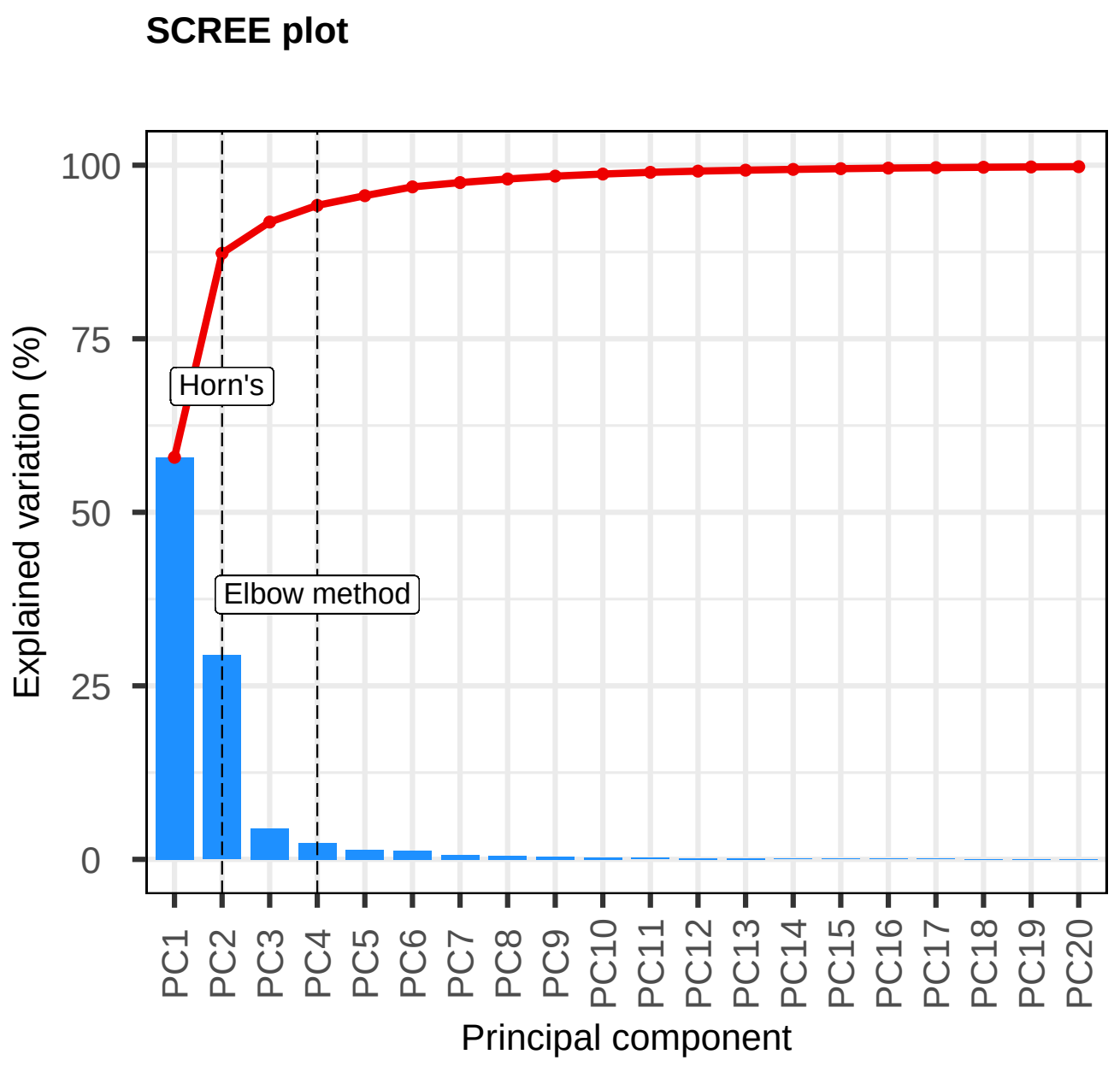
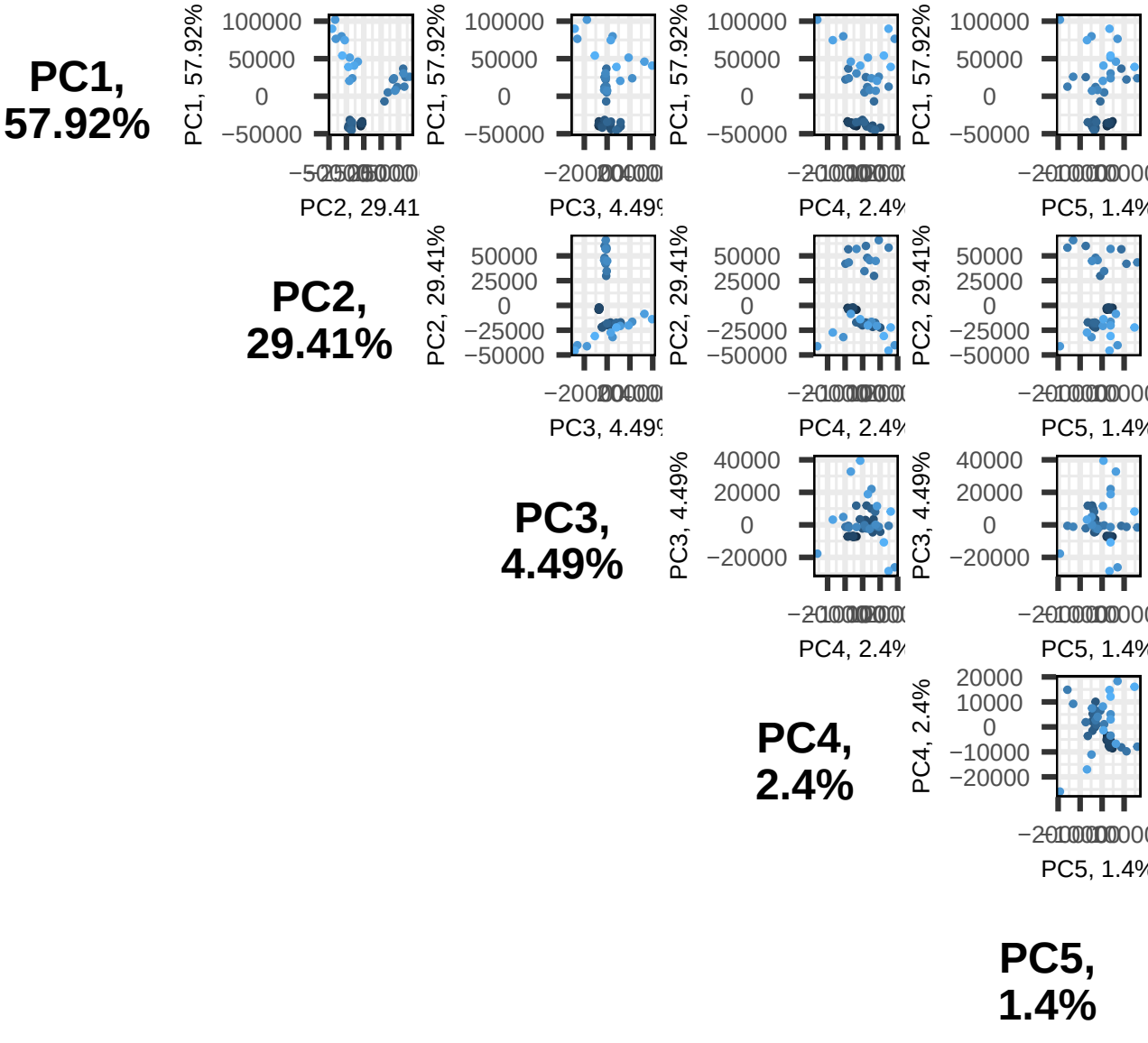
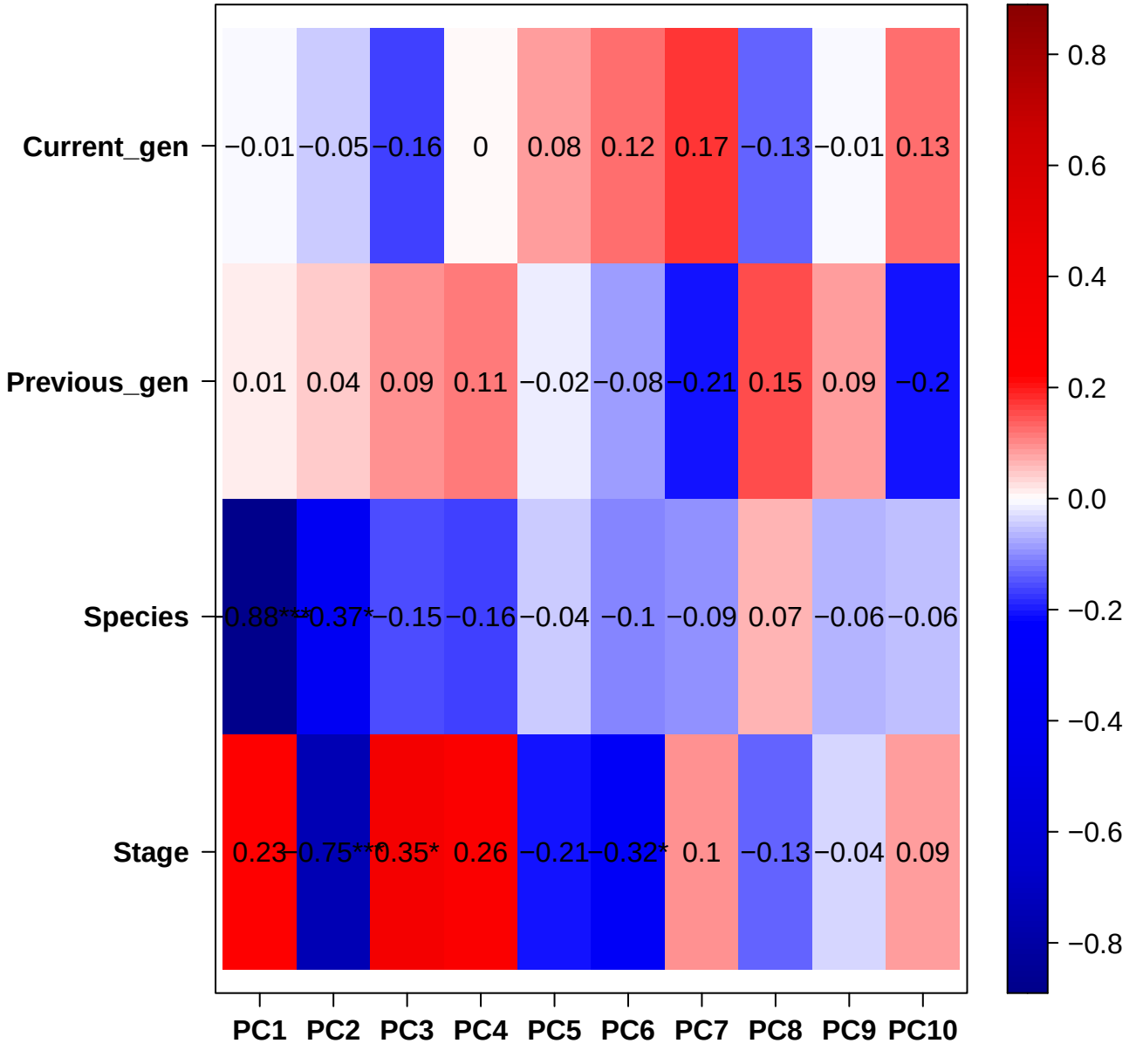
