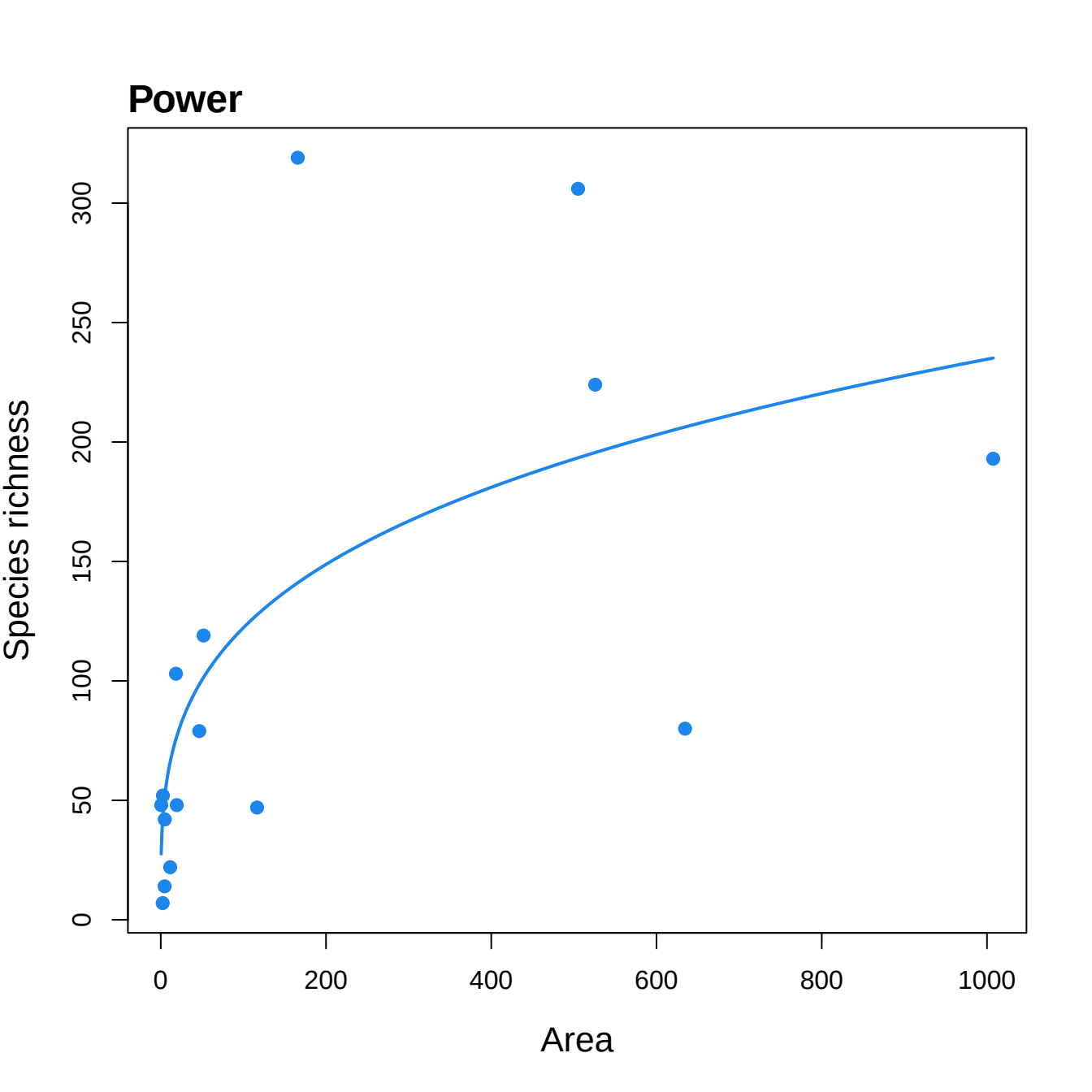

Model weights
IC weights
0.00
0.05
0.10
0.15
0.20
Pow
E1
P1
Loga
Mon
CR
AR
Gom
BP
Hel

