

Electronic Supplementary Material (ESM)

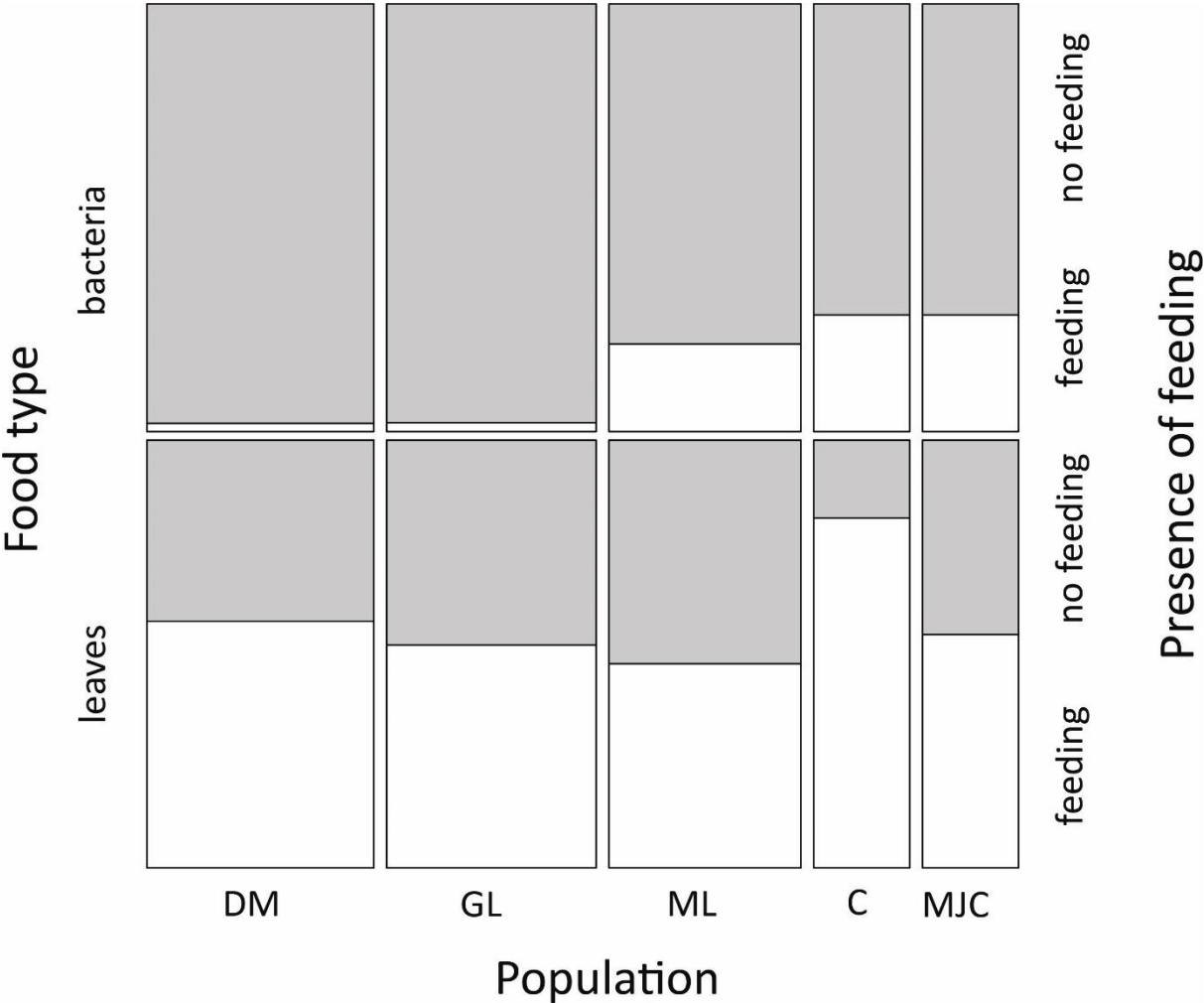
ESM Fig. 1. Mosaic plot for ‘presence of feeding’ in different food types (surface: decaying poplar leaves, cave: bacterium mats) compared between the studied *Asellus aquaticus* populations. DM = Dunakeszi Moore (surface, unconnected to the cave; N = 26); GL = Götés Lake (surface, unconnected to the cave; N = 24); ML = Malom Lake (surface, connected to the cave; N = 22), C = (recent colonist, from ML to MJC; N = 11); MJC = Molnár János Cave (genetically isolated cave population; N = 11).

