**Modelling for the inheritance of endangered equid multiple births and fertility: determining risk factors and genetic parameters in donkeys *(Equus asinus)***

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| Animals |
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**Supplementary Table S8*.***Estimates of non-genetic effects obtained from the REML quantitative genetic analysis, including age as a linear and quadratic covariate, the fixed effects of birth year, birth month, birth season, sex, farm/owner and husbandry system.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Type of variable | Level | Category | Posterior mean | Dependent variable/Response variable |
| Covariable | 1 | Age is a linear and quadratic covariate | -0.006 | Maximum foal number per birth |
| Covariable | 2 | 0.000 | Maximum foal number per birth |
| Covariable | 1 | 0.013 | Multiple birth number per animal for a given donkey |
| Covariable | 2 | 0.000 | Multiple birth number per animal for a given donkey |
| Covariable | 1 | 0.256 | Historical foal number born per donkey |
| Covariable | 2 | -0.010 | Historical foal number born per donkey |
| Fixed effect | January | Birth month | 0.263 | Maximum foal number per birth |
| Fixed effect | February | Birth month | 0.319 | Maximum foal number per birth |
| Fixed effect | March | Birth month | 0.268 | Maximum foal number per birth |
| Fixed effect | April | Birth month | 0.314 | Maximum foal number per birth |
| Fixed effect | May | Birth month | 0.351 | Maximum foal number per birth |
| Fixed effect | June | Birth month | 0.069 | Maximum foal number per birth |
| Fixed effect | July | Birth month | 0.038 | Maximum foal number per birth |
| Fixed effect | August | Birth month | 0.013 | Maximum foal number per birth |
| Fixed effect | September | Birth month | -0.047 | Maximum foal number per birth |
| Fixed effect | October | Birth month | -0.100 | Maximum foal number per birth |
| Fixed effect | November | Birth month | 0.081 | Maximum foal number per birth |
| Fixed effect | December | Birth month | 0.259 | Maximum foal number per birth |
| Fixed effect | 1984 | Birth year | 10.823 | Maximum foal number per birth |
| Fixed effect | 1985 | Birth year | 0.019 | Maximum foal number per birth |
| Fixed effect | 1986 | Birth year | 0.137 | Maximum foal number per birth |
| Fixed effect | 1988 | Birth year | -0.081 | Maximum foal number per birth |
| Fixed effect | 1989 | Birth year | -0.389 | Maximum foal number per birth |
| Fixed effect | 1990 | Birth year | 0.116 | Maximum foal number per birth |
| Fixed effect | 1991 | Birth year | 0.073 | Maximum foal number per birth |
| Fixed effect | 1993 | Birth year | 0.246 | Maximum foal number per birth |
| Fixed effect | 1994 | Birth year | 0.133 | Maximum foal number per birth |
| Fixed effect | 1995 | Birth year | -0.168 | Maximum foal number per birth |
| Fixed effect | 1996 | Birth year | -0.233 | Maximum foal number per birth |
| Fixed effect | 1997 | Birth year | -0.175 | Maximum foal number per birth |
| Fixed effect | 1998 | Birth year | -0.032 | Maximum foal number per birth |
| Fixed effect | 1999 | Birth year | 0.020 | Maximum foal number per birth |
| Fixed effect | 2000 | Birth year | 0.164 | Maximum foal number per birth |
| Fixed effect | 2001 | Birth year | 0.157 | Maximum foal number per birth |
| Fixed effect | 2002 | Birth year | 0.163 | Maximum foal number per birth |
| Fixed effect | 2003 | Birth year | 0.014 | Maximum foal number per birth |
| Fixed effect | 2004 | Birth year | 0.110 | Maximum foal number per birth |
| Fixed effect | 2005 | Birth year | -0.061 | Maximum foal number per birth |
| Fixed effect | 2006 | Birth year | -0.043 | Maximum foal number per birth |
| Fixed effect | 2007 | Birth year | 0.050 | Maximum foal number per birth |
| Fixed effect | 2008 | Birth year | -0.032 | Maximum foal number per birth |
| Fixed effect | 2009 | Birth year | 0.134 | Maximum foal number per birth |
| Fixed effect | 2010 | Birth year | -0.095 | Maximum foal number per birth |
| Fixed effect | 2011 | Birth year | 0.052 | Maximum foal number per birth |
| Fixed effect | 2012 | Birth year | 0.018 | Maximum foal number per birth |
| Fixed effect | 2013 | Birth year | 0.050 | Maximum foal number per birth |
| Fixed effect | 2014 | Birth year | 0.073 | Maximum foal number per birth |
| Fixed effect | 2015 | Birth year | 0.118 | Maximum foal number per birth |
| Fixed effect | 2016 | Birth year | 0.159 | Maximum foal number per birth |
| Fixed effect | 2017 | Birth year | 0.000 | Maximum foal number per birth |
| Fixed effect | Winter | Birth season | -0.281 | Maximum foal number per birth |
| Fixed effect | Spring | Birth season | -0.237 | Maximum foal number per birth |