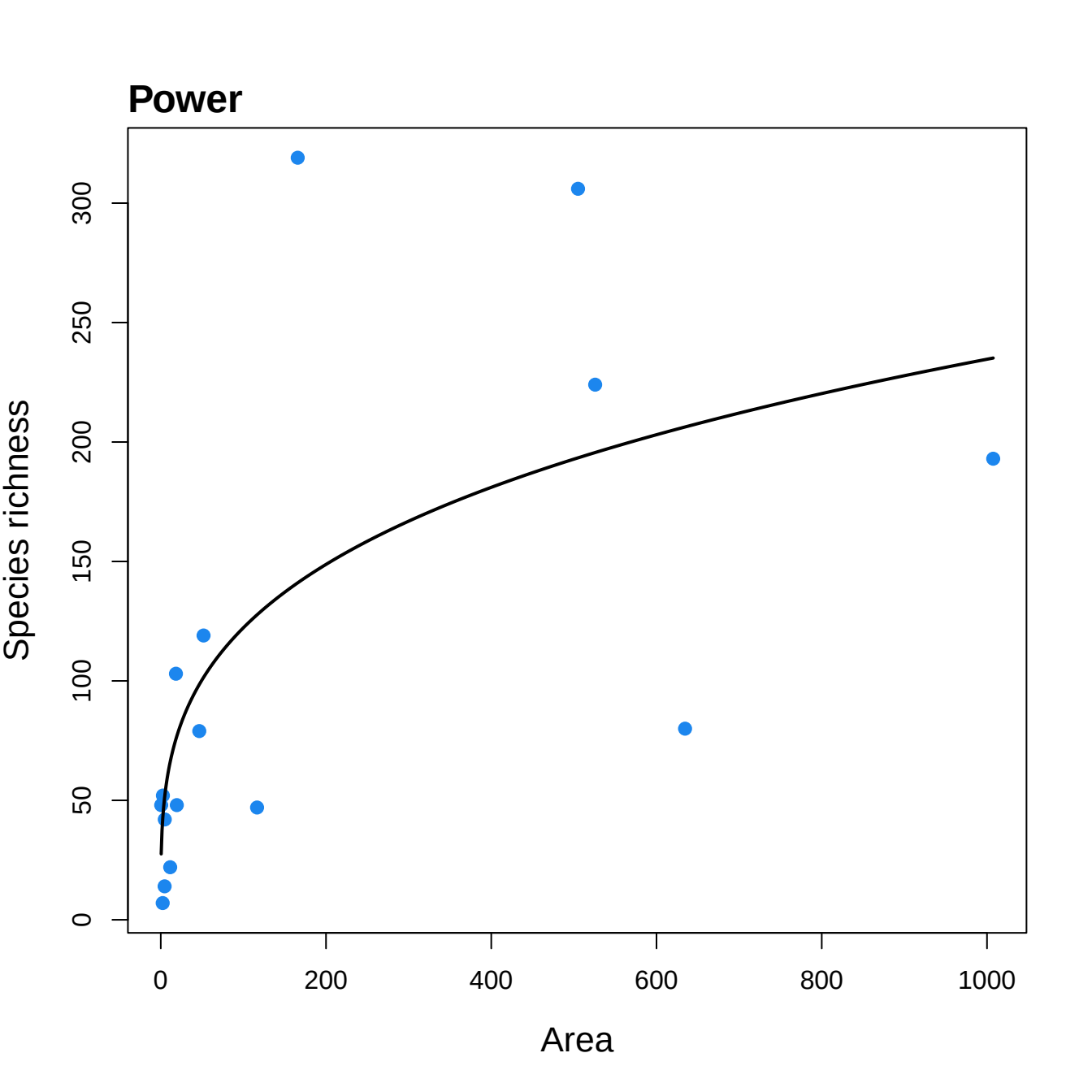

Model weights
IC weights
0.00
0.05
0.10
0.15
0.20
Kob
Mon
NegE

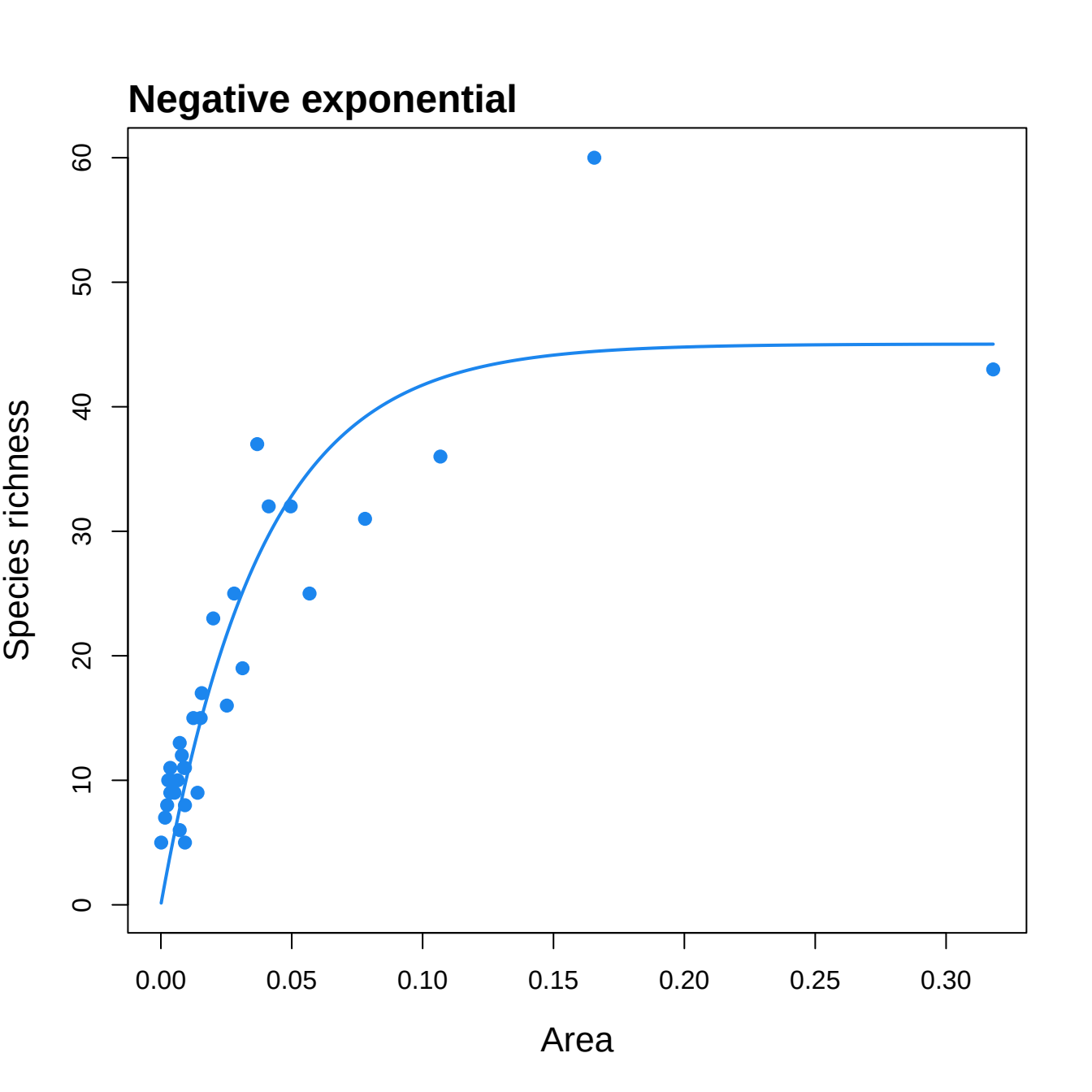

Multimodel SAR
Species richness
Area
0
50
100
150
200
250
300
0
200
400
600
800
1000

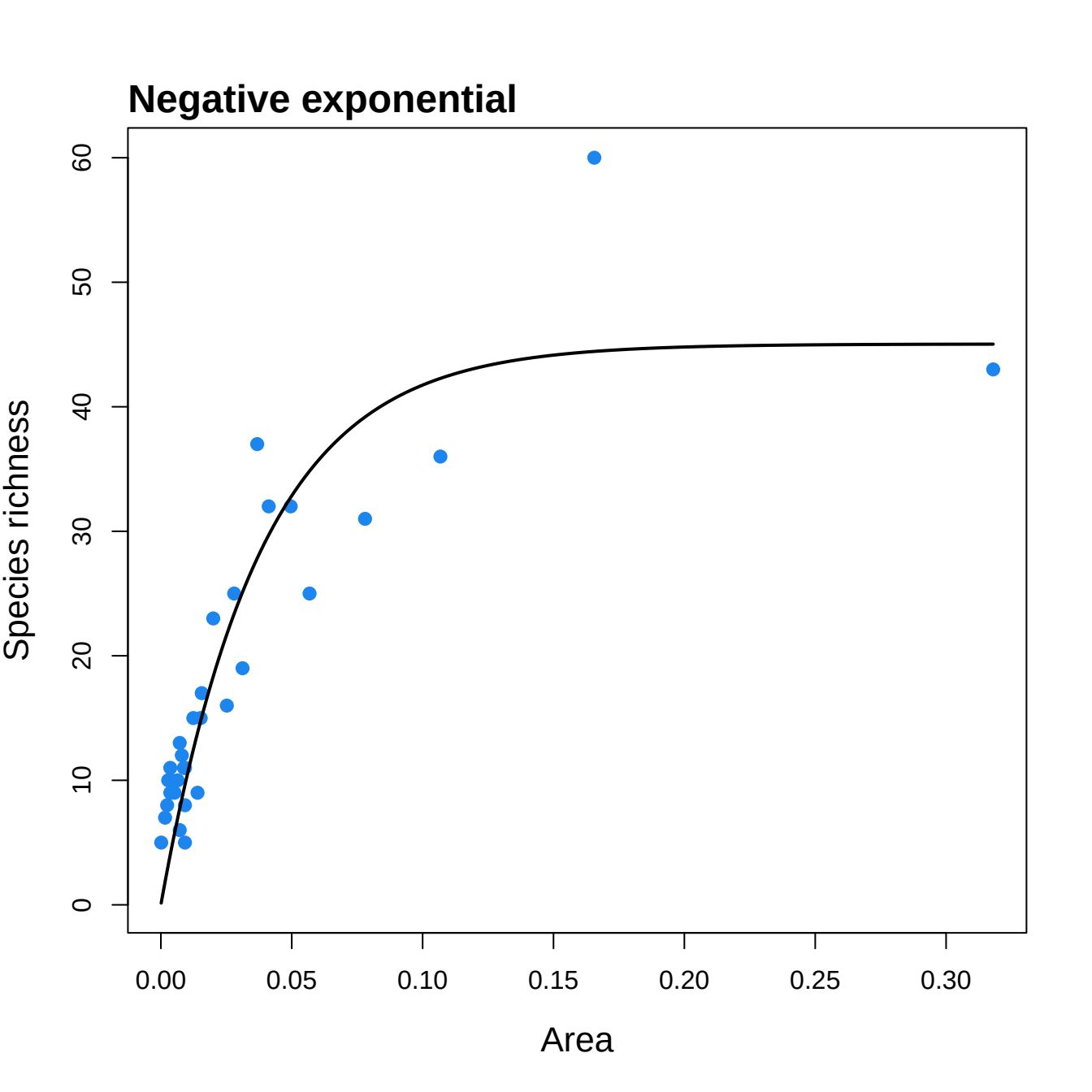

Multimodel SAR
Species richness
Area
0
50
100
150
200
250
300
0
500
1000
1500
Power
PowerR
Extended Power
Extended Power
Persistence func
Persistence func
Logarithmic
Kobayashi
Monod
Negative expone
Chapman Richa
Cumulative Weib
Asymptotic regre
Rational functior
Gompertz
Cumulative Weib
Beta−P cumulati
Logistic(Standar
Heleg(Logistic)
Linear model
Multimodel SAR

