

Table S2. Summary of the case studies used in the meta-analysis. Effect size (Edges'g), and its variance values are reported, as well as the upper and lower confidence intervals (CI) for each case, and its respective Z- and p-values. All case studies here were obtained from peer-reviewed papers. Data sets included in meta-analyses. He: Expected heterozygosity, Fis: Inbreeding coefficient.

| ID | Ref. | Expected heterozygosity (He) | | | | |
|-----|------|------------------------------|--------|--------|---------|---------|
| | | Hedges'g | lowCI | upCI | Z-value | P-value |
| H01 | 1 | -0.523 | -1.408 | 0.361 | -1.160 | 0.246 |
| H02 | 2 | -0.648 | -1.720 | 0.425 | -1.184 | 0.237 |
| H03 | 3 | -0.828 | -1.664 | 0.008 | -1.942 | 0.052 |
| H04 | 4 | -1.565 | -2.273 | -0.856 | -4.328 | 0.000 |
| H05 | 4 | 1.752 | 1.071 | 2.433 | 5.042 | 0.000 |
| H06 | 5 | -1.528 | -2.442 | -0.614 | -3.278 | 0.001 |
| H07 | 6 | -1.346 | -2.484 | -0.208 | -2.318 | 0.020 |
| H08 | 7 | -1.125 | -1.848 | -0.401 | -3.048 | 0.002 |
| H09 | 8 | -0.964 | -1.733 | -0.195 | -2.455 | 0.014 |
| H10 | 9 | -1.394 | -2.076 | -0.712 | -4.007 | 0.000 |
| H11 | 10 | 0.364 | -0.256 | 0.983 | 1.150 | 0.250 |
| H12 | 11 | -0.281 | -1.170 | 0.608 | -0.620 | 0.535 |
| H13 | 12 | -0.753 | -1.609 | 0.103 | -1.723 | 0.085 |
| H14 | 13 | -1.476 | -2.258 | -0.965 | -3.702 | 0.000 |
| H15 | 14 | -0.880 | -1.444 | -0.315 | -3.055 | 0.002 |
| H16 | 15 | -0.737 | -1.582 | 0.109 | -1.708 | 0.088 |
| H17 | 16 | -0.341 | -0.979 | 0.298 | -1.046 | 0.295 |
| H18 | 17 | -0.836 | -1.444 | -0.228 | -2.695 | 0.007 |
| H19 | 18 | 0.151 | -0.475 | 0.777 | 0.472 | 0.637 |
| H20 | 19 | -1.975 | -2.715 | -1.236 | -5.233 | 0.000 |
| H21 | 20 | -2.409 | -3.481 | -1.338 | -4.407 | 0.000 |
| H22 | 21 | -1.138 | -1.783 | -0.493 | -3.460 | 0.001 |
| H23 | 22 | -1.393 | -2.508 | -0.278 | -2.449 | 0.014 |
| H24 | 23 | 0.934 | 0.318 | 1.550 | 2.970 | 0.003 |
| H25 | 24 | -0.838 | -1.931 | 0.255 | -1.503 | 0.133 |
| H26 | 25 | -0.346 | -1.402 | 0.710 | -0.643 | 0.520 |
| H27 | 26 | -2.701 | -3.249 | -1.973 | -7.272 | 0.000 |
| H28 | 27 | 0.229 | -0.797 | 1.255 | 0.437 | 0.662 |
| H29 | 28 | -0.053 | -0.667 | 0.561 | -0.168 | 0.866 |
| H30 | 29 | -0.645 | -1.117 | -0.173 | -2.679 | 0.007 |
| H31 | 30 | -0.481 | -1.154 | 0.192 | -1400 | 0.161 |

| Inbreeding coefficient (F_{IS}) | | | | | | |
|-------------------------------------|------|-----------|--------|--------|---------|---------|
| ID | Ref. | Hedges' g | lowCI | upCI | Z-value | P-value |
| I01 | 1 | 0.098 | -0.779 | 0.976 | 0.22 | 0.826 |
| I02 | 2 | -0.899 | -1.992 | 0.193 | -1.613 | 0.107 |
| I03 | 3 | -0.029 | -0.874 | 0.816 | -0.067 | 0.947 |
| I04 | 4 | -0.176 | -0.788 | 0.437 | -0.562 | 0.574 |
| I05 | 4 | -0.983 | -1.595 | -0.37 | -3.144 | 0.002 |
| I06 | 5 | 0.541 | -0.248 | 1.33 | 1.343 | 0.179 |
| I07 | 7 | -0.539 | -1.238 | 0.161 | -1.508 | 0.132 |
| I08 | 8 | -0.964 | -1.733 | -0.195 | -2.455 | 0.014 |
| I09 | 9 | 0.067 | -0.539 | 0.673 | 0.217 | 0.828 |
| I10 | 10 | 0.217 | -0.317 | 0.751 | 0.796 | 0.426 |
| I11 | 11 | 0.569 | -0.06 | 1.198 | 1.774 | 0.076 |
| I12 | 12 | -0.651 | -1.552 | 0.25 | -1.417 | 0.156 |
| I13 | 13 | -0.377 | -1.215 | 0.461 | -0.882 | 0.378 |
| I14 | 14 | -0.346 | -0.892 | 0.200 | -1.242 | 0.214 |
| I15 | 15 | 0.214 | -0.419 | 0.846 | 0.663 | 0.508 |
| I16 | 16 | 0.372 | -0.261 | 1.005 | 1.151 | 0.250 |
| I17 | 18 | 0.355 | -0.25 | 0.959 | 1.149 | 0.250 |
| I18 | 19 | -1.128 | -2.701 | -0.184 | -2.342 | 0.019 |
| I19 | 20 | -1.515 | -2.524 | -0.505 | -2.941 | 0.003 |
| I20 | 21 | -1.573 | -2.269 | -0.877 | -4.429 | 0.000 |
| I21 | 22 | -2.979 | -4.628 | -1.331 | -3.542 | 0.000 |
| I22 | 24 | 0.618 | -0.508 | 1.744 | 1.076 | 0.282 |
| I23 | 25 | 0.483 | -0.347 | 1.313 | 1.140 | 0.254 |
| I24 | 28 | 0.368 | -0.257 | 0.993 | 1.153 | 0.249 |
| I25 | 29 | -1.565 | -2.126 | -1.004 | -5.465 | 0.000 |
| I26 | 30 | -0.356 | -1.028 | 0.317 | -1.036 | 0.300 |

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