| Fixed effect | Summer | Birth season | 0.000 | Maximum foal number per birth |
| Fixed effect | Autumn | Birth season | 0.033 | Maximum foal number per birth |
| Fixed effect | Jack | Sex | 0.028 | Maximum foal number per birth |
| Fixed effect | Jenny | Sex | 0.000 | Maximum foal number per birth |
| Fixed effect | 1 | Farm/Owner | -0.069 | Maximum foal number per birth |
| Fixed effect | 2 | Farm/Owner | -12.473 | Maximum foal number per birth |
| Fixed effect | 3 | Farm/Owner | -0.067 | Maximum foal number per birth |
| Fixed effect | 4 | Farm/Owner | -0.498 | Maximum foal number per birth |
| Fixed effect | 5 | Farm/Owner | -0.017 | Maximum foal number per birth |
| Fixed effect | 6 | Farm/Owner | -0.357 | Maximum foal number per birth |
| Fixed effect | 7 | Farm/Owner | -0.010 | Maximum foal number per birth |
| Fixed effect | 8 | Farm/Owner | -0.344 | Maximum foal number per birth |
| Fixed effect | 9 | Farm/Owner | -0.237 | Maximum foal number per birth |
| Fixed effect | 10 | Farm/Owner | 0.008 | Maximum foal number per birth |
| Fixed effect | 11 | Farm/Owner | -0.460 | Maximum foal number per birth |
| Fixed effect | 12 | Farm/Owner | 0.027 | Maximum foal number per birth |
| Fixed effect | 13 | Farm/Owner | 0.029 | Maximum foal number per birth |
| Fixed effect | 14 | Farm/Owner | 0.016 | Maximum foal number per birth |
| Fixed effect | 15 | Farm/Owner | -0.153 | Maximum foal number per birth |
| Fixed effect | 16 | Farm/Owner | -0.389 | Maximum foal number per birth |
| Fixed effect | 17 | Farm/Owner | -0.281 | Maximum foal number per birth |
| Fixed effect | 18 | Farm/Owner | -0.143 | Maximum foal number per birth |
| Fixed effect | 19 | Farm/Owner | -0.093 | Maximum foal number per birth |
| Fixed effect | 20 | Farm/Owner | 0.950 | Maximum foal number per birth |
| Fixed effect | 21 | Farm/Owner | -0.457 | Maximum foal number per birth |
| Fixed effect | 22 | Farm/Owner | -0.398 | Maximum foal number per birth |
| Fixed effect | 23 | Farm/Owner | -0.630 | Maximum foal number per birth |
| Fixed effect | 24 | Farm/Owner | -0.010 | Maximum foal number per birth |
| Fixed effect | 25 | Farm/Owner | 0.138 | Maximum foal number per birth |
| Fixed effect | 26 | Farm/Owner | 0.029 | Maximum foal number per birth |
| Fixed effect | 27 | Farm/Owner | 0.027 | Maximum foal number per birth |
| Fixed effect | 28 | Farm/Owner | 0.123 | Maximum foal number per birth |
| Fixed effect | 29 | Farm/Owner | -0.330 | Maximum foal number per birth |
| Fixed effect | 30 | Farm/Owner | -10.475 | Maximum foal number per birth |
| Fixed effect | 31 | Farm/Owner | -0.159 | Maximum foal number per birth |
| Fixed effect | 32 | Farm/Owner | 0.532 | Maximum foal number per birth |
| Fixed effect | 33 | Farm/Owner | 0.023 | Maximum foal number per birth |
| Fixed effect | 34 | Farm/Owner | -0.488 | Maximum foal number per birth |
| Fixed effect | 35 | Farm/Owner | -0.146 | Maximum foal number per birth |
| Fixed effect | 36 | Farm/Owner | -0.296 | Maximum foal number per birth |
| Fixed effect | 37 | Farm/Owner | 0.064 | Maximum foal number per birth |
| Fixed effect | 38 | Farm/Owner | 10.578 | Maximum foal number per birth |
| Fixed effect | 39 | Farm/Owner | -0.223 | Maximum foal number per birth |
| Fixed effect | 40 | Farm/Owner | -0.024 | Maximum foal number per birth |
| Fixed effect | 41 | Farm/Owner | 0.004 | Maximum foal number per birth |
| Fixed effect | 42 | Farm/Owner | 0.002 | Maximum foal number per birth |
| Fixed effect | 43 | Farm/Owner | 0.677 | Maximum foal number per birth |
| Fixed effect | 44 | Farm/Owner | 0.152 | Maximum foal number per birth |
| Fixed effect | 45 | Farm/Owner | -0.646 | Maximum foal number per birth |
| Fixed effect | 46 | Farm/Owner | -0.122 | Maximum foal number per birth |
| Fixed effect | 47 | Farm/Owner | 0.005 | Maximum foal number per birth |
| Fixed effect | 48 | Farm/Owner | -0.549 | Maximum foal number per birth |
| Fixed effect | 49 | Farm/Owner | 0.025 | Maximum foal number per birth |
| Fixed effect | 50 | Farm/Owner | -0.055 | Maximum foal number per birth |
| Fixed effect | 51 | Farm/Owner | 0.000 | Maximum foal number per birth |
| Fixed effect | 52 | Farm/Owner | -0.394 | Maximum foal number per birth |
| Fixed effect | 53 | Farm/Owner | -0.444 | Maximum foal number per birth |
| Fixed effect | 54 | Farm/Owner | 0.007 | Maximum foal number per birth |
| Fixed effect | 55 | Farm/Owner | -0.174 | Maximum foal number per birth |
| Fixed effect | 56 | Farm/Owner | -0.065 | Maximum foal number per birth |
| Fixed effect | 57 | Farm/Owner | -0.338 | Maximum foal number per birth |
| Fixed effect | 58 | Farm/Owner | 0.321 | Maximum foal number per birth |
| Fixed effect | 59 | Farm/Owner | -0.093 | Maximum foal number per birth |