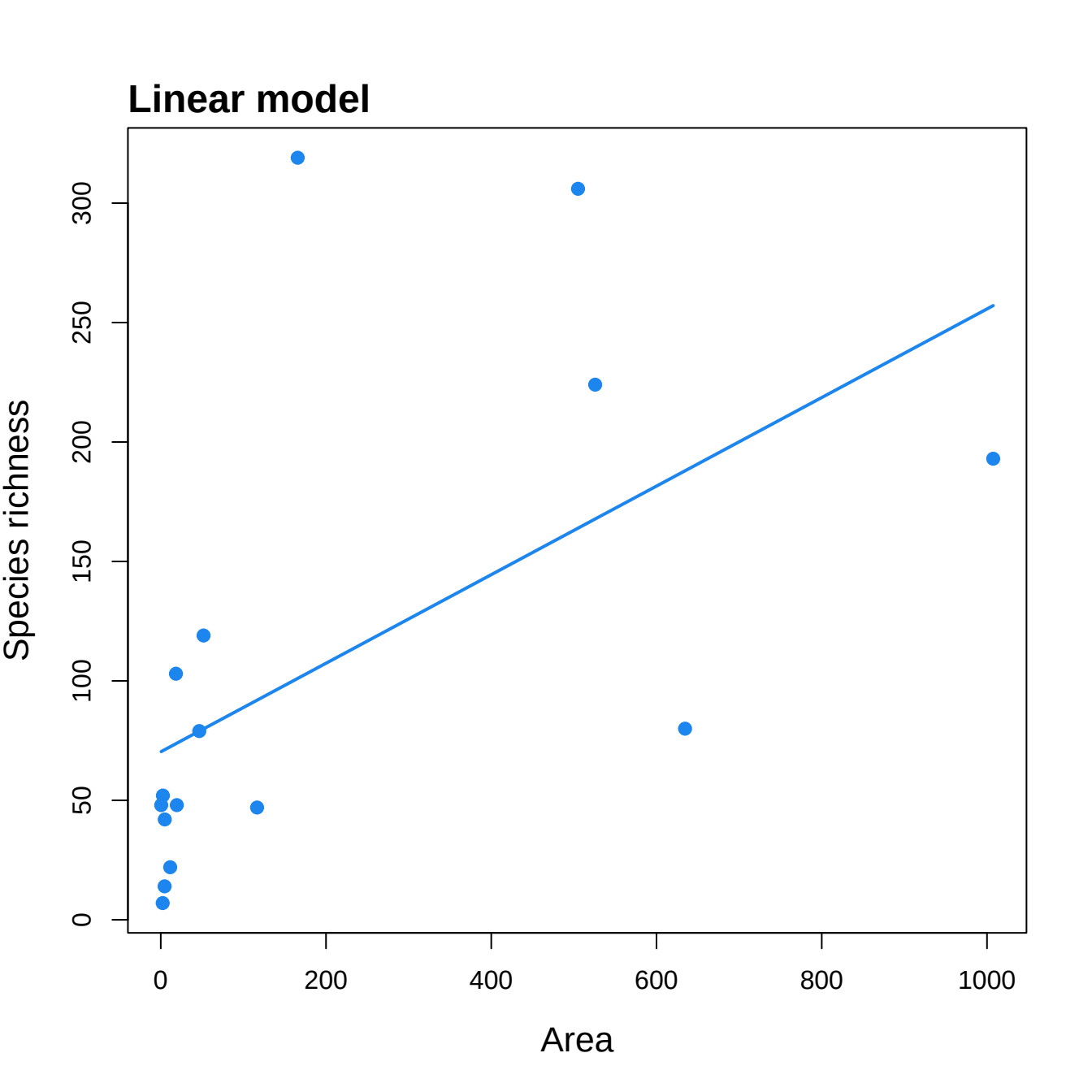

A
Species richness
0
200
400
0
400
800
Area

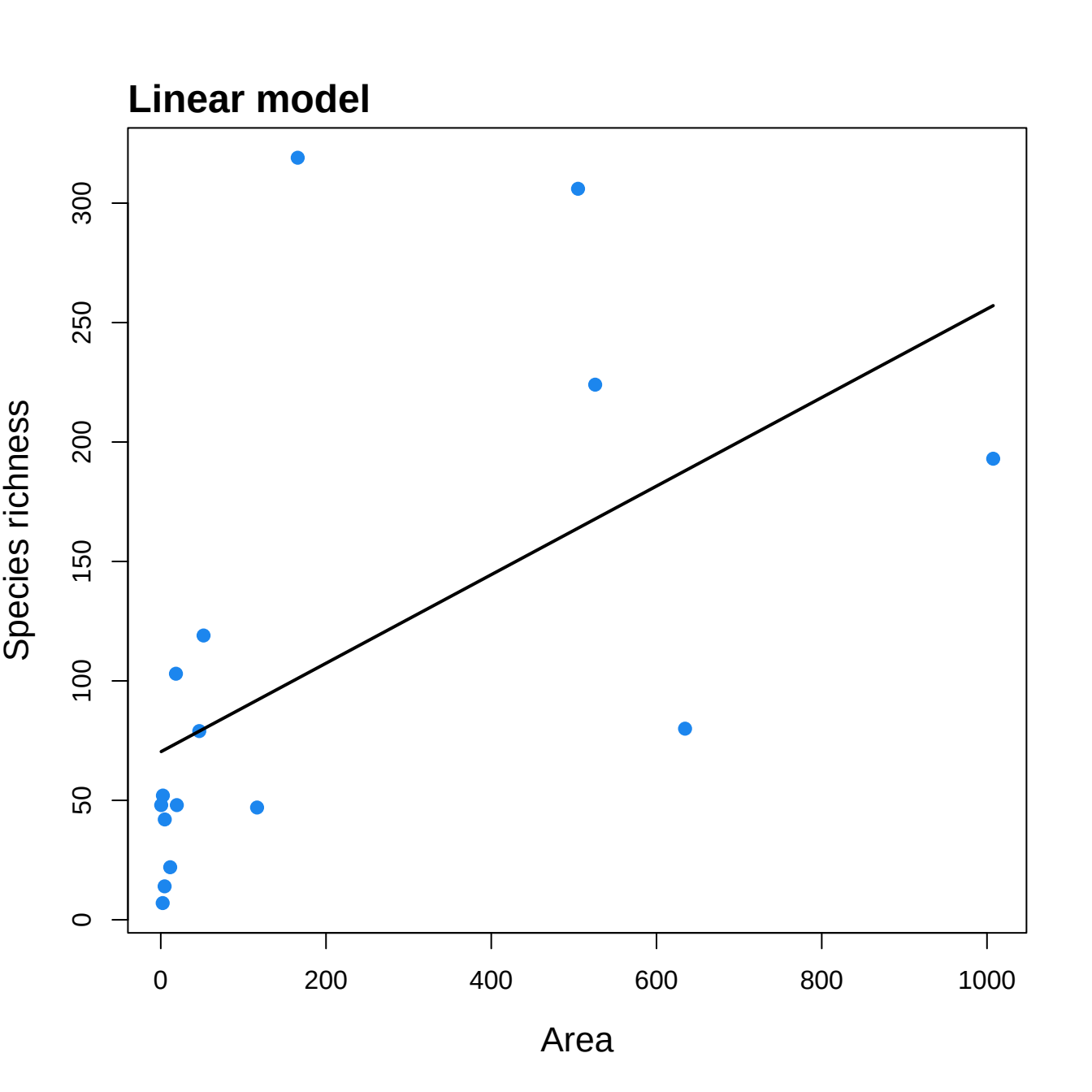

Power
Species richness
0
50
100
150
200
250
300
0
200
400
600
800
1000
Area

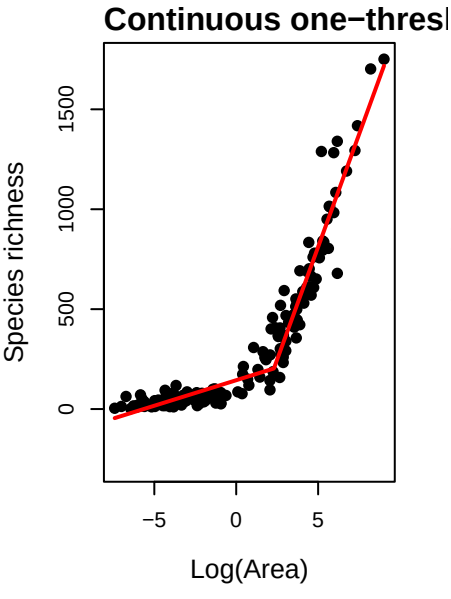

Power
Species richness
0
50
100
150
200
250
300
0
200
400
600
800
1000
Area

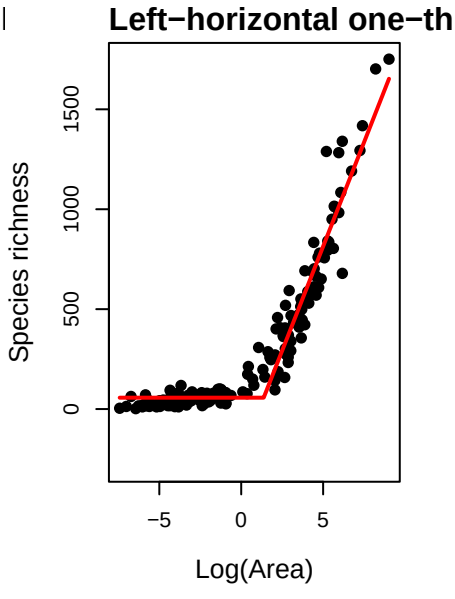

Negative exponential
Species richness
0
10
20
30
40
50
60
