

High migration high sampling intensity

Box plot A displays the proportion of children for different scores (1 to 9). The y-axis represents the 'Proportion of children' (0.7 to 1.0), and the x-axis represents the 'Score' (1 to 9). Scores 1 to 5 are represented by light blue boxes, and scores 6 to 9 are represented by dark blue boxes. Significance markers (\*\*\*\*, \*\*\*) are present for scores 1, 2, 3, 4, and 5, indicating statistical significance compared to a reference group.

Low migration high sampling intensity

Box plot showing the distribution of the B index for different sample sizes (1 to 9) and sample strategies (equal and proportional). The y-axis represents the B index value, ranging from 0.7 to 1.0. The x-axis represents the sample size. For each sample size, there are two box plots: 'equal' (white) and 'proportional' (blue). The 'proportional' strategy generally shows higher median values and less variability than the 'equal' strategy, especially for smaller sample sizes. Statistical significance is indicated by asterisks: \*\*\*\* for  $p < 0.0001$  and \*\* for  $p < 0.01$ .

High migration low sampling intensity

Proportion of alleles captured

1 2 3 4 5 6 7 8 9 10

\*\*\*\* \*\*\*) \*\*\*) \*\*\*) \*\*\*) \*\*\*)

C

Low migration low sampling intensity

Low migration low sampling intensity (Bottleneck 1)

Proportion of alleles

More variable populations → Less variable populations

1 2 3 4 5 6 7 8 9

E

Low migration low sampling intensity (Bottleneck 2)

Box plot showing the distribution of the F statistic for 9 different models. The y-axis represents the F statistic value, ranging from 0.7 to 1.0. The x-axis is labeled 'F' and has categories 1 through 9. Each category has a box plot with a white box, a blue median line, and whiskers. Outliers are shown as black dots. The distributions are generally centered around 0.98 to 1.0, with some outliers below 0.95.

More variable  
populations

Less variable  
populations

## Scenario