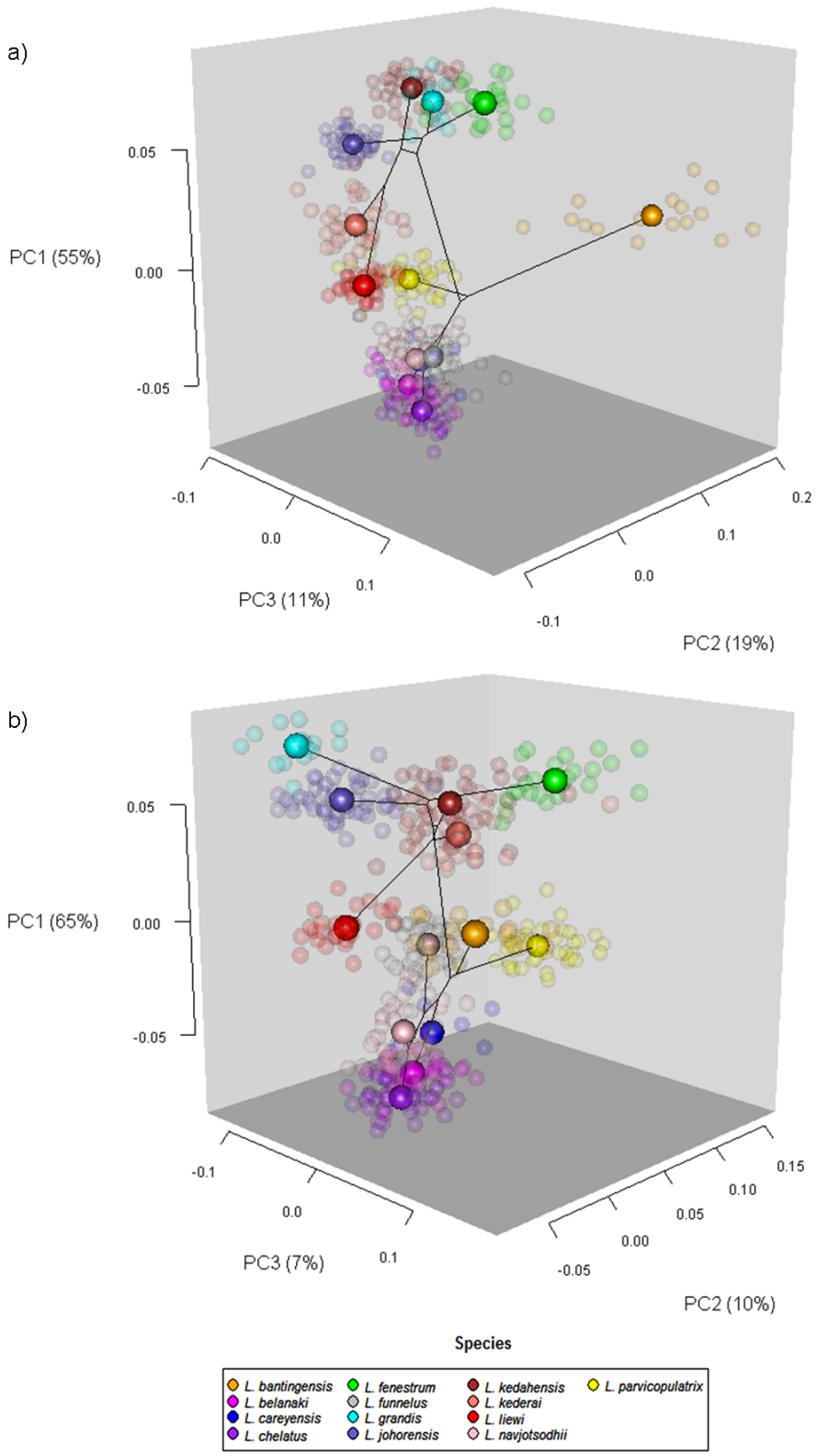


FIGURE S17. PCA plots of the first three principal components of shape variables for the a) ventral anchors, and b) dorsal anchors.