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Area

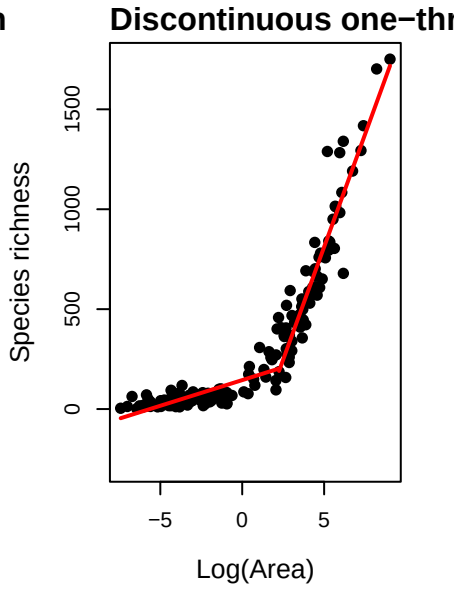

Negative exponential
Species richness
0
10
20
30
40
50
60
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Area

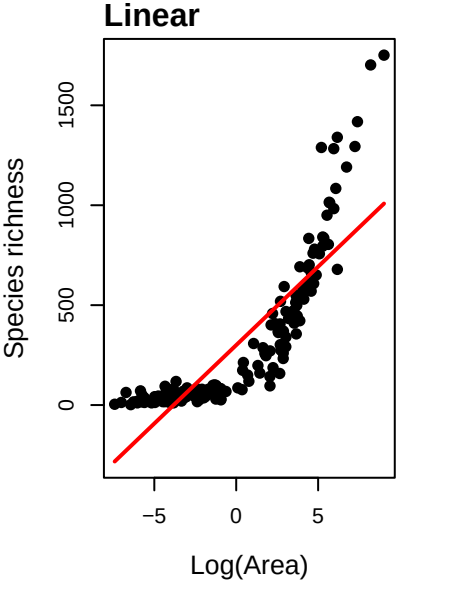

Linear model
Species richness
Area
0
50
100
150
200
250
300
0
200
400
600
800
1000

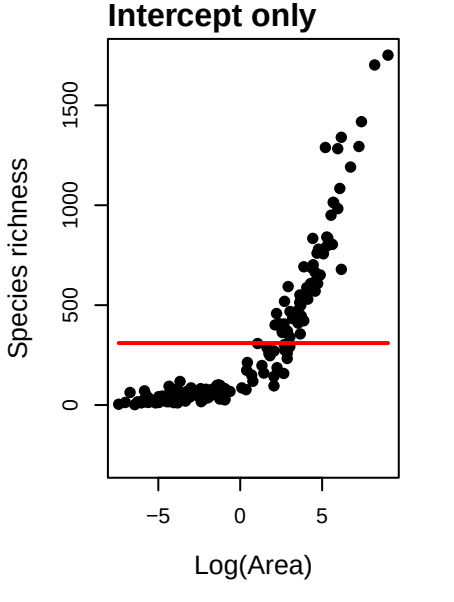

Linear model
Species richness
Area
0
50
100
150
200
250
300
0
200
400
600
800
1000

