

Supplementary Materials for

Species richness of bat flies and their associations with host bats in a subtropical East Asian region

Figures S1- S21

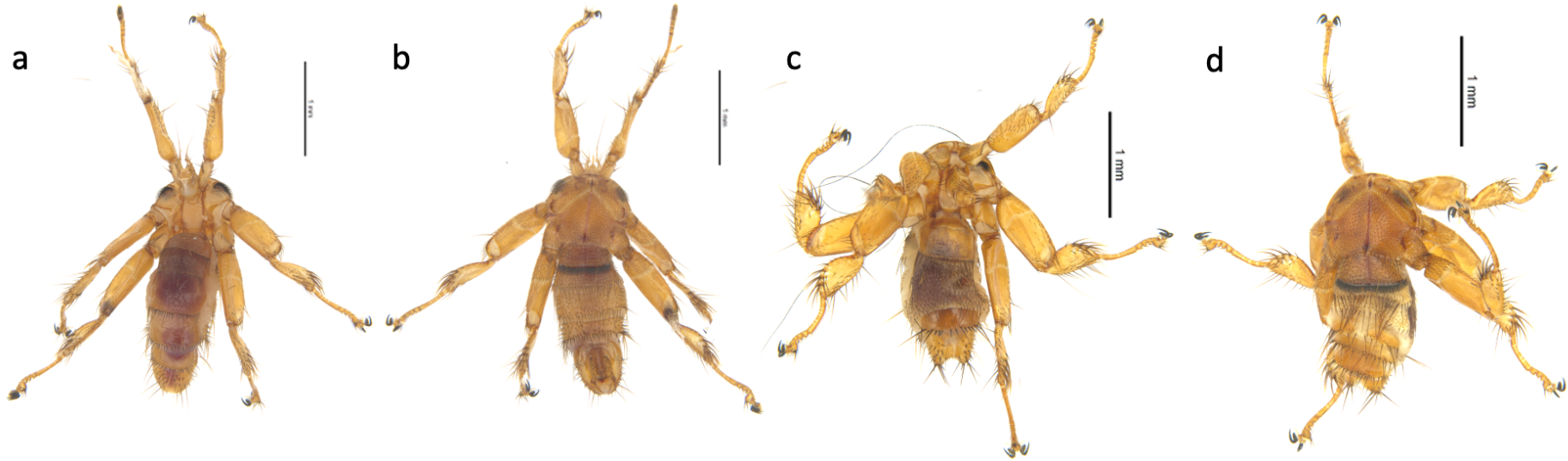


Figure S1 Images of *Nycteribia* sp. A, a) dorsal and b) ventral views of male, and c) dorsal and d) ventral views of female. Scale bar = 1mm.

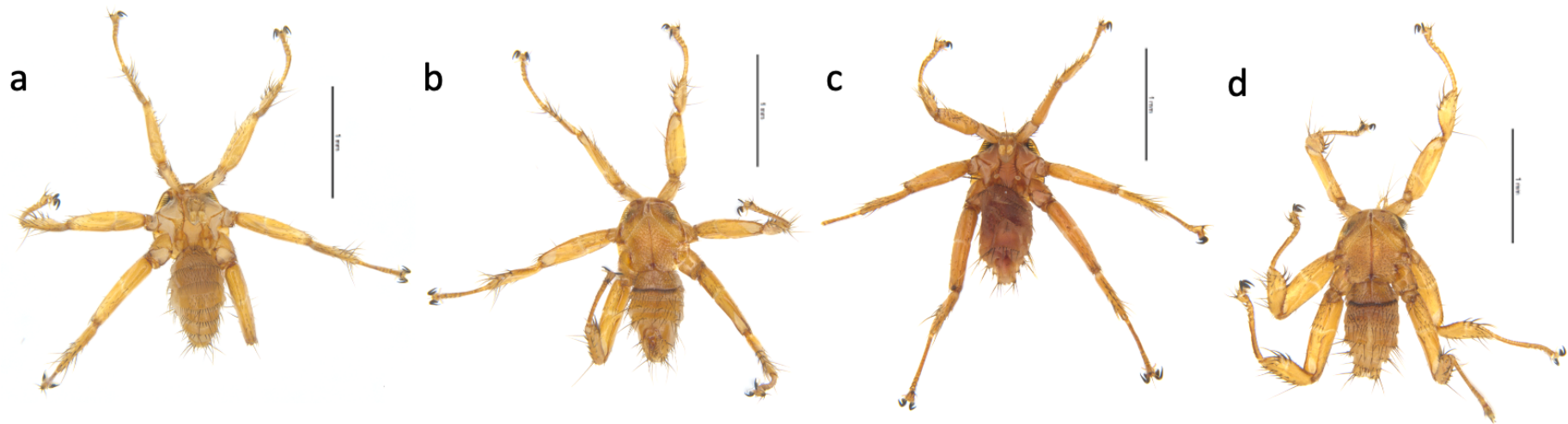


Figure S2 Images of *Nycteribia* sp. B, a) dorsal and b) ventral views of male, and c) dorsal and d) ventral views of female. Scale bar = 1mm.