ESM Fig. 2. Food preference variation between the studied *Asellus aquaticus* populations. DM = Dunakeszi Moore (surface, unconnected to the cave; N = 26); GL = Götés Lake (surface, unconnected to the cave; N = 24); ML = Malom Lake (surface, connected to the cave; N = 22), C = (recent colonist, from ML to MJC; N = 11); MJC = Molnár János Cave (genetically isolated cave population; N = 11). A) feeding duration, B) feeding bouts. In the box plots, the black line within the box marks the median, the boundaries of the box mark the 25 – 75 percentile range, the whiskers mark the 10 – 90 percentile range and the points out of the whisker range shows the outliers.

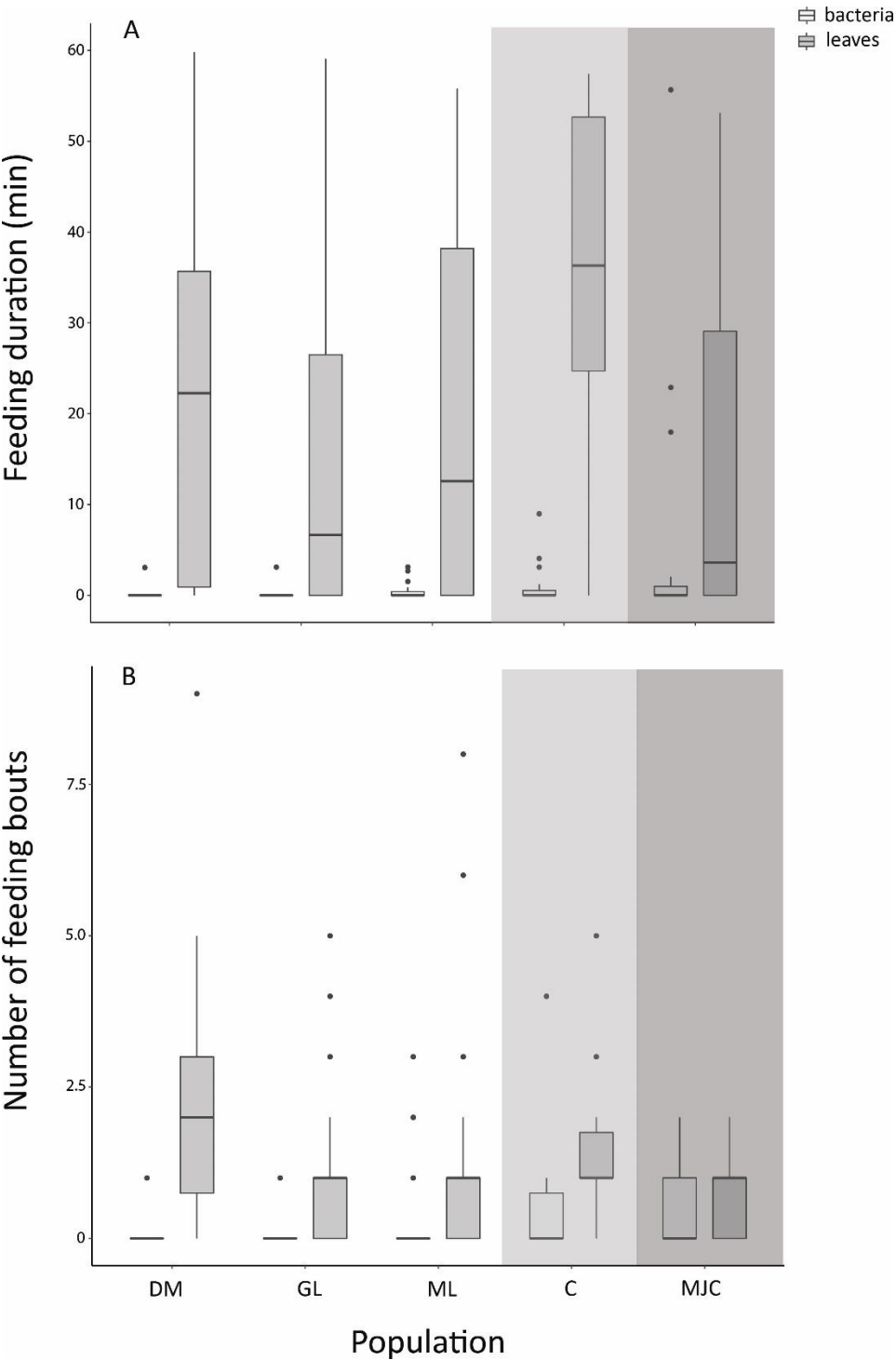
ESM Fig. 3. Mosaic plot for ‘presence of feeding’ in different novel food types compared between the studied *Asellus aquaticus* populations. A) commercial crayfish food, B) cucumber. DM = Dunakeszi Moore (surface, unconnected to the cave; N = 26); GL = Götés Lake (surface, unconnected to the cave; N = 24); ML = Malom Lake (surface, connected to the cave; N = 21), C = (recent colonist, from ML to MJC; N = 11); MJC = Molnár János Cave (genetically isolated cave population; N = 9).

