

Supplementary Material A. Information associated to the models developed for the article.

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Appendix 1

Figure A. (1) Scree plot showing that the first four components, from the analysis performed to the continuous variables have eigenvalues equal or greater than one. (2) These four components explain 90.4% of the variation in the data.

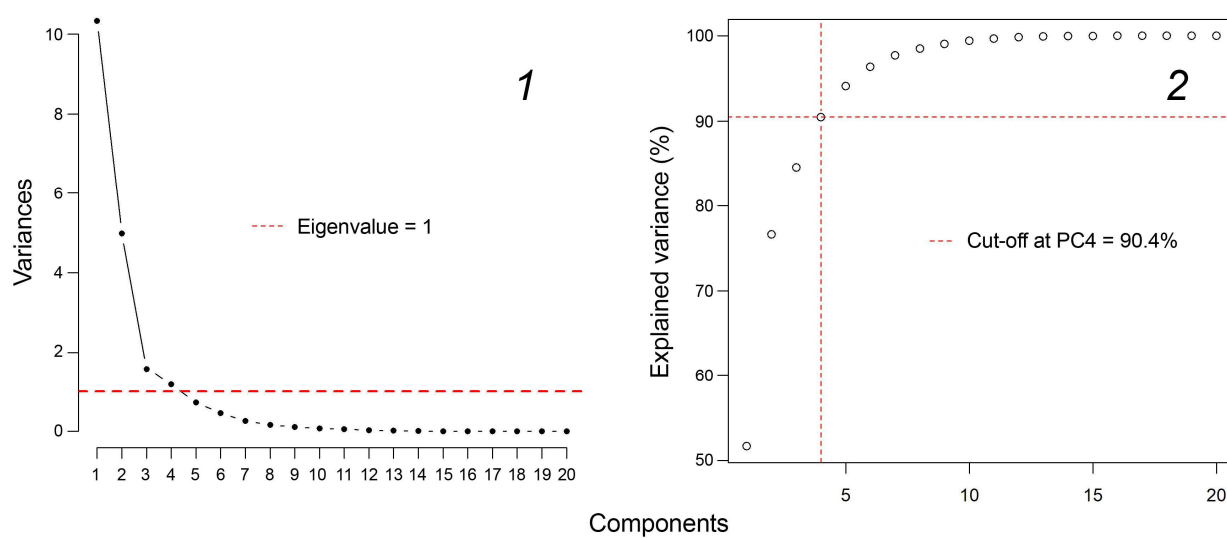


Figure B. Loading plots which graph the coefficients of each variable for: (1) the first component versus the coefficients for the second component; and (2) the third component versus the coefficients for the fourth component. Bio_1 = Annual mean temperature; Bio_2 = Mean diurnal range; Bio_3 = Isothermality; Bio_4 = Temperature seasonality; Bio_5 = Max temperature of warmest month; Bio_6 = Min temperature of coldest month; Bio_7 = Temperature annual range; Bio_8 = Mean temperature of wettest quarter; Bio_9 = Mean temperature of driest quarter; Bio_10 = Mean temperature of warmest quarter; Bio_11 = Mean temperature of coldest quarter; Bio_12 = Annual precipitation; Bio_13 = Precipitation of wettest month; Bio_14 = Precipitation of driest month; Bio_15 = Precipitation seasonality; Bio_16 = Precipitation of wettest quarter; Bio_17 = Precipitation of driest quarter; Bio_18 = Precipitation of warmest quarter; Bio_19 = Precipitation of coldest quarter; alt = elevation.

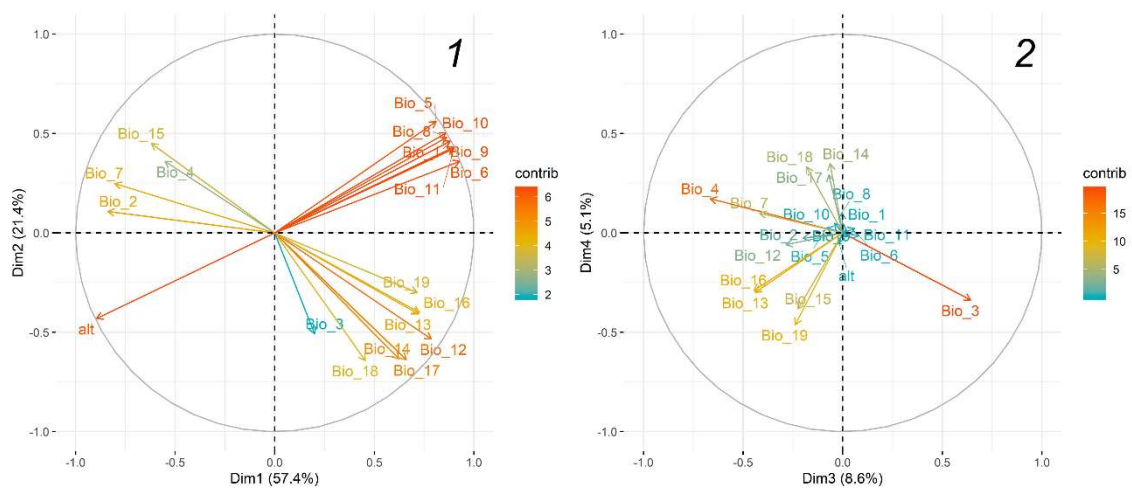


Figure C.a. Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities. Blue dots correspond to the whole database (including all the records available), and yellow ones correspond to the filtered database (occurrences closer than 25 km removed). (PCA) Principal components resulting from the analysis of the bioclimatic plus elevation covariates. (I_{all} and $I_{25\text{ km} <}$) Moran's measures of spatial autocorrelation for, respectively, the whole and the filtered databases. (D_{min}) Minimum distance, in kilometers, of the whole database. (N_{diff}) Number of localities closer than 25 km.