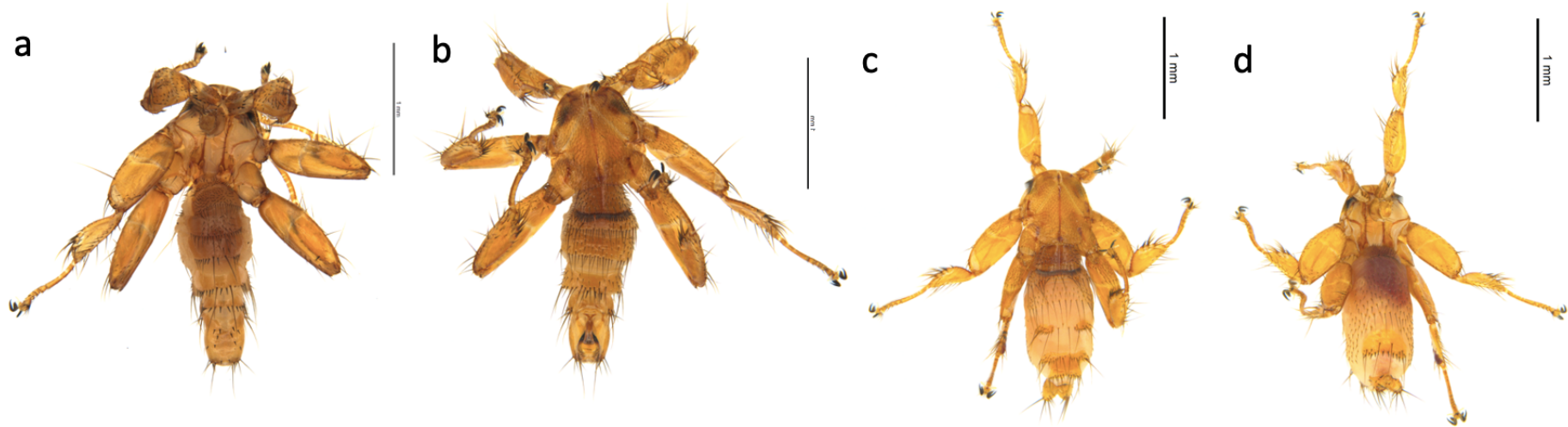


Figure S3 Images of *Nycteribia* sp. D, a) dorsal and b) ventral views of male, and c) ventral and d) dorsal views of female. Scale bar = 1mm.

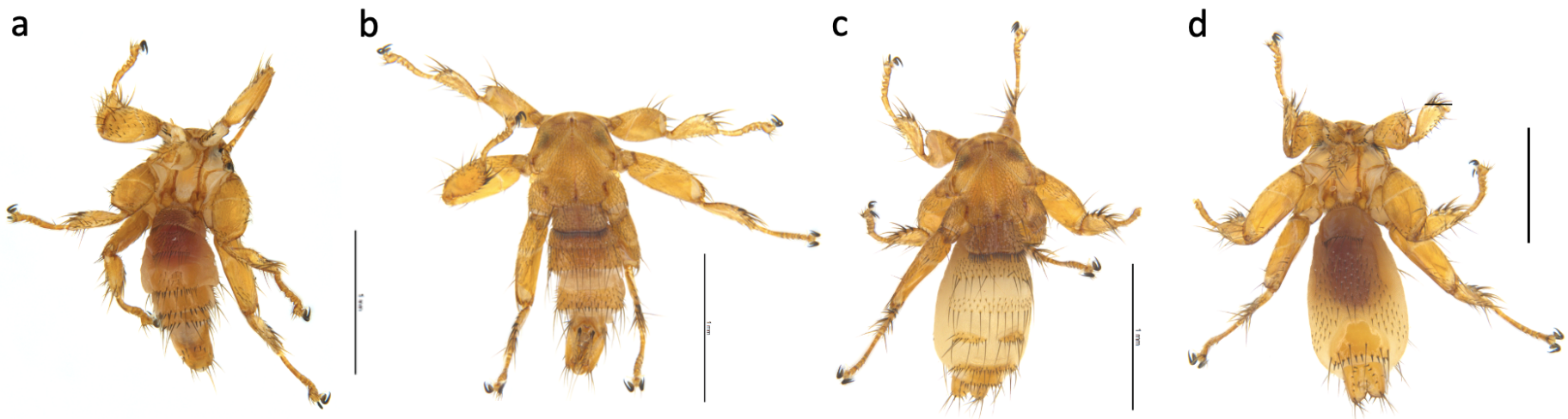


Figure S4 Images of *Nycteribia* sp. E, a) dorsal and b) ventral views of male, and c) ventral and d) dorsal views of female. Scale bar = 1mm.

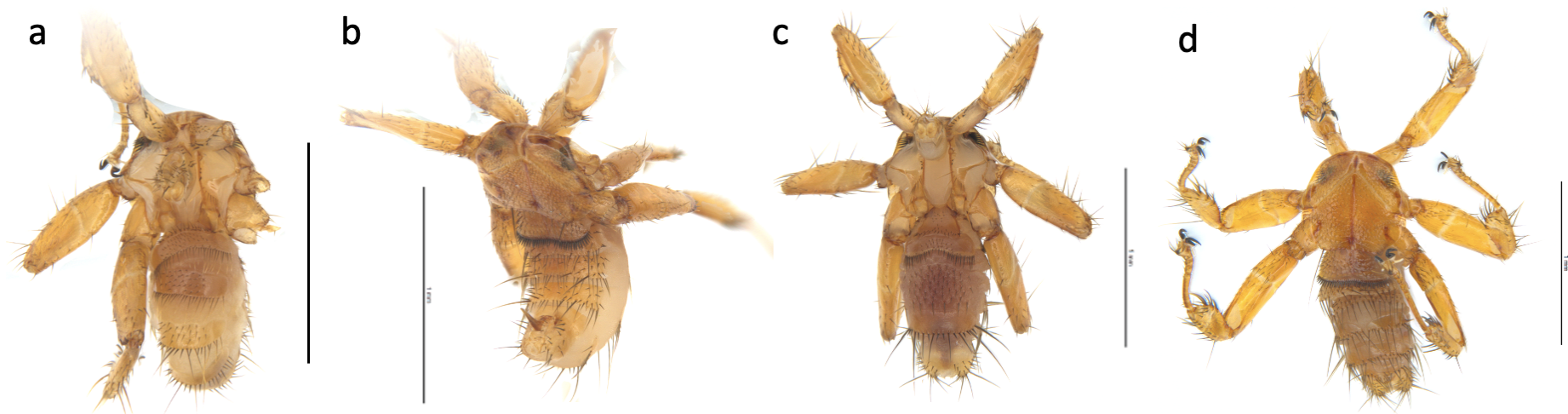


Figure S5 Images of *Nycteribia* sp. F, a) dorsal and b) ventral views of male, and c) dorsal and d) ventral views of female. Scale bar = 1mm.