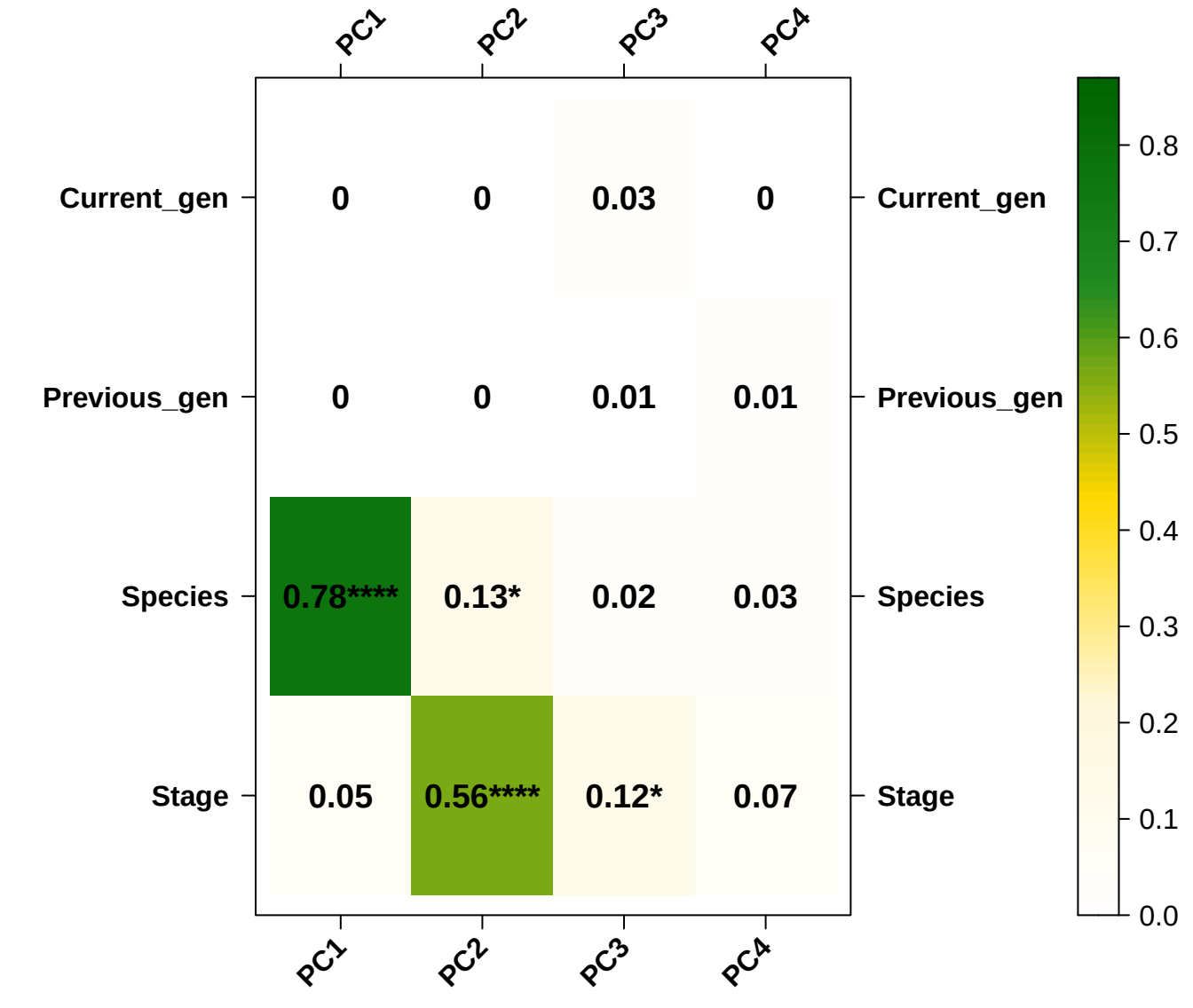
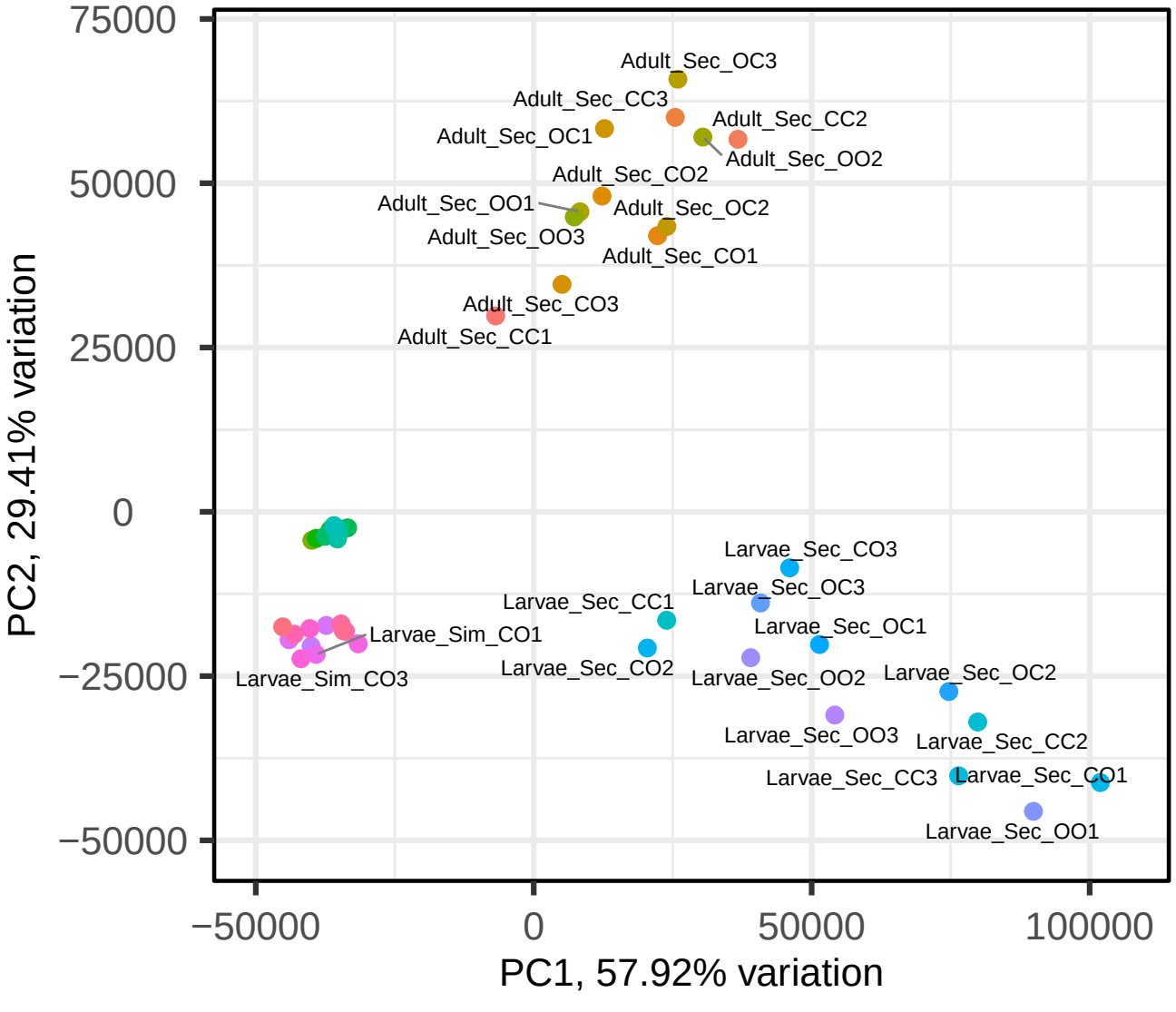