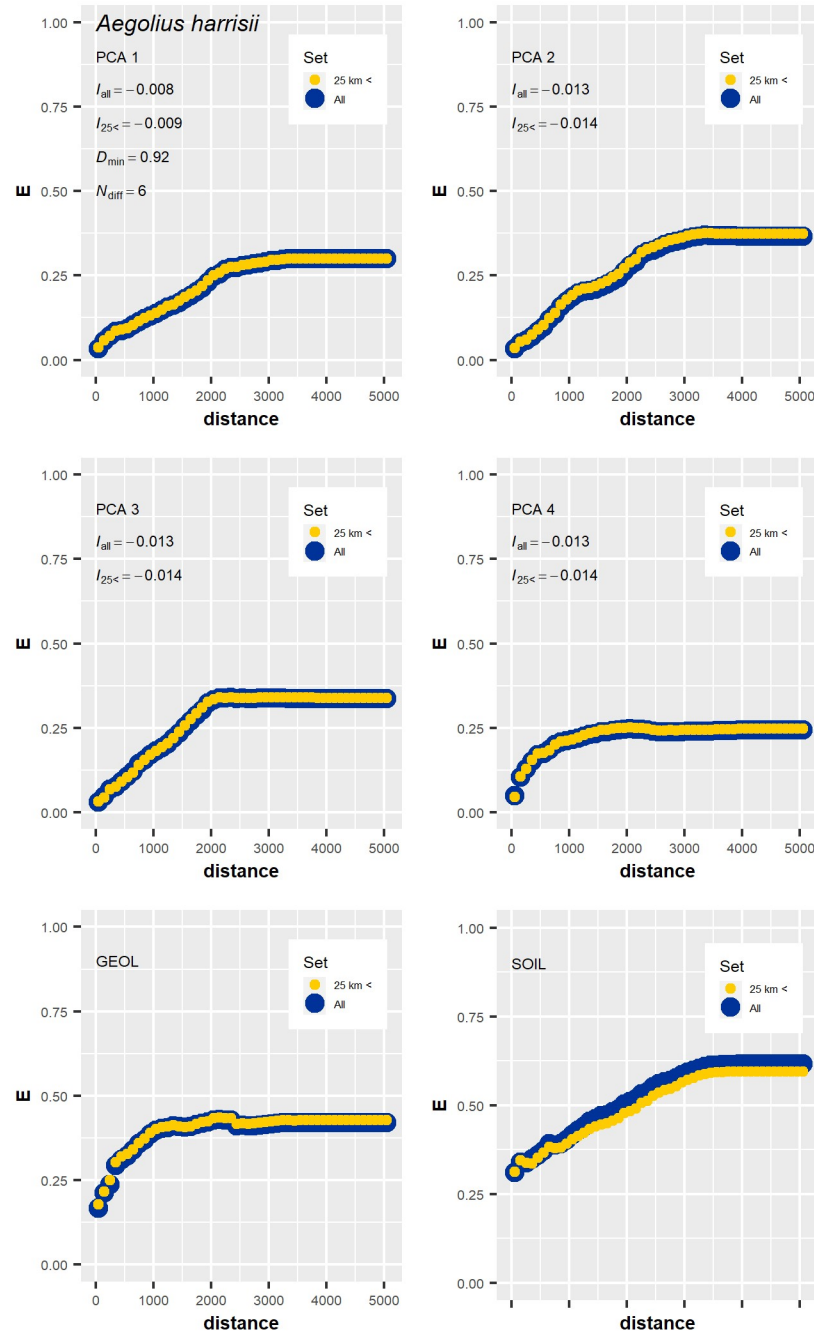


Figure C.b (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

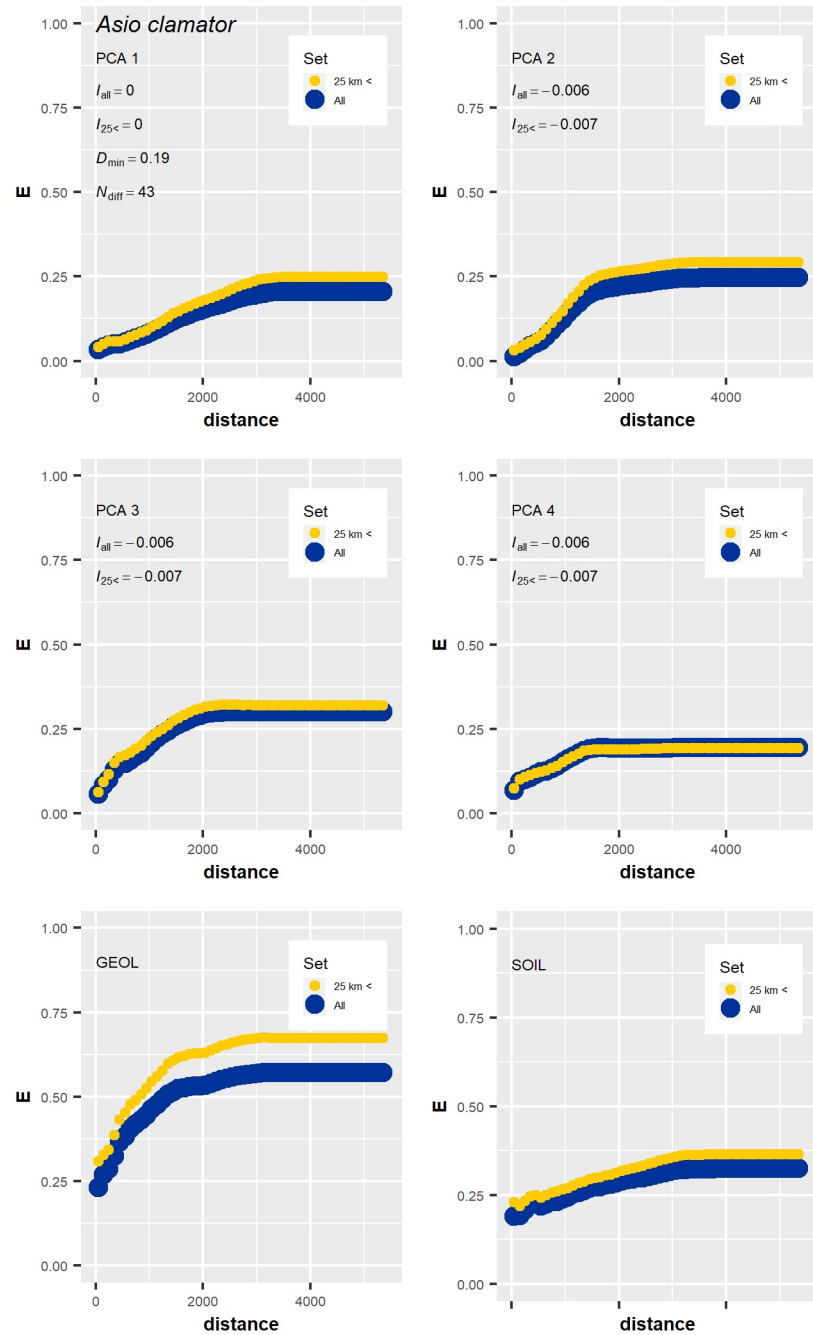


Figure C.b.1 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

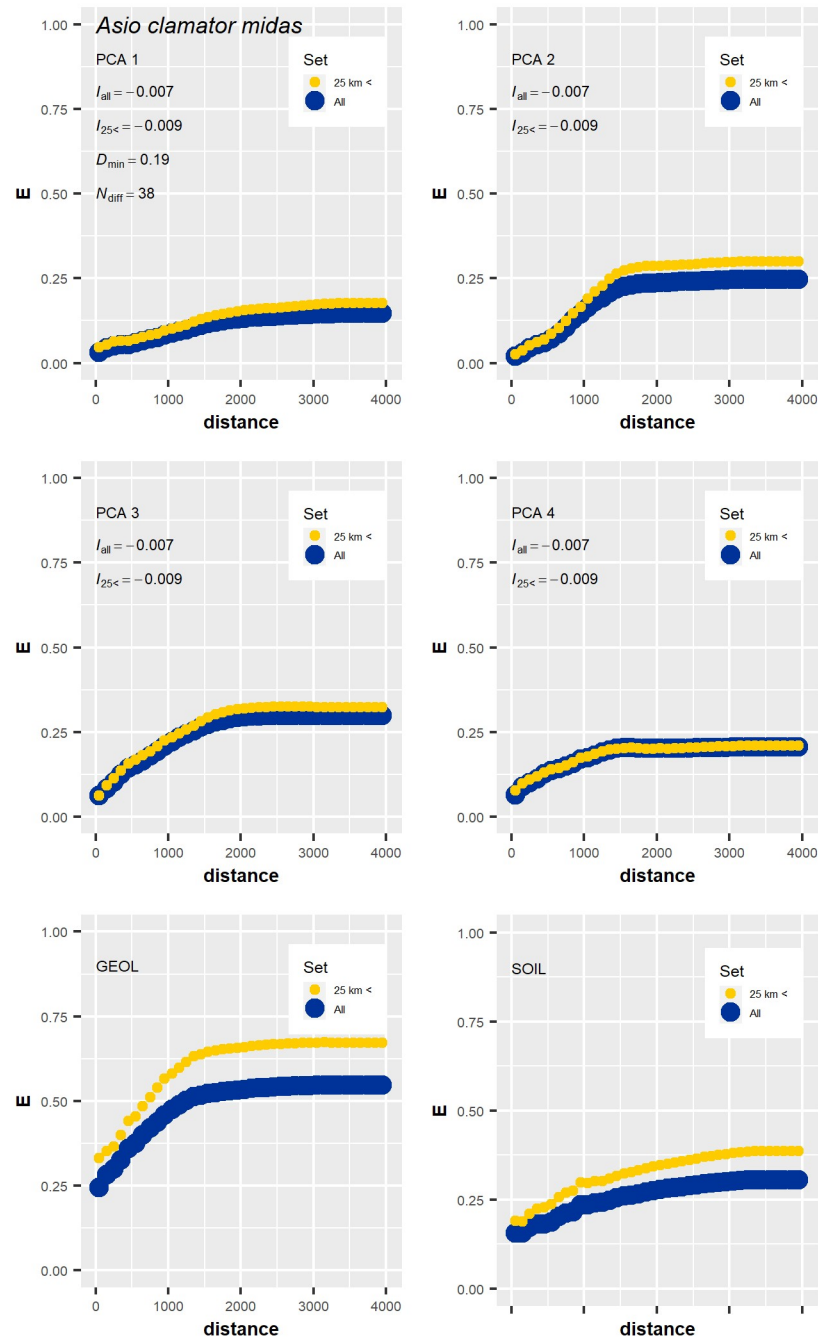


Figure C.c (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

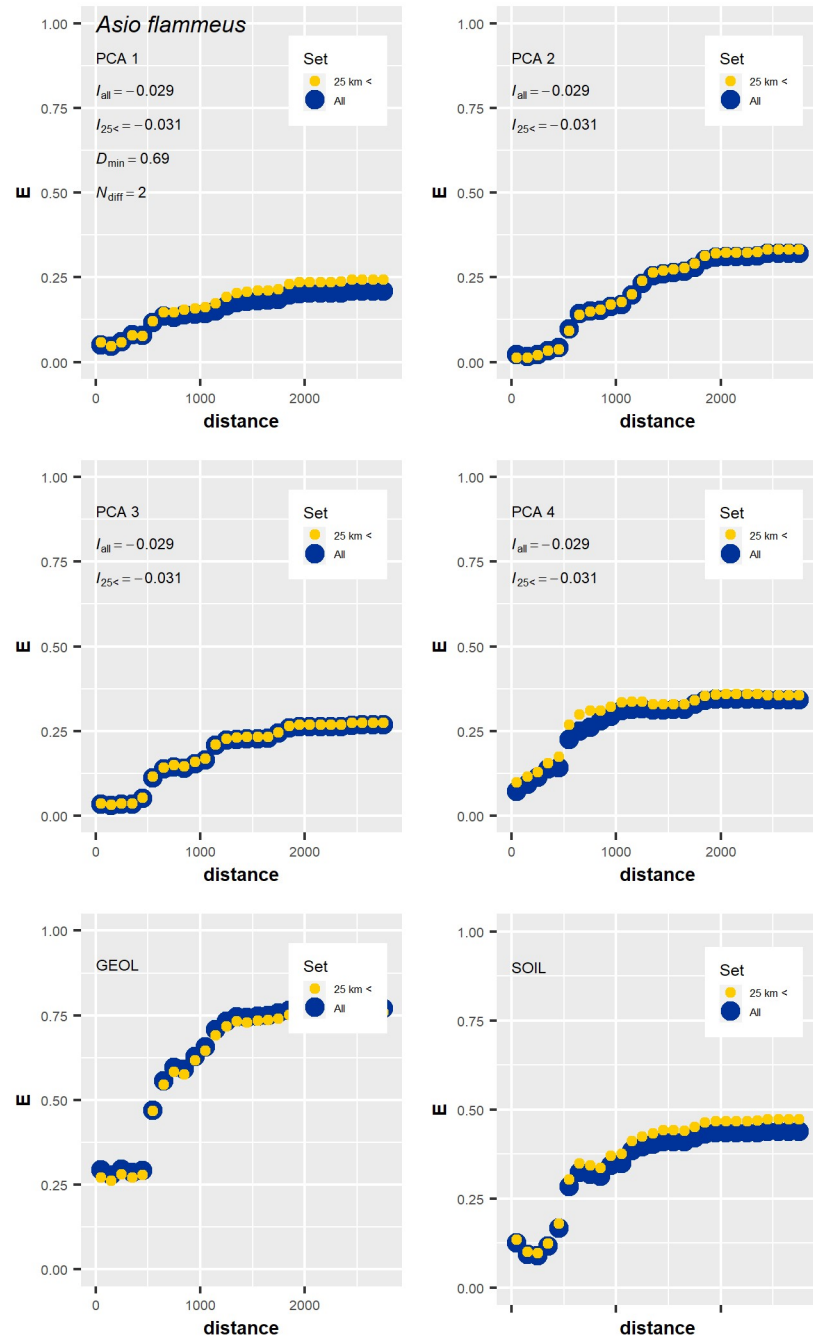


Figure C.d (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

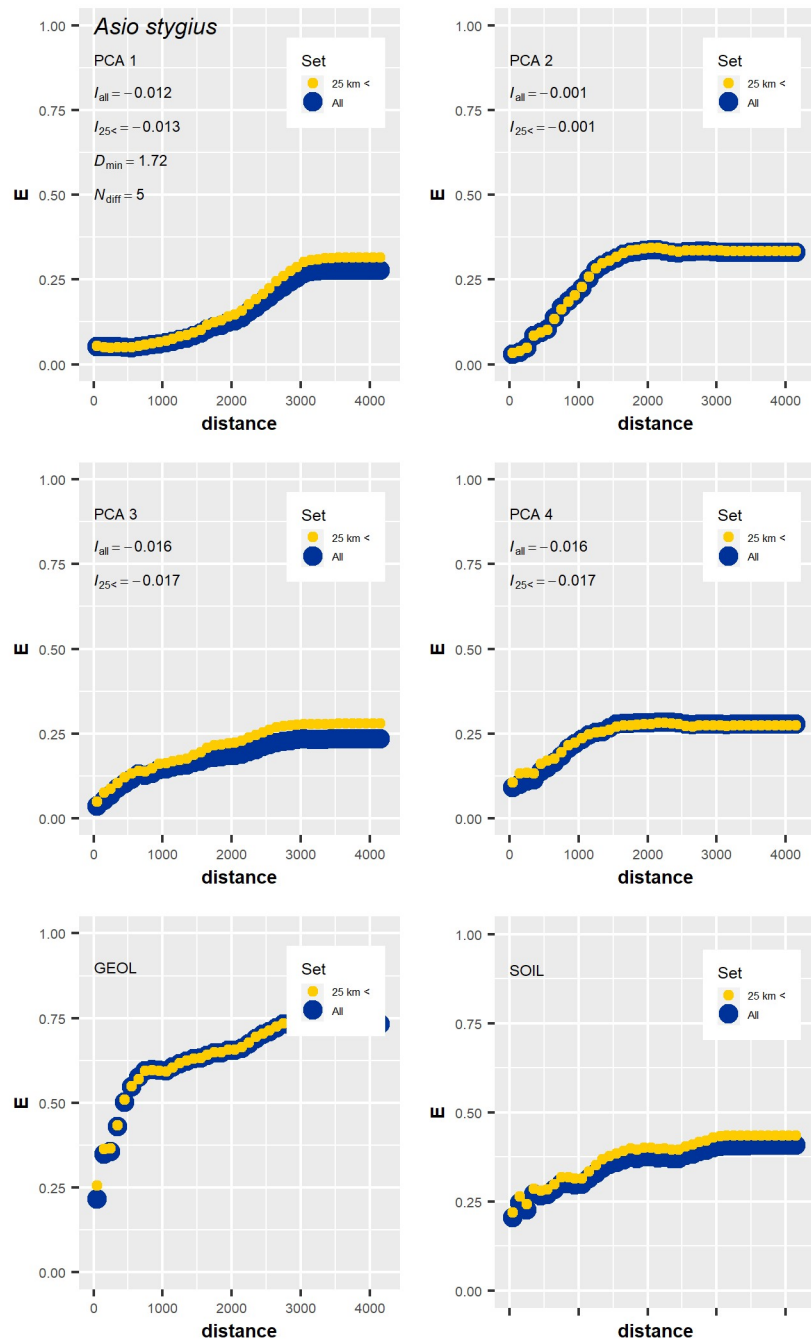


Figure C.e (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

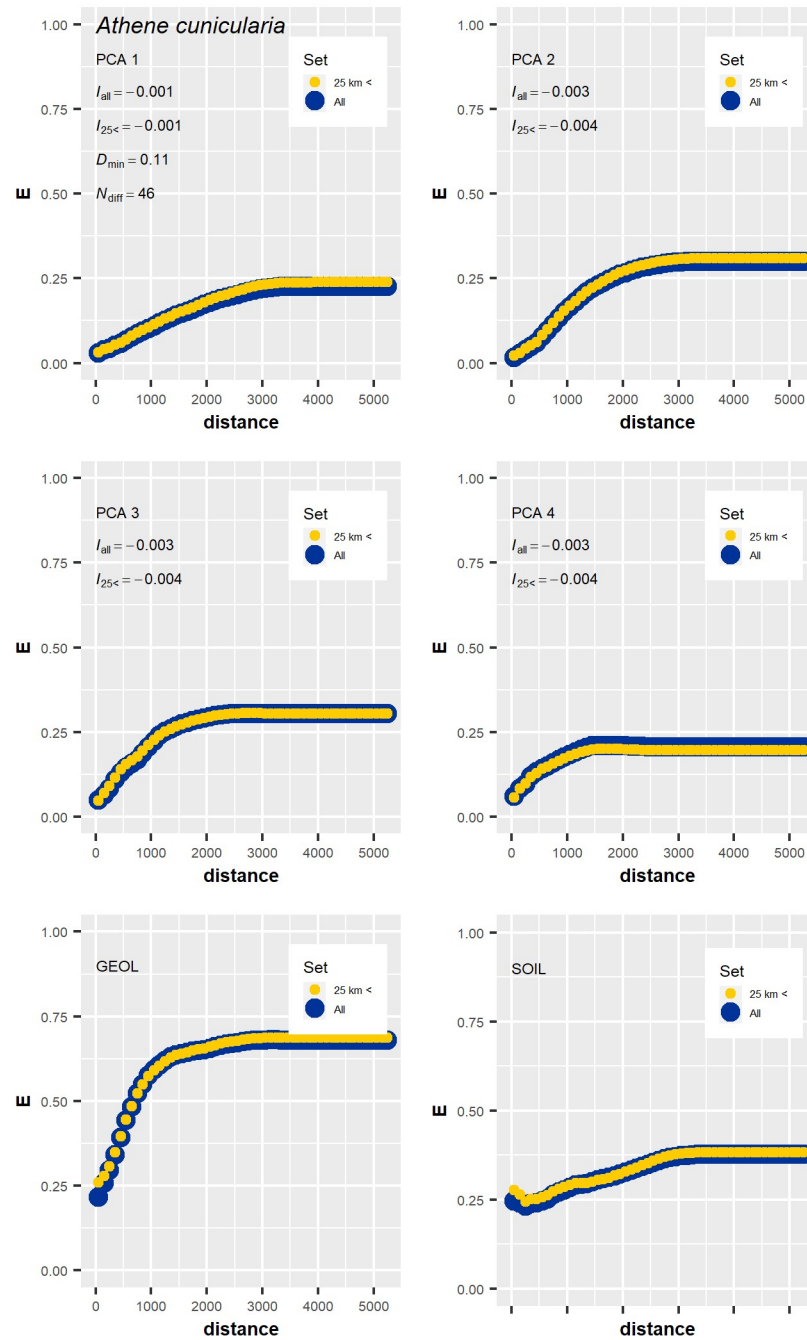