| Fixed effect | 60 | Farm/Owner | 0.000 | Maximum foal number per birth |
| Fixed effect | 61 | Farm/Owner | -0.110 | Maximum foal number per birth |
| Fixed effect | 62 | Farm/Owner | -14.058 | Maximum foal number per birth |
| Fixed effect | 63 | Farm/Owner | -0.126 | Maximum foal number per birth |
| Fixed effect | 64 | Farm/Owner | 0.426 | Maximum foal number per birth |
| Fixed effect | 65 | Farm/Owner | -0.133 | Maximum foal number per birth |
| Fixed effect | 66 | Farm/Owner | 0.048 | Maximum foal number per birth |
| Fixed effect | 67 | Farm/Owner | -0.436 | Maximum foal number per birth |
| Fixed effect | 68 | Farm/Owner | -0.144 | Maximum foal number per birth |
| Fixed effect | 69 | Farm/Owner | -0.159 | Maximum foal number per birth |
| Fixed effect | 70 | Farm/Owner | 0.090 | Maximum foal number per birth |
| Fixed effect | 71 | Farm/Owner | -0.109 | Maximum foal number per birth |
| Fixed effect | 72 | Farm/Owner | 0.249 | Maximum foal number per birth |
| Fixed effect | 73 | Farm/Owner | -10.932 | Maximum foal number per birth |
| Fixed effect | 74 | Farm/Owner | 0.443 | Maximum foal number per birth |
| Fixed effect | 75 | Farm/Owner | -0.272 | Maximum foal number per birth |
| Fixed effect | 76 | Farm/Owner | 0.931 | Maximum foal number per birth |
| Fixed effect | 77 | Farm/Owner | -0.151 | Maximum foal number per birth |
| Fixed effect | 78 | Farm/Owner | 0.006 | Maximum foal number per birth |
| Fixed effect | 79 | Farm/Owner | -0.228 | Maximum foal number per birth |
| Fixed effect | 80 | Farm/Owner | 0.046 | Maximum foal number per birth |
| Fixed effect | 81 | Farm/Owner | -0.134 | Maximum foal number per birth |
| Fixed effect | 82 | Farm/Owner | 0.024 | Maximum foal number per birth |
| Fixed effect | 83 | Farm/Owner | -10.148 | Maximum foal number per birth |
| Fixed effect | 84 | Farm/Owner | 0.022 | Maximum foal number per birth |
| Fixed effect | 85 | Farm/Owner | -0.118 | Maximum foal number per birth |
| Fixed effect | 86 | Farm/Owner | -0.721 | Maximum foal number per birth |
| Fixed effect | 87 | Farm/Owner | 0.100 | Maximum foal number per birth |
| Fixed effect | 88 | Farm/Owner | -0.650 | Maximum foal number per birth |
| Fixed effect | 89 | Farm/Owner | -0.578 | Maximum foal number per birth |
| Fixed effect | 90 | Farm/Owner | 0.026 | Maximum foal number per birth |
| Fixed effect | Intensive | Husbandry system | 0.000 | Maximum foal number per birth |
| Fixed effect | Semiintensive | Husbandry system | 0.428 | Maximum foal number per birth |
| Fixed effect | Semiextensive | Husbandry system | 0.000 | Maximum foal number per birth |
| Fixed effect | Extensive | Husbandry system | 0.000 | Maximum foal number per birth |
| Fixed effect | January | Birth month | -0.135 | Multiple birth number per animal for a given donkey |
| Fixed effect | February | Birth month | -0.137 | Multiple birth number per animal for a given donkey |
| Fixed effect | March | Birth month | -0.120 | Multiple birth number per animal for a given donkey |
| Fixed effect | April | Birth month | -0.223 | Multiple birth number per animal for a given donkey |
| Fixed effect | May | Birth month | -0.177 | Multiple birth number per animal for a given donkey |
| Fixed effect | June | Birth month | -0.158 | Multiple birth number per animal for a given donkey |
| Fixed effect | July | Birth month | -0.210 | Multiple birth number per animal for a given donkey |
| Fixed effect | August | Birth month | -0.277 | Multiple birth number per animal for a given donkey |
| Fixed effect | September | Birth month | -0.377 | Multiple birth number per animal for a given donkey |
| Fixed effect | October | Birth month | -0.282 | Multiple birth number per animal for a given donkey |
| Fixed effect | November | Birth month | -0.344 | Multiple birth number per animal for a given donkey |
| Fixed effect | December | Birth month | -0.191 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1984 | Birth year | 0.811 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1985 | Birth year | 0.089 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1986 | Birth year | 0.084 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1988 | Birth year | 0.228 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1989 | Birth year | -0.335 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1990 | Birth year | 0.016 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1991 | Birth year | -0.132 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1993 | Birth year | 0.145 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1994 | Birth year | 0.058 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1995 | Birth year | -0.222 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1996 | Birth year | -0.121 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1997 | Birth year | 0.011 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1998 | Birth year | 0.056 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1999 | Birth year | 0.023 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2000 | Birth year | -0.033 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2001 | Birth year | 0.067 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2002 | Birth year | 0.245 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2003 | Birth year | 0.008 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2004 | Birth year | 0.085 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2005 | Birth year | 0.020 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2006 | Birth year | -0.030 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2007 | Birth year | 0.032 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2008 | Birth year | 0.001 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2009 | Birth year | 0.041 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2010 | Birth year | -0.061 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2011 | Birth year | 0.057 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2012 | Birth year | 0.049 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2013 | Birth year | 0.067 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2014 | Birth year | 0.015 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2015 | Birth year | 0.040 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2016 | Birth year | 0.071 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2017 | Birth year | 0.000 | Multiple birth number per animal for a given donkey |
| Fixed effect | Winter | Birth season | -0.096 | Multiple birth number per animal for a given donkey |
| Fixed effect | Spring | Birth season | 0.020 | Multiple birth number per animal for a given donkey |
| Fixed effect | Summer | Birth season | 0.000 | Multiple birth number per animal for a given donkey |
| Fixed effect | Autumn | Birth season | 0.183 | Multiple birth number per animal for a given donkey |
| Fixed effect | Jack | Sex | 0.025 | Multiple birth number per animal for a given donkey |
| Fixed effect | Jenny | Sex | 0.000 | Multiple birth number per animal for a given donkey |
| Fixed effect | 1 | Farm/Owner | 0.081 | Multiple birth number per animal for a given donkey |
| Fixed effect | 2 | Farm/Owner | -0.297 | Multiple birth number per animal for a given donkey |
| Fixed effect | 3 | Farm/Owner | 0.097 | Multiple birth number per animal for a given donkey |
| Fixed effect | 4 | Farm/Owner | 0.284 | Multiple birth number per animal for a given donkey |
| Fixed effect | 5 | Farm/Owner | 0.095 | Multiple birth number per animal for a given donkey |
| Fixed effect | 6 | Farm/Owner | 0.194 | Multiple birth number per animal for a given donkey |
| Fixed effect | 7 | Farm/Owner | 0.082 | Multiple birth number per animal for a given donkey |
| Fixed effect | 8 | Farm/Owner | -0.045 | Multiple birth number per animal for a given donkey |
| Fixed effect | 9 | Farm/Owner | 0.122 | Multiple birth number per animal for a given donkey |
| Fixed effect | 10 | Farm/Owner | 0.022 | Multiple birth number per animal for a given donkey |
| Fixed effect | 11 | Farm/Owner | 0.059 | Multiple birth number per animal for a given donkey |
| Fixed effect | 12 | Farm/Owner | 0.272 | Multiple birth number per animal for a given donkey |
| Fixed effect | 13 | Farm/Owner | 0.058 | Multiple birth number per animal for a given donkey |
| Fixed effect | 14 | Farm/Owner | 0.334 | Multiple birth number per animal for a given donkey |
| Fixed effect | 15 | Farm/Owner | 0.079 | Multiple birth number per animal for a given donkey |
| Fixed effect | 16 | Farm/Owner | 0.068 | Multiple birth number per animal for a given donkey |
| Fixed effect | 17 | Farm/Owner | -0.013 | Multiple birth number per animal for a given donkey |
| Fixed effect | 18 | Farm/Owner | 0.016 | Multiple birth number per animal for a given donkey |
| Fixed effect | 19 | Farm/Owner | 0.529 | Multiple birth number per animal for a given donkey |
| Fixed effect | 20 | Farm/Owner | 10.098 | Multiple birth number per animal for a given donkey |
| Fixed effect | 21 | Farm/Owner | 0.035 | Multiple birth number per animal for a given donkey |
| Fixed effect | 22 | Farm/Owner | 0.048 | Multiple birth number per animal for a given donkey |
| Fixed effect | 23 | Farm/Owner | -0.162 | Multiple birth number per animal for a given donkey |
| Fixed effect | 24 | Farm/Owner | -0.025 | Multiple birth number per animal for a given donkey |
| Fixed effect | 25 | Farm/Owner | 0.168 | Multiple birth number per animal for a given donkey |
| Fixed effect | 26 | Farm/Owner | 0.187 | Multiple birth number per animal for a given donkey |