SCREE plot
100
75
50
25
0
Explained variation (%)
Horn's
Elbow method
PC1
PC2
PC3
PC4
PC5
PC6
PC7
PC8
PC9
PC10
PC11
PC12
PC13
PC14
PC15
PC16
PC17
PC18
PC19
PC20
Principal component

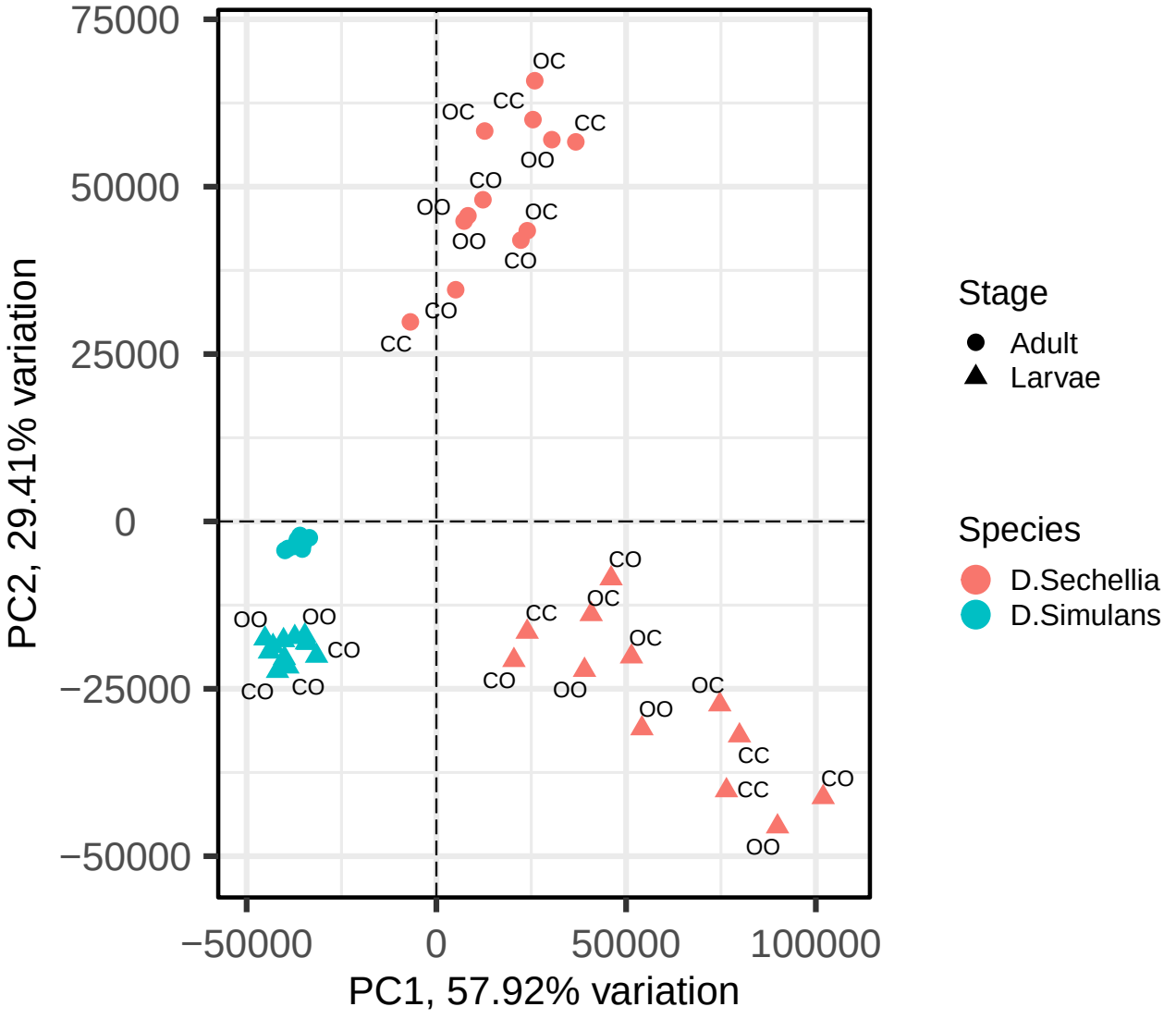

PC1, 57.92%
PC2, 29.41%
PC3, 4.49%
PC4, 2.4%
PC5, 1.4%

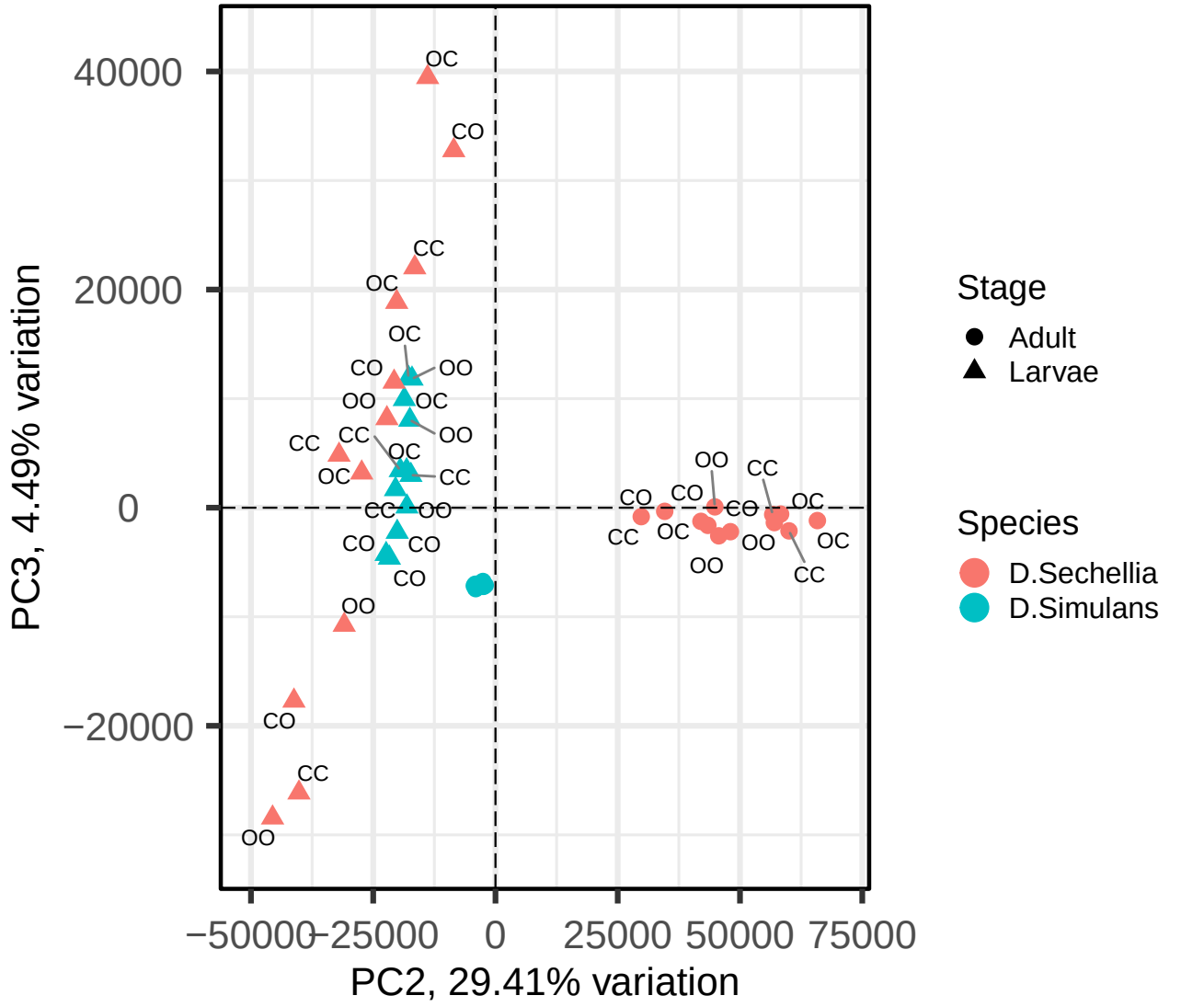

Current_gen
Previous_gen
Species
Stage