Figure C.e.1 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

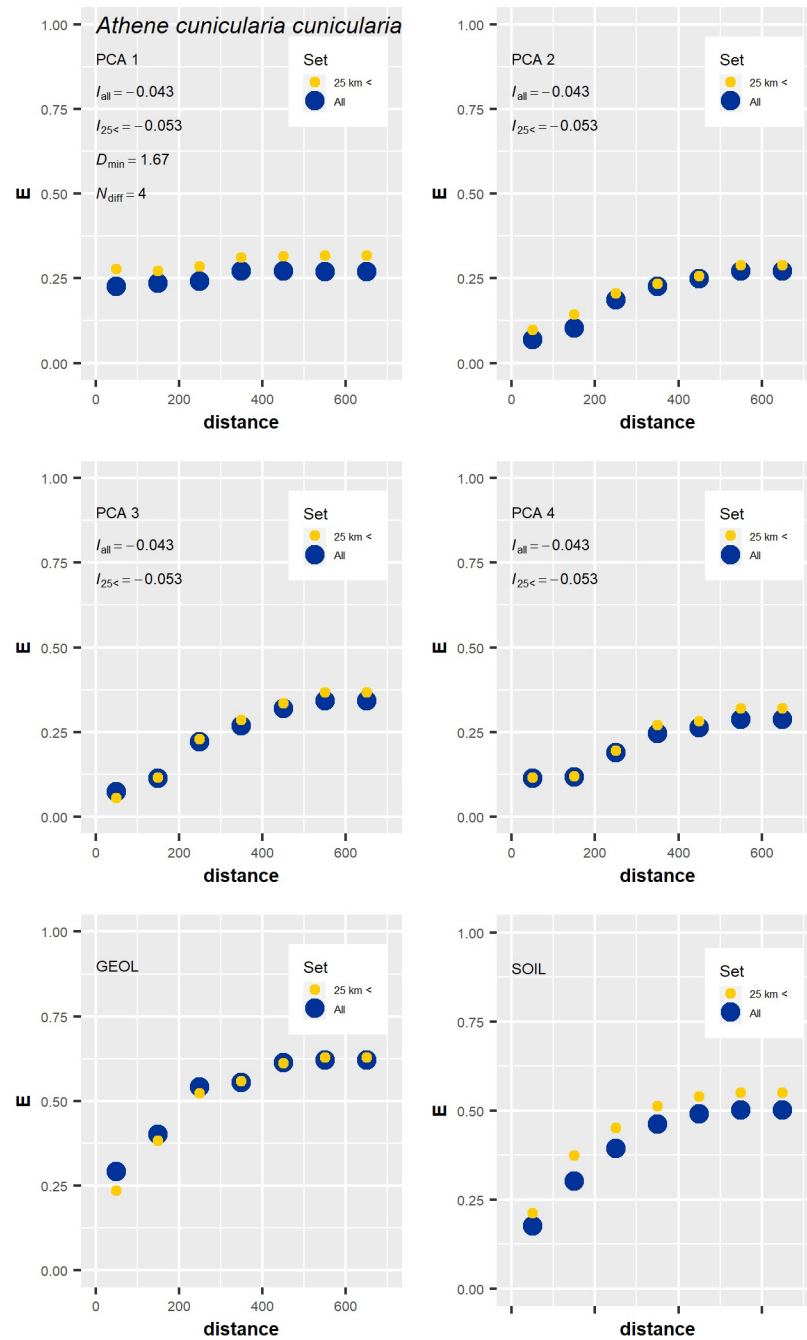


Figure C.e.2 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

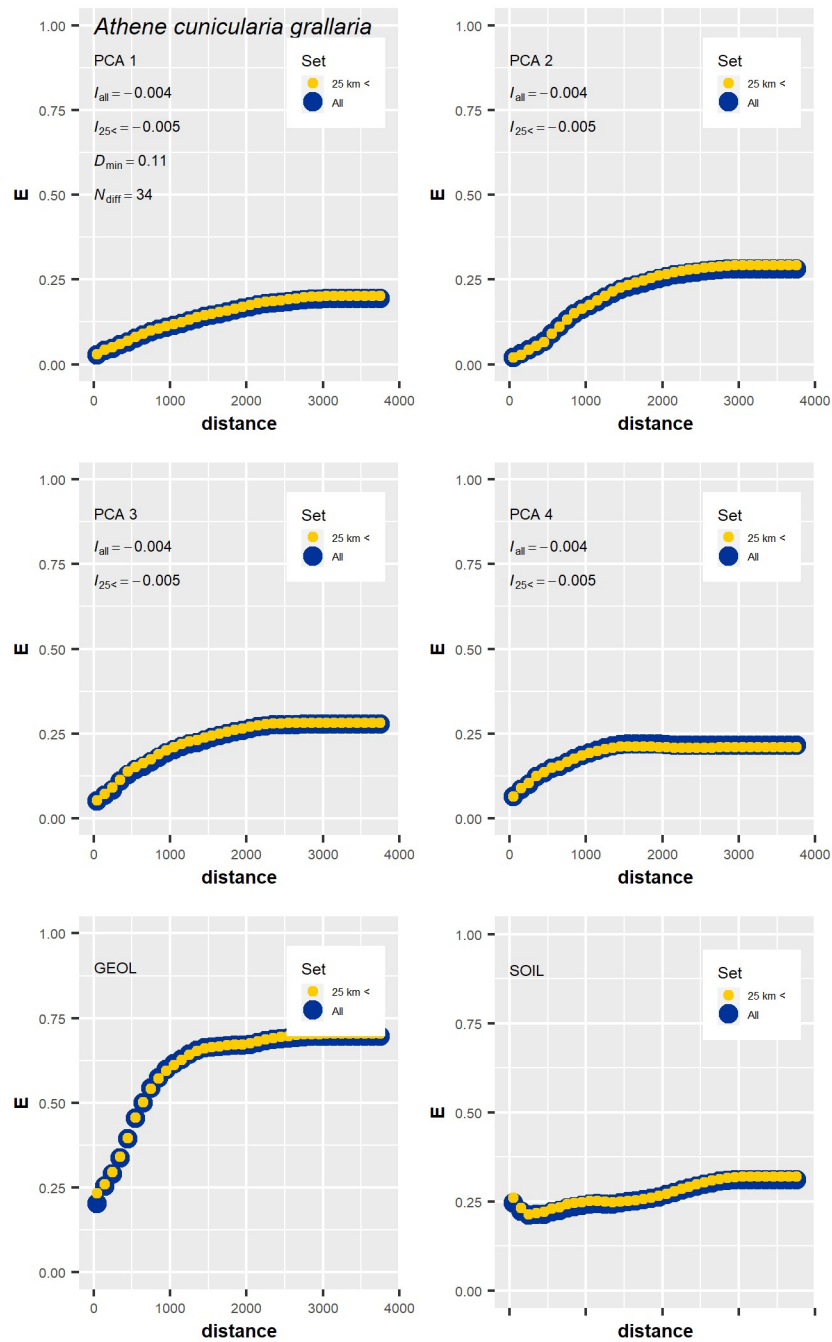


Figure C.f (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

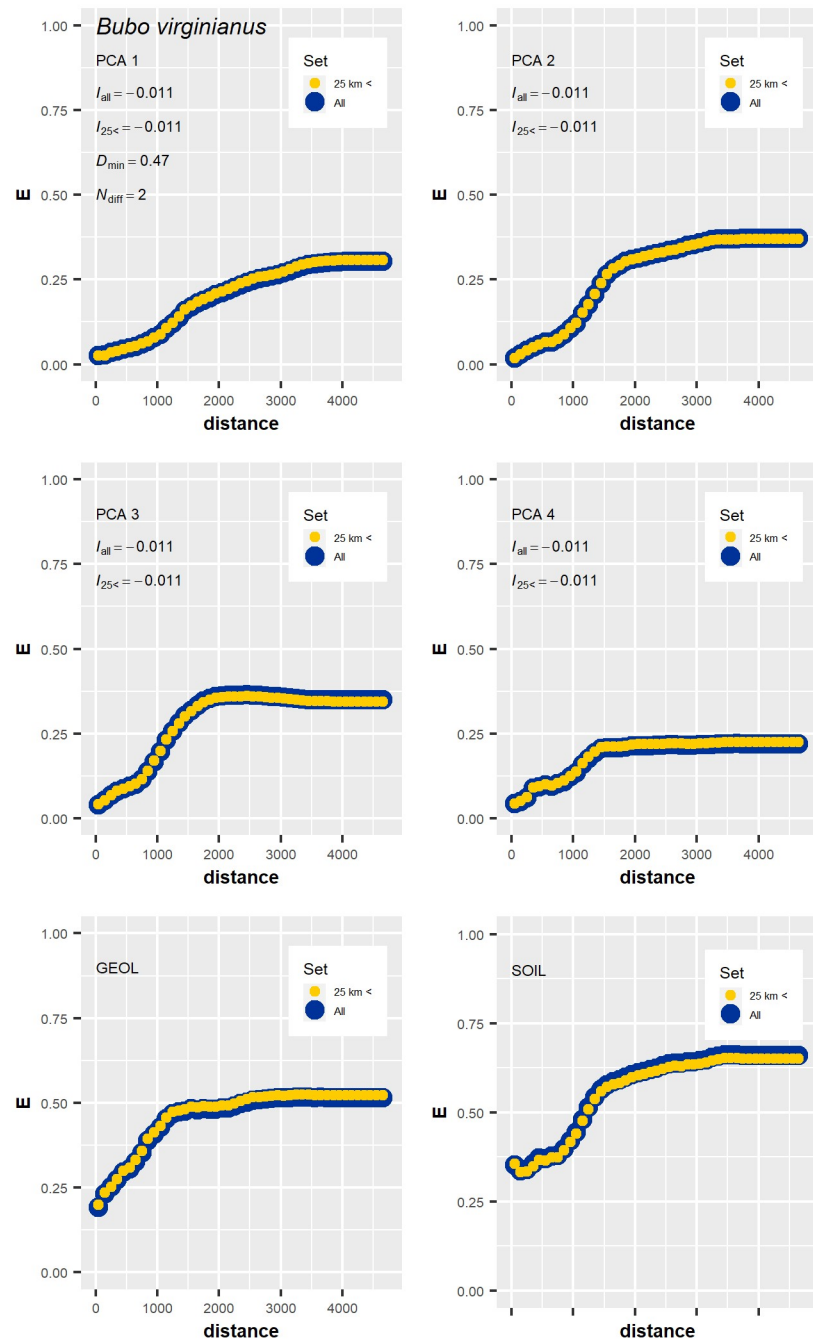


Figure C.f.1 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

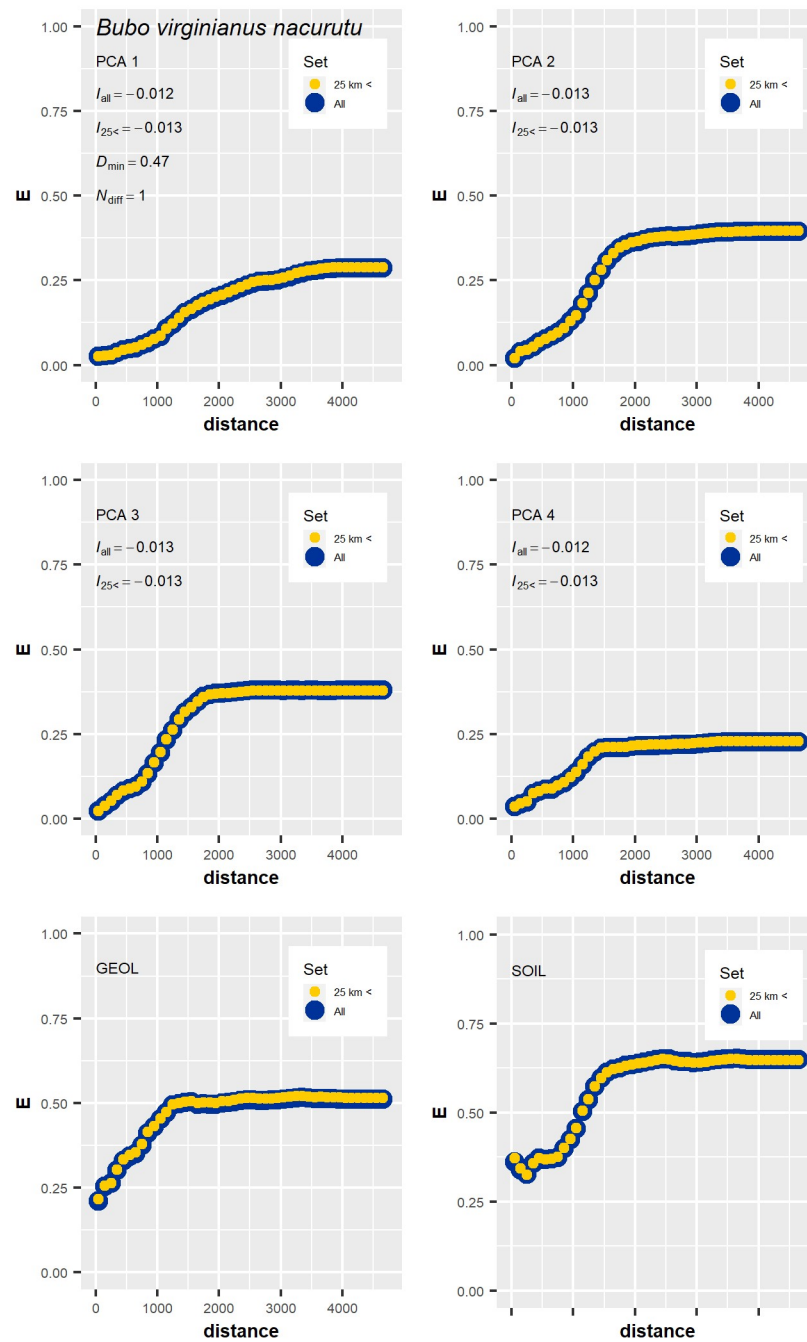


Figure C.g (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

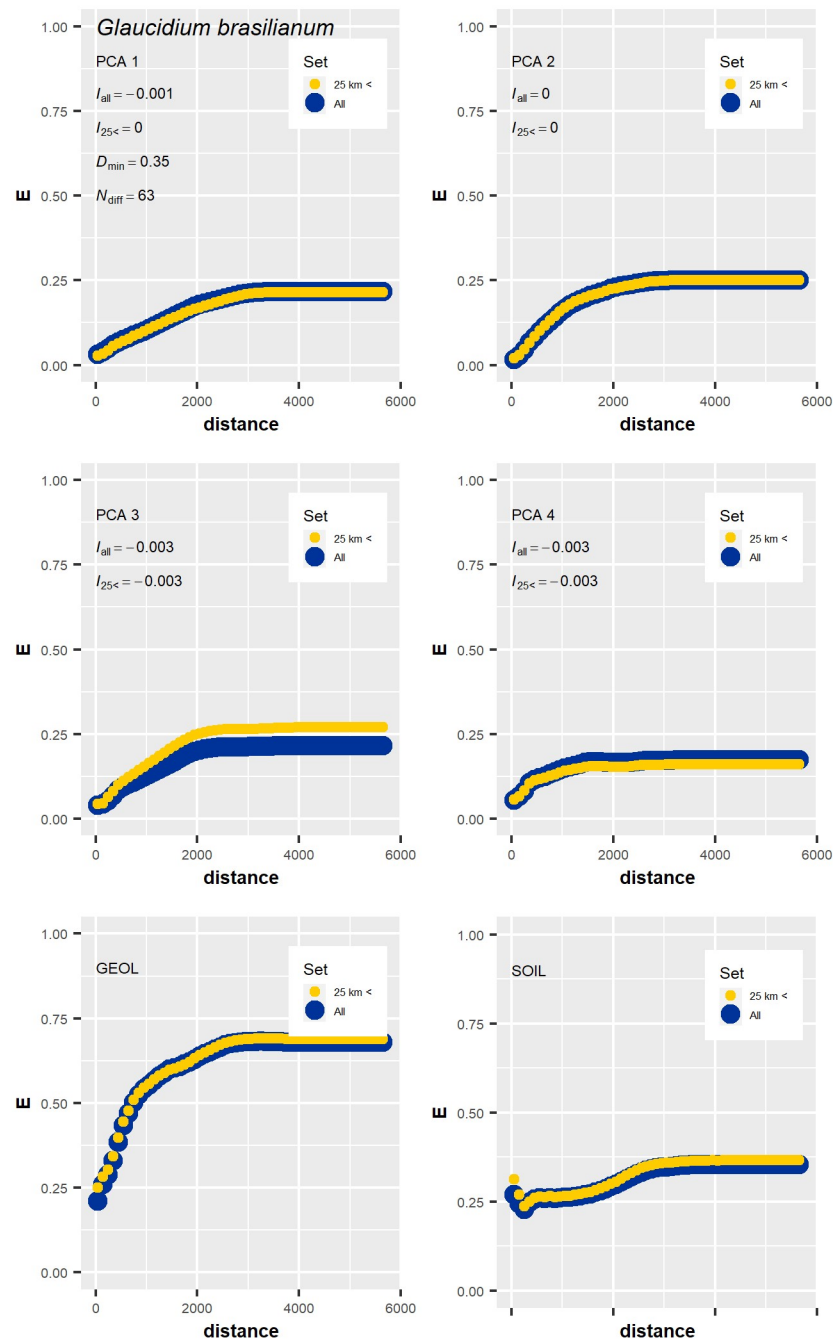


Figure C.g.1 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

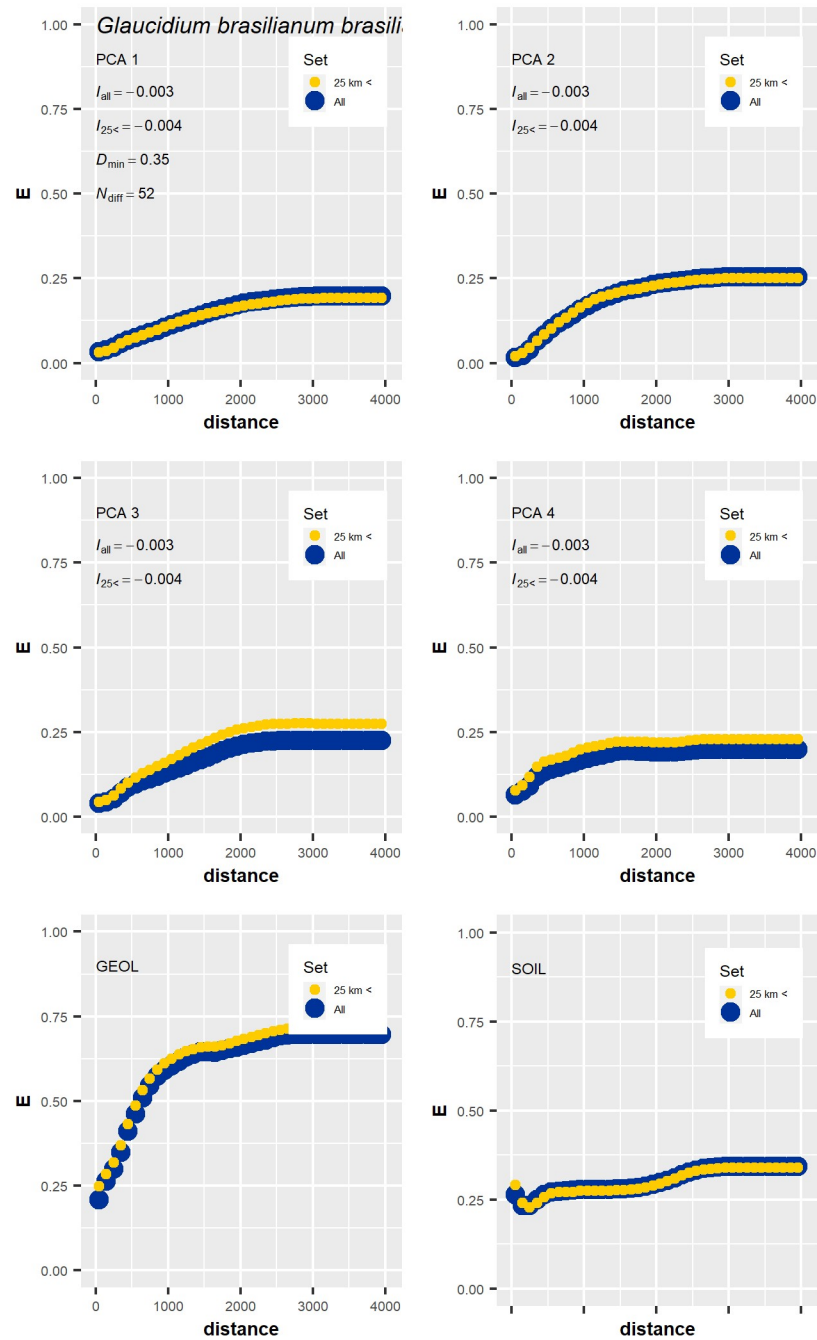