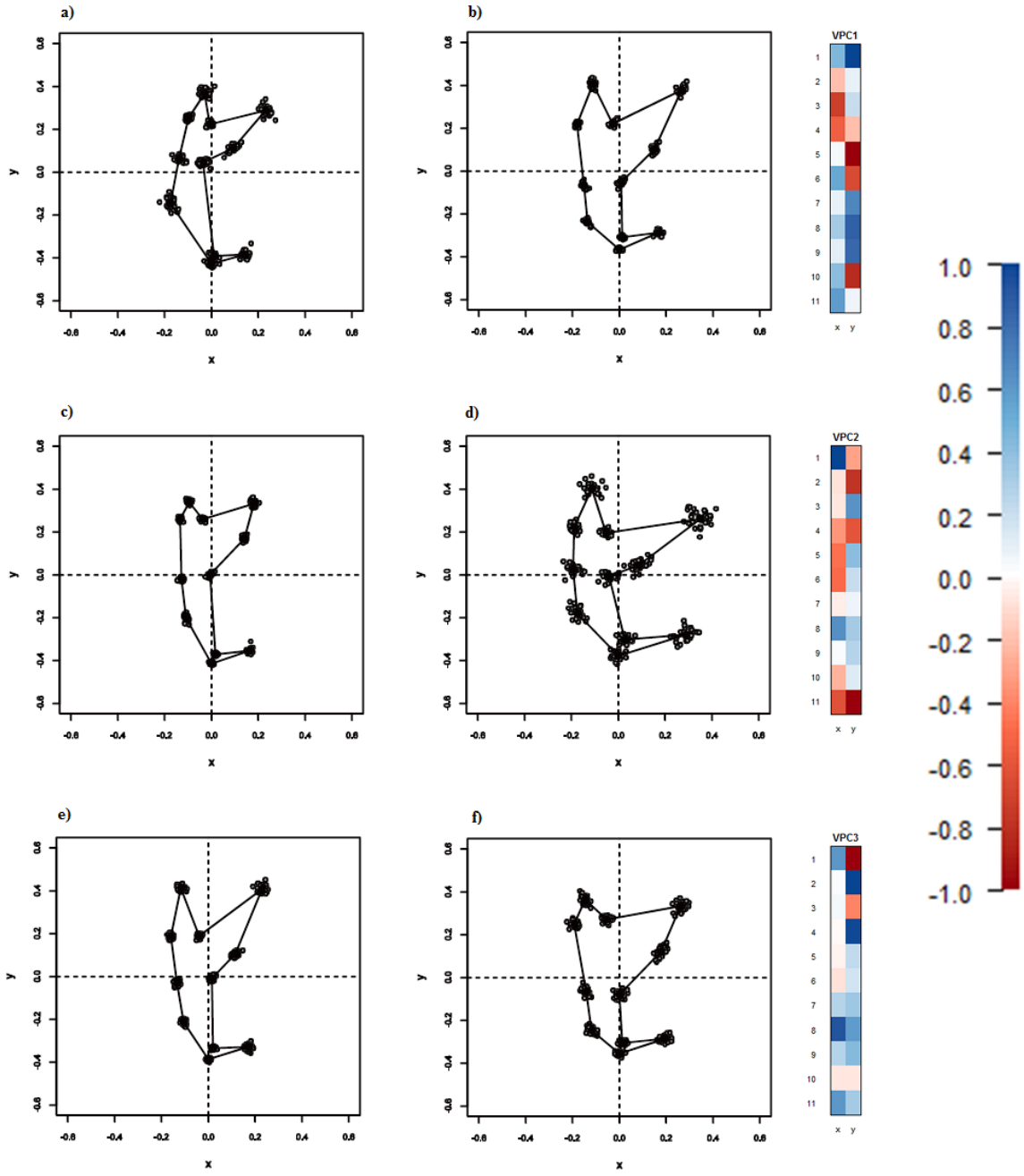


FIGURE S18. Generalized Procrustes Analysis (GPA) landmark configurations of ventral anchors of selected species with relatively large negative and positive (left and right columns, respectively) values of PC1, PC2 and PC3. The heat maps show loadings of the shape variables for the three PCs. Shape variables with important loadings: 5y,6y,10y (point region)

for PC1; 1x,1y,2y,3y,4y,11y (root region) for PC2; 1y,2y,3y,4y (root region) for PC3. a) *L. chelatus* ; b) *L. grandis*; c) *L. liewi*; d) *L. bantingensis*; e) *L. johorensis*; f) *L. fenestrum*.