−0.01 −0.05 −0.16 0 0.08 0.12 0.17 −0.13 −0.01 0.13
0.01 0.04 0.09 0.11 −0.02 −0.08 −0.21 0.15 0.09 −0.2
0.88*** 0.37* −0.15 −0.16 −0.04 −0.1 −0.09 0.07 −0.06 −0.06
0.23 −0.75*** 0.35* 0.26 −0.21 −0.32* 0.1 −0.13 −0.04 0.09
PC1 PC2 PC3 PC4 PC5 PC6 PC7 PC8 PC9 PC10
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
−0.8

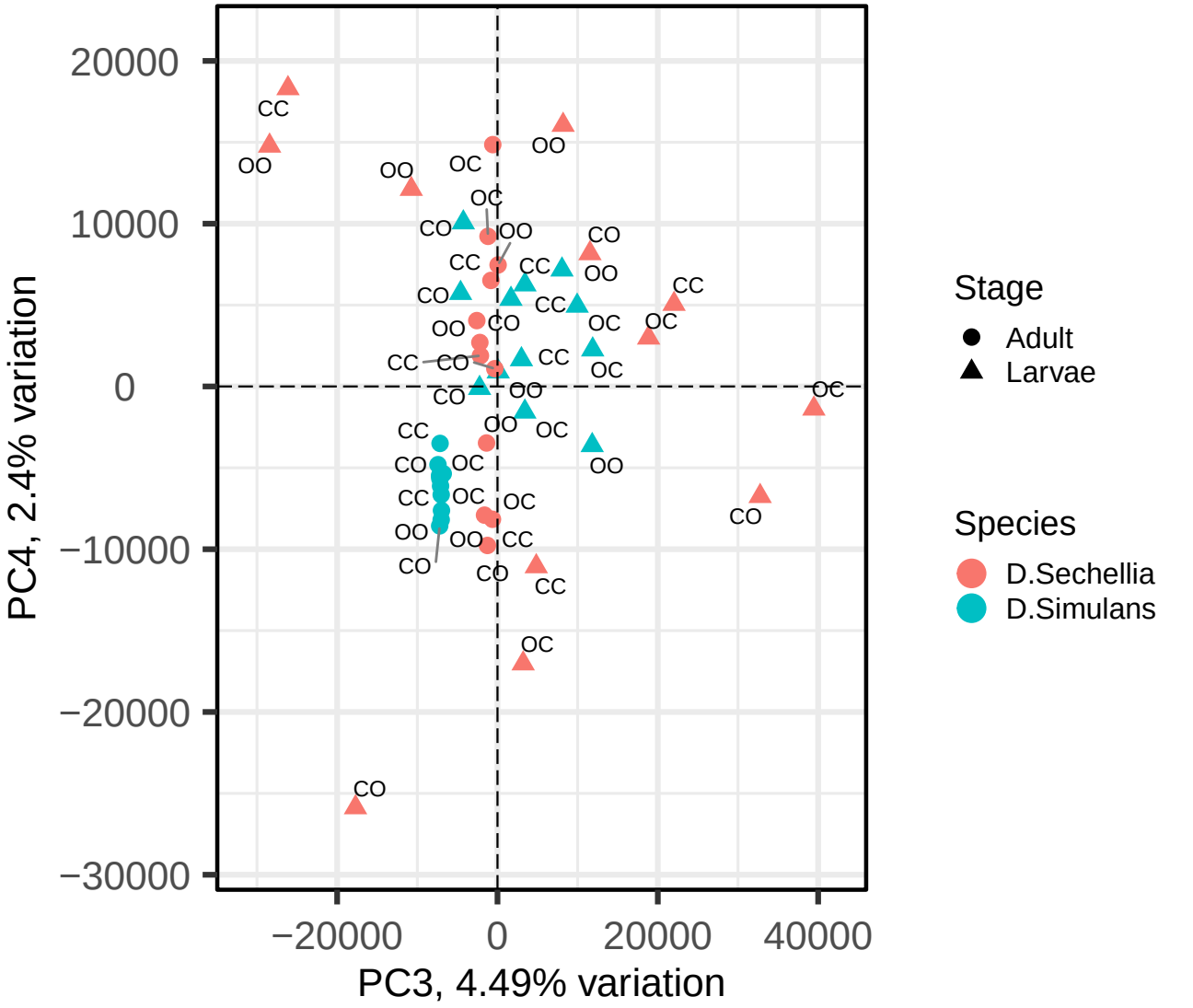
Principal component Pearson r^2 correlates