Figure C.h (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

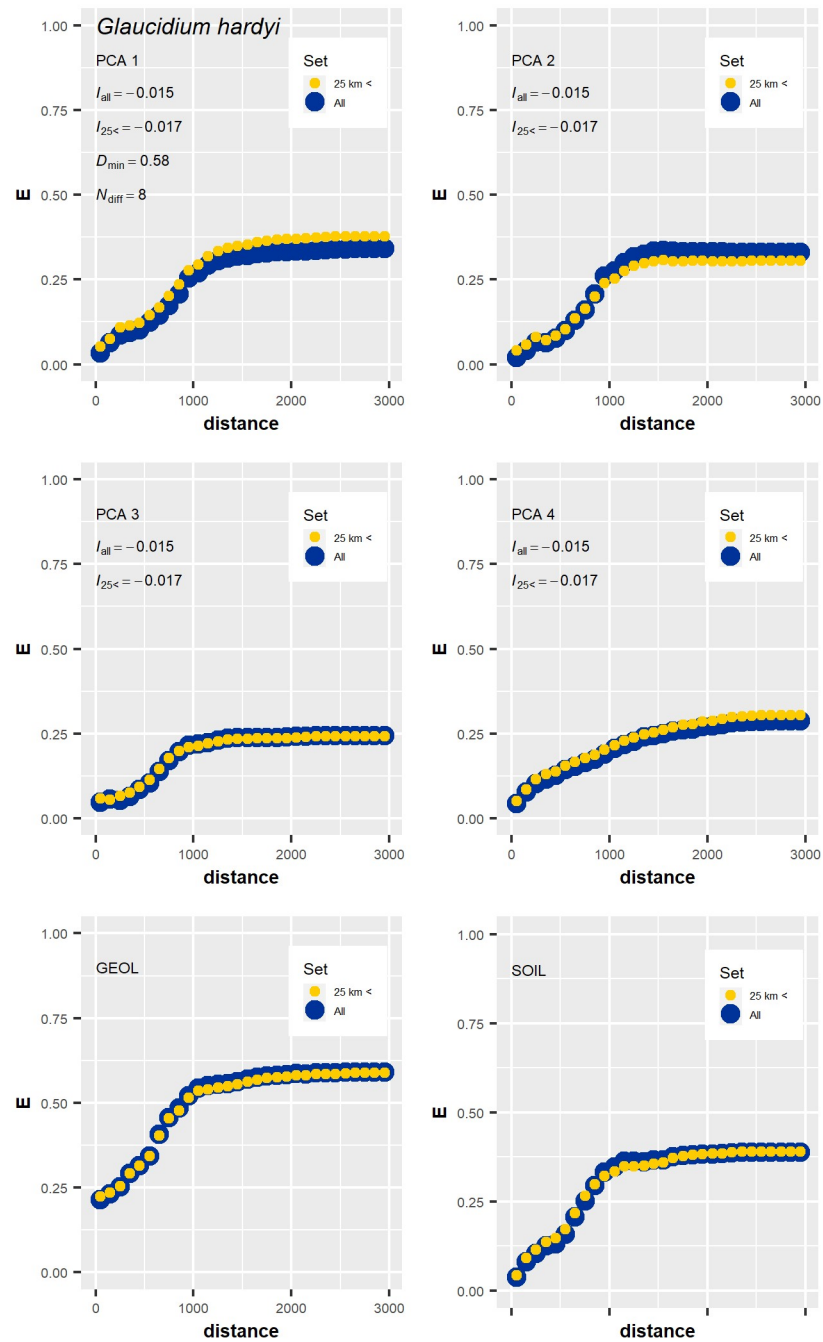


Figure C.i (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

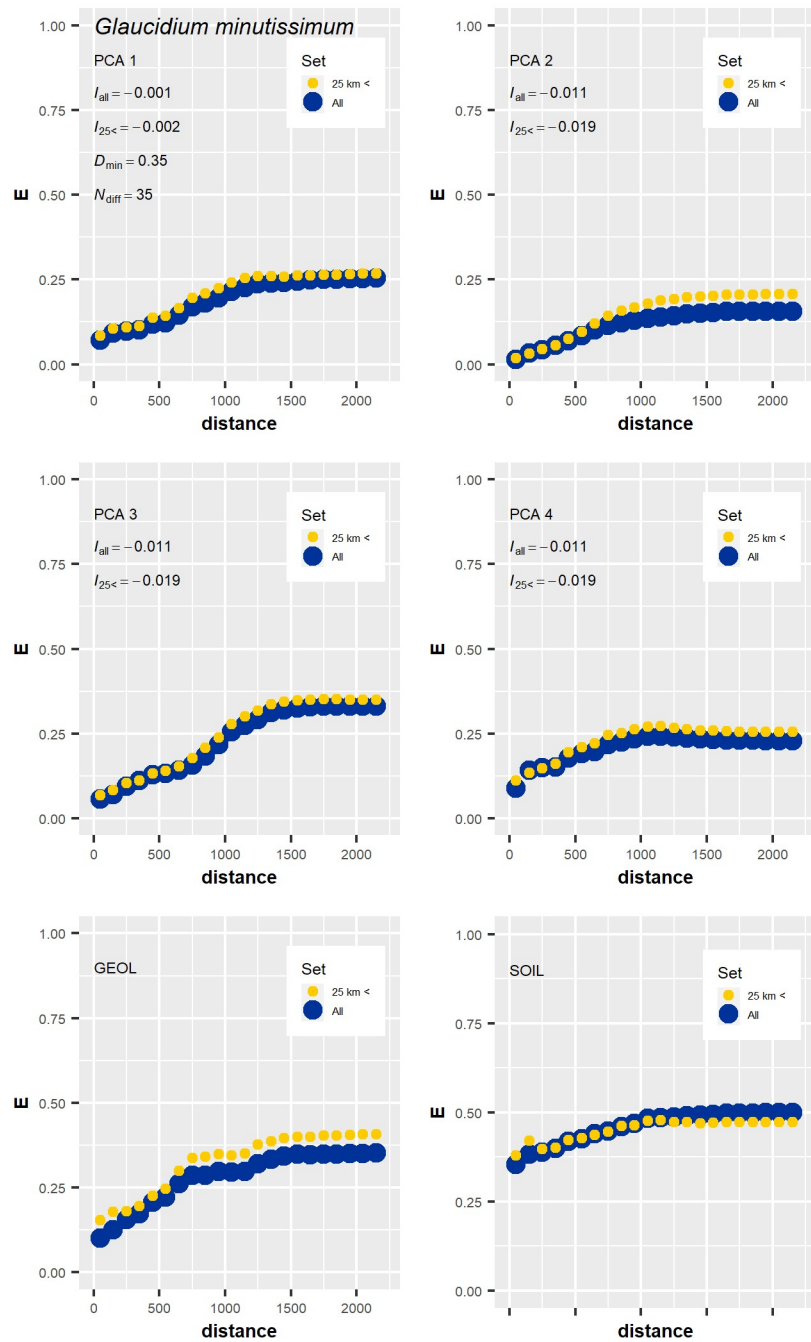


Figure C.j (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

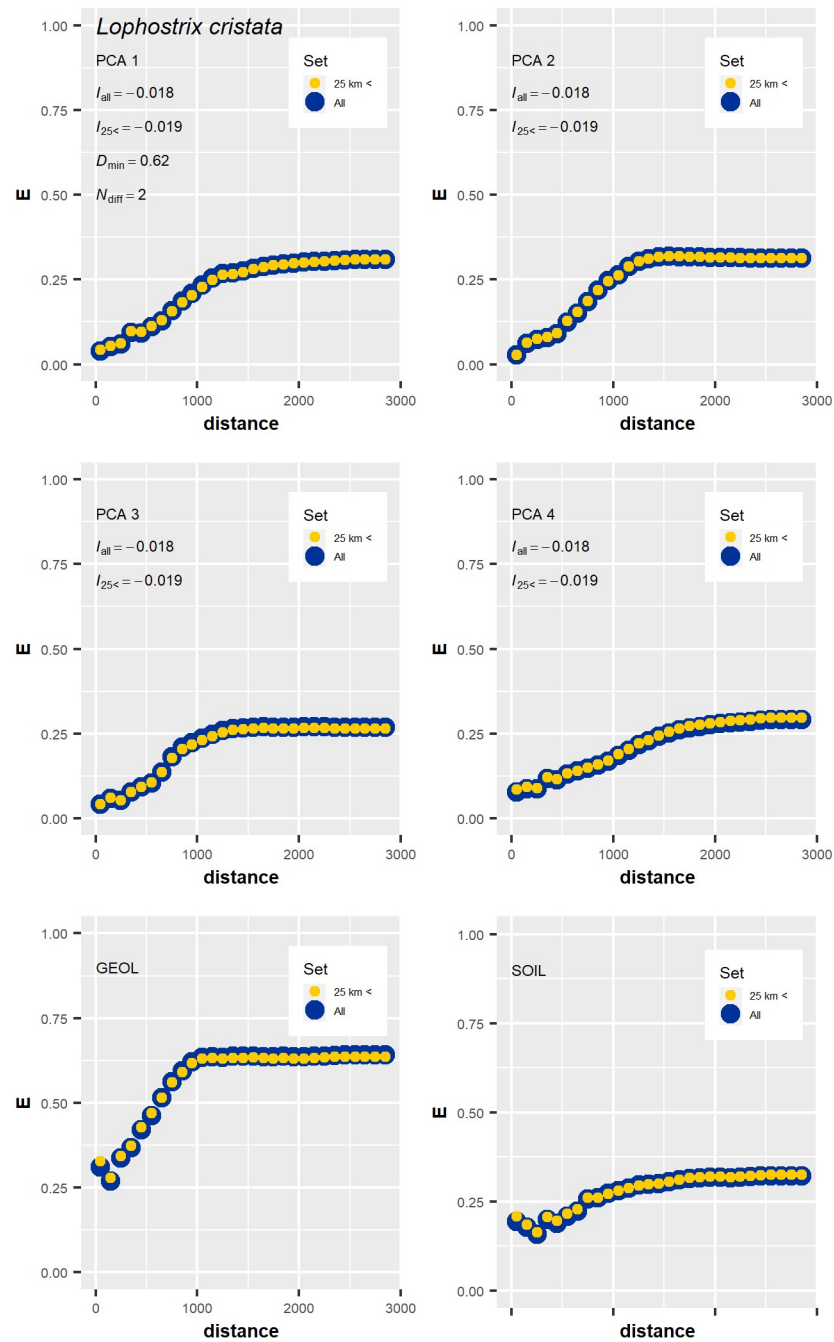


Figure C.k (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

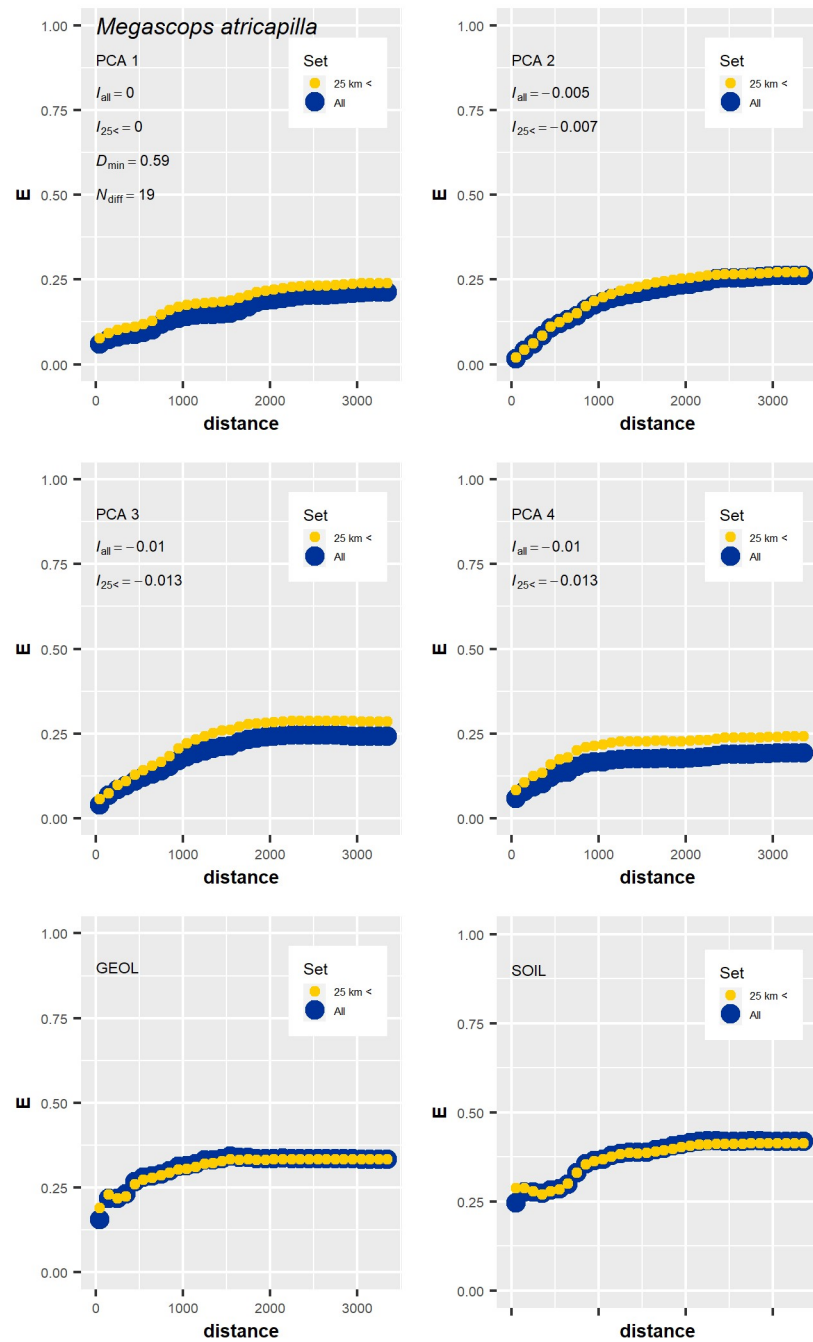


Figure C.I (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

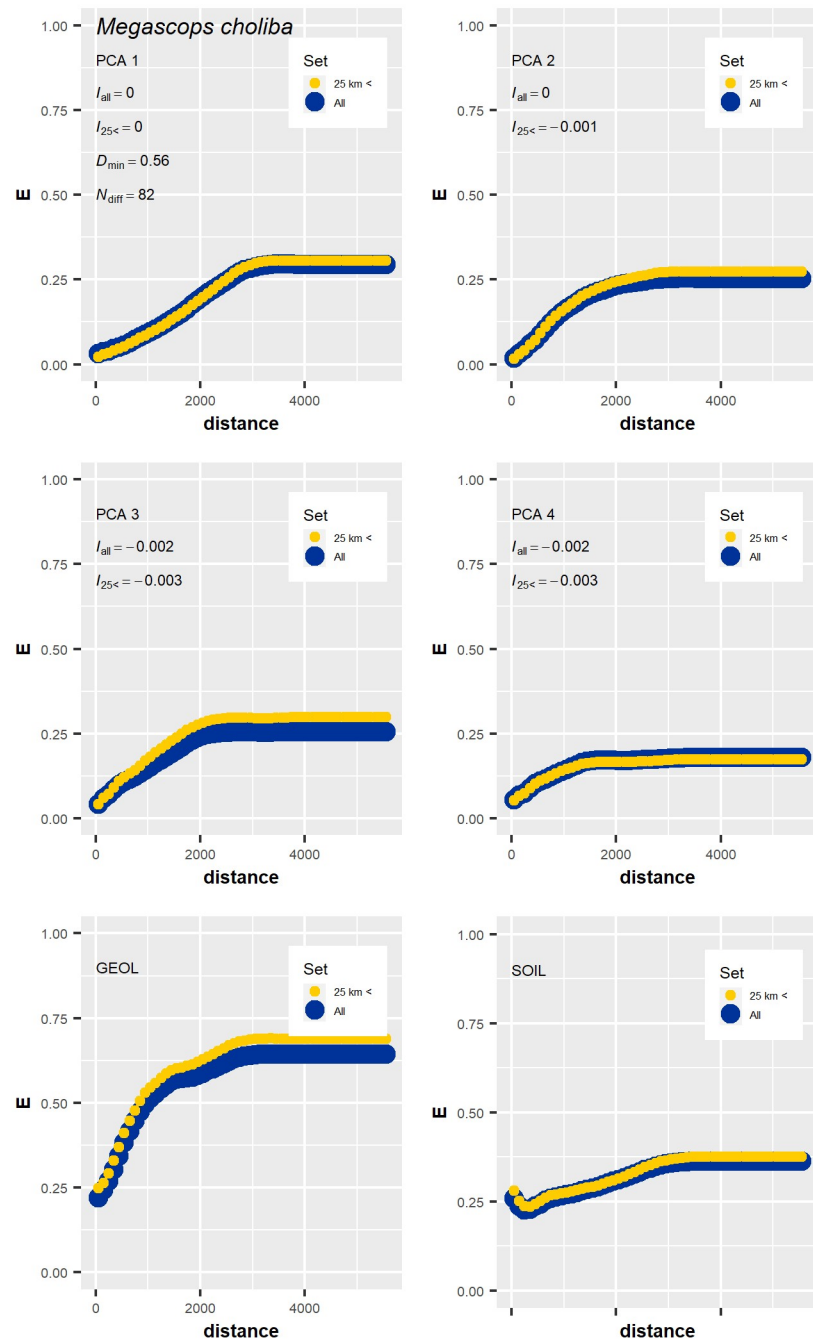


Figure C.I.1 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