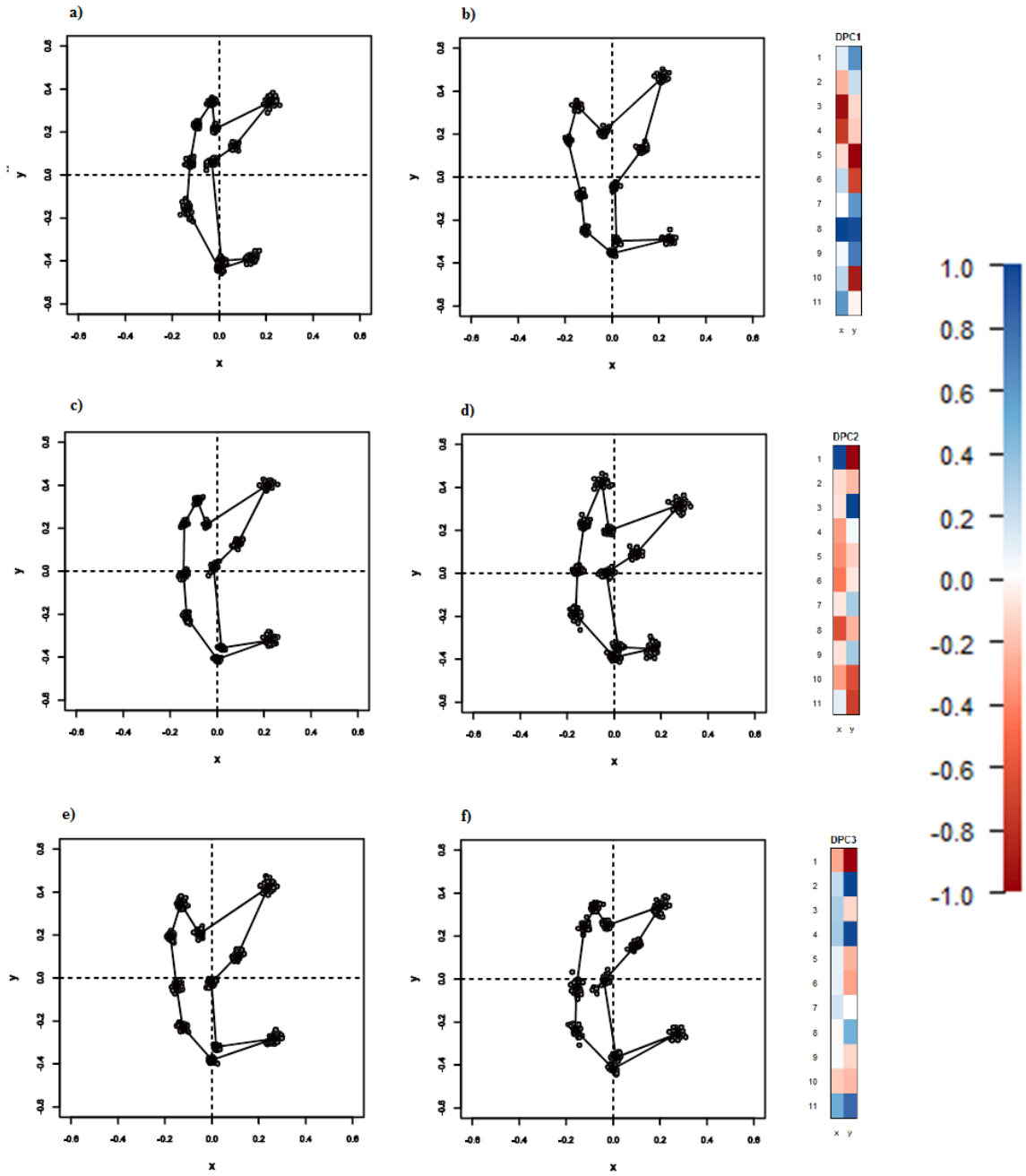


FIGURE S19. Generalized Procrustes Analysis (GPA) landmark configurations of dorsal anchors of selected species with relatively large negative and positive (left and right columns,

15 respectively) values of PC1, PC2 and PC3. The heat maps show loadings of the shape
16 variables for the three PCs. Shape variables with important loadings: 5y,6y,10y (point region)
17 for PC1; 1x,1y,3y(root region) for PC2; 1y,2y,4y,11y (root region) for PC3. a) *L. chelatus* ; b)
18 *L. grandis*; c) *L. liewi*; d) *L. parvicopulatrix*; e) *L. johorensis* ; f) *L. bantingensis*.