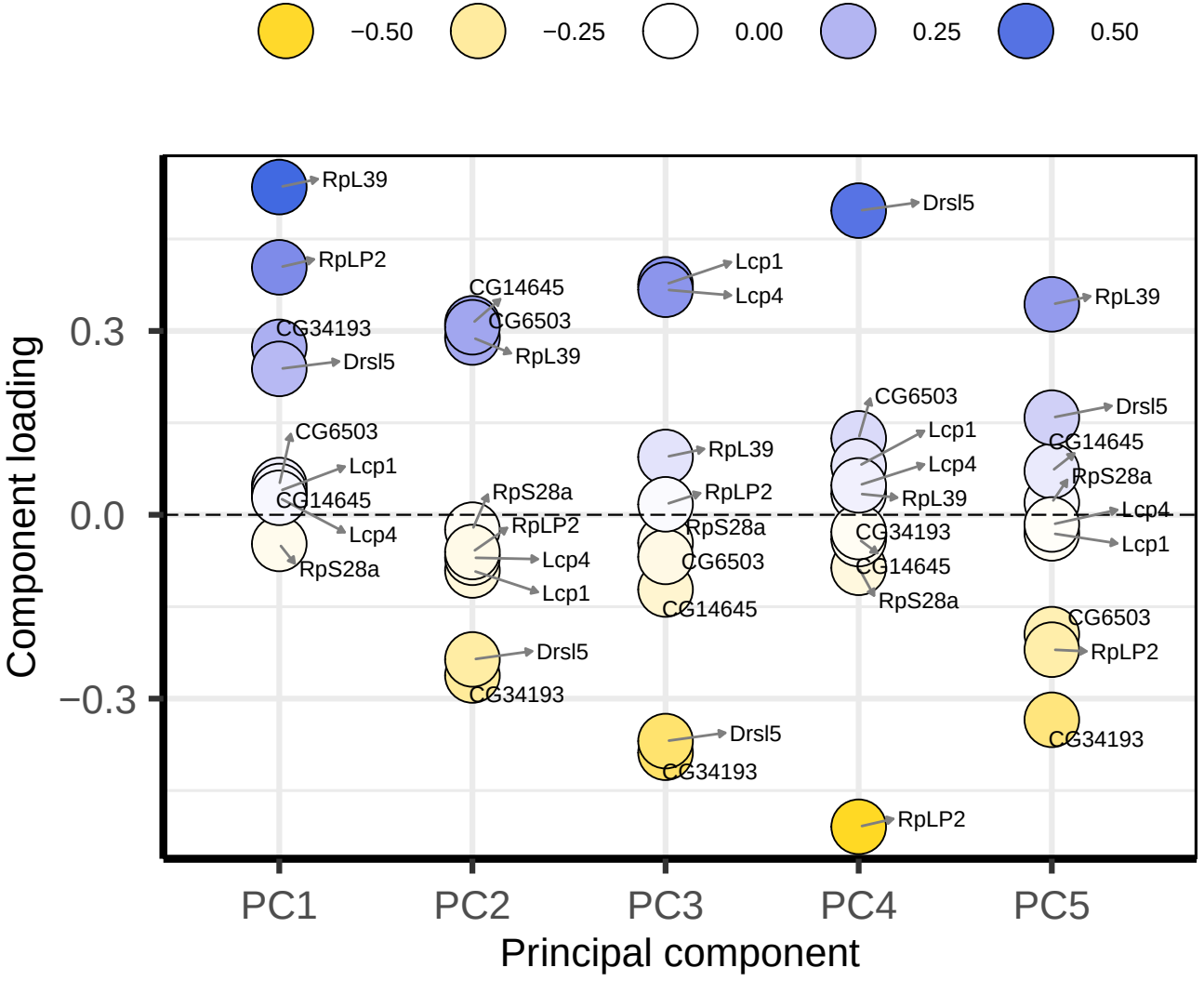


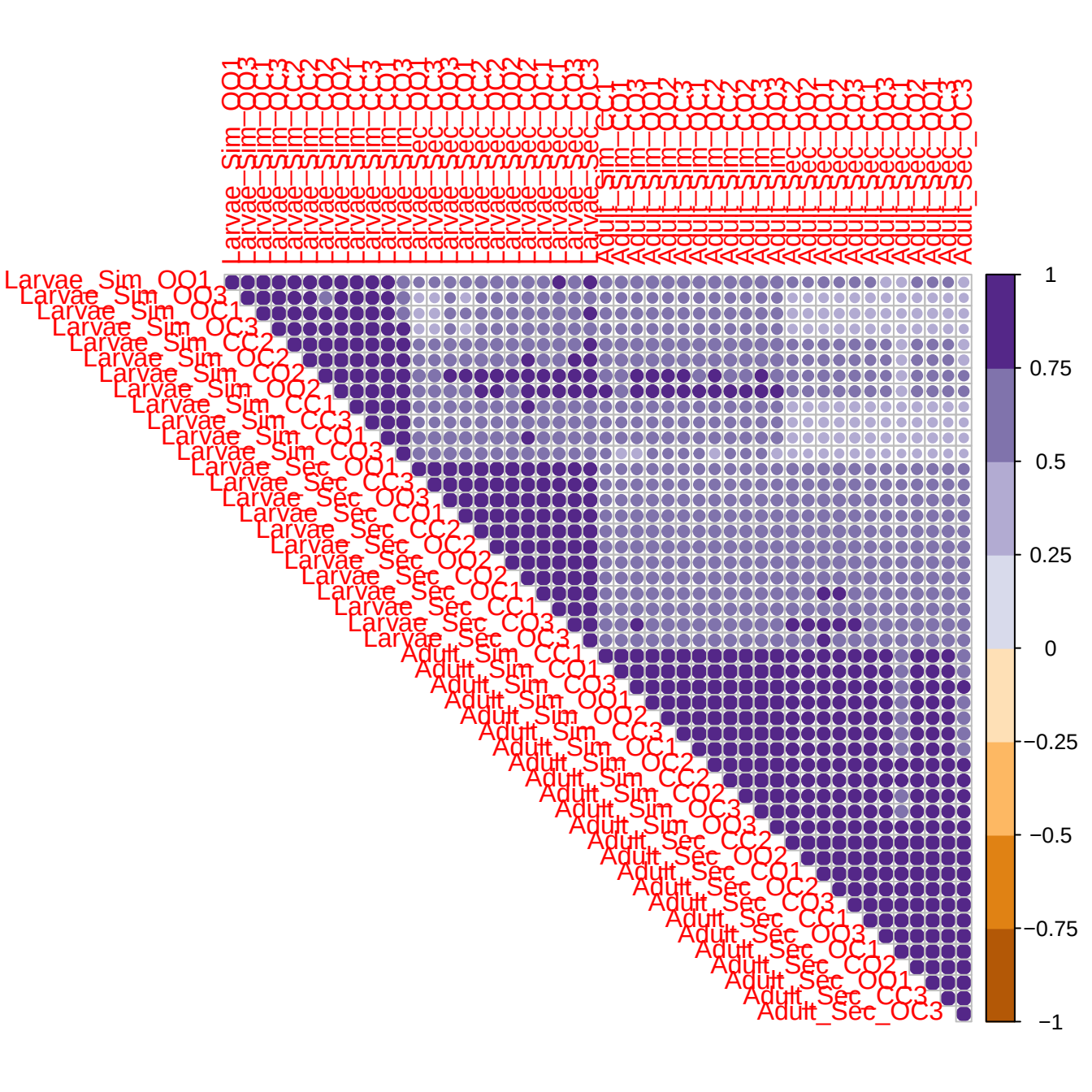

75000
50000
25000
0
−25000
−50000
PC2, 29.41% variation
−50000
0
50000
100000
PC1, 57.92% variation
Adult_Sec_OC3
Adult_Sec_CC3
Adult_Sec_CC2
Adult_Sec_OC1
Adult_Sec_OO2
Adult_Sec_CO2
Adult_Sec_OO1
Adult_Sec_OC2
Adult_Sec_OO3
Adult_Sec_CO1
Adult_Sec_CO3
Adult_Sec_CC1
Larvae_Sec_CO3
Larvae_Sec_OC3
Larvae_Sec_CC1
Larvae_Sec_OC1
Larvae_Sim_CO1
Larvae_Sec_CO2
Larvae_Sec_OO2
Larvae_Sec_OC2
Larvae_Sim_CO3
Larvae_Sec_OO3
Larvae_Sec_CC2
Larvae_Sec_CC3
Larvae_Sec_CO1
Larvae_Sec_OO1