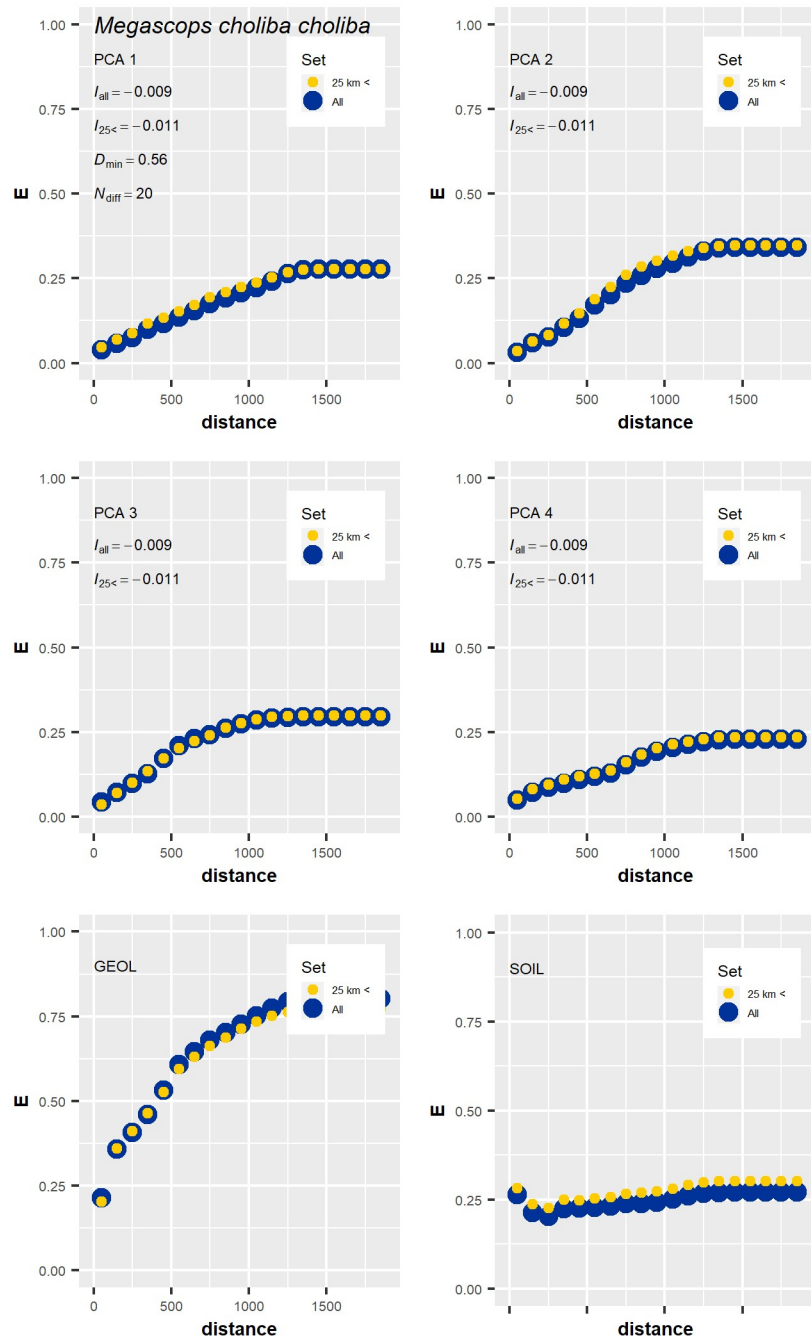


Figure C.I.2 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

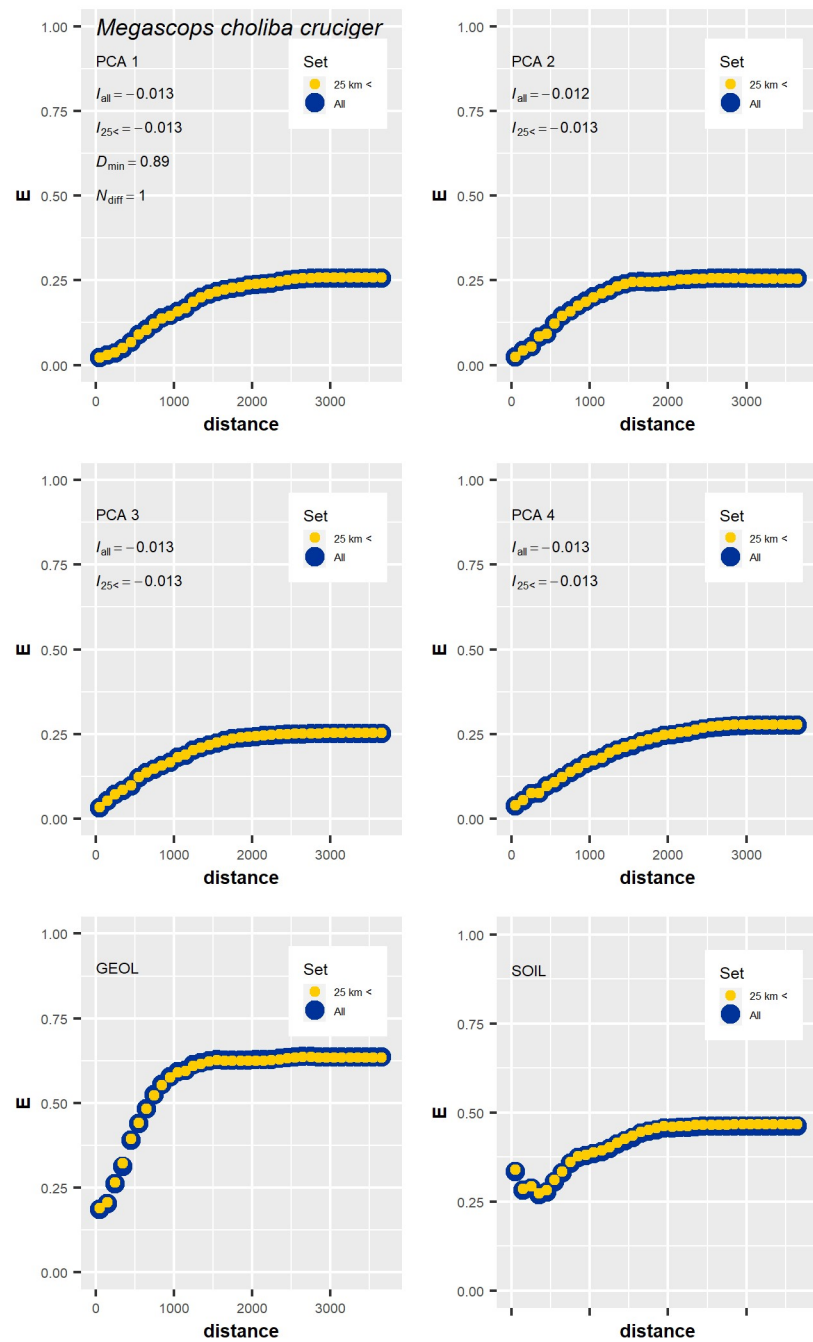


Figure C.I.3 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

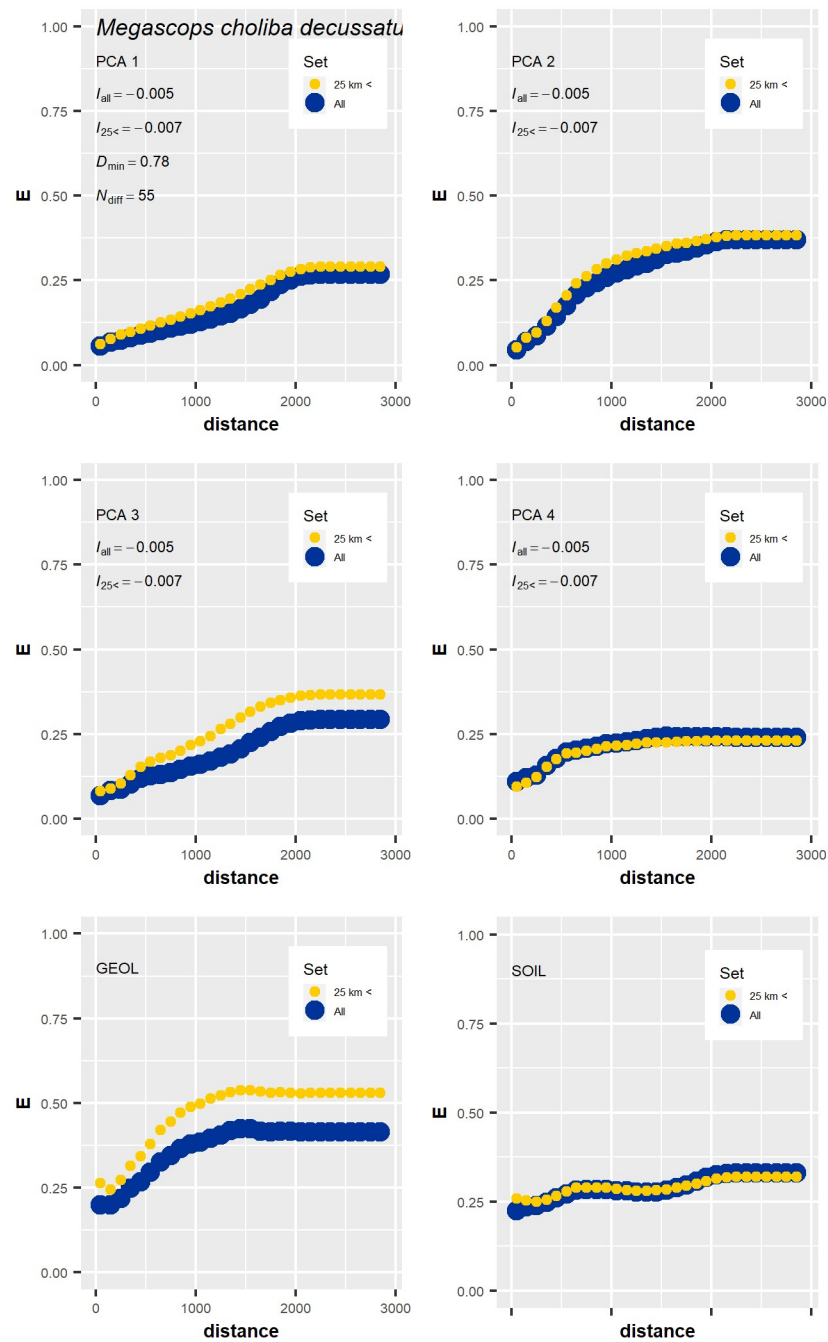


Figure C.I.4 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

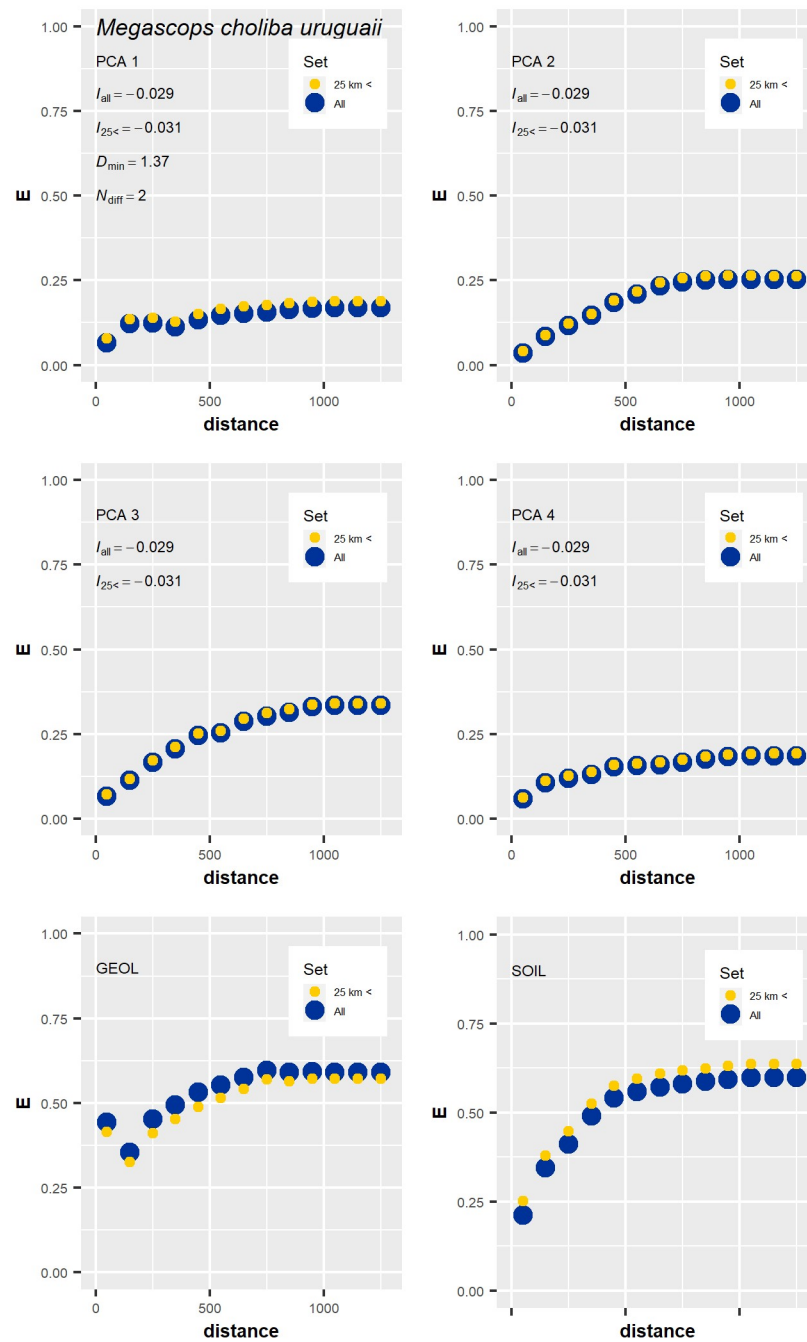


Figure C.m (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

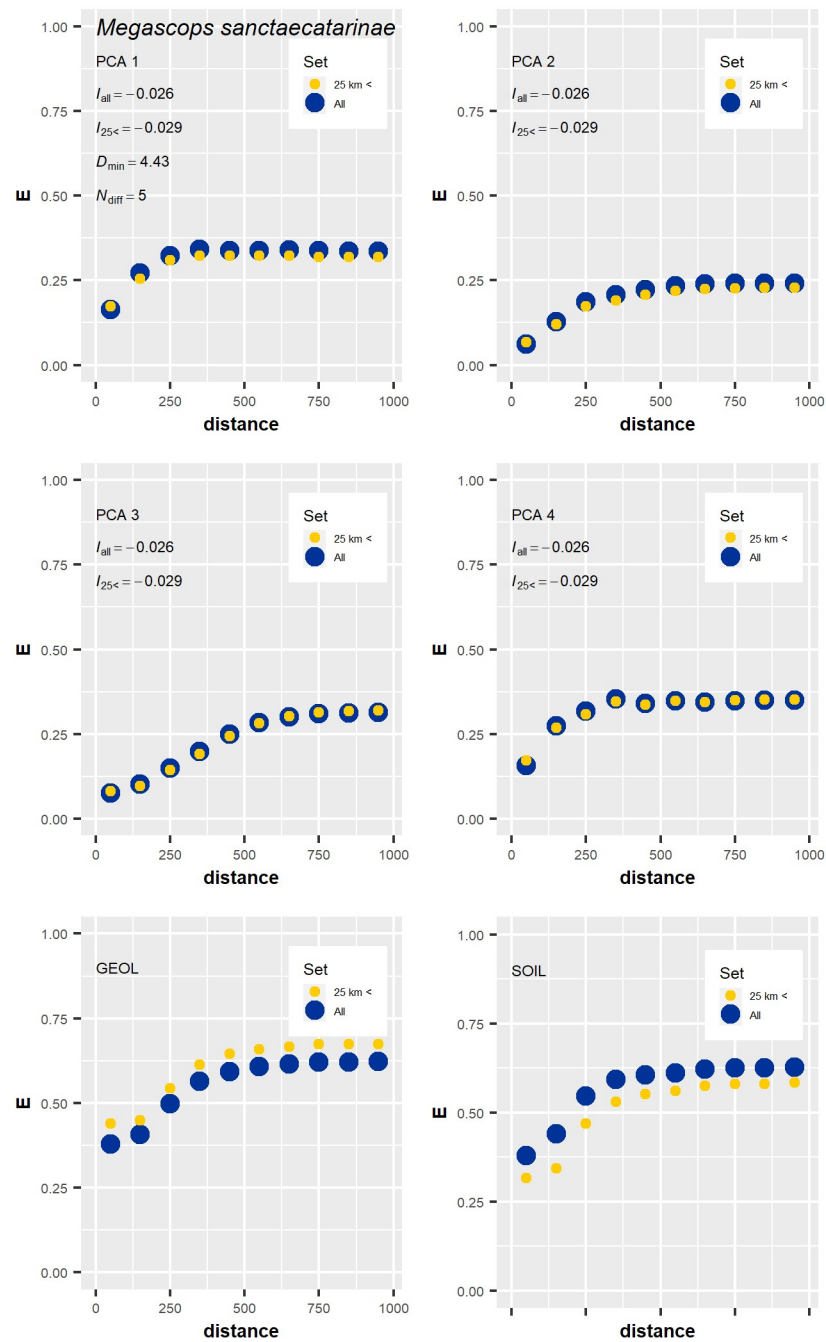


Figure C.n (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

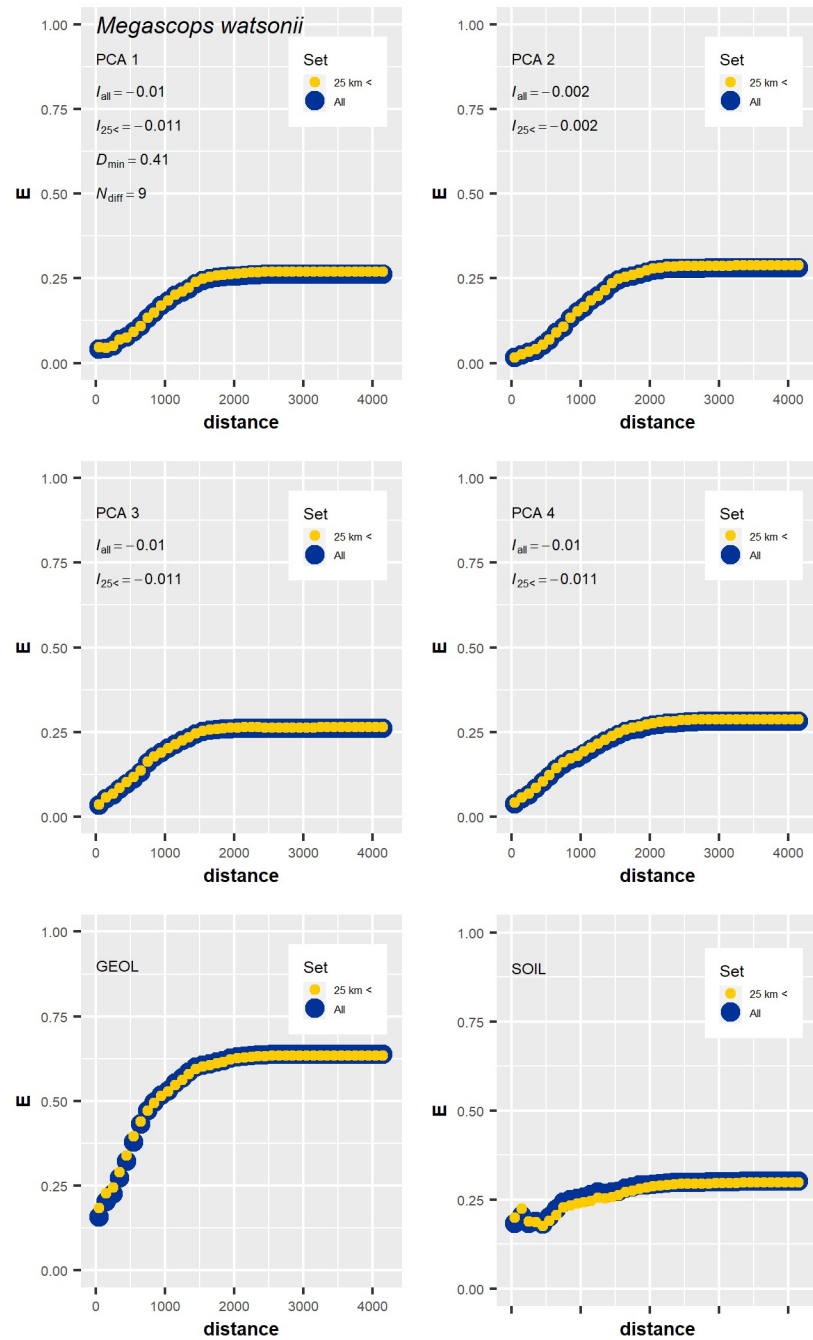


