



**Figure S3** Histograms showing comparisons of mean  $D'$  values based on all 109 microsatellite markers (genome-wide) and on 38 microsatellite markers in four LGs with highest density of markers in 13 nine-spined stickleback populations. The line within vertical bar represents standard deviation of the mean value. Significant differences in  $D'$  values are indicated by asterisk (Mann-Whitney U tests,  $P < 0.05$ ) and triangle (ANCOVAs,  $P < 0.05$ ).