19

20

21

22

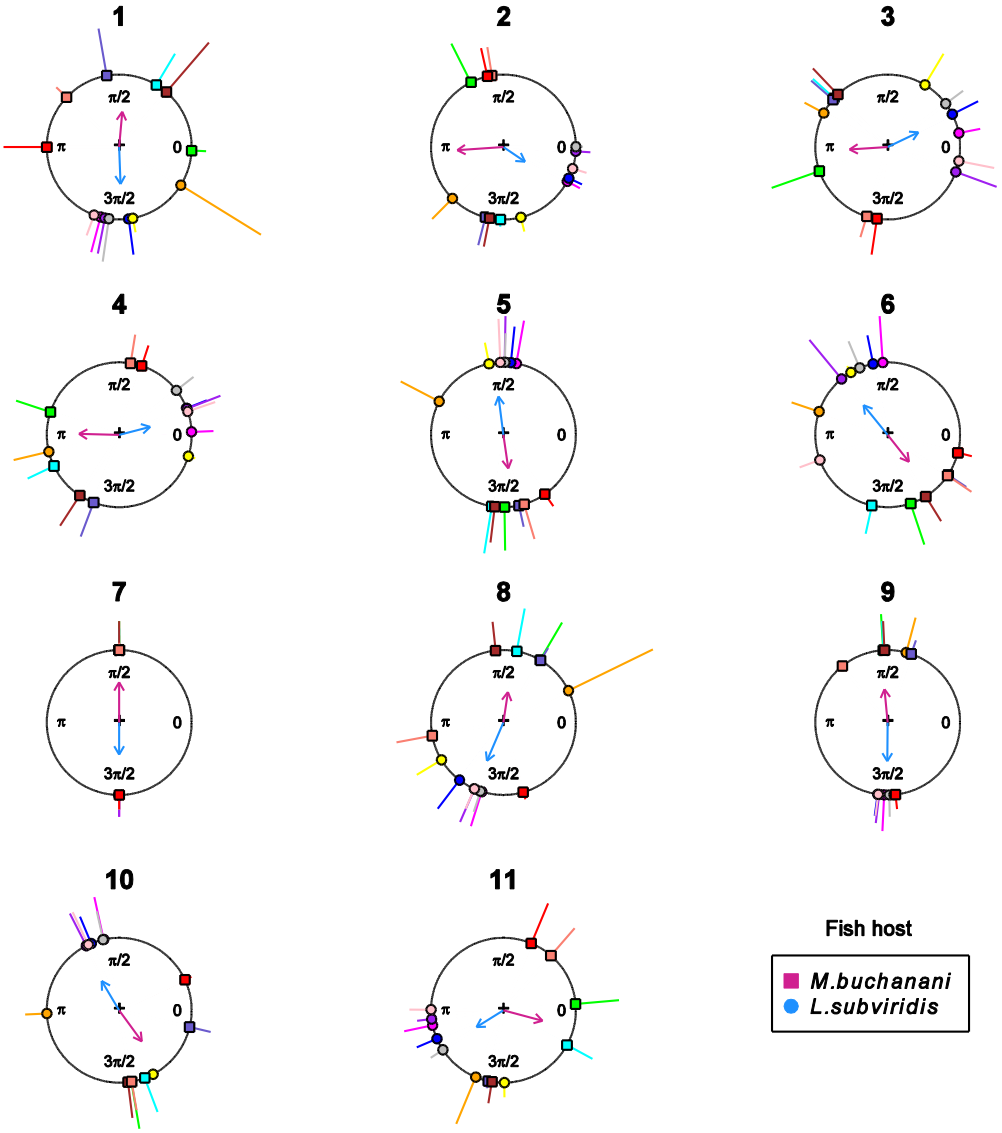


FIGURE S20. Circular plots of direction and magnitude of change of the Generalized Procrustes Analysis (GPA) coordinates of each species relative to those of the ancestral forms' in the ventral anchors. The number above each circular plot indexes the landmarks. The arms in the middle of the circle show mean direction and magnitude of change in Clade I (purple) and Clade II (blue). The length of rays projecting from a data point is proportional to the magnitude of deviation from ancestral form.