| Fixed effect | 27 | Farm/Owner | 0.128 | Multiple birth number per animal for a given donkey |
| Fixed effect | 28 | Farm/Owner | 0.335 | Multiple birth number per animal for a given donkey |
| Fixed effect | 29 | Farm/Owner | 0.083 | Multiple birth number per animal for a given donkey |
| Fixed effect | 30 | Farm/Owner | 0.045 | Multiple birth number per animal for a given donkey |
| Fixed effect | 31 | Farm/Owner | 0.042 | Multiple birth number per animal for a given donkey |
| Fixed effect | 32 | Farm/Owner | 0.605 | Multiple birth number per animal for a given donkey |
| Fixed effect | 33 | Farm/Owner | 0.325 | Multiple birth number per animal for a given donkey |
| Fixed effect | 34 | Farm/Owner | 0.061 | Multiple birth number per animal for a given donkey |
| Fixed effect | 35 | Farm/Owner | 0.321 | Multiple birth number per animal for a given donkey |
| Fixed effect | 36 | Farm/Owner | 0.503 | Multiple birth number per animal for a given donkey |
| Fixed effect | 37 | Farm/Owner | -0.122 | Multiple birth number per animal for a given donkey |
| Fixed effect | 38 | Farm/Owner | 12.732 | Multiple birth number per animal for a given donkey |
| Fixed effect | 39 | Farm/Owner | 0.308 | Multiple birth number per animal for a given donkey |
| Fixed effect | 40 | Farm/Owner | 0.035 | Multiple birth number per animal for a given donkey |
| Fixed effect | 41 | Farm/Owner | 0.098 | Multiple birth number per animal for a given donkey |
| Fixed effect | 42 | Farm/Owner | 0.035 | Multiple birth number per animal for a given donkey |
| Fixed effect | 43 | Farm/Owner | 10.340 | Multiple birth number per animal for a given donkey |
| Fixed effect | 44 | Farm/Owner | 0.233 | Multiple birth number per animal for a given donkey |
| Fixed effect | 45 | Farm/Owner | 0.022 | Multiple birth number per animal for a given donkey |
| Fixed effect | 46 | Farm/Owner | 0.089 | Multiple birth number per animal for a given donkey |
| Fixed effect | 47 | Farm/Owner | 0.022 | Multiple birth number per animal for a given donkey |
| Fixed effect | 48 | Farm/Owner | 0.042 | Multiple birth number per animal for a given donkey |
| Fixed effect | 49 | Farm/Owner | 0.062 | Multiple birth number per animal for a given donkey |
| Fixed effect | 50 | Farm/Owner | 0.079 | Multiple birth number per animal for a given donkey |
| Fixed effect | 51 | Farm/Owner | 0.000 | Multiple birth number per animal for a given donkey |
| Fixed effect | 52 | Farm/Owner | -0.021 | Multiple birth number per animal for a given donkey |
| Fixed effect | 53 | Farm/Owner | -0.014 | Multiple birth number per animal for a given donkey |
| Fixed effect | 54 | Farm/Owner | 0.051 | Multiple birth number per animal for a given donkey |
| Fixed effect | 55 | Farm/Owner | 0.232 | Multiple birth number per animal for a given donkey |
| Fixed effect | 56 | Farm/Owner | 0.235 | Multiple birth number per animal for a given donkey |
| Fixed effect | 57 | Farm/Owner | 0.030 | Multiple birth number per animal for a given donkey |
| Fixed effect | 58 | Farm/Owner | 0.444 | Multiple birth number per animal for a given donkey |
| Fixed effect | 59 | Farm/Owner | 0.001 | Multiple birth number per animal for a given donkey |
| Fixed effect | 60 | Farm/Owner | 0.049 | Multiple birth number per animal for a given donkey |
| Fixed effect | 61 | Farm/Owner | -0.105 | Multiple birth number per animal for a given donkey |
| Fixed effect | 62 | Farm/Owner | -0.178 | Multiple birth number per animal for a given donkey |
| Fixed effect | 63 | Farm/Owner | 0.095 | Multiple birth number per animal for a given donkey |
| Fixed effect | 64 | Farm/Owner | 0.676 | Multiple birth number per animal for a given donkey |
| Fixed effect | 65 | Farm/Owner | 0.053 | Multiple birth number per animal for a given donkey |
| Fixed effect | 66 | Farm/Owner | 0.191 | Multiple birth number per animal for a given donkey |
| Fixed effect | 67 | Farm/Owner | -0.136 | Multiple birth number per animal for a given donkey |
| Fixed effect | 68 | Farm/Owner | 0.110 | Multiple birth number per animal for a given donkey |
| Fixed effect | 69 | Farm/Owner | 0.052 | Multiple birth number per animal for a given donkey |
| Fixed effect | 70 | Farm/Owner | -0.126 | Multiple birth number per animal for a given donkey |
| Fixed effect | 71 | Farm/Owner | -0.023 | Multiple birth number per animal for a given donkey |
| Fixed effect | 72 | Farm/Owner | 0.190 | Multiple birth number per animal for a given donkey |
| Fixed effect | 73 | Farm/Owner | -0.071 | Multiple birth number per animal for a given donkey |
| Fixed effect | 74 | Farm/Owner | 0.506 | Multiple birth number per animal for a given donkey |
| Fixed effect | 75 | Farm/Owner | 0.038 | Multiple birth number per animal for a given donkey |