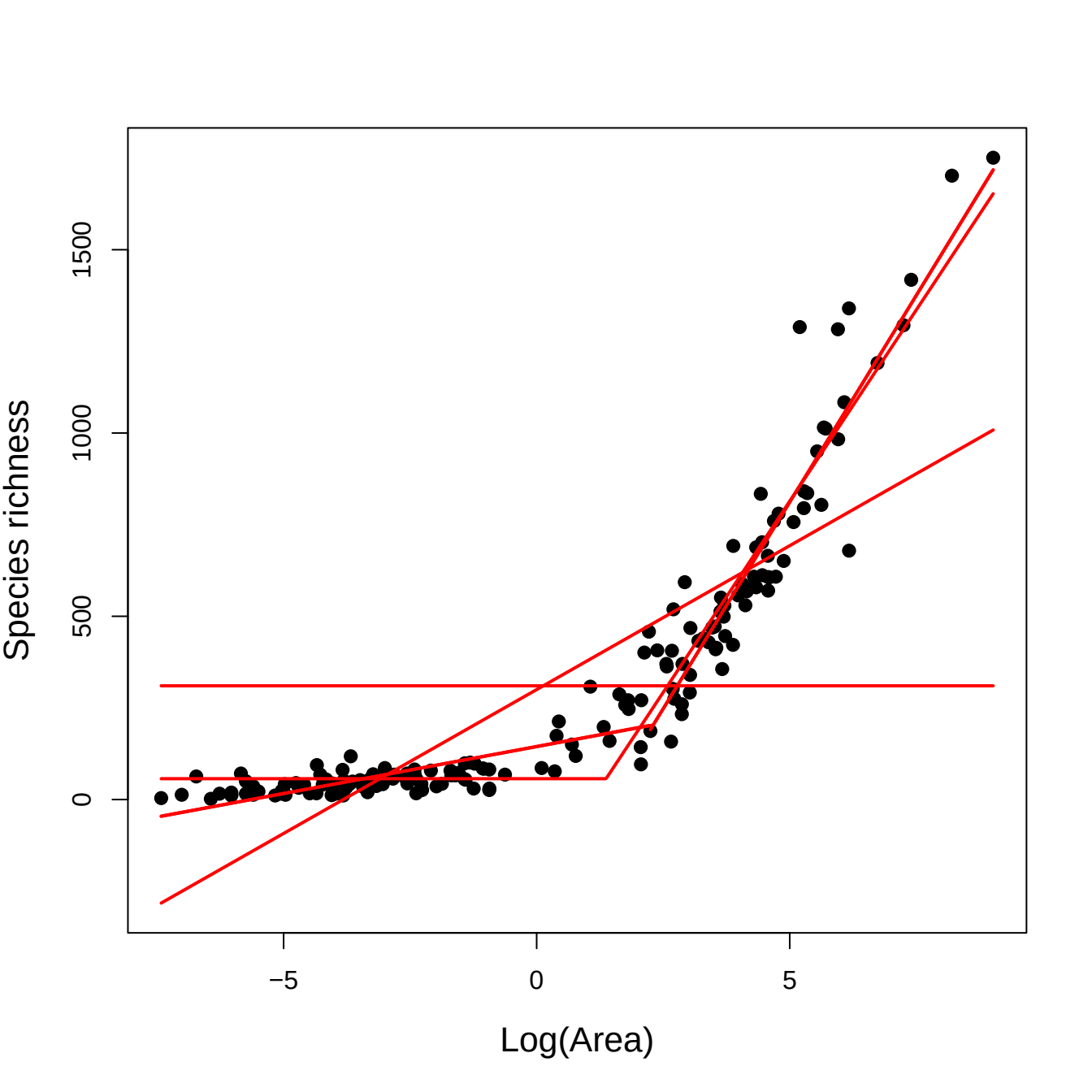

Continuous one−thres
Species richness
0
500
1000
1500
−5
0
5
Log(Area)

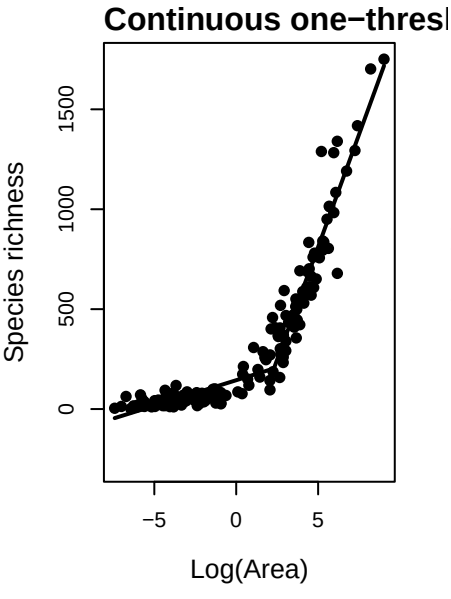

Left−horizontal one−th
Species richness
0
500
1000
1500
−5
0
5
Log(Area)

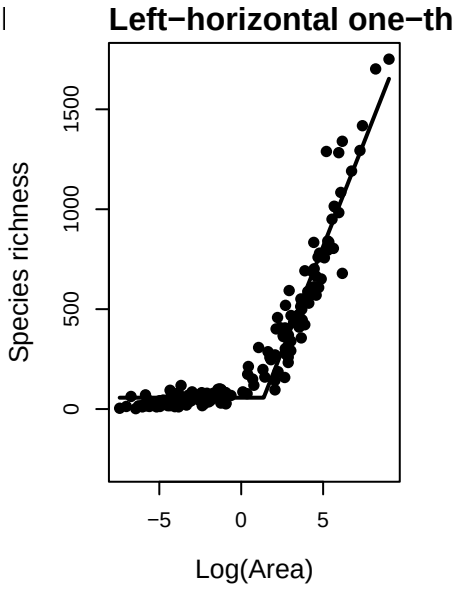

Discontinuous one−thr
Species richness
0
500
1000
1500
−5
0
5
Log(Area)

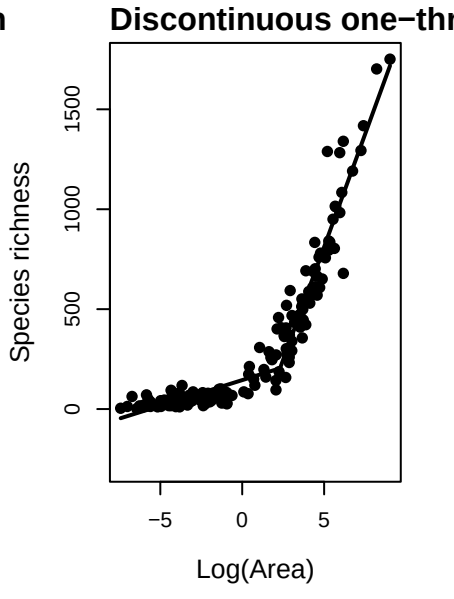

Linear
Species richness
0
500
1000
1500
−5
0
5
Log(Area)

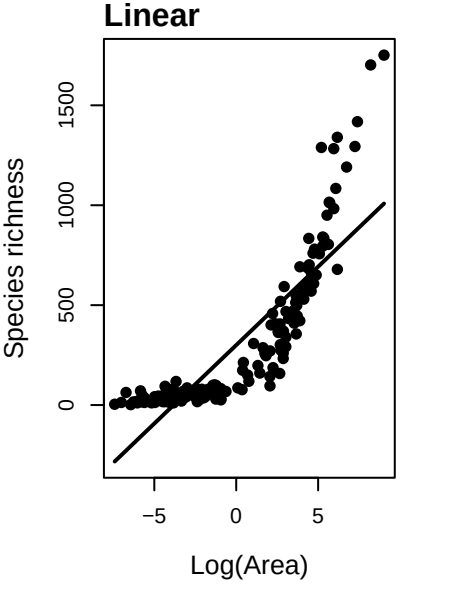

Intercept only
Species richness
0
500
1000
1500
−5
0
5
Log(Area)

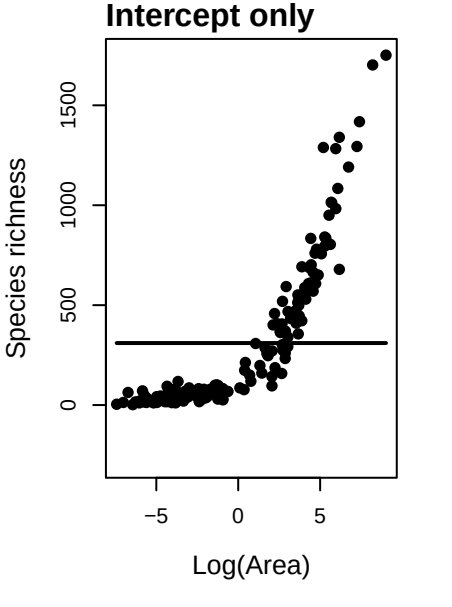

Species richness
0
500
1000
1500
−5
0
5
Log(Area)

