**Supplementary table 2**

| *Cross #* | **Male x Female (n)** | **son** | **daughter** | **Family size (± SE)** | **% Males (± SE)** |
|---|---|---|---|---|---|
| 1 | ($w$ A)$_{UT4}$[*UT4* ]x ($w$ A)$_{UT4}$[*UT4* ] (17) | 14.65 | 57.59 | 72.24 (6.65) | 20.11 (2.03) |
| 2 | ($w$ A$w$ B1)$_{UT1}$[*UT1* ]x ($w$ A$w$ B1)$_{UT1}$[*UT1* ] (26) | 10.27 | 76.15 | 86.42 (1.26) | 11.95 (1.26) |
| 3 | ($w$ A$w$ B2)$_{UT2}$[*UT2* ] x ($w$ A$w$ B2)$_{UT2}$[*UT2* ] (34) | 12.15 | 75.29 | 87.44 (4.13) | 13.79 (2.23) |
| 4 | ($w$ A$w$ B1$w$ B2)$_{UT3}$[*UT3* ] x ($w$ A$w$ B1$w$ B2)$_{UT3}$[*UT3* ] (8) | 7.75 | 72 | 79.75 (3.53) | 9.77 (0.82) |
| 5 | **($w$ A$w$ B1)$_{UT1}$[*UT1* ] x ($w$ A)$_{UT4}$[*UT4* ] (21)** | **12.45** | **42.38** | **54.83 (4.65)** | **22.92 (5.93)** |
| 6 | **($w$ A$w$ B2)$_{UT2}$[*UT2* ] x ($w$ A)$_{UT4}$[*UT4* ] (28)** | **9.36** | **31.11** | **40.47 (4.39)** | **24.47 (7.21)** |
| 7 | **($w$ A$w$ B1$w$ B2)$_{UT3}$[*UT3* ] x ($w$ A)$_{UT4}$[*UT4* ] (28)** | **11.68** | **23.14** | **34.82 (3.19)** | **33.58 (5.97)** |
| 8 | ($w$ A)$_{UT4}$[*UT4* ] x ($w$ A$w$ B1)$_{UT1}$[*UT1* ] (30) | 12.77 | 71.13 | 83.9 (3.23) | 14.87 (2.22) |
| 9 | ($w$ A)$_{UT4}$[*UT4* ] x ($w$ A$w$ B2)$_{UT2}$[*UT2* ] (16) | 8.19 | 72.38 | 80.57 (5.03) | 10.18 (1.14) |
| 10 | ($w$ A)$_{UT4}$[*UT4* ] x ($w$ A$w$ B1$w$ B2)$_{UT3}$[*UT3* ] (9) | 9.56 | 70.33 | 79.89 (2.86) | 11.92 (1.71) |
| 11 | 0[*UT1* ] x 0[*UT1* ] (23) | 13.39 | 67 | 80.39 (3.39) | 16.87 (0.84) |
| 12 | 0[*UT2* ] x 0[*UT2* ] (23) | 12.35 | 72.96 | 85.31 (3.09) | 14.75 (1.15) |
| 13 | 0[*UT3* ] x 0[*UT3* ] (25) | 12.68 | 69.48 | 82.16 (3.09) | 15.60 (0.95) |
| 14 | 0[*UT4* ] x 0[*UT4* ] (22) | 13.14 | 59.18 | 72.32 (2.73) | 18.13 (0.85) |
| 15 | 0[*UT1* ] x 0[*UT4* ] (21) | 13.33 | 58.57 | 71.9 (4.04) | 18.83 (2.03) |
| 16 | 0[*UT2* ] x 0[*UT4* ] (19) | 15.16 | 57.74 | 72.9 (3.77) | 20.91 (1.67) |
| 17 | 0[*UT3* ] x 0[*UT4* ] (17) | 14 | 64.06 | 78.06 (4.40) | 17.80 (1.39) |
| 18 | 0[*UT4* ] x 0[*UT1* ] (25) | 15.92 | 60.2 | 76.12 (3.22) | 21.09 (1.25) |
| 19 | 0[*UT4* ] x 0[*UT2* ] (22) | 14.36 | 69.18 | 83.54 (2.71) | 17.28 (1.13) |
| 20 | **($w$ A)$_{UT4}$[*UT4* ] x 0[*UT4* ] (17)** | **19.12** | **20.82** | **39.94 (3.68)** | **49.60 (4.43)** |
| 21 | **($w$ A)$_{UT4}$[*UT4* ] x 0[*CA* ] (27)** | **13.74** | **22.78** | **36.52 (3.04)** | **42.51 (3.54)** |
| 22 | **($w$ A$w$ B1$w$ B2)$_{UT3}$[*UT3* ] x ($w$ A$w$ B1)$_{UT1}$[*UT1* ] (26)** | 9.26 | 42.9 | 52.16 (5.28) | 17.58 (2.71) |
| 23 | **($w$ A$w$ B1$w$ B2)$_{UT3}$[*UT3* ] x ($w$ A$w$ B2)$_{UT2}$[*UT2* ] (27)** | 8.07 | 59.07 | 67.14 (8.55) | 12.48 (1.26) |