Figure S6 Images of *Phthiridium* sp. A, a) dorsal and b) ventral views of male, and c) dorsal and d) ventral views of female. Scale bar = 1mm.

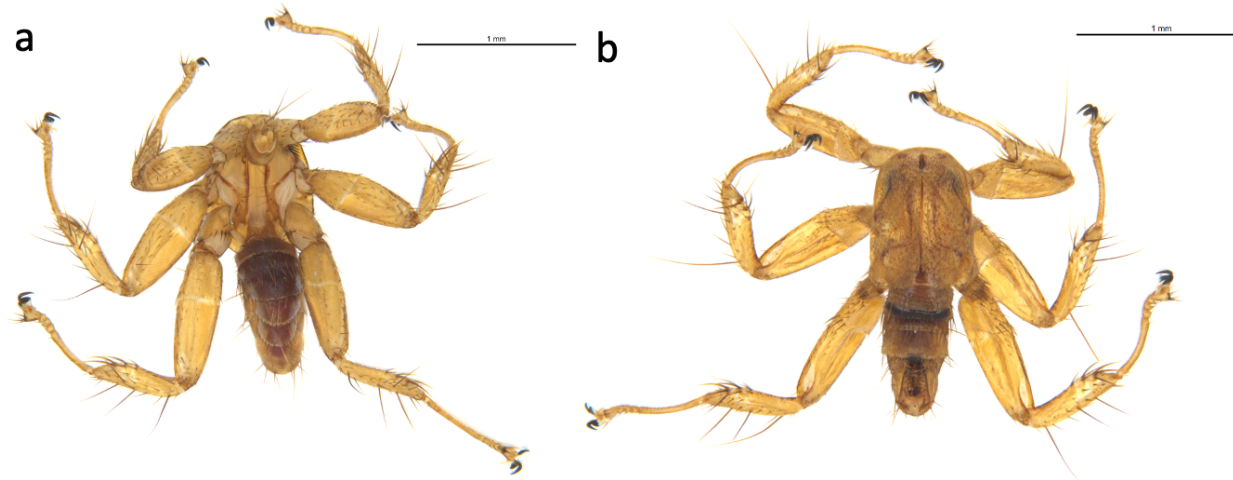


Figure S7 Images of *Phthiridium* sp. B, a) dorsal and b) ventral views, male only. Scale bar = 1mm.

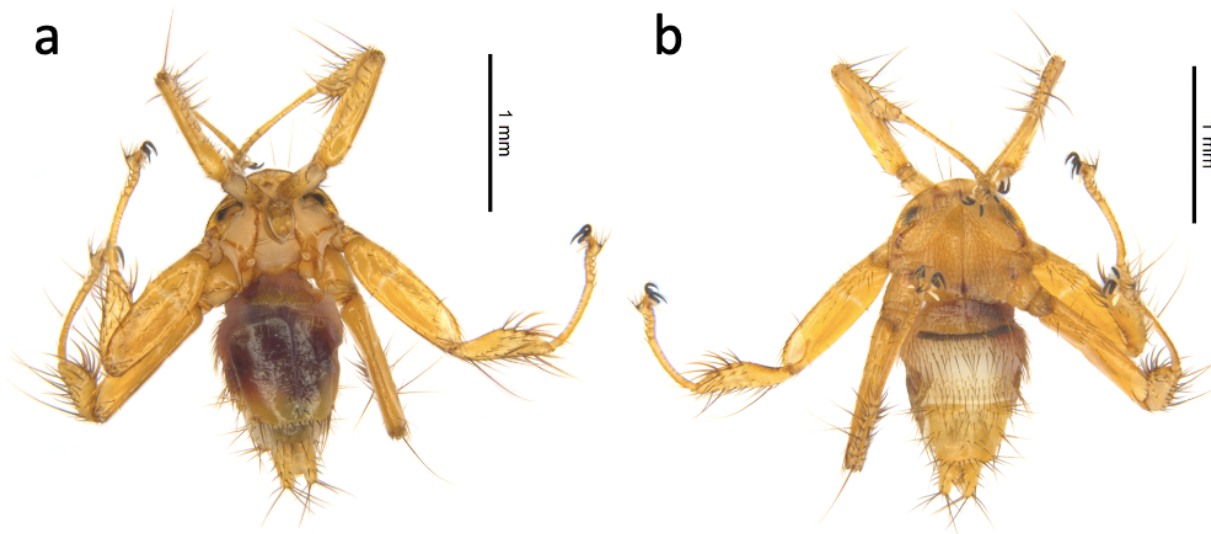


Figure S8 Images *Basilia* sp. A, a) dorsal and b) ventral views, female only. Scale bar = 1mm.