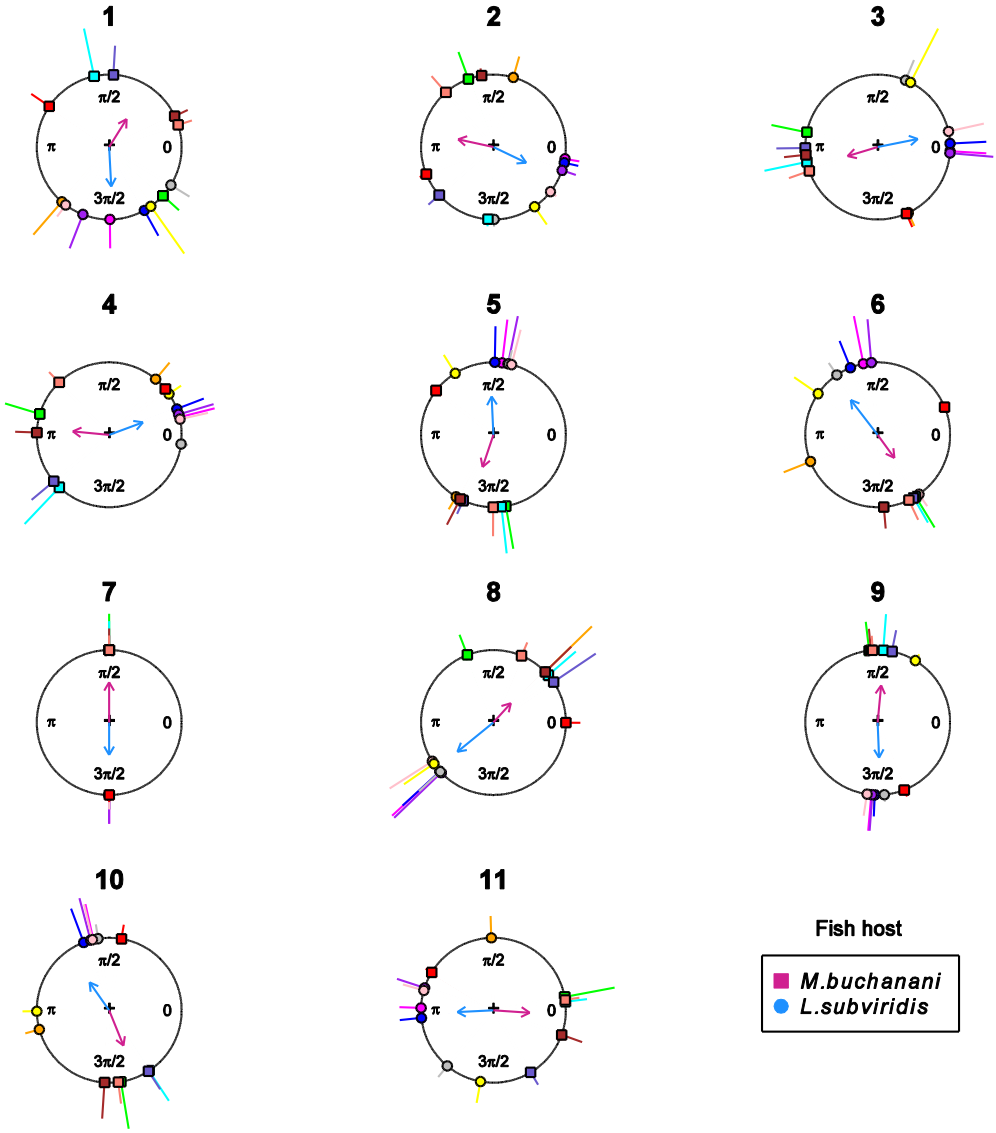


FIGURE S21. Circular plots of direction and magnitude of change of the Generalized Procrustes Analysis (GPA) coordinates of each species relative to those of the ancestral forms' in the dorsal anchors. The number above each circular plot indexes the landmarks. The arms in the middle of the circle show mean direction and magnitude of change in Clade I (purple) and Clade II (blue). The length of rays projecting from a data point is proportional to the magnitude of deviation from ancestral form.