Figure C.n.1 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

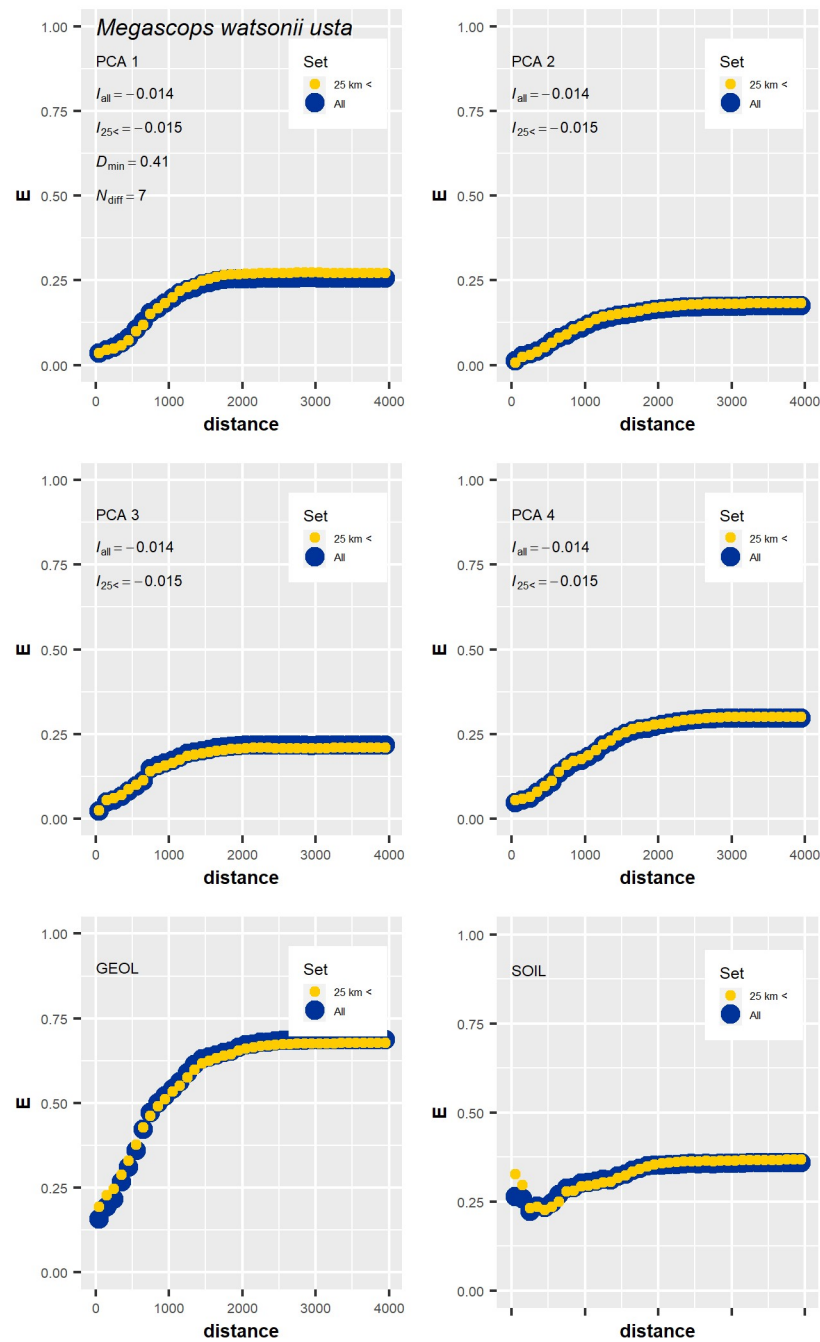


Figure C.n.2 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

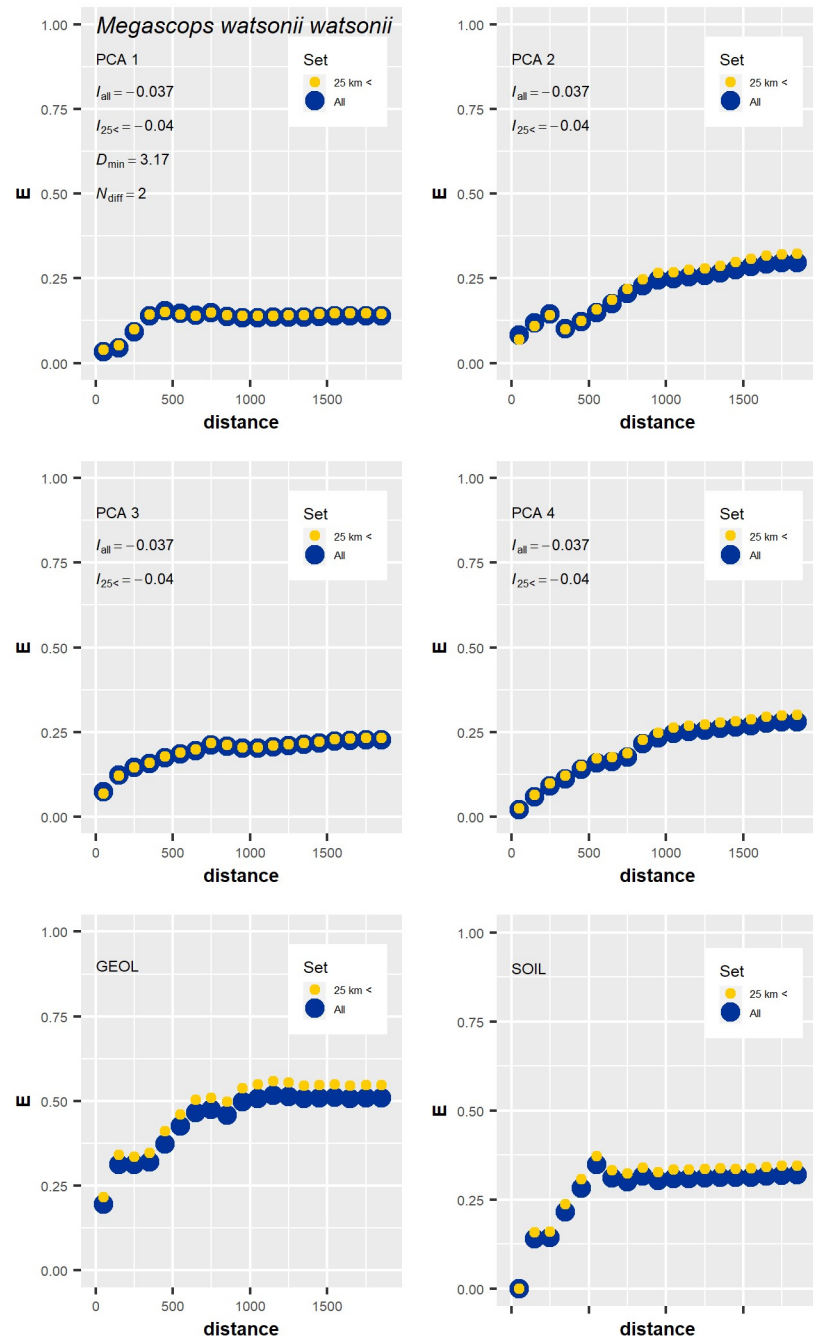


Figure C.o (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

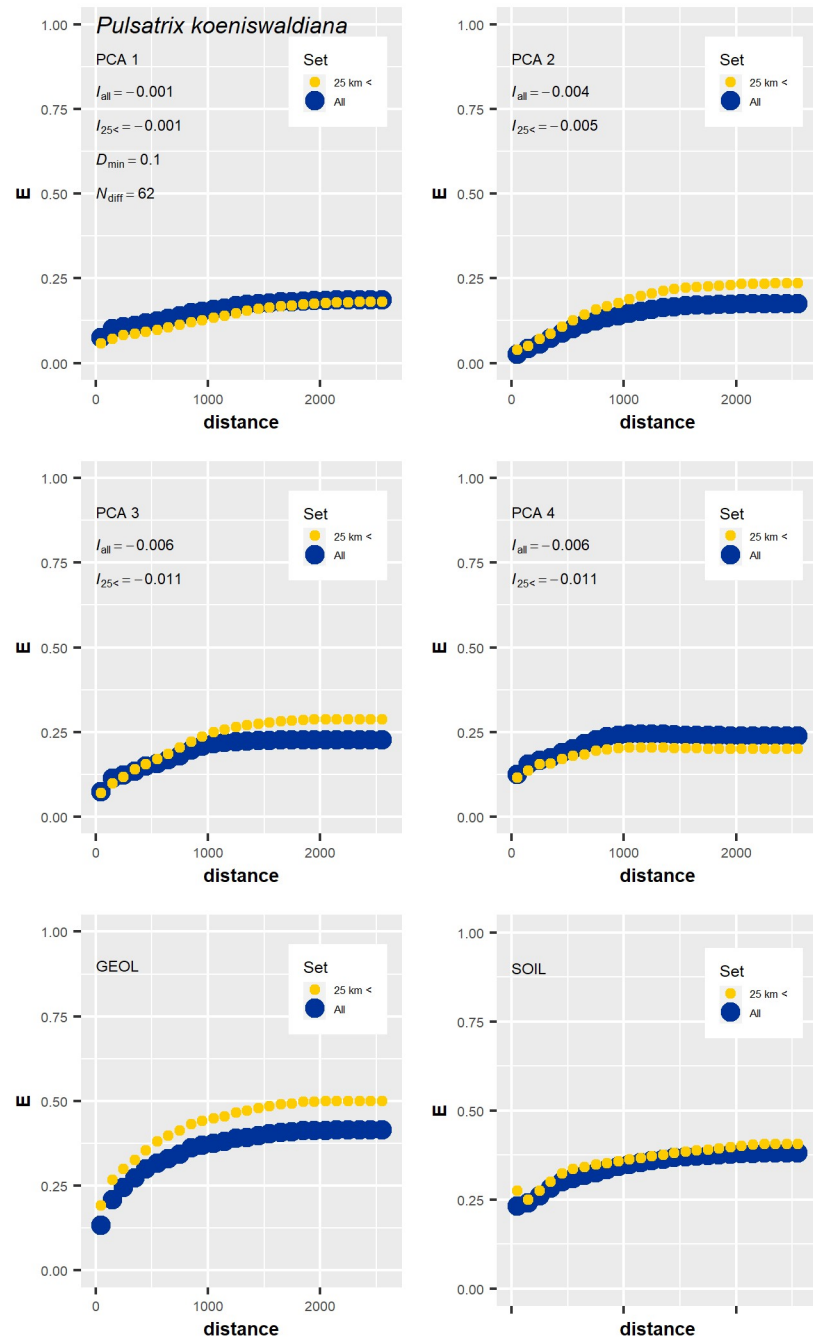


Figure C.p (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

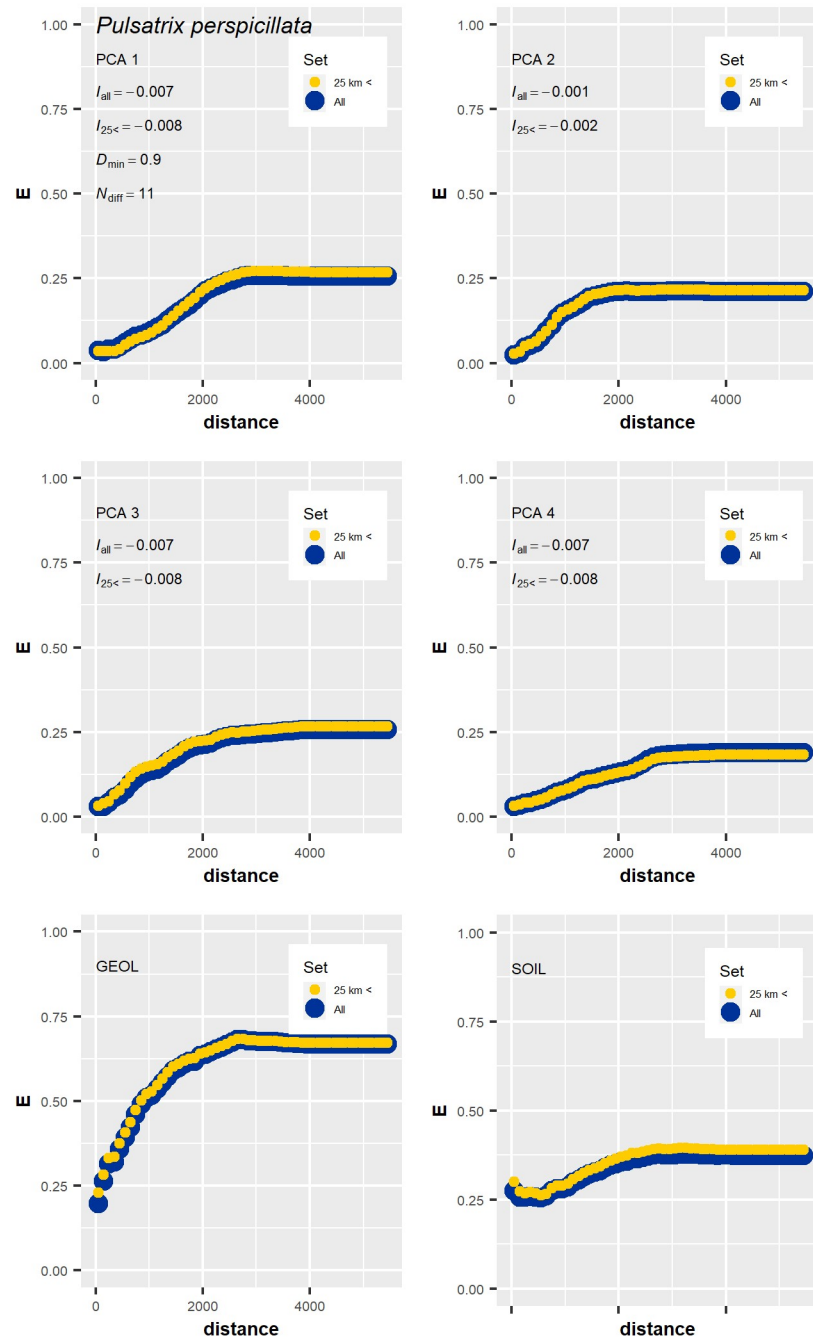


Figure C.p.1 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

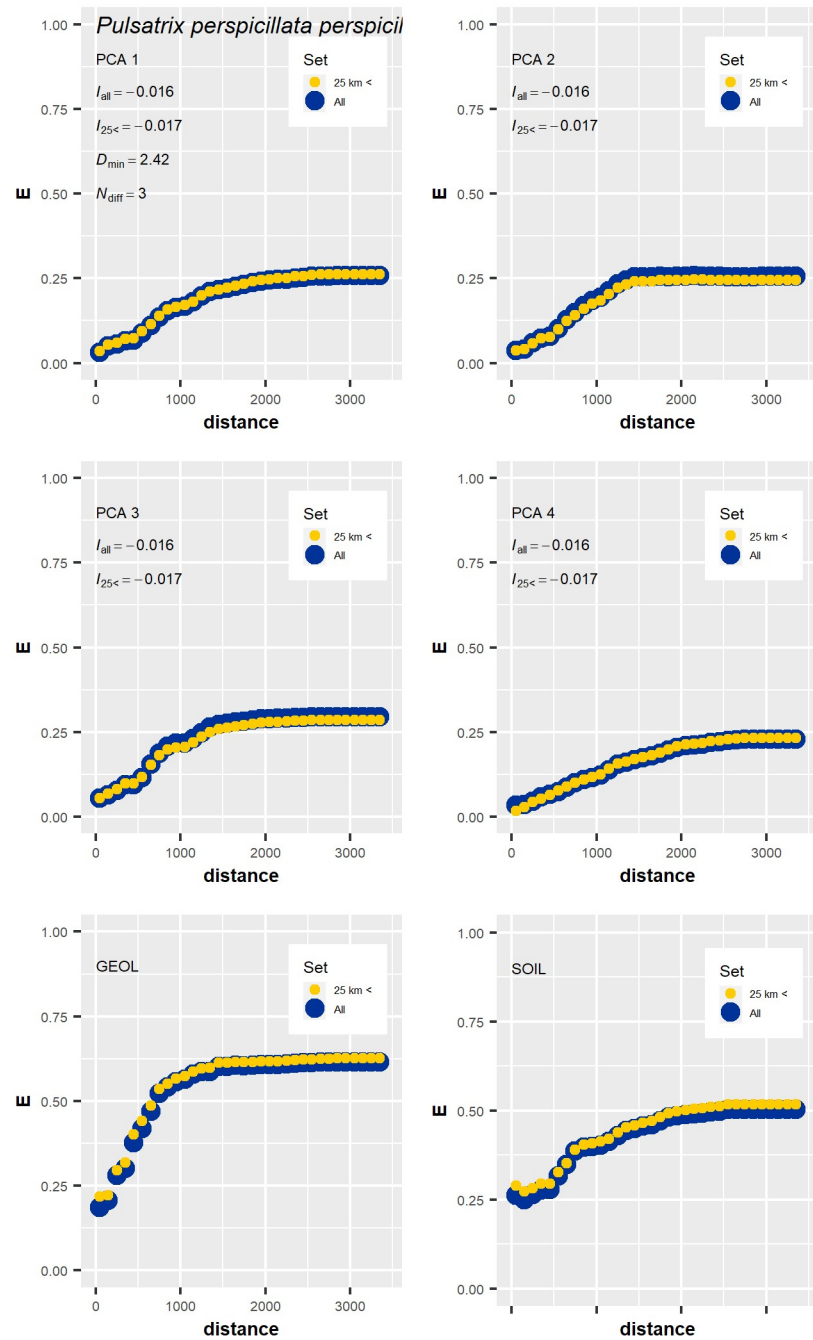


Figure C.p.2 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

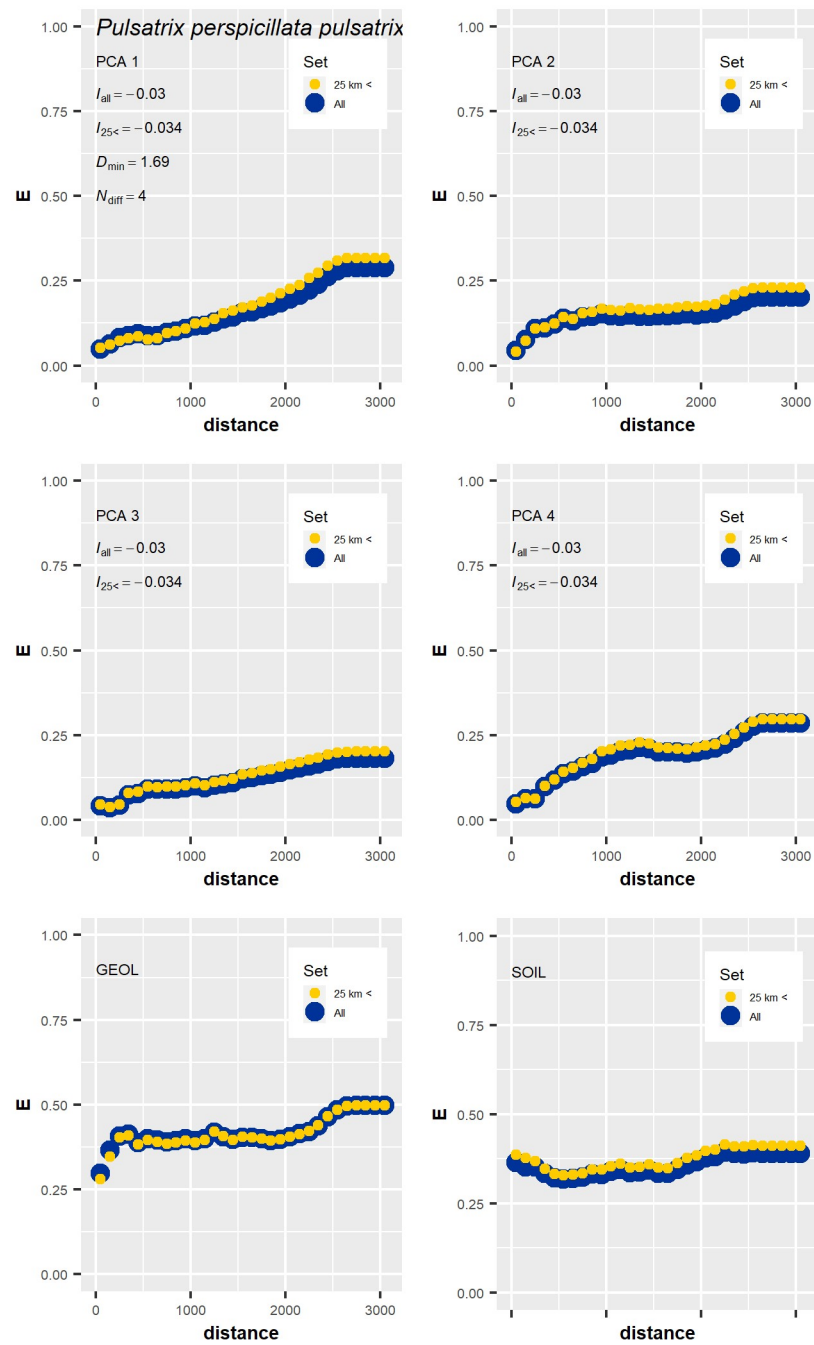