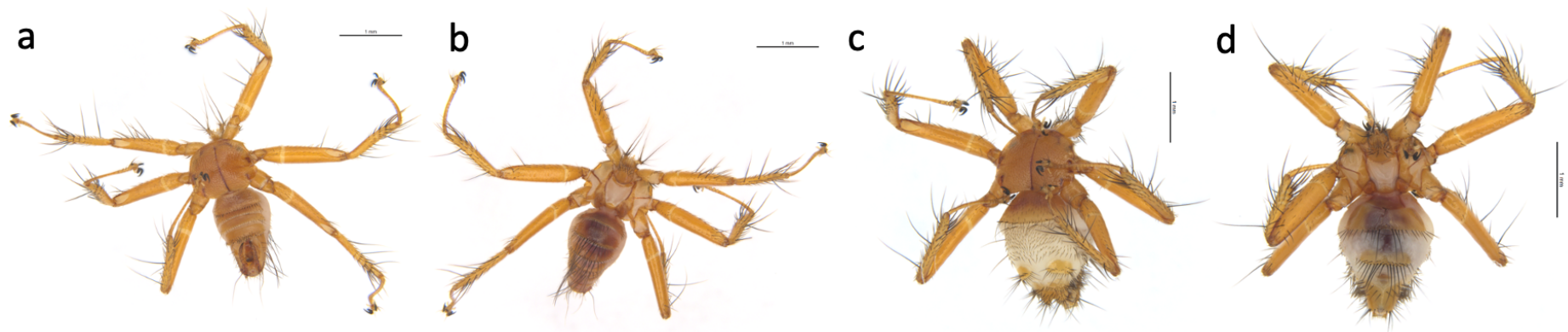


Figure S9 Images of *Penicillidia* sp. A, a) ventral and b) dorsal views of male, and c) ventral and d) dorsal views of female. Scale bar = 1mm.

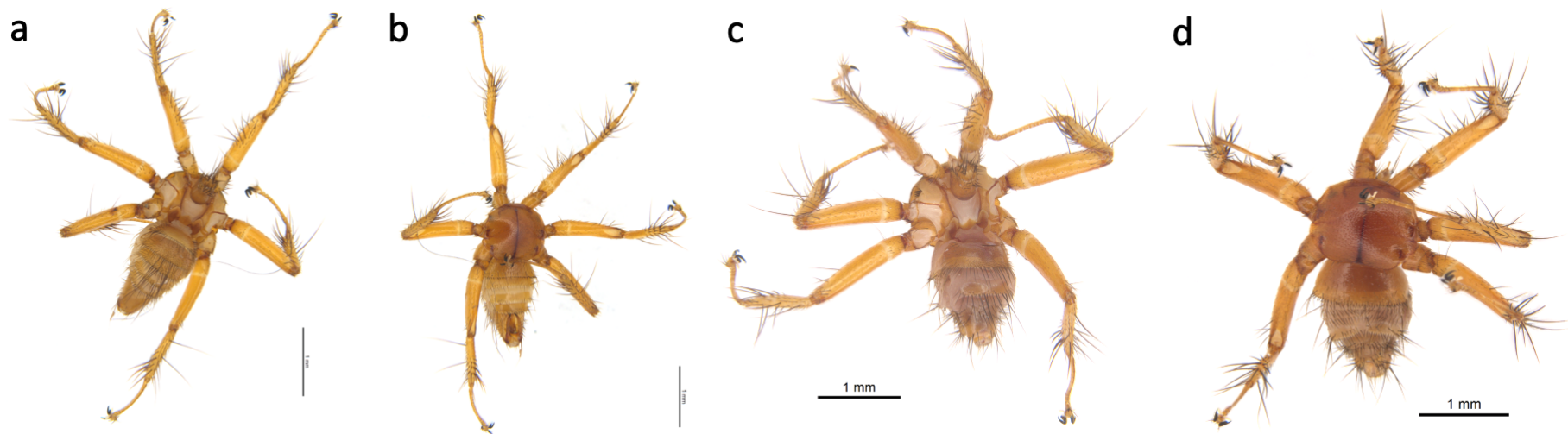


Figure S10 Images of *Penicillidia* sp. B, a) dorsal and b) ventral views of male, and c) dorsal and d) ventral views of female. Scale bar = 1mm.

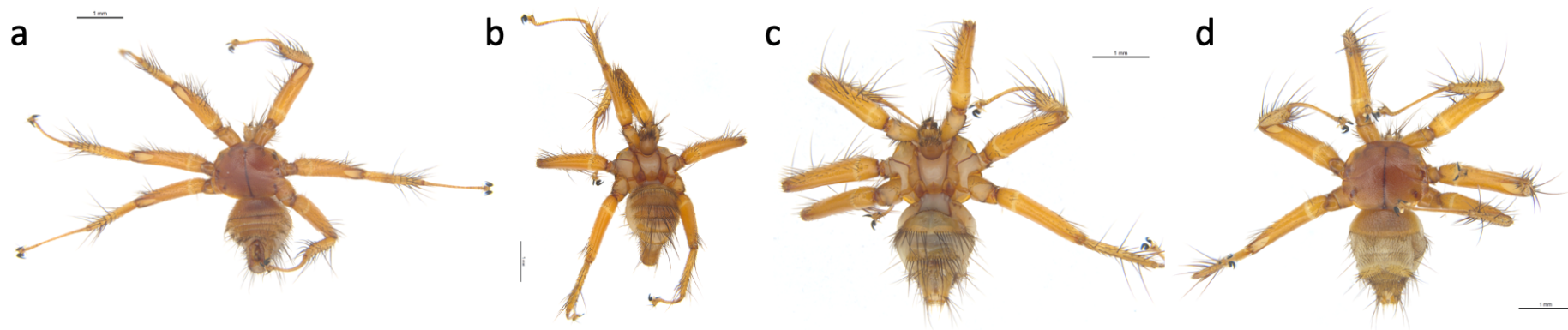


Figure S11 Images of *Penicillidia* sp. C, a) ventral and b) dorsal views of male, and c) dorsal and d) ventral views of female. Scale bar = 1mm.