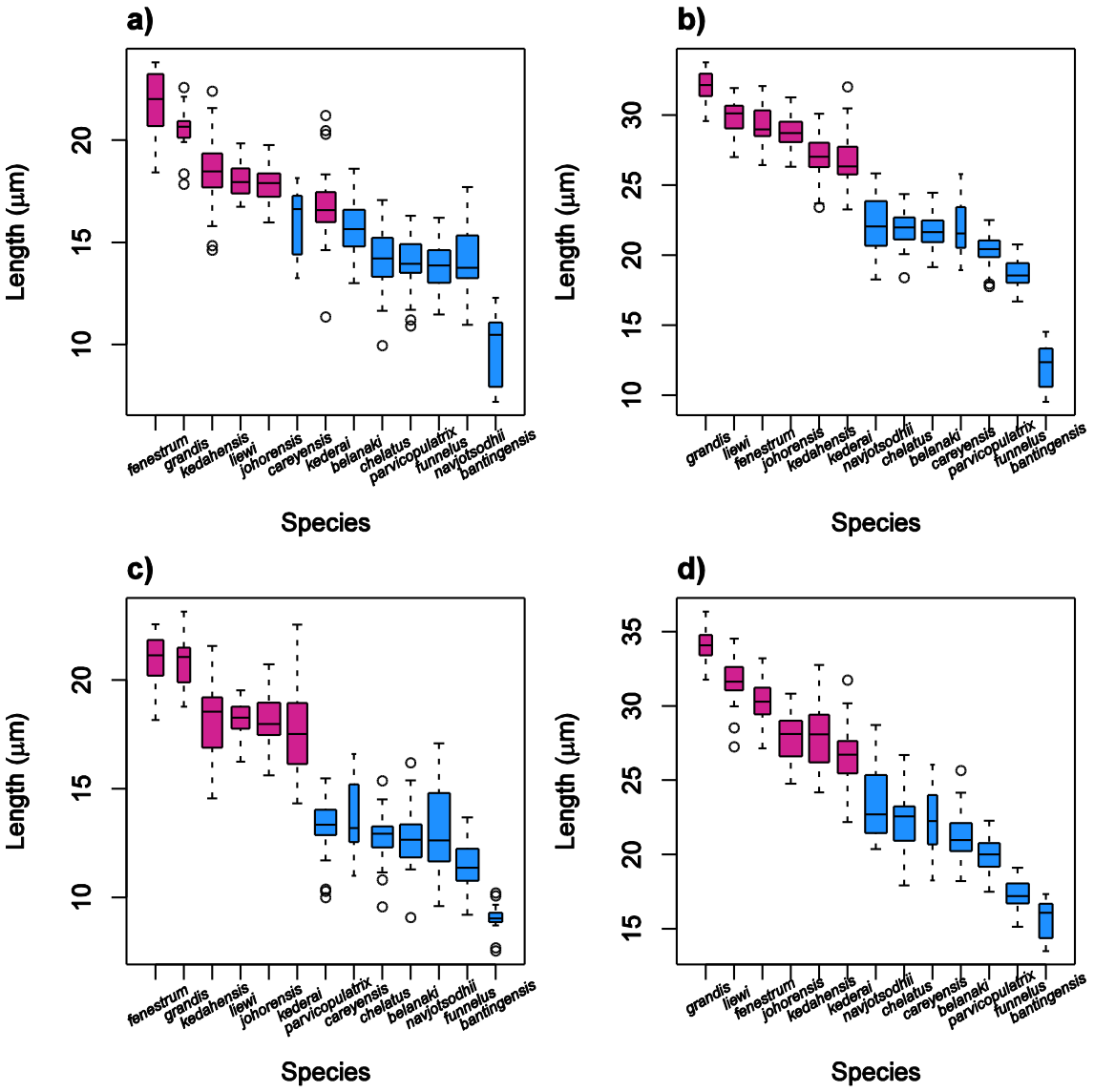


FIGURE S22. Box plots for the distribution of morphometric length variables in the 13 *Ligophorus* species. a) length from LM1 to LM3 of ventral anchor; b) length from LM1 to LM5 of ventral anchor; c) length from LM1 to LM3 of dorsal anchor; d) length from LM1 to LM5 of dorsal anchor. Color legend: purple for species that infect *Moolgarda buchanani*; blue for species that infect *Liza subviridis*.