Figure C.q (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

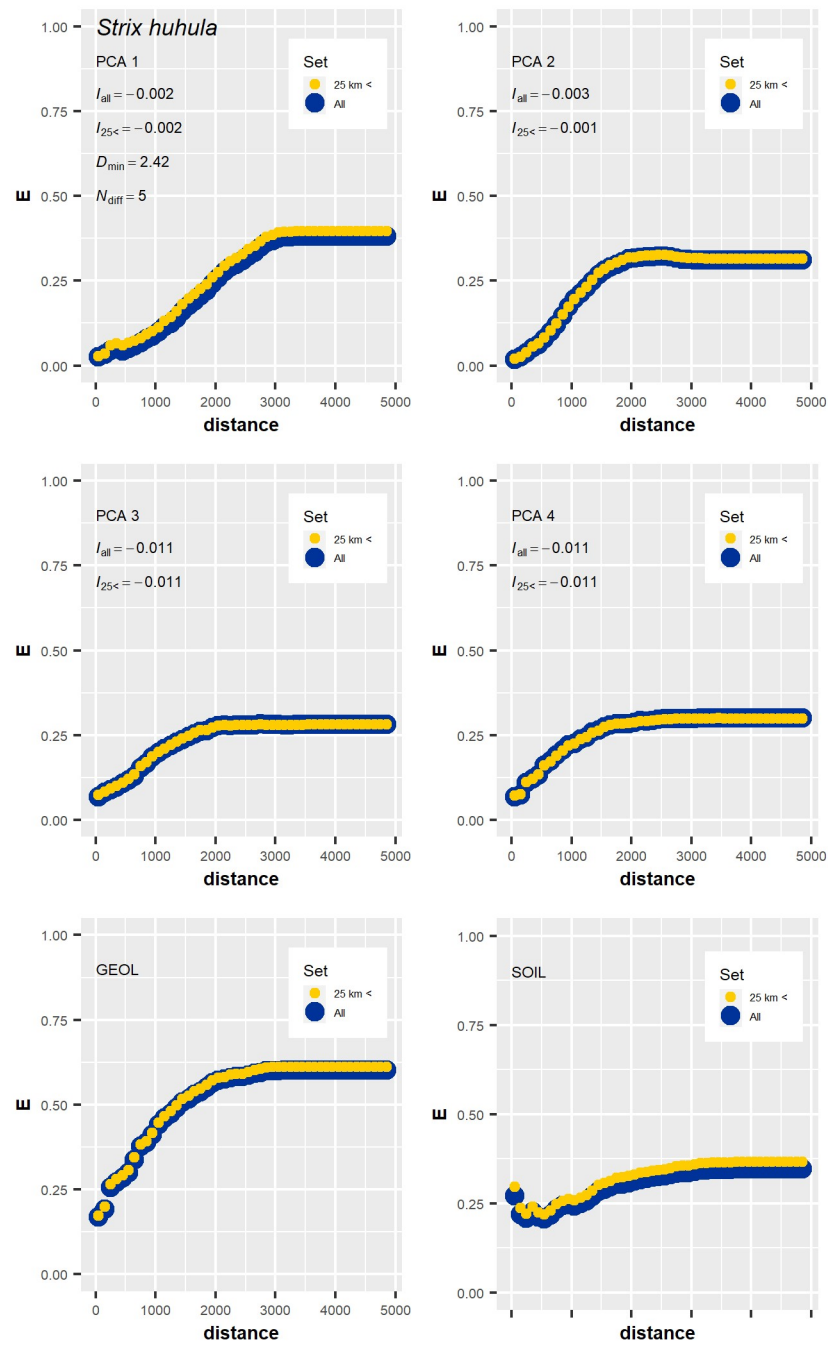


Figure C.q.1 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

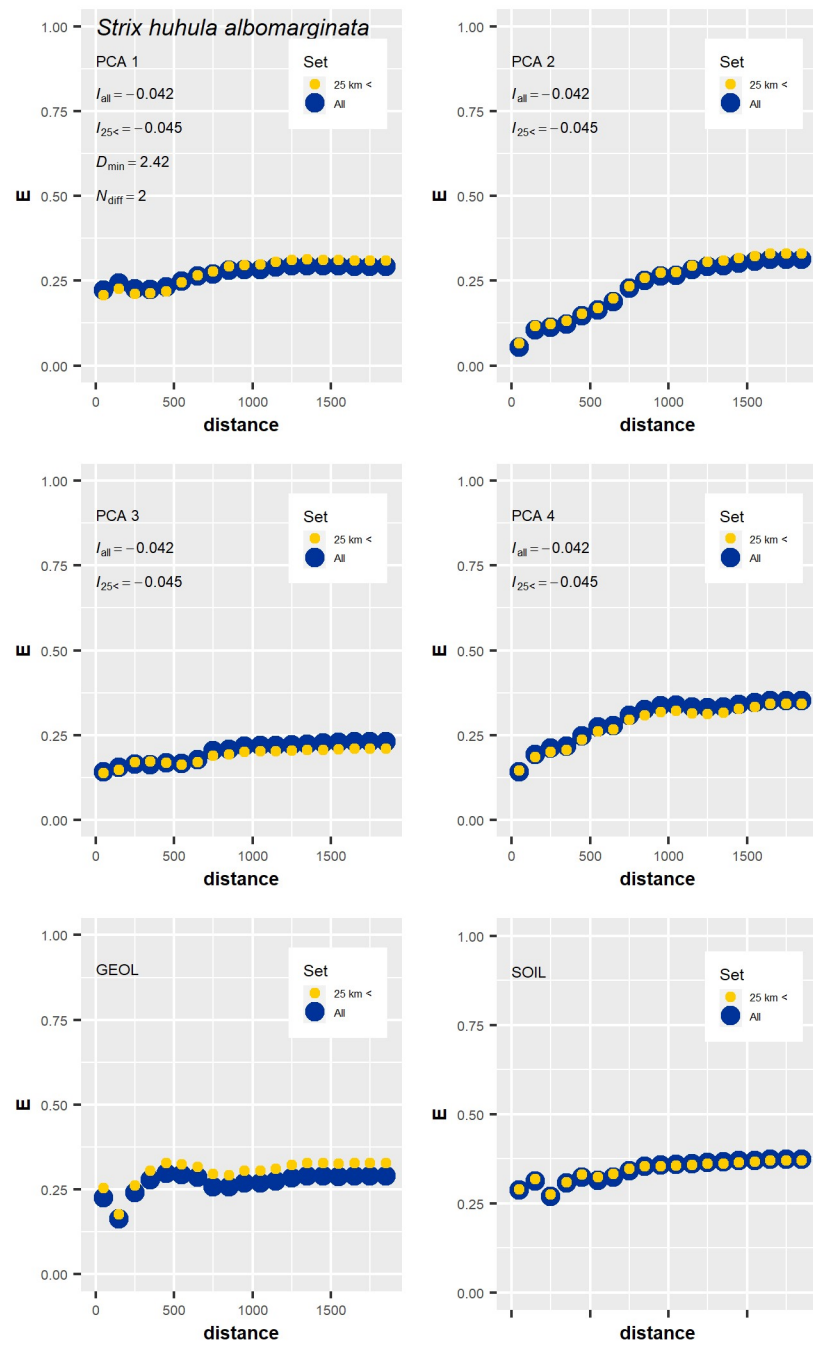


Figure C.q.2 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

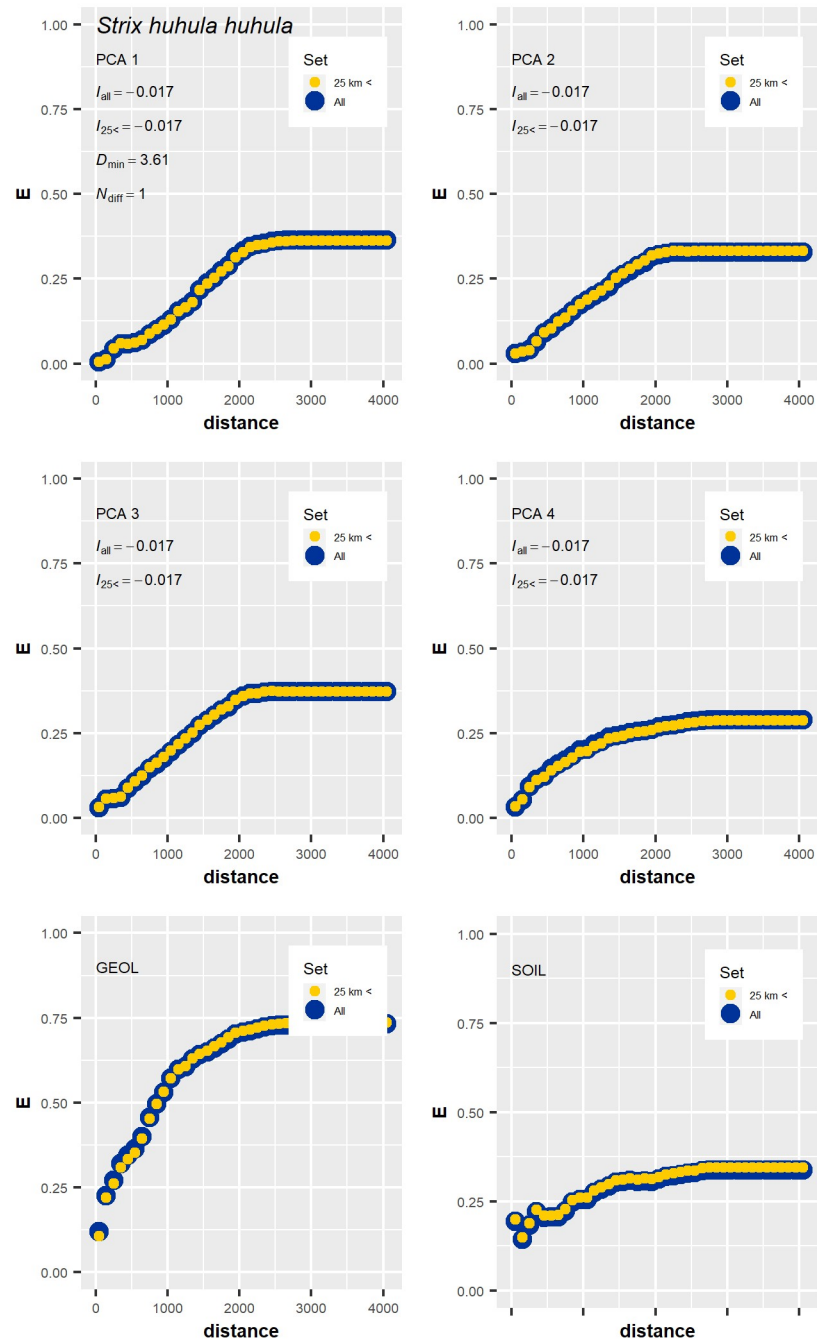


Figure C.r (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

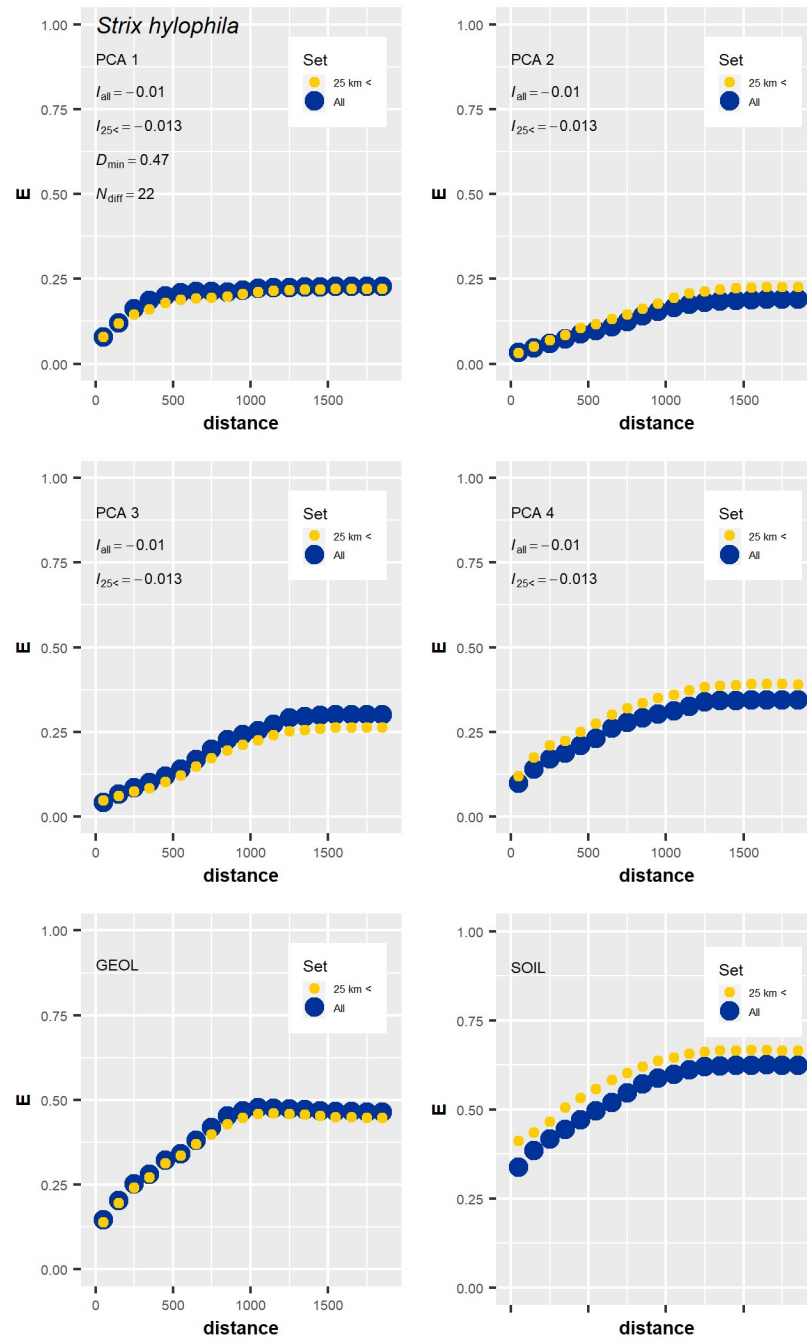


Figure C.s (cont.). Entrograms for each taxa and environmental covariates comparing the e10ntropy-based local indicators of spatial association at recording localities.