| Fixed effect | 76 | Farm/Owner | 10.557 | Multiple birth number per animal for a given donkey |
| Fixed effect | 77 | Farm/Owner | 0.021 | Multiple birth number per animal for a given donkey |
| Fixed effect | 78 | Farm/Owner | -0.141 | Multiple birth number per animal for a given donkey |
| Fixed effect | 79 | Farm/Owner | 0.084 | Multiple birth number per animal for a given donkey |
| Fixed effect | 80 | Farm/Owner | 0.149 | Multiple birth number per animal for a given donkey |
| Fixed effect | 81 | Farm/Owner | 0.047 | Multiple birth number per animal for a given donkey |
| Fixed effect | 82 | Farm/Owner | 0.139 | Multiple birth number per animal for a given donkey |
| Fixed effect | 83 | Farm/Owner | -0.048 | Multiple birth number per animal for a given donkey |
| Fixed effect | 84 | Farm/Owner | -0.042 | Multiple birth number per animal for a given donkey |
| Fixed effect | 85 | Farm/Owner | 0.125 | Multiple birth number per animal for a given donkey |
| Fixed effect | 86 | Farm/Owner | -0.024 | Multiple birth number per animal for a given donkey |
| Fixed effect | 87 | Farm/Owner | -0.004 | Multiple birth number per animal for a given donkey |
| Fixed effect | 88 | Farm/Owner | -0.082 | Multiple birth number per animal for a given donkey |
| Fixed effect | 89 | Farm/Owner | -0.055 | Multiple birth number per animal for a given donkey |
| Fixed effect | 90 | Farm/Owner | 0.091 | Multiple birth number per animal for a given donkey |
| Fixed effect | Intensive | Husbandry system | 0.000 | Multiple birth number per animal for a given donkey |
| Fixed effect | Semiintensive | Husbandry system | 0.190 | Multiple birth number per animal for a given donkey |
| Fixed effect | Semiextensive | Husbandry system | 0.000 | Multiple birth number per animal for a given donkey |
| Fixed effect | Extensive | Husbandry system | 0.000 | Multiple birth number per animal for a given donkey |
| Fixed effect | January | Birth month | -37.175 | Historical foal number born per donkey |
| Fixed effect | February | Birth month | -32.974 | Historical foal number born per donkey |
| Fixed effect | March | Birth month | -28.772 | Historical foal number born per donkey |
| Fixed effect | April | Birth month | -33.274 | Historical foal number born per donkey |
| Fixed effect | May | Birth month | -35.539 | Historical foal number born per donkey |
| Fixed effect | June | Birth month | -19.859 | Historical foal number born per donkey |
| Fixed effect | July | Birth month | -17.496 | Historical foal number born per donkey |
| Fixed effect | August | Birth month | -21.508 | Historical foal number born per donkey |
| Fixed effect | September | Birth month | -26.347 | Historical foal number born per donkey |
| Fixed effect | October | Birth month | -19.341 | Historical foal number born per donkey |
| Fixed effect | November | Birth month | -23.481 | Historical foal number born per donkey |
| Fixed effect | December | Birth month | -34.887 | Historical foal number born per donkey |
| Fixed effect | 1984 | Birth year | 30.274 | Historical foal number born per donkey |
| Fixed effect | 1985 | Birth year | 0.452 | Historical foal number born per donkey |
| Fixed effect | 1986 | Birth year | -0.079 | Historical foal number born per donkey |
| Fixed effect | 1988 | Birth year | 0.764 | Historical foal number born per donkey |
| Fixed effect | 1989 | Birth year | -14.386 | Historical foal number born per donkey |
| Fixed effect | 1990 | Birth year | 0.771 | Historical foal number born per donkey |
| Fixed effect | 1991 | Birth year | 0.626 | Historical foal number born per donkey |
| Fixed effect | 1993 | Birth year | 0.406 | Historical foal number born per donkey |
| Fixed effect | 1994 | Birth year | 0.340 | Historical foal number born per donkey |
| Fixed effect | 1995 | Birth year | -0.203 | Historical foal number born per donkey |
| Fixed effect | 1996 | Birth year | 13.307 | Historical foal number born per donkey |
| Fixed effect | 1997 | Birth year | 0.539 | Historical foal number born per donkey |
| Fixed effect | 1998 | Birth year | 0.527 | Historical foal number born per donkey |
| Fixed effect | 1999 | Birth year | 0.778 | Historical foal number born per donkey |
| Fixed effect | 2000 | Birth year | 0.221 | Historical foal number born per donkey |
| Fixed effect | 2001 | Birth year | 0.417 | Historical foal number born per donkey |
| Fixed effect | 2002 | Birth year | 25.589 | Historical foal number born per donkey |
| Fixed effect | 2003 | Birth year | -0.097 | Historical foal number born per donkey |
| Fixed effect | 2004 | Birth year | 0.863 | Historical foal number born per donkey |
| Fixed effect | 2005 | Birth year | 11.095 | Historical foal number born per donkey |