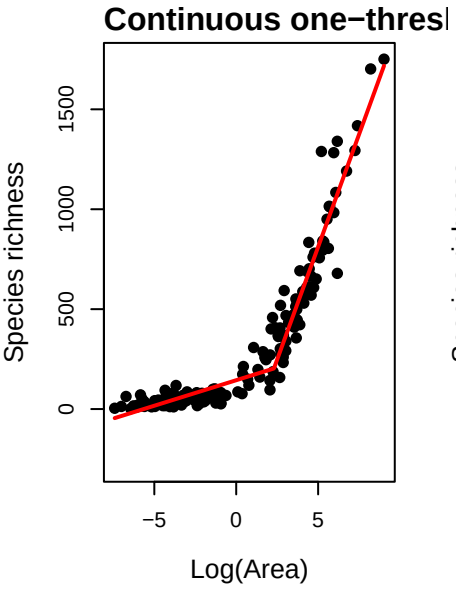

Continuous one−thres
Species richness
0
500
1000
1500
−5
0
5
Log(Area)

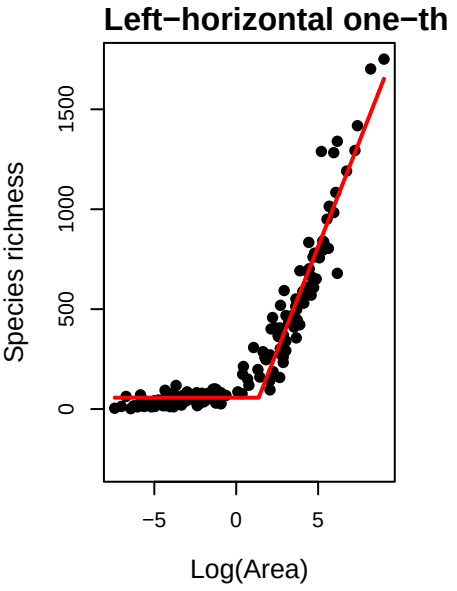

Left−horizontal one−th
Species richness
0
500
1000
1500
−5
0
5
Log(Area)

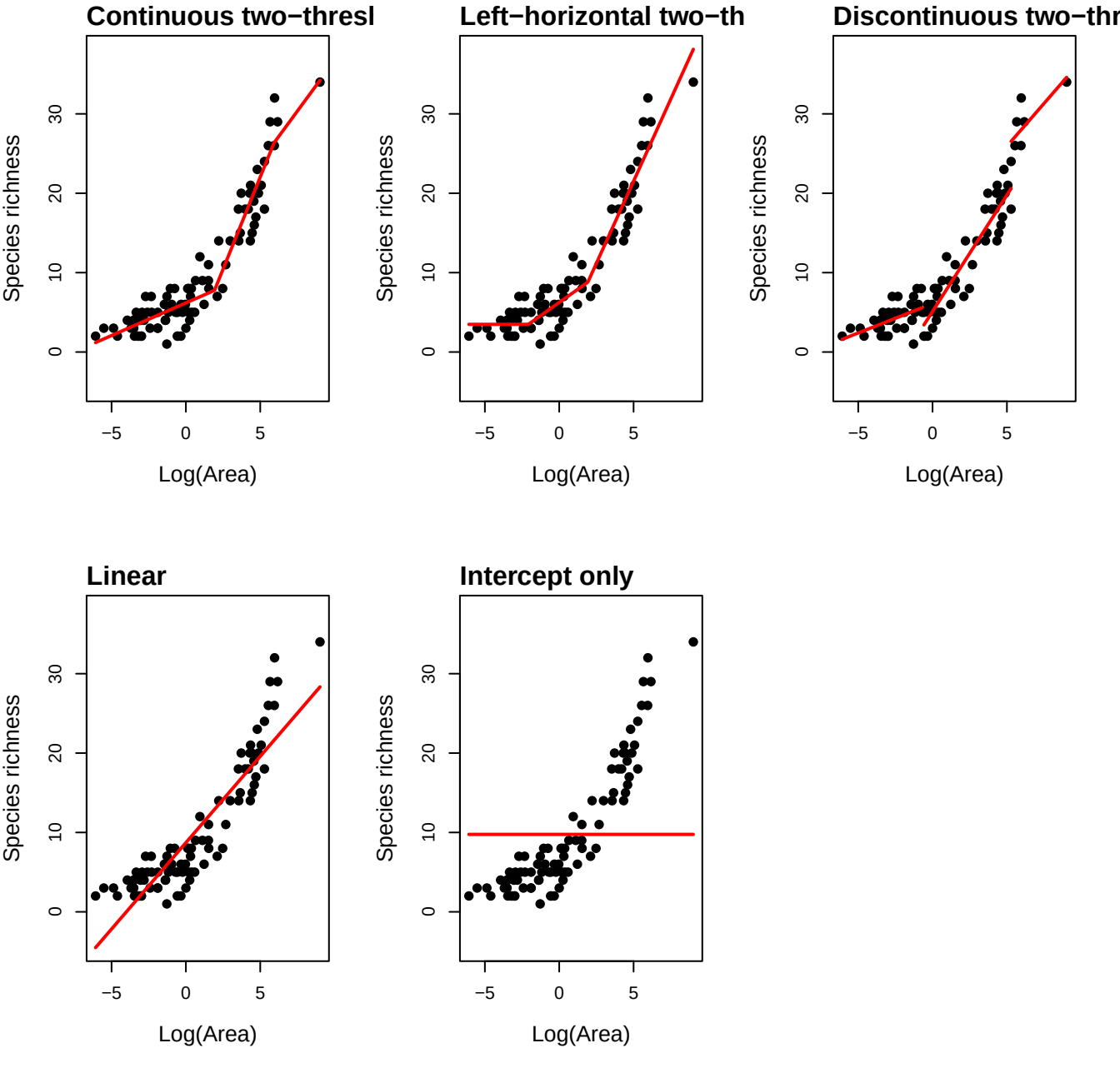

Discontinuous one−thr
Species richness
0
500
1000
1500
−5
0
5
Log(Area)