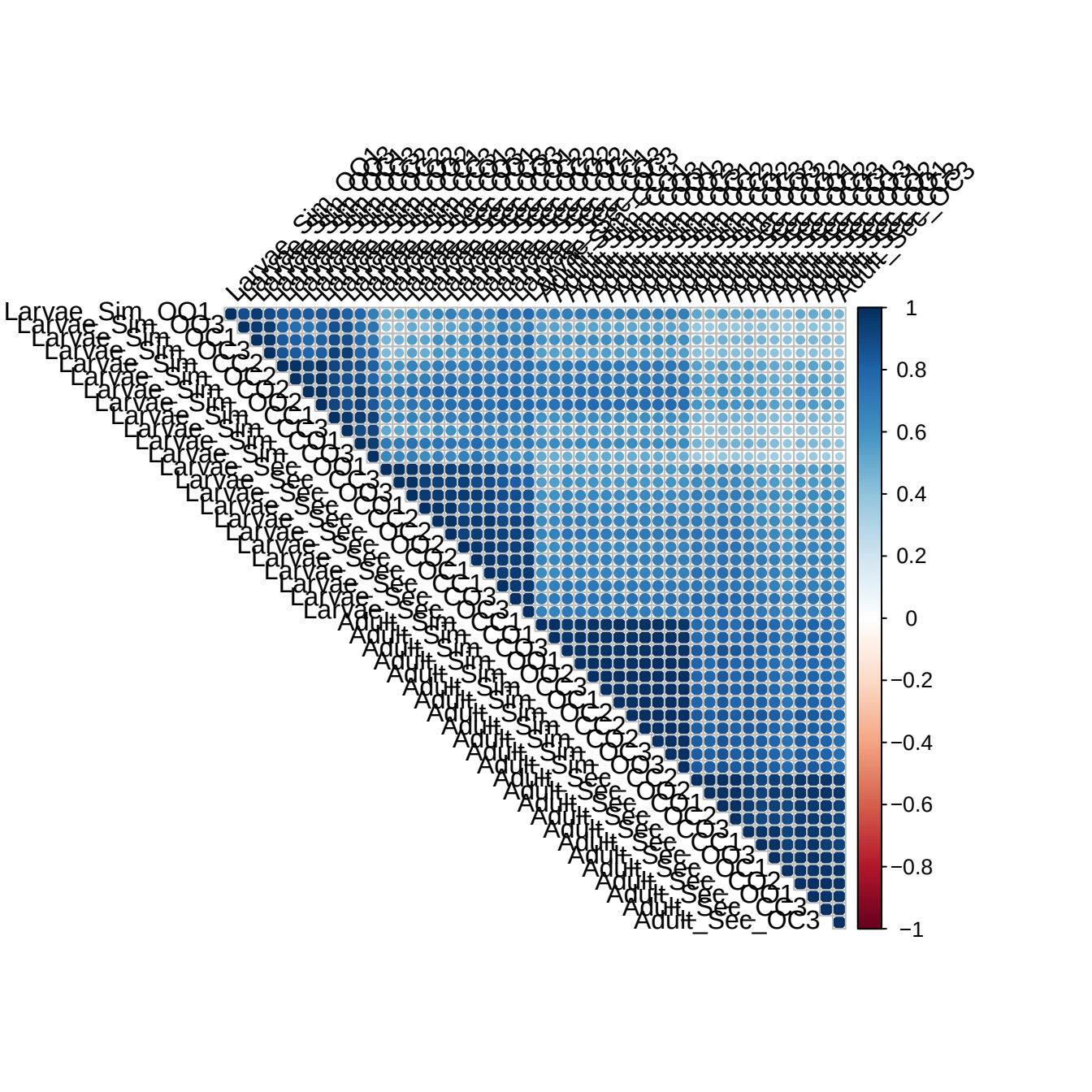

75000
50000
25000
0
−25000
−50000
−50000
0
50000
100000
PC2, 29.41% variation
PC1, 57.92% variation
Stage
Adult
Larvae
Species
D.Sechellia
D.Simulans

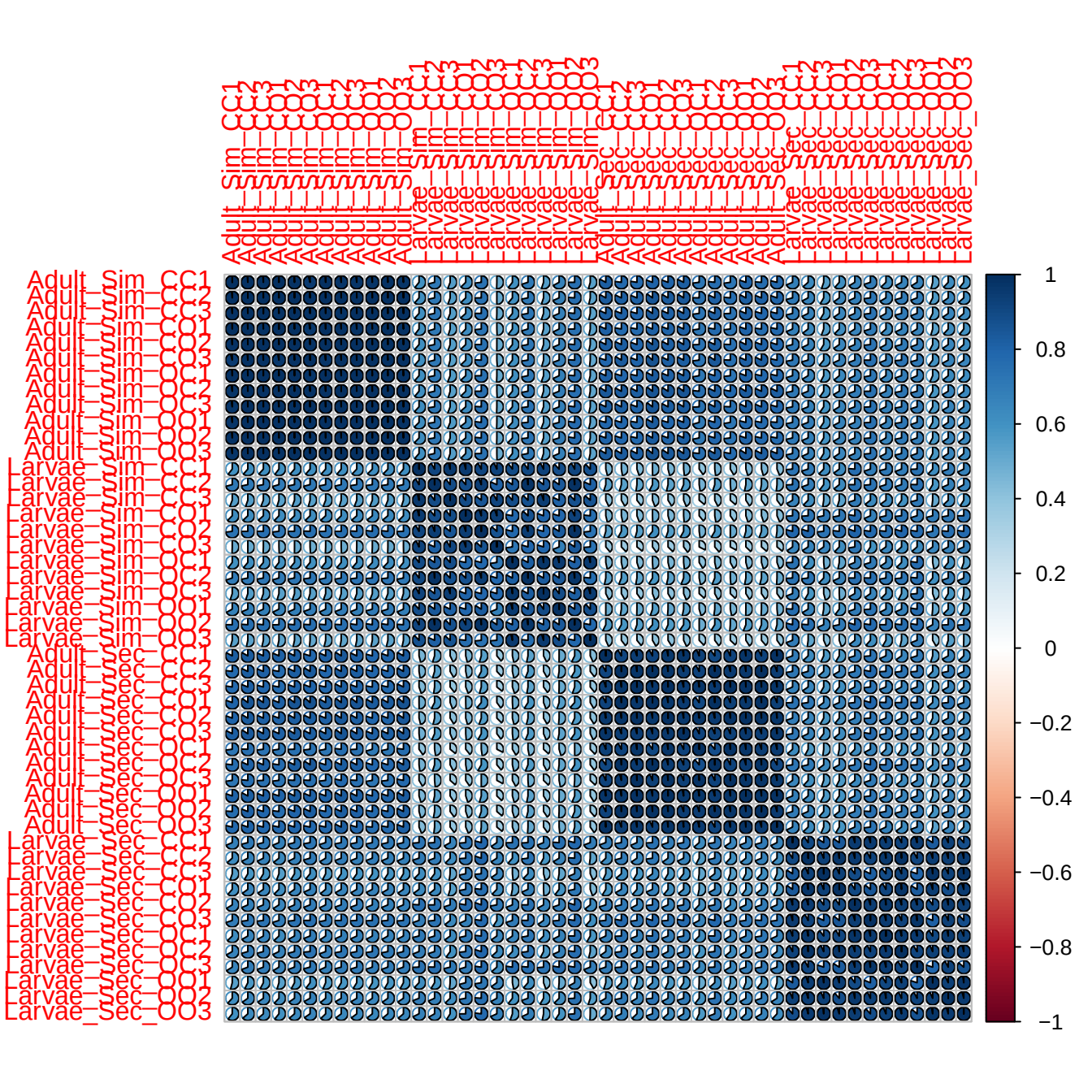

40000
20000
0
−20000
PC3, 4.49% variation
−50000
−25000
0
25000
50000
75000
PC2, 29.41% variation
Stage
Adult
Larvae
Species
D.Sechellia
D.Simulans