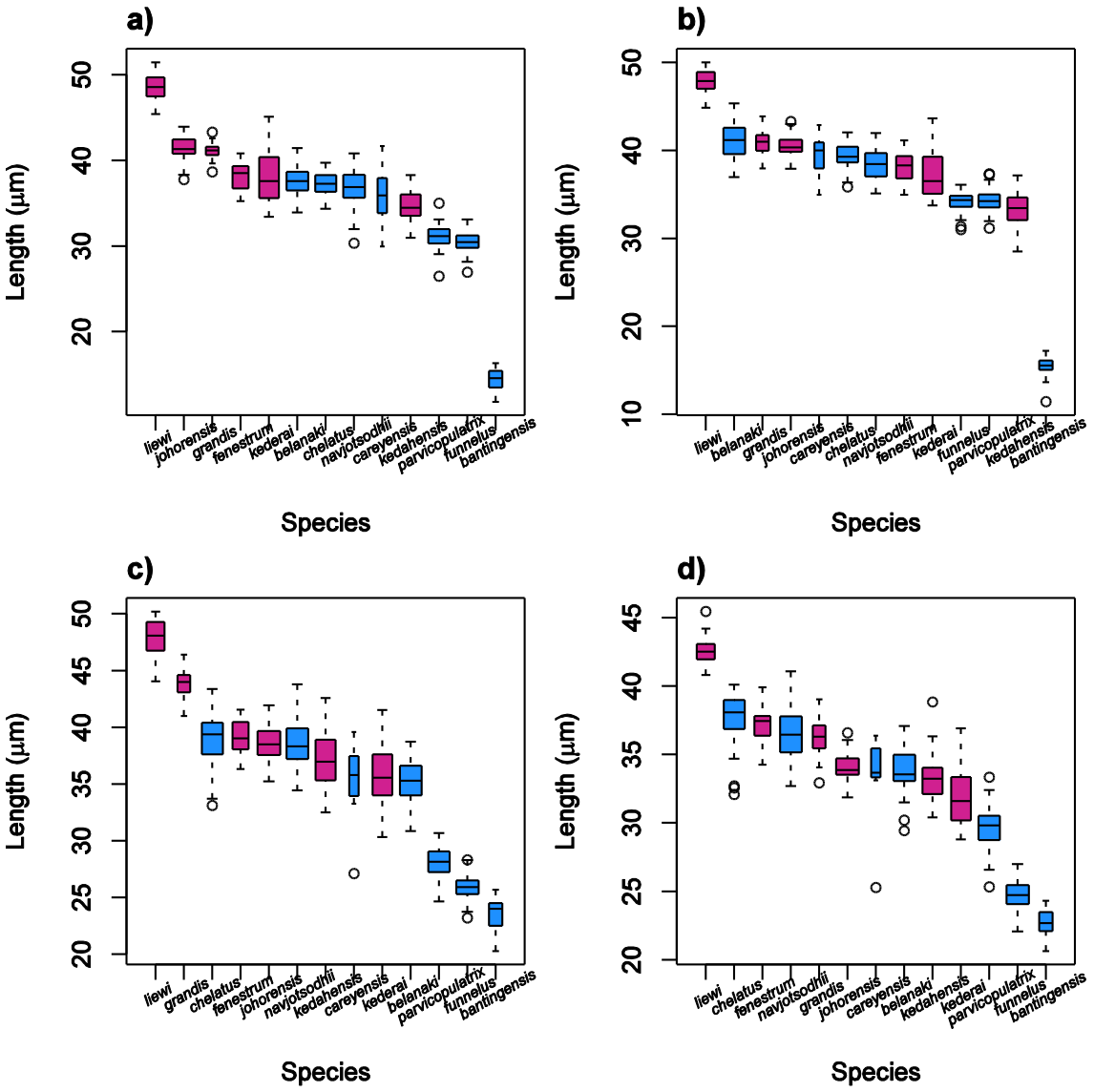
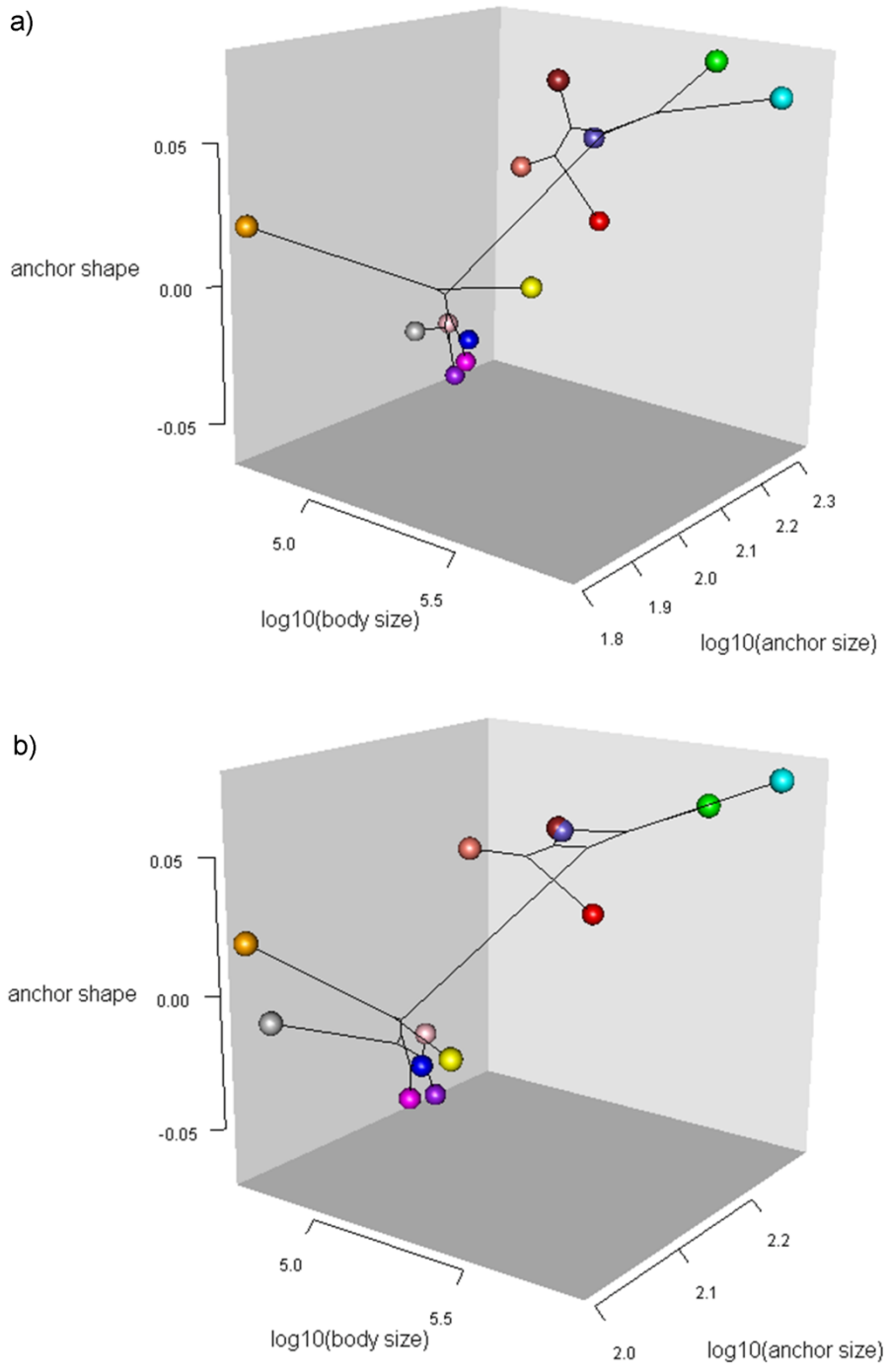


FIGURE S23. Box plots for the distribution of morphometric length variables in the 13 *Ligophorus* species. a) inner length of ventral anchor; b) outer length of ventral anchor; c) inner length of dorsal anchor; d) outer length of dorsal anchor. Color legend: purple for species that infect *Moolgarda buchanani*; blue for species that infect *Liza subviridis*.


a)
anchor shape
0.05
0.00
-0.05
5.0
5.5
log10(body size)
1.8
1.9
2.0
2.1
2.2
2.3
log10(anchor size)
b)
anchor shape
0.05
0.00
-0.05
5.0
5.5
log10(body size)
2.0
2.1
2.2
log10(anchor size)
Species
L. bantingensis
L. belanaki
L. careyensis
L. chelatus
L. fenestrum
L. funnelus
L. grandis
L. johorensis
L. kedahensis
L. kederai
L. liewi
L. navjotsodhii
L. parvicopulatrix

51

FIGURE S24. Shape (PC1 of shape variables) of a) ventral and b) dorsal anchors as a function of body size and anchor size (PC1 of size variables) in phylomorphospace for 13 *Ligophorus* species.