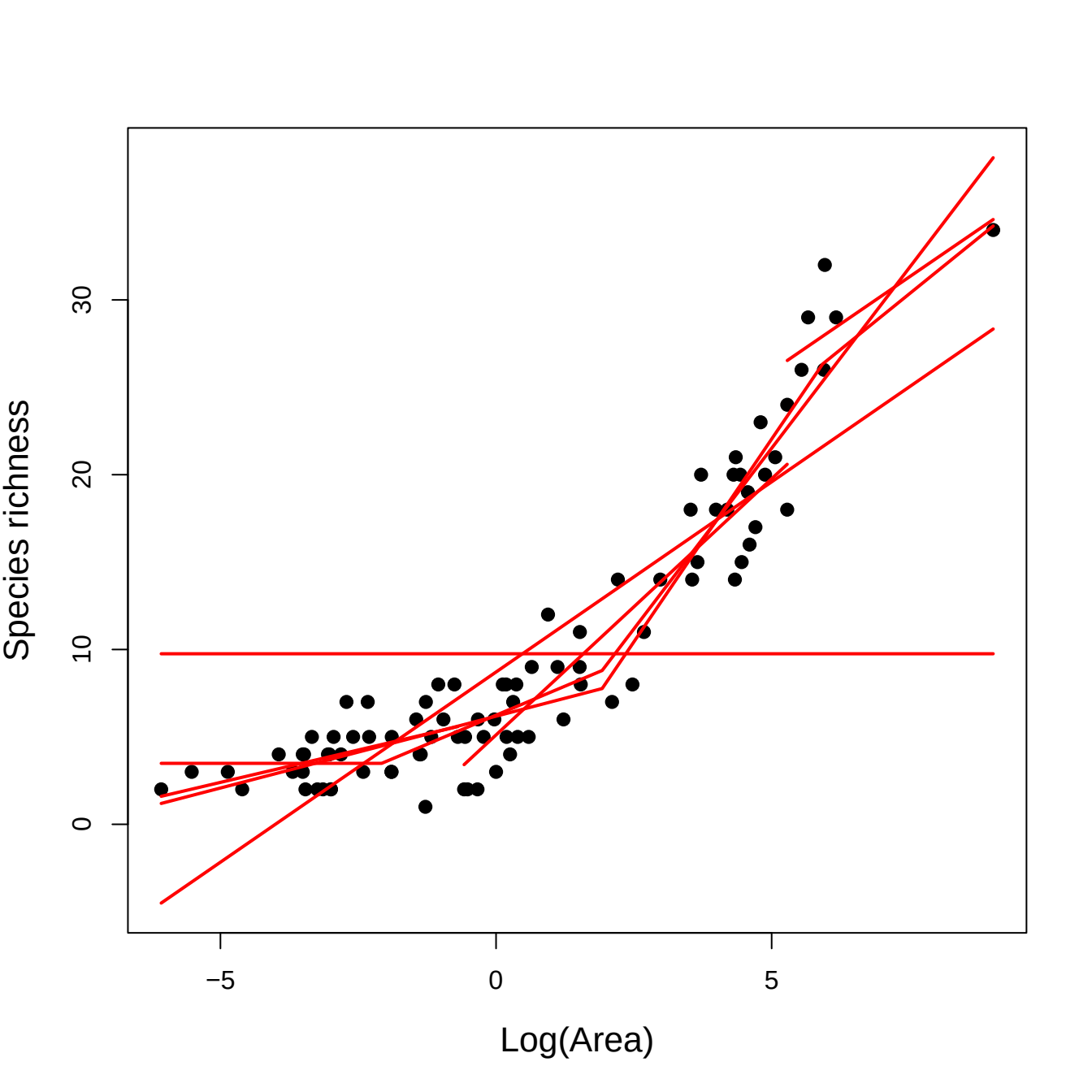

Linear
Species richness
0
500
1000
1500
−5
0
5
Log(Area)

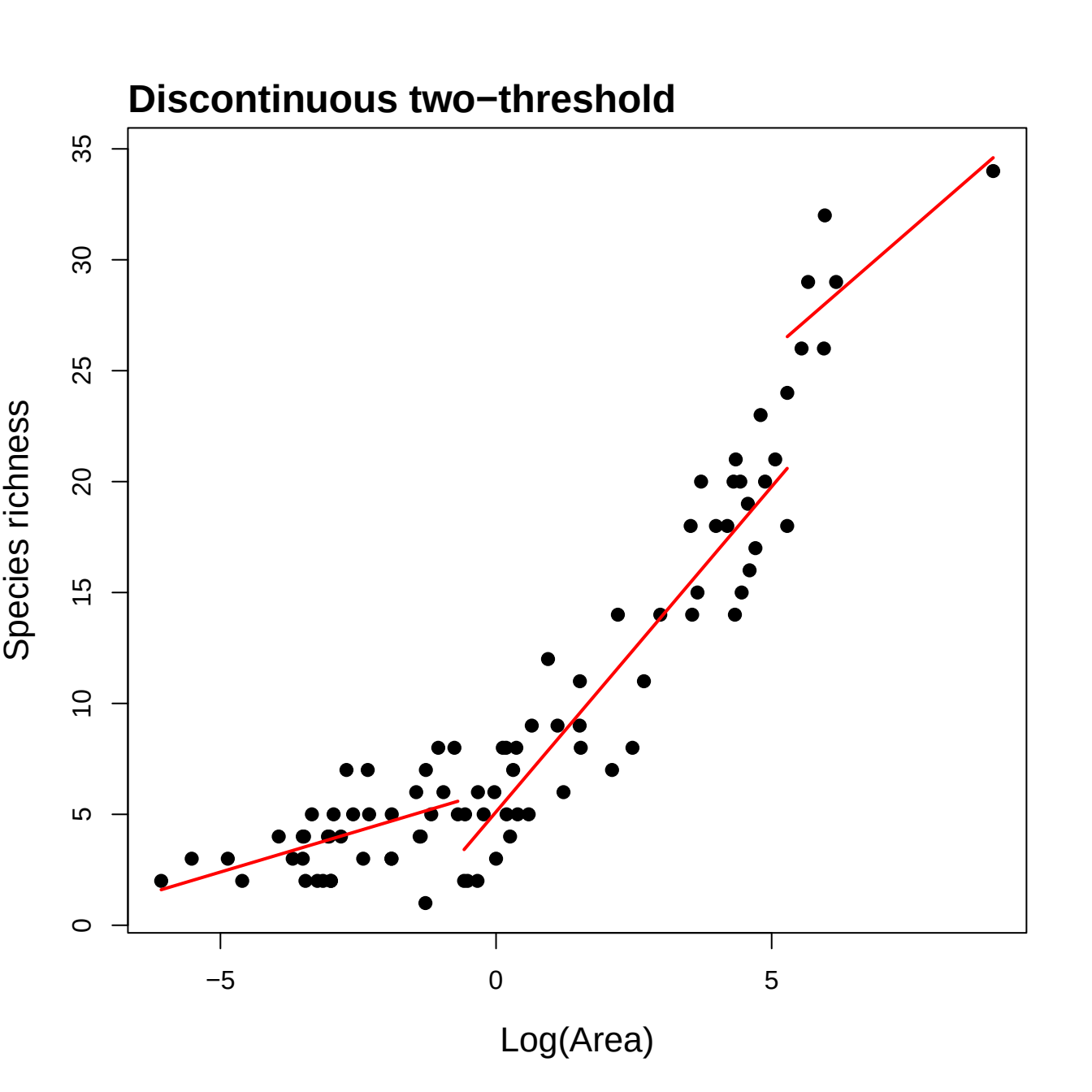

Intercept only
Species richness
0
500
1000
1500
−5
0
5
Log(Area)