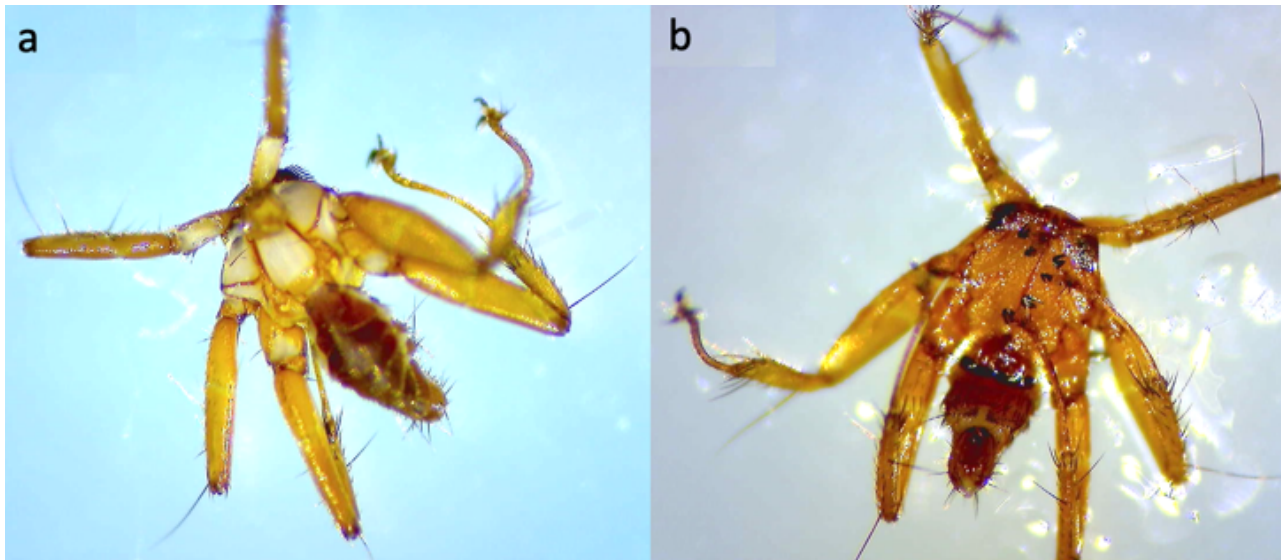


Figure S12 Images of Nycteribiidae species A, a) dorsal and b) ventral views, male only, scale bar unavailable.

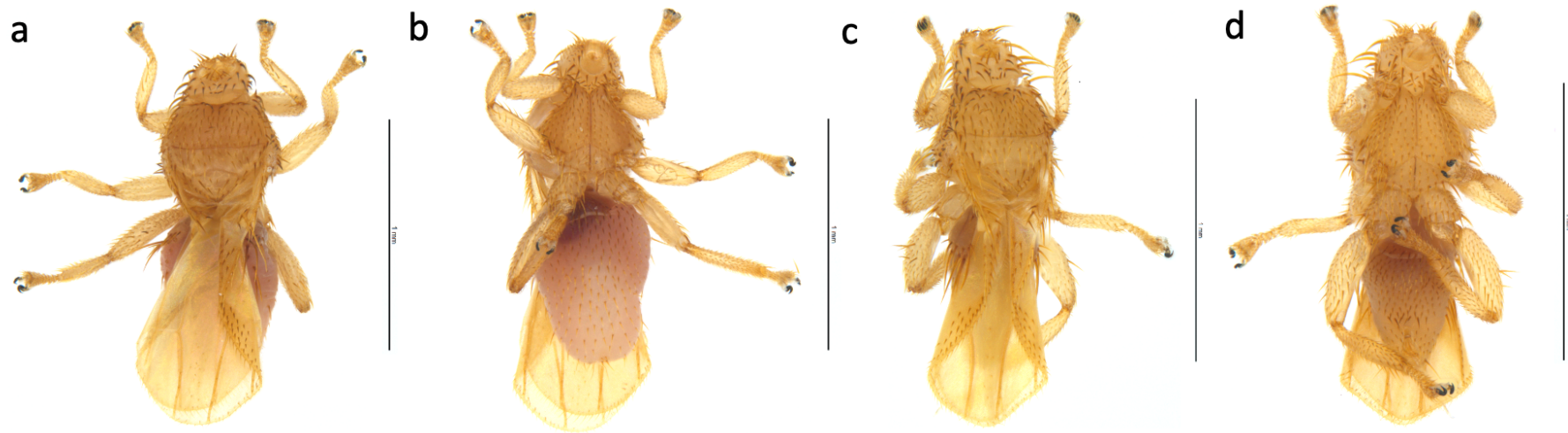


Figure S13 Images of *Raymondia* sp. A, a) dorsal and b) ventral views of female, and c) dorsal and d) ventral views of male. Scale bar = 1mm.



Figure S14 Images of *Raymondia* sp. B, a) dorsal and b) ventral views, male only, scale bar unavailable.