| 24 | 0[*UT3* ] x 0[*UT1* ] (20) | 14.2 | 69.25 | 83.45 (4.17) | 17.22 (0.39) |
| 25 | 0[*UT3* ] x 0[*UT2* ] (22) | 12.68 | 69.86 | 82.54 (5.49) | 15.58 (1.32) |
| 26 | 0[*UT1* ] x 0[*UT3* ] (24) | 14.25 | 69.38 | 83.63 (3.41) | 17.22 (0.96) |
| 27 | 0[*UT2* ] x 0[*UT3* ] (21) | 14.05 | 71.76 | 85.81 (3.25) | 16.44 (0.76) |
| 28 | 0[*UT4* ] x 0[*UT3* ] (19) | 16.74 | 59.79 | 76.53 (3.73) | 21.97 (1.16) |
| 29 | **($w$ A$w$ B2)$_{UT2}$[*UT2* ] x ($w$ A$w$ B1)$_{UT1}$[*UT1* ] (26)** | 11.66 | 29.52 | 41.18 (6.35) | 25.95 (2.9) |
| 30 | **($w$ A$w$ B1)$_{UT1}$[*UT1* ] x ($w$ A$w$ B2)$_{UT2}$[*UT2* ] (27)** | 15.67 | 39.67 | 55.34 (8.57) | 32.17(8.57) |
| 31 | 0[*UT2* ] x 0[*UT1* ] (25) | 14.16 | 68.44 | 82.6 (5.66) | 17.46 (1.24) |
| 32 | 0[*UT1* ] x 0[*UT2* ] (19) | 13 | 73.84 | 86.84 (4.21) | 15.32 (1.82) |
| 33 | 0[*CA* ] x 0[*CA* ] (32) | 11.09 | 85.47 | 96.56 (4.94) | 11.50 (2.36) |
| 34 | **($w$ A$w$ B1)$_{UT1}$ [*CA* ] x 0[*CA* ] (22)** | 17.86 | 41.82 | 59.68 (4.97) | 30.46 (2.54) |
| 35 | **($w$ A$w$ B2)$_{UT2}$ [*CA* ] x 0[*CA* ] (20)** | 18.35 | 33 | 51.35 (4.28) | 36.54 (3.05) |
| 36 | ($w$ A$w$ B2)$_{UT2}$ [*CA* ] x ($w$ A$w$ B2)$_{UT2}$ [*CA* ] (11) | 9.45 | 88 | 97.45 (5.39) | 9.62 (0.70) |
| 37 | ($w$ A$w$ B1)$_{UT1}$ [*CA* ] x ($w$ A$w$ B2)$_{UT2}$ [*CA* ] (22) | 14.95 | 77.23 | 92.18 (7.75) | 15.98 (6.31) |
| 38 | ($w$ A$w$ B1)$_{UT1}$ [*CA* ] x ($w$ A$w$ B1)$_{UT1}$ [*CA* ] (21) | 11 | 99.19 | 110.19 (3.84) | 9.87 (1.26) |
| 39 | **($w$ A$w$ B2)$_{UT2}$ [*CA* ] x ($w$ A$w$ B1)$_{UT1}$ [*CA* ] (21)** | 11.86 | 55 | 66.86 (5.30) | 17.51 (2.41) |
| 40 | ($w$ A$w$ B2)$_{UT2}$ [*UT1* ] x ($w$ AwB2)$_{UT2}$ [*UT1* ] (24) | 11.54 | 79.58 | 91.12 (3.14) | 12.66 (0.92) |
| 41 | **($w$ A$w$ B1)$_{UT1}$ [*UT1* ] x ($w$ A$w$ B2)$_{UT2}$ [*UT1* ] (19)** | 18.37 | 49.32 | 67.69 (2.41) | 27.46 (1.96) |
| 42 | ($w$ A$w$ B1)$_{UT1}$ [*UT1* ] x ($w$ A$w$ B1)$_{UT1}$ [*UT1* ] (23) | 10.52 | 82.52 | 93.04 (2.19) | 11.37 (0.66) |
| 43 | **($w$ A$w$ B2)$_{UT2}$ [*UT1* ] x ($w$ A$w$ B1)$_{UT1}$ [*UT1* ] (20)** | 15.8 | 40.6 | 56.4 (1.84) | 28.08 (1.01) |
| 44 | ($w$ A$w$ B2)$_{UT2}$[*UT2* ] x ($w$ A$w$ B2)$_{UT2}$[*UT2* ] (24) | 11.63 | 78.54 | 90.17 (4.61) | 12.97 (0.79) |
| 45 | ($w$ A$w$ B1)$_{UT1}$ [*UT2* ] x ($w$ A$w$ B2)$_{UT2}$[*UT2* ] (26) | 15.5 | 69.62 | 85.12 (3.72) | 18.39 (1.08) |
| 46 | ($w$ A$w$ B1)$_{UT1}$ [*UT2* ] x ($w$ A$w$ B1)$_{UT1}$ [*UT2* ] (21) | 13.81 | 75.48 | 89.29 (2.78) | 15.64 (0.91) |
| 47 | **($w$ A$w$ B2)$_{UT2}$[*UT2* ] x ($w$ A$w$ B1)$_{UT1}$ [*UT2* ] (19)** | 20.42 | 32.89 | 53.31 (4.01) | 39.72 (3.66) |