**Table S1.** Raw behavioral elements used in display event logging.

**Table S2**. Male individual display patterns.

**Table S3.** Female individual attendance patterns.

**Table S4.** Coded display strings for *Masius* displays that resulted successful copulation (COP displays). Copulation occurs immediately after the last display element.

**Table S5.** Raw behavioral element frequency in the final dataset.

**Figure S1.** Dates of *Masius* displays in the final dataset (2014-2017).

**Figure S2.** Empirical means from the small sample of COP displays (n = 13, dashed green line), compared to randomized mean values. Distributions show 10,000 mean values, with each mean value calculated from 13 displays drawn randomly, without replacement, from the full dataset.

**Figure S3.** Correlation between display length (total number of elements) and compression ratio (i.e., the ratio of uncompressed display string length to compressed string length).

**COMPARSION OF BEFORE- AND AFTER- COPULATION DISPLAYS**

**COMPARISON OF DISPLAYS FOR FEMALE AND SUSPECTED PREDEFINITIVE MALE AUDIENCES**