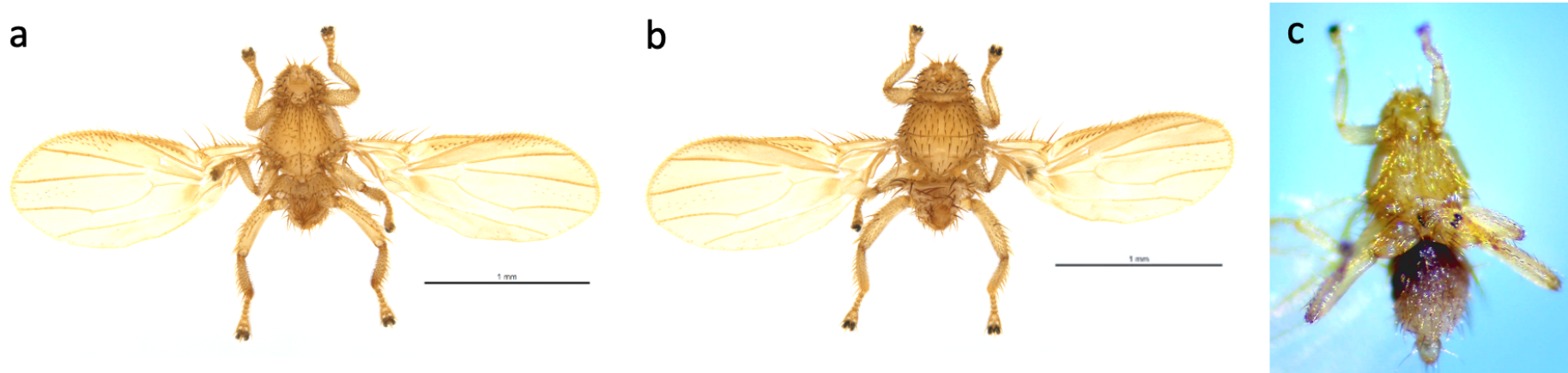


Figure S15 Images of *Raymondia* sp. C, a) and c) ventral and b) dorsal views, female only. Scale bar = 1mm for a) and b) and no scale bar available for c). Images of a) and b) shown were captured from a protease-digested specimen and abdomen was contracted.

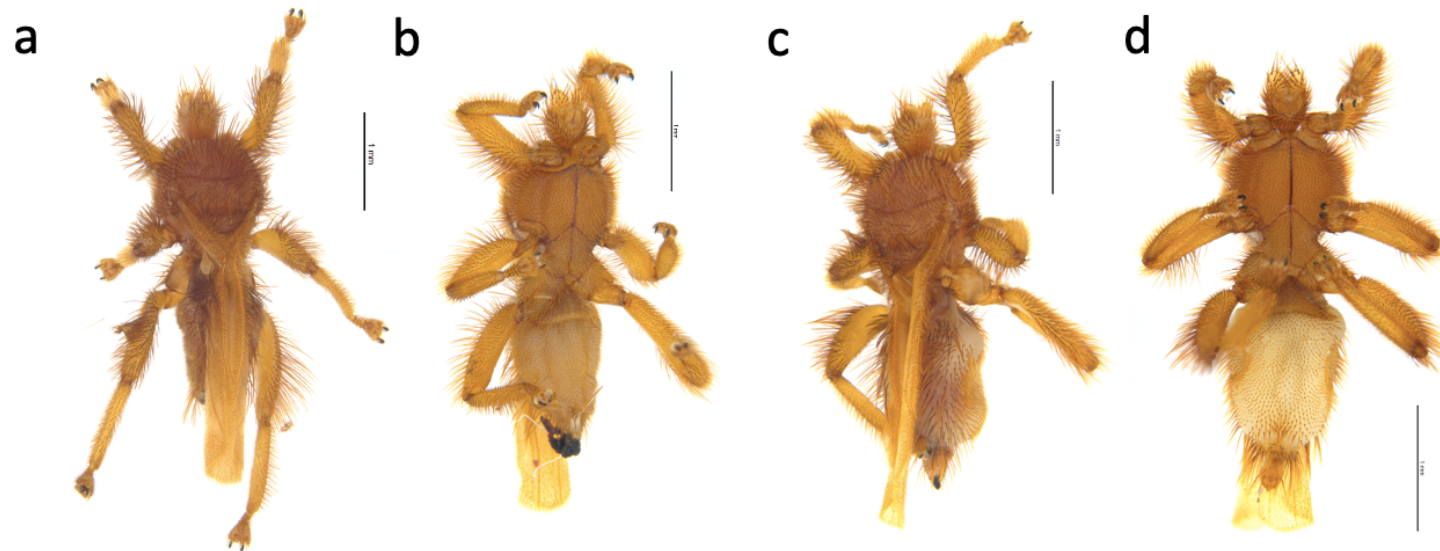


Figure S16 Images of *Brachytarsina amboinensis*, a) dorsal and b) ventral views of male, and c) dorsal and d) ventral views of female. Scale bar = 1mm.



Figure S17 Images of *Brachytarsina* sp. B, a) dorsal and b) ventral views of male, and c) dorsal and d) ventral views of female. Scale bar = 1mm.