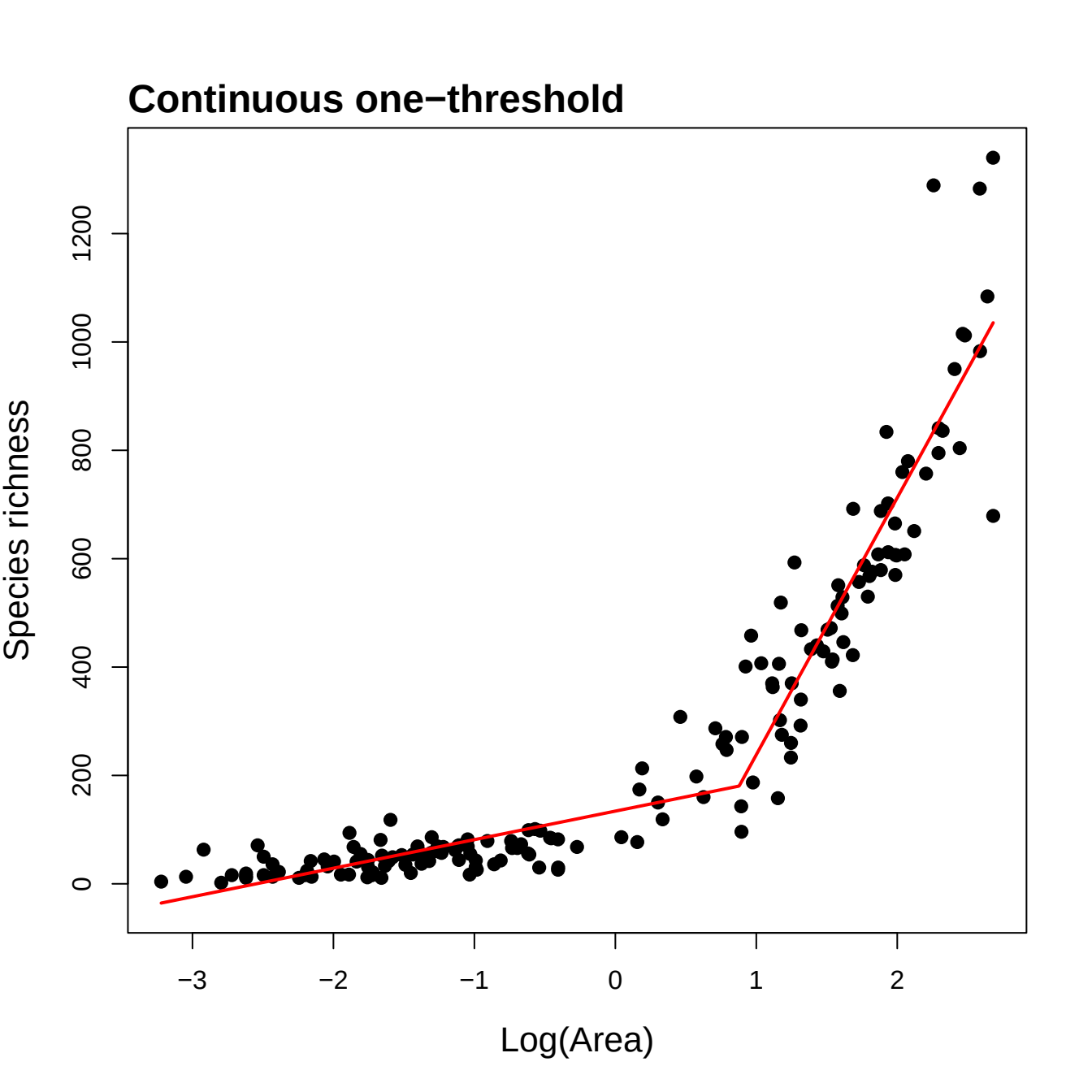

Continuous one−thres
Species richness
0
500
1000
1500
−5
0
5
Log(Area)

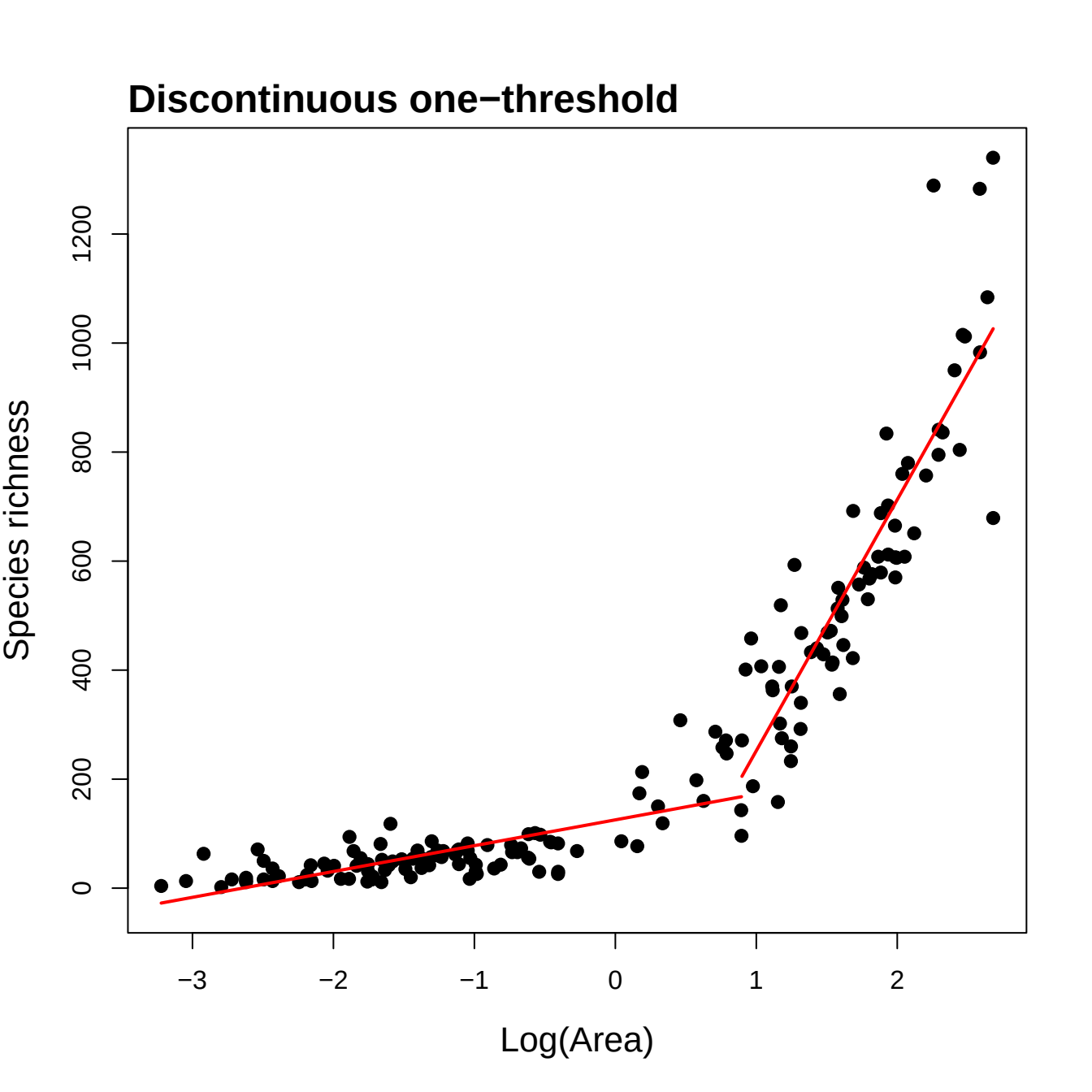

Left−horizontal one−th
Species richness
0
500
1000
1500
−5
0
5
Log(Area)


Continuous two−thresl
Left−horizontal two−th
Discontinuous two−thr
Linear
Intercept only
Species richness
Log(Area)
0
10
20
30
−5
0
5


Species richness
0
10
20
30
−5
0
5
Log(Area)


Discontinuous two−threshold
Species richness
Log(Area)
0
5
10
15
20
25
30
35
−5
0
5


Continuous one−threshold
Species richness
0
200
400
600
800
1000
1200
−3
−2
−1
0
1
2
Log(Area)


Discontinuous one−threshold
Species richness
0
200
400
600
800
1000
1200
−3
−2
−1
0
1
2
Log(Area)