

***** Mantophasmatodea Primer development *****

Created: November 2017

This package accompanies the publication: Dool SE, Kuenzel S, Haase M, Picker MD, Eberhard MJB. Variable molecular markers for the order Mantophasmatodea (Insecta). Journal of Heredity. (accepted)

Please, contact us if you have suggestions, find errors, inconsistencies, or any other problems with the files.

***** CONTACT *****

Contact us:

Serena Dool

Zoological Institute and Museum, University of Greifswald, Loitzer Strasse 26, D-17489, Greifswald, Germany.

e-mail: serena.dool@gmail.com

Contents

1. COI_tree.nex
2. PrimerNote_FSTAT.dat, PrimerNote_FSTAT-POPULATION NAMES.lab
3. Microsatellite Sequences_KB1_KB50.fas
4. Dool_SupplTable 1_2_4_5_JHeredity.pdf
5. Supp_Table3_Genotypes.xlsx

1. COI_tree.nex

The dated phylogenetic gene tree based on COI sequences taken from (Damgaard *et al.* 2008). The methods used to generate the tree are described in the section “Genetic diversity & cross-species amplification” in the Materials and Methods section of the manuscript.

2. PrimerNote_FSTAT.dat

The genotypes for *Karoophasma biedouwense* from Clanwilliam and Biedouw Valley used to examine the properties of the newly developed microsatellite loci (in FSTAT format).

3. Microsatellite Sequences_KB1_KB50.fas

The microsatellite containing sequences from which primers were designed for the current study (fasta format).

4. Dool_SupplTable 1_2_4_5_JHeredity.pdf

Supplementary files which accompany the manuscript:

Supplementary Table 1: details of 24 *Karoophasma biedouwense* sent for Illumina sequencing at Plön. These sequences were used for microsatellite discovery and primer design.

Supplementary Table 2: unlabelled microsatellite loci designed for *Karoophasma biedouwense* which were not selected for further optimisation or multiplexing.

Supplementary Table 4: Amplification success of 23 microsatellite loci designed for *Karoophasma biedouwense* across the order Mantophasmatodea.

Supplementary Table 5: Genbank accession numbers and melting temperatures (forward primer, reverse primer) for each microsatellite locus (see Table 1).

5. Supp_Table3_Genotypes.xlsx

Genotypes of *Karoophasma biedouwense* from Clanwilliam and Biedouw Valley and all other species of Mantophasmatodea which were used in the study.

References

Damgaard J., Klass K.-D., Picker M.D. & Buder G. (2008) Phylogeny of the Heelwalkers (Insecta: Mantophasmatodea) based on mtDNA sequences, with evidence for additional taxa in South Africa. *Molecular phylogenetics and evolution* **47**, 443-62.