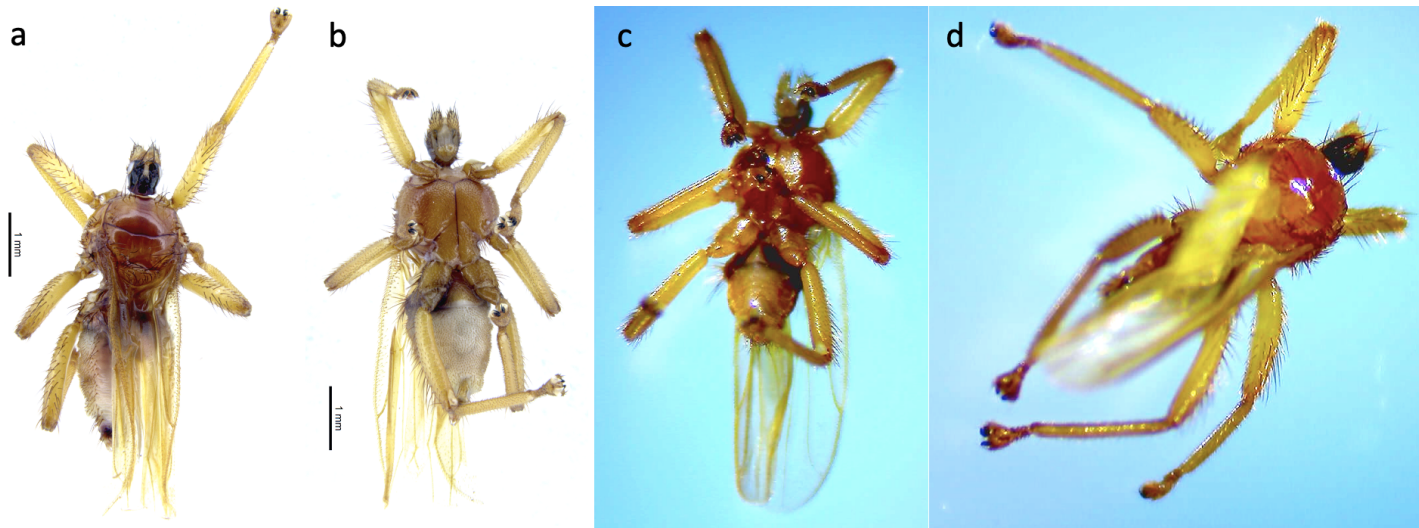


Figure S18 Images of *Brachytarsina* sp. C, a) dorsal and b) ventral views of female, scale bar = 1mm; c) ventral and d) dorsal views of male, scale bar unavailable.

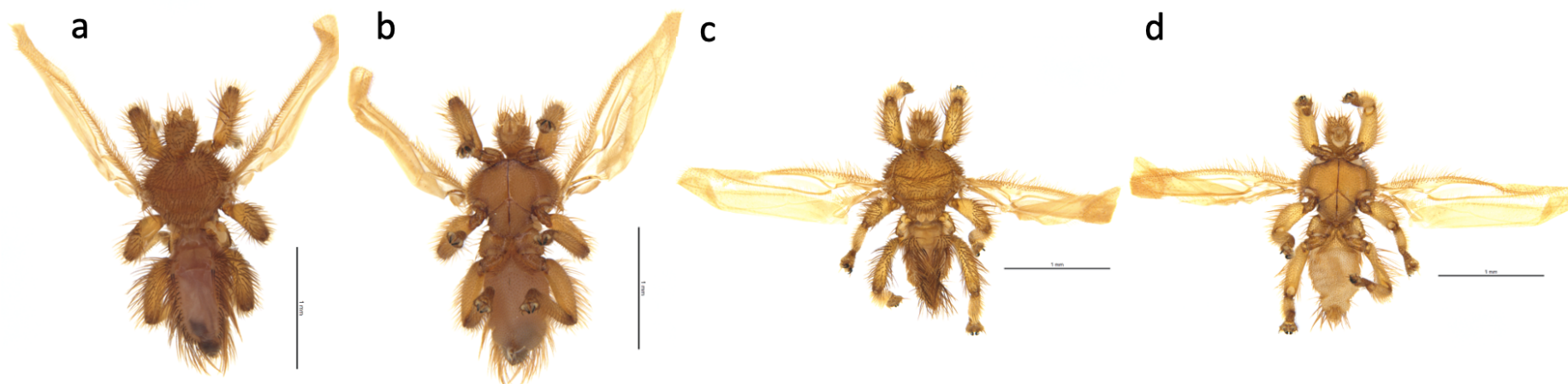
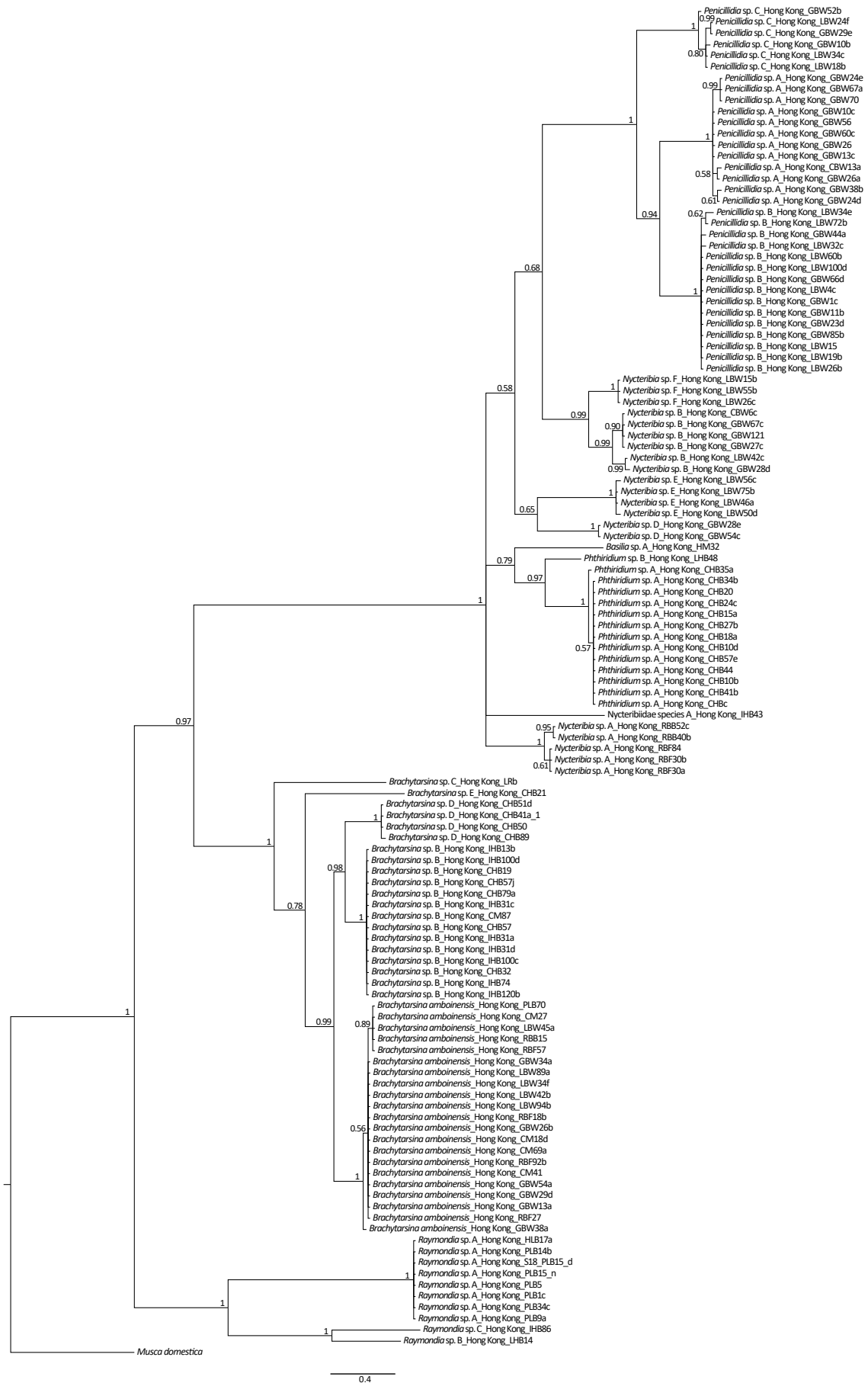