| Fixed effect | 2006 | Birth year | 0.529 | Historical foal number born per donkey |
| Fixed effect | 2007 | Birth year | 0.609 | Historical foal number born per donkey |
| Fixed effect | 2008 | Birth year | 0.182 | Historical foal number born per donkey |
| Fixed effect | 2009 | Birth year | 0.557 | Historical foal number born per donkey |
| Fixed effect | 2010 | Birth year | 0.310 | Historical foal number born per donkey |
| Fixed effect | 2011 | Birth year | 0.493 | Historical foal number born per donkey |
| Fixed effect | 2012 | Birth year | 0.822 | Historical foal number born per donkey |
| Fixed effect | 2013 | Birth year | 0.662 | Historical foal number born per donkey |
| Fixed effect | 2014 | Birth year | 0.698 | Historical foal number born per donkey |
| Fixed effect | 2015 | Birth year | 0.669 | Historical foal number born per donkey |
| Fixed effect | 2016 | Birth year | 0.423 | Historical foal number born per donkey |
| Fixed effect | 2017 | Birth year | 0.000 | Historical foal number born per donkey |
| Fixed effect | Winter | Birth season | 20.544 | Historical foal number born per donkey |
| Fixed effect | Spring | Birth season | 18.287 | Historical foal number born per donkey |
| Fixed effect | Summer | Birth season | 0.000 | Historical foal number born per donkey |
| Fixed effect | Autumn | Birth season | 11.496 | Historical foal number born per donkey |
| Fixed effect | Jack | Sex | 13.383 | Historical foal number born per donkey |
| Fixed effect | Jenny | Sex | 0.000 | Historical foal number born per donkey |
| Fixed effect | 1 | Farm/Owner | 0.559 | Historical foal number born per donkey |
| Fixed effect | 2 | Farm/Owner | 0.527 | Historical foal number born per donkey |
| Fixed effect | 3 | Farm/Owner | 0.388 | Historical foal number born per donkey |
| Fixed effect | 4 | Farm/Owner | -0.588 | Historical foal number born per donkey |
| Fixed effect | 5 | Farm/Owner | 10.672 | Historical foal number born per donkey |
| Fixed effect | 6 | Farm/Owner | 0.440 | Historical foal number born per donkey |
| Fixed effect | 7 | Farm/Owner | 0.231 | Historical foal number born per donkey |
| Fixed effect | 8 | Farm/Owner | -0.235 | Historical foal number born per donkey |
| Fixed effect | 9 | Farm/Owner | -0.068 | Historical foal number born per donkey |
| Fixed effect | 10 | Farm/Owner | 0.073 | Historical foal number born per donkey |
| Fixed effect | 11 | Farm/Owner | 0.095 | Historical foal number born per donkey |
| Fixed effect | 12 | Farm/Owner | 0.896 | Historical foal number born per donkey |
| Fixed effect | 13 | Farm/Owner | -0.457 | Historical foal number born per donkey |
| Fixed effect | 14 | Farm/Owner | 0.000 | Historical foal number born per donkey |
| Fixed effect | 15 | Farm/Owner | 15.001 | Historical foal number born per donkey |
| Fixed effect | 16 | Farm/Owner | 13.971 | Historical foal number born per donkey |
| Fixed effect | 17 | Farm/Owner | 0.260 | Historical foal number born per donkey |
| Fixed effect | 18 | Farm/Owner | -0.402 | Historical foal number born per donkey |
| Fixed effect | 19 | Farm/Owner | 30.246 | Historical foal number born per donkey |
| Fixed effect | 20 | Farm/Owner | 17.098 | Historical foal number born per donkey |
| Fixed effect | 21 | Farm/Owner | 19.949 | Historical foal number born per donkey |
| Fixed effect | 22 | Farm/Owner | 10.450 | Historical foal number born per donkey |
| Fixed effect | 23 | Farm/Owner | -0.848 | Historical foal number born per donkey |
| Fixed effect | 24 | Farm/Owner | -0.951 | Historical foal number born per donkey |
| Fixed effect | 25 | Farm/Owner | -0.334 | Historical foal number born per donkey |
| Fixed effect | 26 | Farm/Owner | -0.230 | Historical foal number born per donkey |
| Fixed effect | 27 | Farm/Owner | 0.560 | Historical foal number born per donkey |
| Fixed effect | 28 | Farm/Owner | 12.194 | Historical foal number born per donkey |
| Fixed effect | 29 | Farm/Owner | 0.956 | Historical foal number born per donkey |
| Fixed effect | 30 | Farm/Owner | -0.664 | Historical foal number born per donkey |
| Fixed effect | 31 | Farm/Owner | 17.514 | Historical foal number born per donkey |
| Fixed effect | 32 | Farm/Owner | 0.921 | Historical foal number born per donkey |
| Fixed effect | 33 | Farm/Owner | 10.747 | Historical foal number born per donkey |
| Fixed effect | 34 | Farm/Owner | 0.722 | Historical foal number born per donkey |
| Fixed effect | 35 | Farm/Owner | -0.040 | Historical foal number born per donkey |
| Fixed effect | 36 | Farm/Owner | 38.874 | Historical foal number born per donkey |
| Fixed effect | 37 | Farm/Owner | 0.068 | Historical foal number born per donkey |
| Fixed effect | 38 | Farm/Owner | 23.570 | Historical foal number born per donkey |
