

Appendix S1 List of publications gathered for the review on the use of microsatellite markers with butterflies, mammals and birds

Appendix S2 SIMULATIONS –  $F_{ST}$  against distance

Appendix S3 SIMULATIONS – Stabilization of the genetic parameters value

Appendix S4 Overlap between subsamples

Appendix S5 EMPIRICAL - Effect of sampling design on allele frequencies

Appendix S6 SIMULATIONS - Effect of sampling design on allele frequencies

Appendix S7 EMPIRICAL – Effect of sampling design on AR

Appendix S8 SIMULATIONS – Effect of sampling design on AR

Appendix S9 EMPIRICAL – Effect of sampling design on  $H_o$

Appendix S10 SIMULATIONS – Effect of sampling design on  $H_o$

Appendix S11 EMPIRICAL – Effect of sampling design on  $H_s$

Appendix S12 SIMULATIONS – Effect of sampling design on  $H_s$

Appendix S13 EMPIRICAL – Effect of sampling design on  $F_{IS}$

Appendix S14 SIMULATIONS – Effect of sampling design on  $F_{IS}$

Appendix S15 EMPIRICAL – Effect of sampling design on genetic differentiation

Appendix S16 SIMULATIONS – Effect of sampling design on genetic differentiation