Figure S19 Images of *Brachytarsina* sp. D, a) dorsal and b) ventral views of male, and c) dorsal and d) ventral views of female. Images of the female shown were captured from a protease-digested specimen. Scale bar = 1mm.



Figure S20 Images of *Brachytarsina* sp. E, a) dorsal and b) ventral views, male only. Scale bar = 1mm.

a)



b)

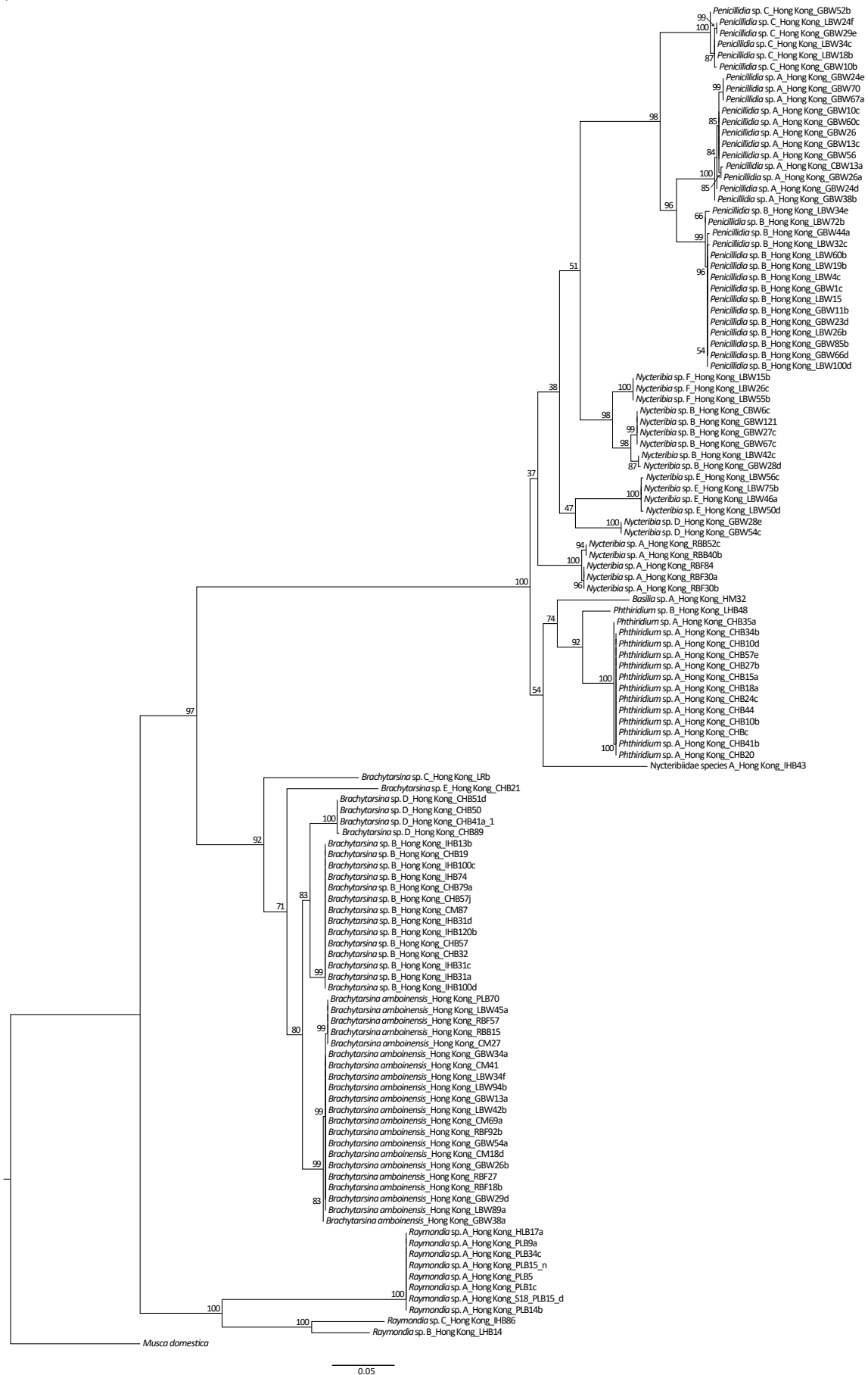


Figure S21 Phylogenetic relationships of all DNA barcoded individuals of the 20 bat fly species identified in this study, inferred from the a) Bayesian inference (BI) and b) maximum likelihood (ML) methods based on the *COI* gene (609bp). The values before each node represent the Bayesian posterior probability and the ML bootstrap value.