| Fixed effect | 39 | Farm/Owner | 13.883 | Historical foal number born per donkey |
| Fixed effect | 40 | Farm/Owner | 0.544 | Historical foal number born per donkey |
| Fixed effect | 41 | Farm/Owner | 0.144 | Historical foal number born per donkey |
| Fixed effect | 42 | Farm/Owner | -0.515 | Historical foal number born per donkey |
| Fixed effect | 43 | Farm/Owner | 0.083 | Historical foal number born per donkey |
| Fixed effect | 44 | Farm/Owner | -0.199 | Historical foal number born per donkey |
| Fixed effect | 45 | Farm/Owner | -0.083 | Historical foal number born per donkey |
| Fixed effect | 46 | Farm/Owner | 16.673 | Historical foal number born per donkey |
| Fixed effect | 47 | Farm/Owner | -0.666 | Historical foal number born per donkey |
| Fixed effect | 48 | Farm/Owner | -11.210 | Historical foal number born per donkey |
| Fixed effect | 49 | Farm/Owner | -0.789 | Historical foal number born per donkey |
| Fixed effect | 50 | Farm/Owner | 0.459 | Historical foal number born per donkey |
| Fixed effect | 51 | Farm/Owner | 0.000 | Historical foal number born per donkey |
| Fixed effect | 52 | Farm/Owner | 0.352 | Historical foal number born per donkey |
| Fixed effect | 53 | Farm/Owner | -0.308 | Historical foal number born per donkey |
| Fixed effect | 54 | Farm/Owner | -21.487 | Historical foal number born per donkey |
| Fixed effect | 55 | Farm/Owner | -0.231 | Historical foal number born per donkey |
| Fixed effect | 56 | Farm/Owner | 16.458 | Historical foal number born per donkey |
| Fixed effect | 57 | Farm/Owner | 13.829 | Historical foal number born per donkey |
| Fixed effect | 58 | Farm/Owner | 22.232 | Historical foal number born per donkey |
| Fixed effect | 59 | Farm/Owner | 16.090 | Historical foal number born per donkey |
| Fixed effect | 60 | Farm/Owner | 0.508 | Historical foal number born per donkey |
| Fixed effect | 61 | Farm/Owner | -18.309 | Historical foal number born per donkey |
| Fixed effect | 62 | Farm/Owner | -12.684 | Historical foal number born per donkey |
| Fixed effect | 63 | Farm/Owner | 20.918 | Historical foal number born per donkey |
| Fixed effect | 64 | Farm/Owner | -0.681 | Historical foal number born per donkey |
| Fixed effect | 65 | Farm/Owner | -0.023 | Historical foal number born per donkey |
| Fixed effect | 66 | Farm/Owner | 0.185 | Historical foal number born per donkey |
| Fixed effect | 67 | Farm/Owner | 0.069 | Historical foal number born per donkey |
| Fixed effect | 68 | Farm/Owner | 0.693 | Historical foal number born per donkey |
| Fixed effect | 69 | Farm/Owner | 0.341 | Historical foal number born per donkey |
| Fixed effect | 70 | Farm/Owner | -34.913 | Historical foal number born per donkey |
| Fixed effect | 71 | Farm/Owner | -15.279 | Historical foal number born per donkey |
| Fixed effect | 72 | Farm/Owner | -0.723 | Historical foal number born per donkey |
| Fixed effect | 73 | Farm/Owner | -0.504 | Historical foal number born per donkey |
| Fixed effect | 74 | Farm/Owner | 22.343 | Historical foal number born per donkey |
| Fixed effect | 75 | Farm/Owner | 12.451 | Historical foal number born per donkey |
| Fixed effect | 76 | Farm/Owner | 18.241 | Historical foal number born per donkey |
| Fixed effect | 77 | Farm/Owner | -0.844 | Historical foal number born per donkey |
| Fixed effect | 78 | Farm/Owner | -21.532 | Historical foal number born per donkey |
| Fixed effect | 79 | Farm/Owner | 0.446 | Historical foal number born per donkey |
| Fixed effect | 80 | Farm/Owner | 0.576 | Historical foal number born per donkey |
| Fixed effect | 81 | Farm/Owner | 11.704 | Historical foal number born per donkey |
| Fixed effect | 82 | Farm/Owner | 0.113 | Historical foal number born per donkey |
| Fixed effect | 83 | Farm/Owner | -0.883 | Historical foal number born per donkey |
| Fixed effect | 84 | Farm/Owner | -0.126 | Historical foal number born per donkey |
| Fixed effect | 85 | Farm/Owner | 14.871 | Historical foal number born per donkey |
| Fixed effect | 86 | Farm/Owner | -0.452 | Historical foal number born per donkey |
| Fixed effect | 87 | Farm/Owner | -15.931 | Historical foal number born per donkey |
| Fixed effect | 88 | Farm/Owner | -0.910 | Historical foal number born per donkey |
| Fixed effect | 89 | Farm/Owner | 0.000 | Historical foal number born per donkey |
| Fixed effect | 90 | Farm/Owner | -0.821 | Historical foal number born per donkey |
| Fixed effect | Intensive | Husbandry system | 0.000 | Historical foal number born per donkey |
| Fixed effect | Semiintensive | Husbandry system | 0.500 | Historical foal number born per donkey |
| Fixed effect | Semiextensive | Husbandry system | 0.000 | Historical foal number born per donkey |
| Fixed effect | Extensive | Husbandry system | 0.000 | Historical foal number born per donkey |