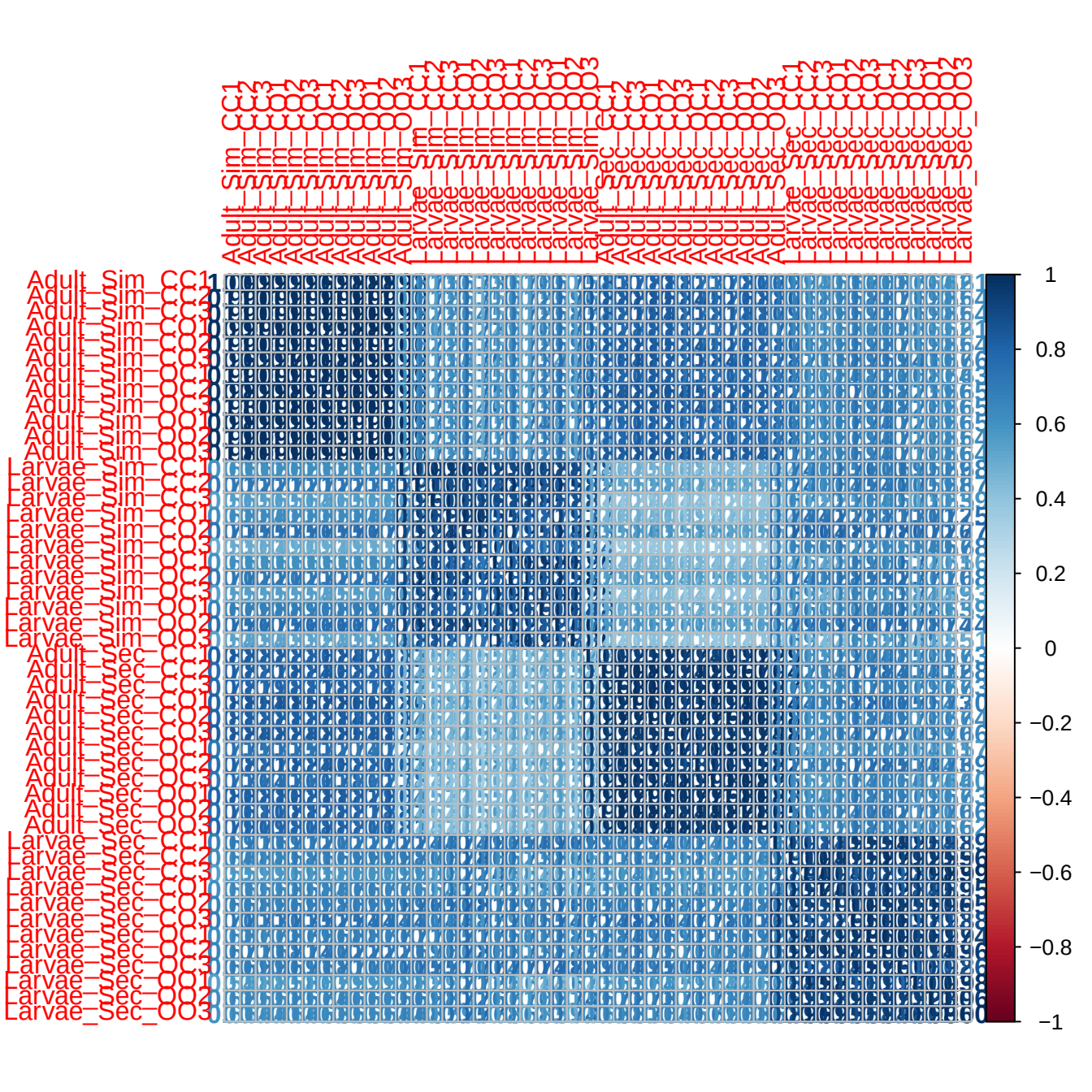

20000
10000
0
−10000
−20000
−30000
PC4, 2.4% variation
−20000
0
20000
40000
PC3, 4.49% variation
Stage
Adult
Larvae
Species
D.Sechellia
D.Simulans

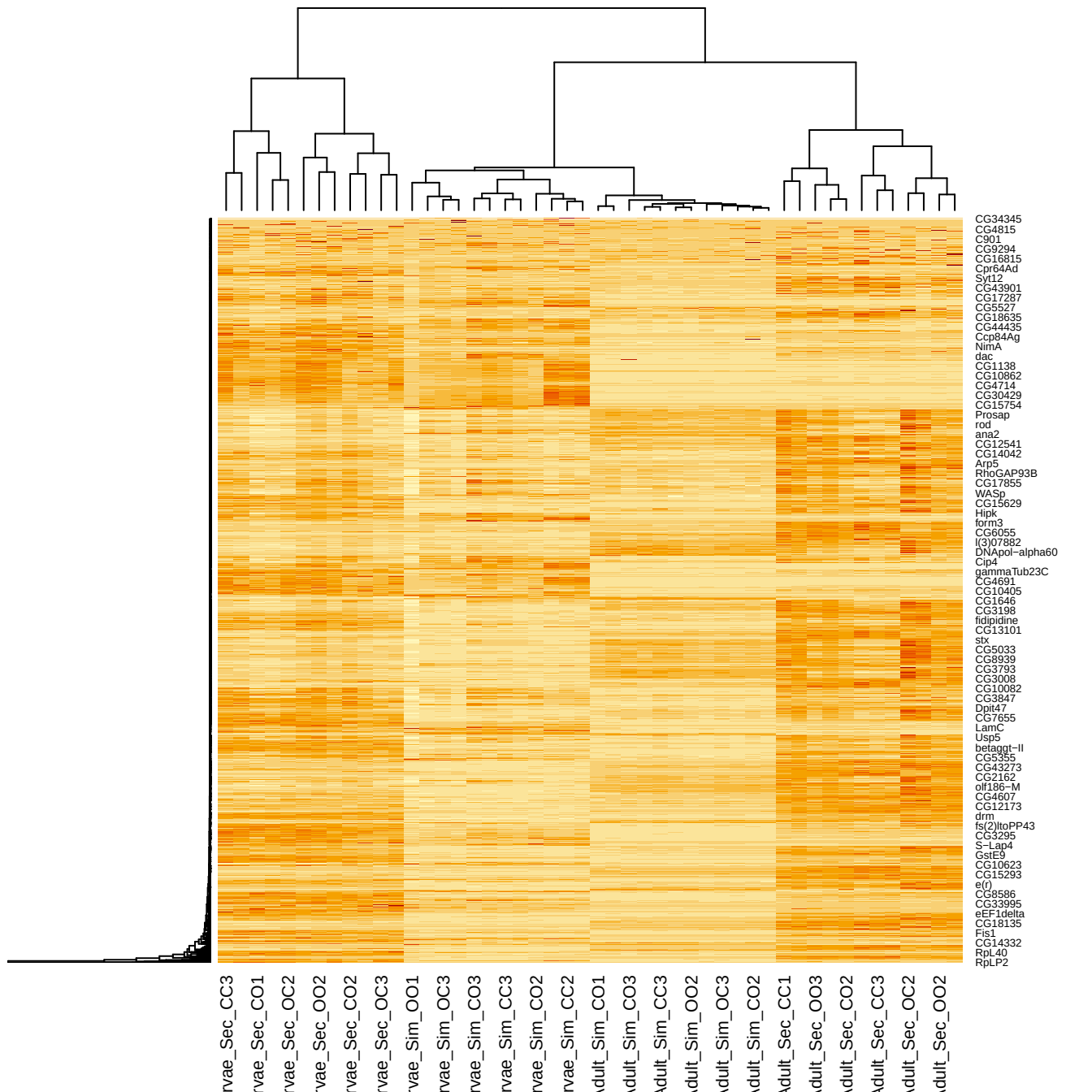

−0.50
−0.25
0.00
0.25
0.50
Component loading
0.3
0.0
−0.3
PC1
PC2
PC3
PC4
PC5
Principal component
RpL39
RpLP2
CG34193
Drsl5
CG6503
Lcp1
CG14645
Lcp4
RpS28a
CG14645
CG6503
RpL39
RpS28a
RpLP2
Lcp4
Lcp1
Drsl5
CG34193
Lcp1
Lcp4
RpL39
RpLP2
RpS28a
CG6503
CG14645
Drsl5
CG34193
Drsl5
CG6503
Lcp1
Lcp4
RpL39
CG34193
CG14645
RpS28a
RpLP2
RpL39
Drsl5
CG14645
RpS28a
Lcp4
Lcp1
CG6503
RpLP2
CG34193