ESM Fig. 4. Food type innovation variation between the studied *Asellus aquaticus* populations. DM = Dunakeszi Moore (surface, unconnected to the cave; N = 26); GL = Götés Lake (surface, unconnected to the cave; N = 24); ML = Malom Lake (surface, connected to the cave; N = 21), C = (recent colonist, from ML to MJC; N = 11); MJC = Molnár János Cave (genetically isolated cave population; N = 9). Upper row of graphs (A, B): commercial crayfish food; lower row of graphs (C, D): raw cucumber. A, C) feeding duration, B, D) feeding bouts. In the box plots, the black line within the box marks the median, the boundaries of the box mark the 25 – 75 percentile range, the whiskers mark the 10 – 90 percentile range and the points out of the whisker range shows the outliers.

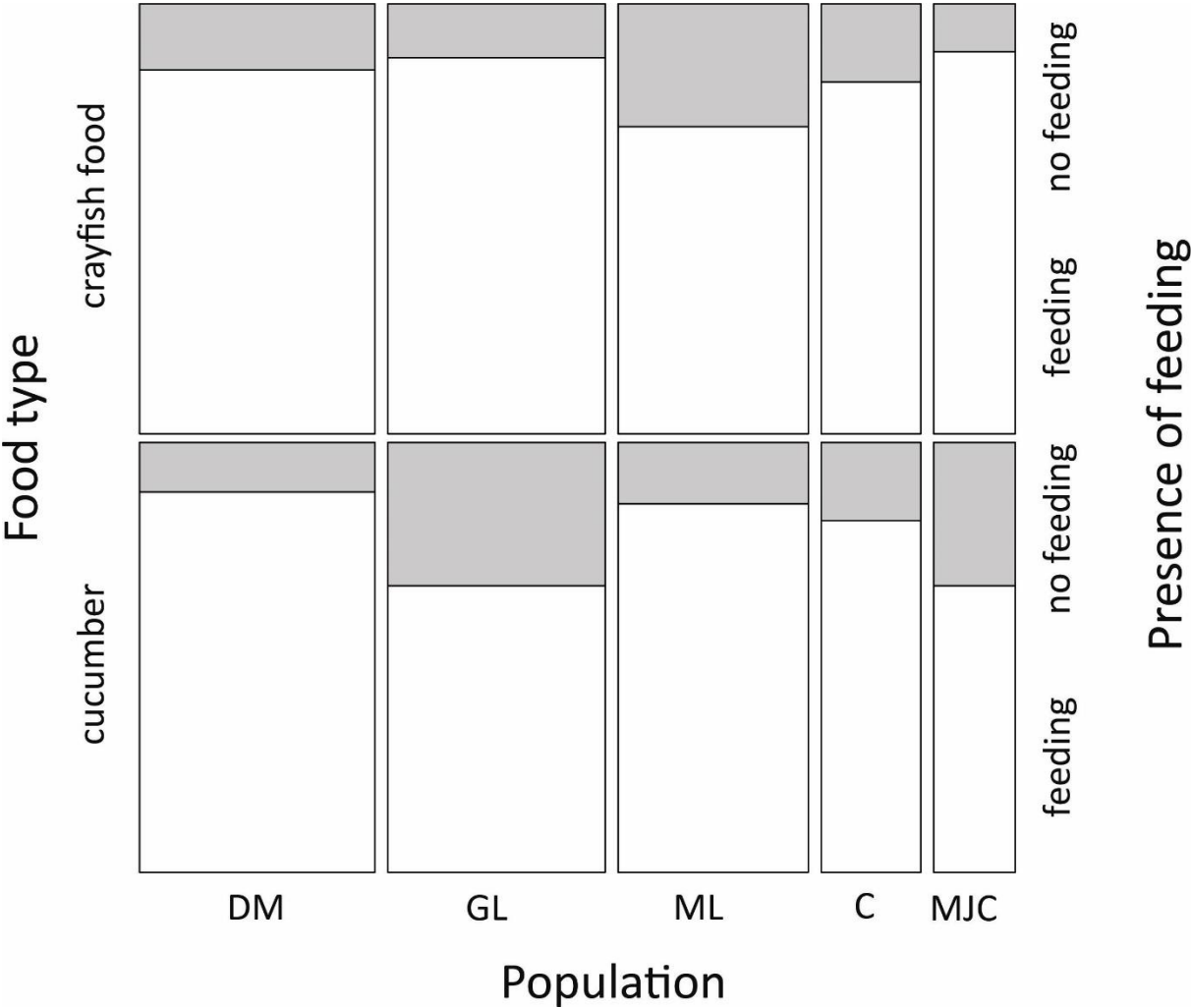
ESM Fig. 1



ESM Fig. 2



ESM Fig. 3



ESM Fig. 4.

