**SUPPLEMENTAL MATERIALS**

Supplemental Information: Supplementary methods, figures and tables

Supplemental Data: Raw data files with a key and information on how to perform each analysis

Supplemental R Code 1: Script for analysing the San Diego Zoo pairing data and behavioural factors of mate choice

Supplemental R Code 2: Script for calculating standardised heterozygosities, and determining whether MHC and neutral markers were correlated

Supplemental R Code 3: Script for testing the quantity of alleles mate choice hypothesis

Supplemental R Code 4: Script for testing the genetic compatibility mate choice hypothesis

Supplemental R Code 5: Script for testing the advantage of particular alleles mate choice hypothesis