Larvae_Sim_OO1
Larvae_Sim_OO3
Larvae_Sim_OC1
Larvae_Sim_OC3
Larvae_Sim_CC2
Larvae_Sim_OC2
Larvae_Sim_CO2
Larvae_Sim_OO2
Larvae_Sim_CC1
Larvae_Sim_CC3
Larvae_Sim_CO1
Larvae_Sim_CO3
Larvae_Sec_OO1
Larvae_Sec_CC3
Larvae_Sec_OO3
Larvae_Sec_CO1
Larvae_Sec_CC2
Larvae_Sec_OC2
Larvae_Sec_OO2
Larvae_Sec_CO2
Larvae_Sec_OC1
Larvae_Sec_CC1
Larvae_Sec_CO3
Larvae_Sec_OC3
Adult_Sim_CC1
Adult_Sim_CO1
Adult_Sim_CO3
Adult_Sim_OO1
Adult_Sim_OO2
Adult_Sim_CC3
Adult_Sim_OC1
Adult_Sim_OC2
Adult_Sim_CC2
Adult_Sim_CO2
Adult_Sim_OC3
Adult_Sim_OO3
Adult_Sec_CC2
Adult_Sec_OO2
Adult_Sec_CO1
Adult_Sec_OC2
Adult_Sec_CO3
Adult_Sec_CC1
Adult_Sec_OO3
Adult_Sec_OC1
Adult_Sec_CO2
Adult_Sec_OO1
Adult_Sec_CC3
Adult_Sec_OC3
1
0.75
0.5
0.25
0
−0.25
−0.5
−0.75
−1


Larvae_Sim_OO1
Larvae_Sim_OO3
Larvae_Sim_OC1
Larvae_Sim_OC3
Larvae_Sim_CC2
Larvae_Sim_CO2
Larvae_Sim_OO2
Larvae_Sim_CC1
Larvae_Sim_CO1
Larvae_Sim_CO3
Larvae_See_OO1
Larvae_See_CC3
Larvae_See_OO3
Larvae_See_CO1
Larvae_See_OC2
Larvae_See_CC2
Larvae_See_OO2
Larvae_See_CO2
Larvae_See_OC1
Larvae_See_CC1
Larvae_See_CO3
Larvae_See_OC3
Adult_Sim_CO1
Adult_Sim_CO3
Adult_Sim_OO1
Adult_Sim_OO2
Adult_Sim_CC3
Adult_Sim_OC1
Adult_Sim_CC2
Adult_Sim_CO2
Adult_Sim_OC3
Adult_Sim_OO3
Adult_See_CC2
Adult_See_OO2
Adult_See_CO1
Adult_See_OC2
Adult_See_CO3
Adult_See_OC1
Adult_See_OO3
Adult_See_OC2
Adult_See_CO2
Adult_See_OO1
Adult_See_CC3
Adult_See_OC3
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1


Adult_Sim_CC1
Adult_Sim_CC2
Adult_Sim_CC3
Adult_Sim_CO1
Adult_Sim_CO2
Adult_Sim_CO3
Adult_Sim_OC1
Adult_Sim_OC2
Adult_Sim_OC3
Adult_Sim_OO1
Adult_Sim_OO2
Adult_Sim_OO3
Larvae_Sim_CC1
Larvae_Sim_CC2
Larvae_Sim_CC3
Larvae_Sim_CO1
Larvae_Sim_CO2
Larvae_Sim_CO3
Larvae_Sim_OC1
Larvae_Sim_OC2
Larvae_Sim_OC3
Larvae_Sim_OO1
Larvae_Sim_OO2
Larvae_Sim_OO3
Adult_Sec_CC1
Adult_Sec_CC2
Adult_Sec_CC3
Adult_Sec_CO1
Adult_Sec_CO2
Adult_Sec_CO3
Adult_Sec_OC1
Adult_Sec_OC2
Adult_Sec_OC3
Adult_Sec_OO1
Adult_Sec_OO2
Adult_Sec_OO3
Larvae_Sec_CC1
Larvae_Sec_CC2
Larvae_Sec_CC3
Larvae_Sec_CO1
Larvae_Sec_CO2
Larvae_Sec_CO3
Larvae_Sec_OC1
Larvae_Sec_OC2
Larvae_Sec_OC3
Larvae_Sec_OO1
Larvae_Sec_OO2
Larvae_Sec_OO3
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1


Adult_Sim_CC1
Adult_Sim_CC2
Adult_Sim_CC3
Adult_Sim_CO1
Adult_Sim_CO2
Adult_Sim_CO3
Adult_Sim_OC1
Adult_Sim_OC2
Adult_Sim_OC3
Adult_Sim_OO1
Adult_Sim_OO2
Adult_Sim_OO3
Larvae_Sim_CC1
Larvae_Sim_CC2
Larvae_Sim_CC3
Larvae_Sim_CO1
Larvae_Sim_CO2
Larvae_Sim_CO3
Larvae_Sim_OC1
Larvae_Sim_OC2
Larvae_Sim_OC3
Larvae_Sim_OO1
Larvae_Sim_OO2
Larvae_Sim_OO3
Adult_Sec_CC1
Adult_Sec_CC2
Adult_Sec_CC3
Adult_Sec_CO1
Adult_Sec_CO2
Adult_Sec_CO3
Adult_Sec_OC1
Adult_Sec_OC2
Adult_Sec_OC3
Adult_Sec_OO1
Adult_Sec_OO2
Adult_Sec_OO3
Larvae_Sec_CC1
Larvae_Sec_CC2
Larvae_Sec_CC3
Larvae_Sec_CO1
Larvae_Sec_CO2
Larvae_Sec_CO3
Larvae_Sec_OC1
Larvae_Sec_OC2
Larvae_Sec_OC3
Larvae_Sec_OO1
Larvae_Sec_OO2
Larvae_Sec_OO3
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1


CG34345
CG4815
C901
CG9294
CG16815
Cpr64Ad
Syt12
CG43901
CG17287
CG5527
CG18635
CG44435
Ccp84Ag
NimA
dac
CG1138
CG10862
CG4714
CG30429
CG15754
Prosap
rod
ana2
CG12541
CG14042
Arp5
RhoGAP93B
CG17855
WASp
CG15629
Hipk
form3
CG6055
l(3)07882
DNApol−alpha60
Cip4
gammaTub23C
CG4691
CG10405
CG1646
CG3198
fidipidine
CG13101
stx
CG5033
CG8939
CG3793
CG3008
CG10082
CG3847
Dpit47
CG7655
LamC
Usp5
betaggt−II
CG5355
CG43273
CG2162
olf186−M
CG4607
CG12173
drm
fs(2)ltoPP43
CG3295
S−Lap4
GstE9
CG10623
CG15293
e(r)
CG8586
CG33995
eEF1delta
CG18135
Fis1
CG14332
RpL40
RpLP2
rvae_Sec_CC3
rvae_Sec_CO1
rvae_Sec_OC2
rvae_Sec_OO2
rvae_Sec_CO2
rvae_Sec_OC3
rvae_Sim_OO1
rvae_Sim_OC3
rvae_Sim_CO3
rvae_Sim_CC3
rvae_Sim_CO2
rvae_Sim_CC2
dult_Sim_CO1
dult_Sim_CO3
dult_Sim_CC3
dult_Sim_OO2
dult_Sim_OC3
dult_Sim_CO2
dult_Sec_CC1
dult_Sec_OO3
dult_Sec_CO2
dult_Sec_CC3
dult_Sec_OC2
dult_Sec_OO2