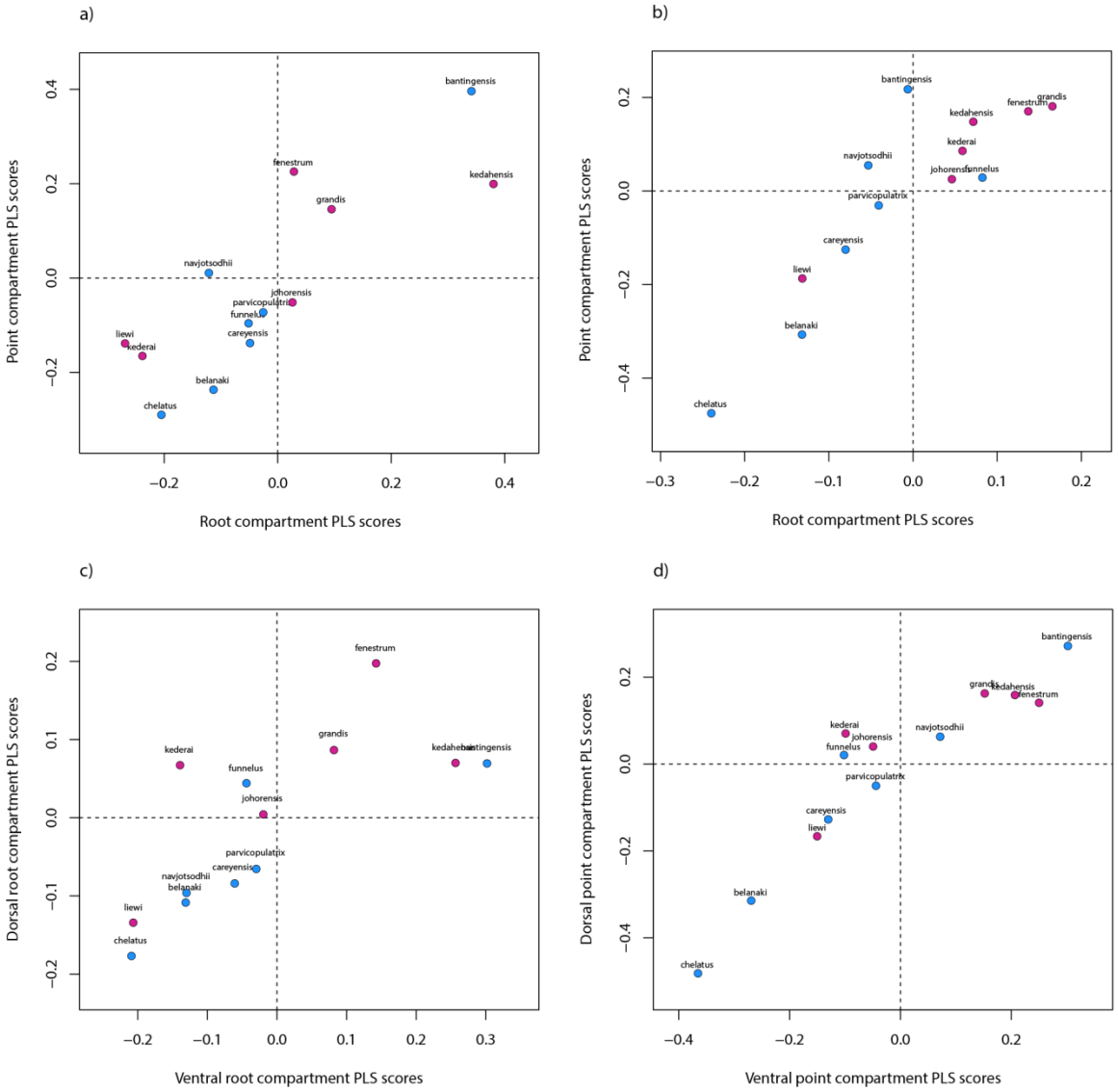


FIGURE S25. Diagnostic plots for morphological integration analysis for a) between point and root compartments of the ventral anchors; b) between point and root compartments of the dorsal anchors; c) root compartments between ventral and dorsal anchors; d) point compartments between ventral and dorsal anchors. Color legend: purple for species that infect *Moolgarda buchanani*; blue for species that infect *Liza subviridis*.