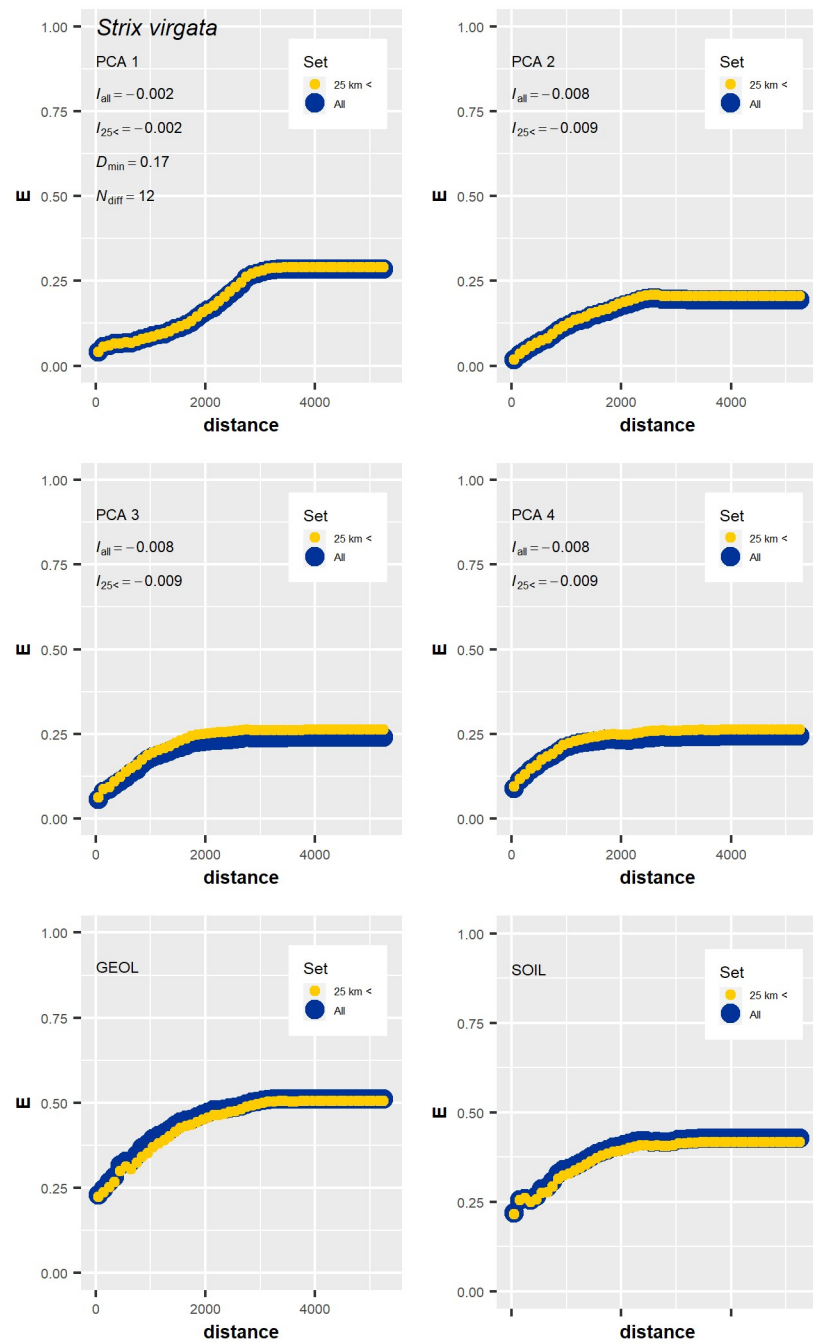


Figure C.s.1 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

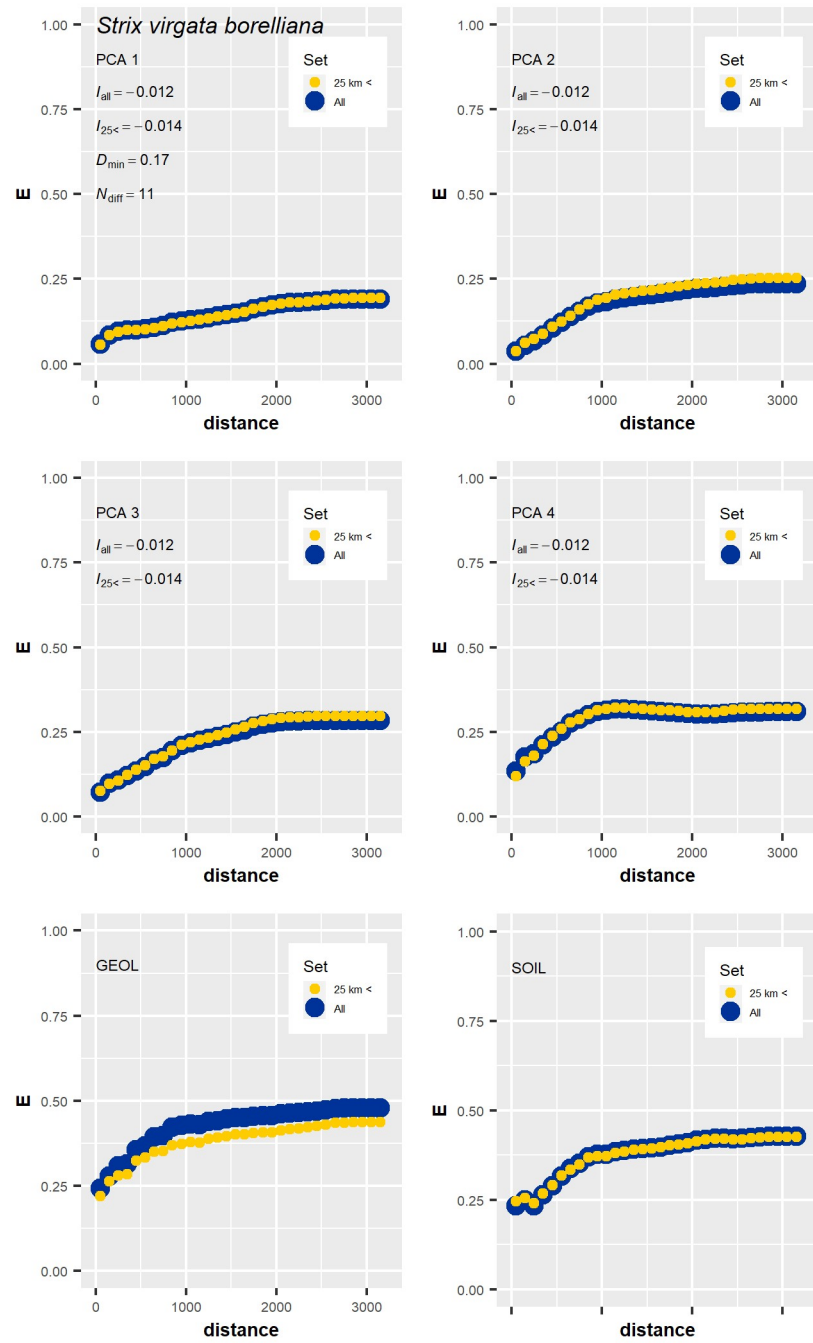


Figure C.s.2 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

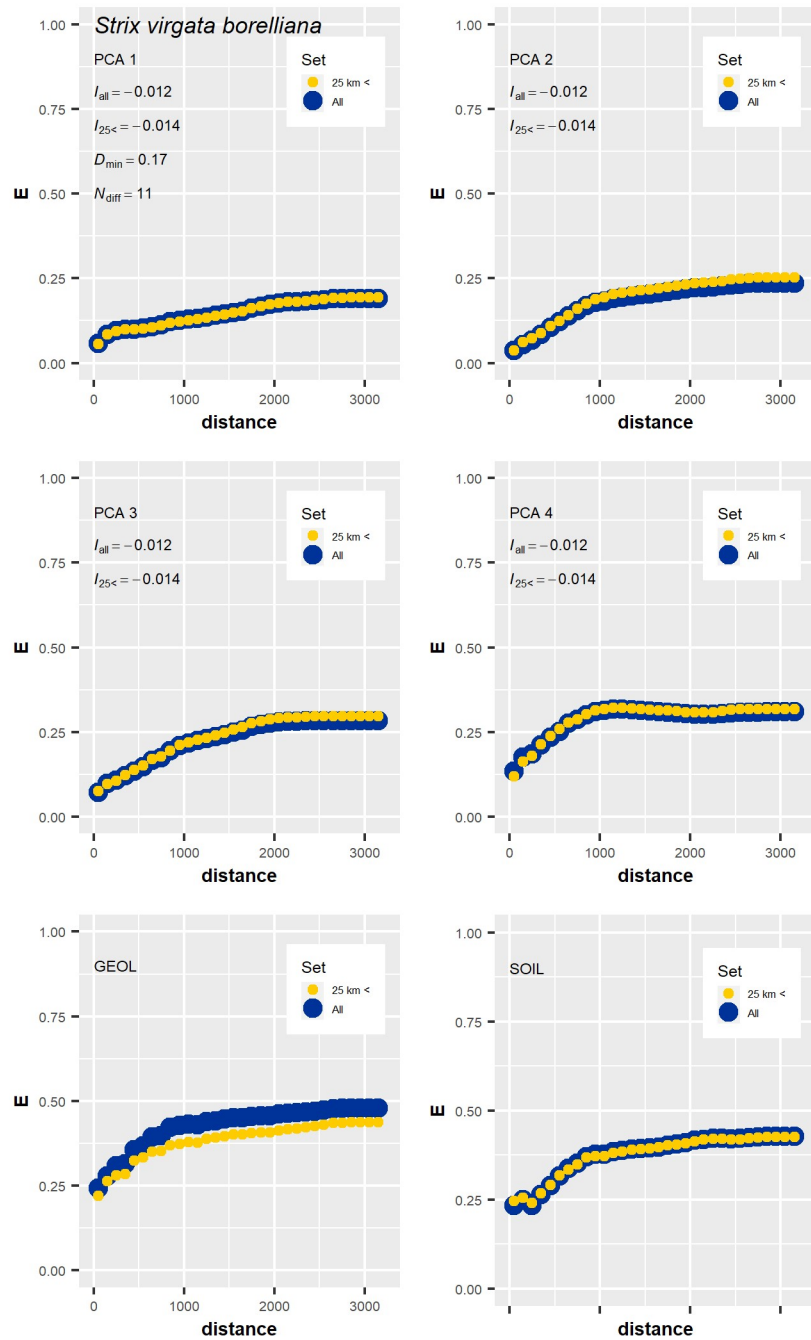


Figure C.s.3 (cont.). Entrograms for each taxa and environmental covariates comparing the entropy-based local indicators of spatial association at recording localities.

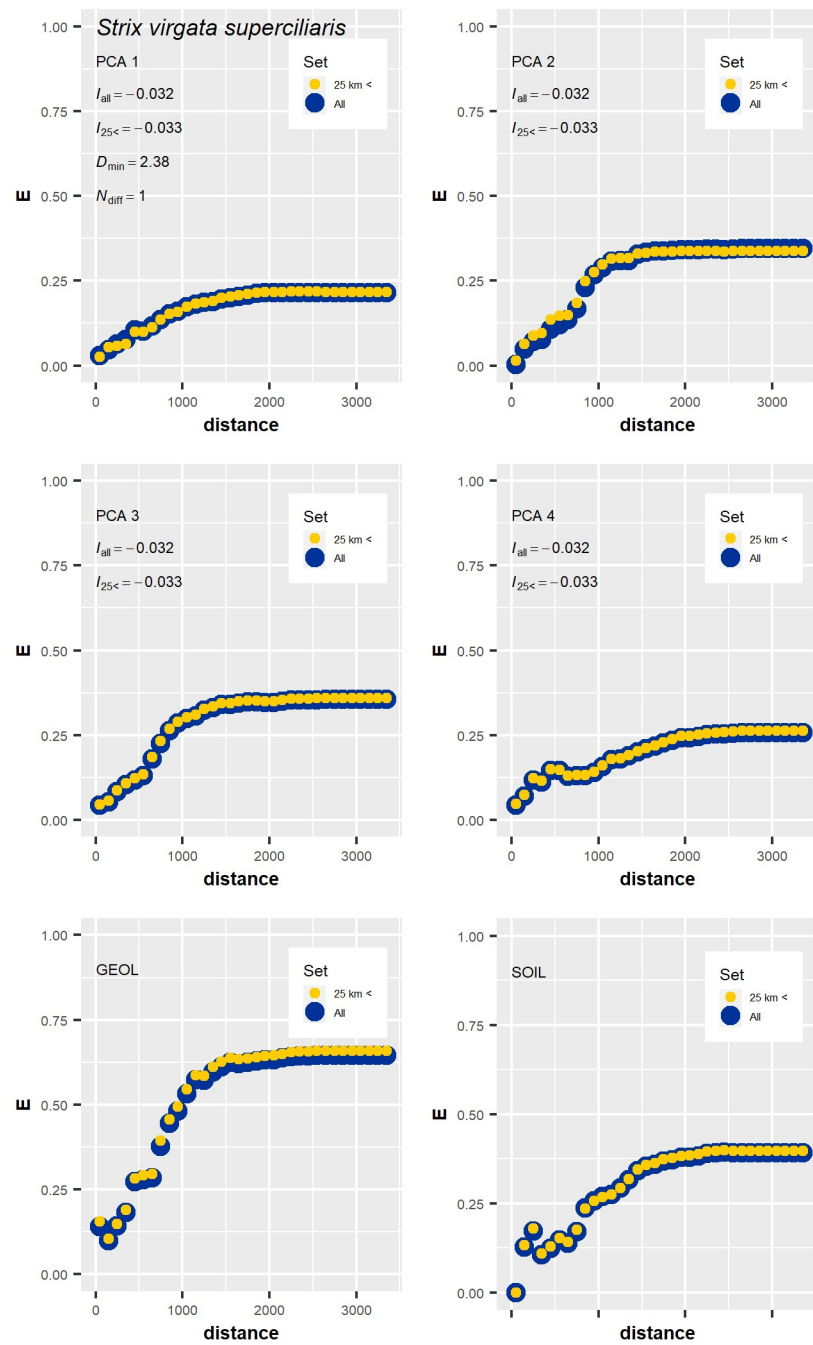


Figure D. Comparisons of the number of omissions (false negatives) and extension of the predicted areas (in pixels) according to the different thresholds for the different taxa modelled.

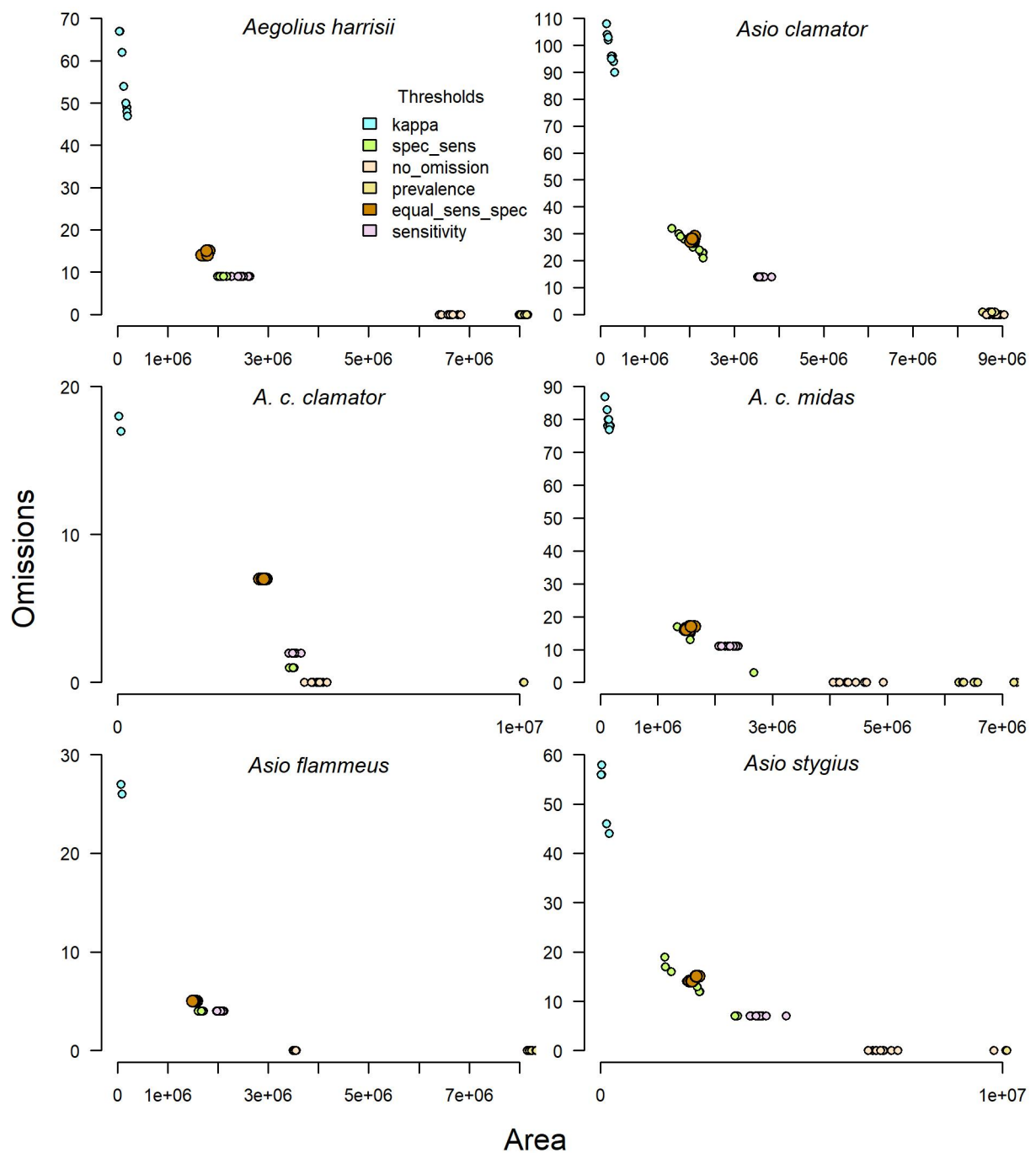


Figure D (cont.). Comparisons of the number of omissions and extension of the predicted areas according to the different thresholds for the different taxa modelled.

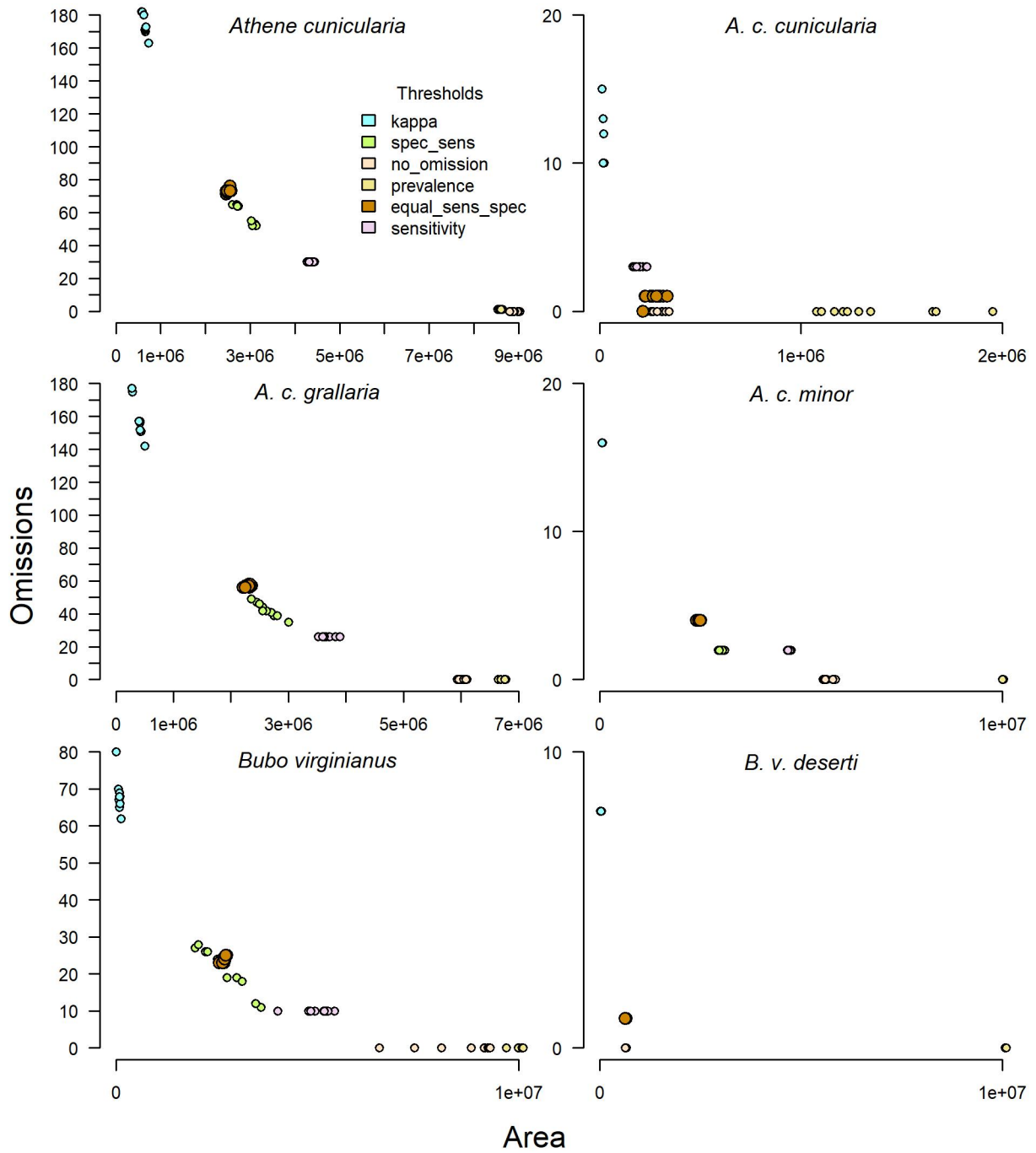


Figure D (cont.). Comparisons of the number of omissions and extension of the predicted areas according to the different thresholds for the different taxa modelled.

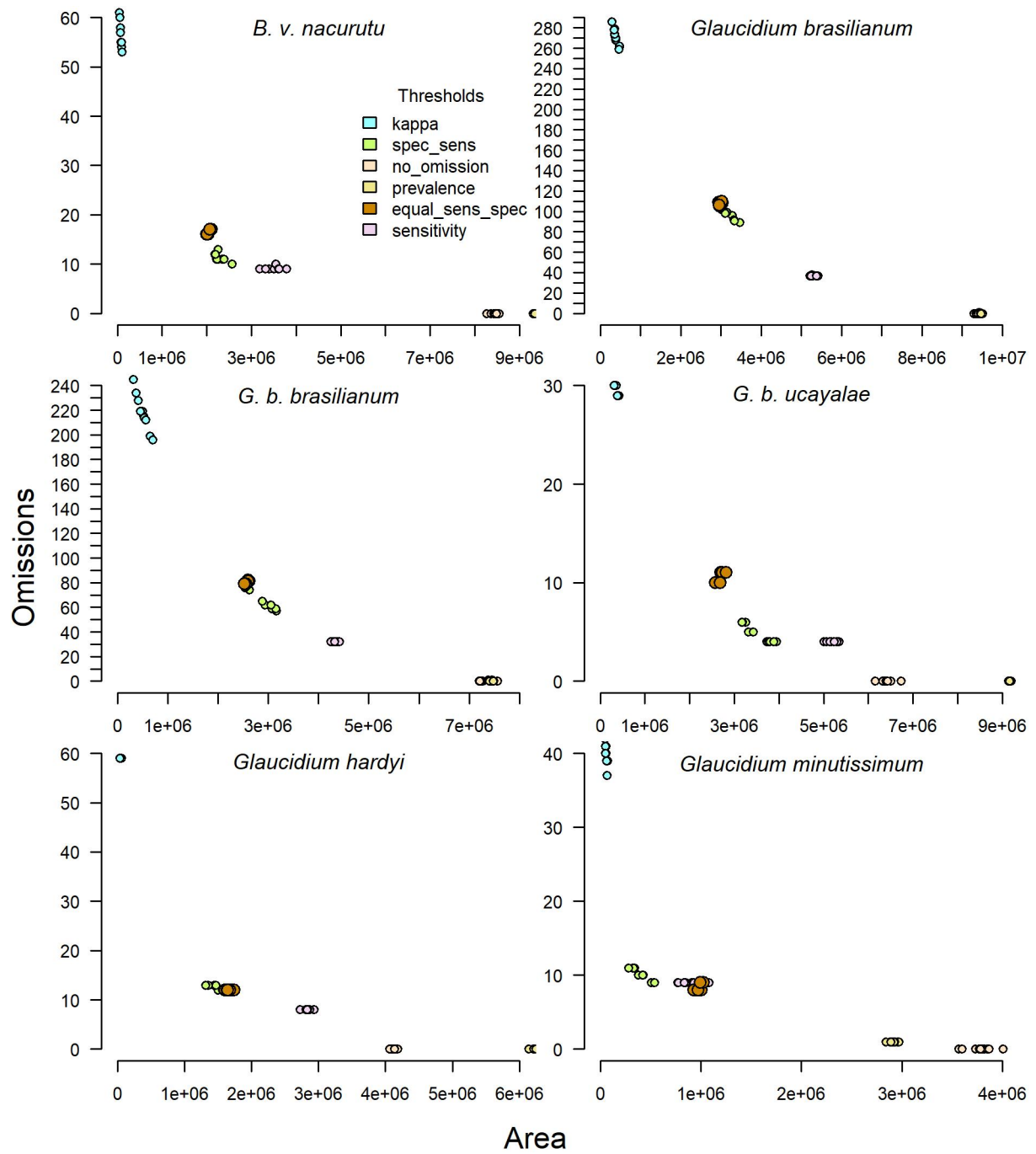


Figure D (cont.). Comparisons of the number of omissions and extension of the predicted areas according to the different thresholds for the different taxa modelled.

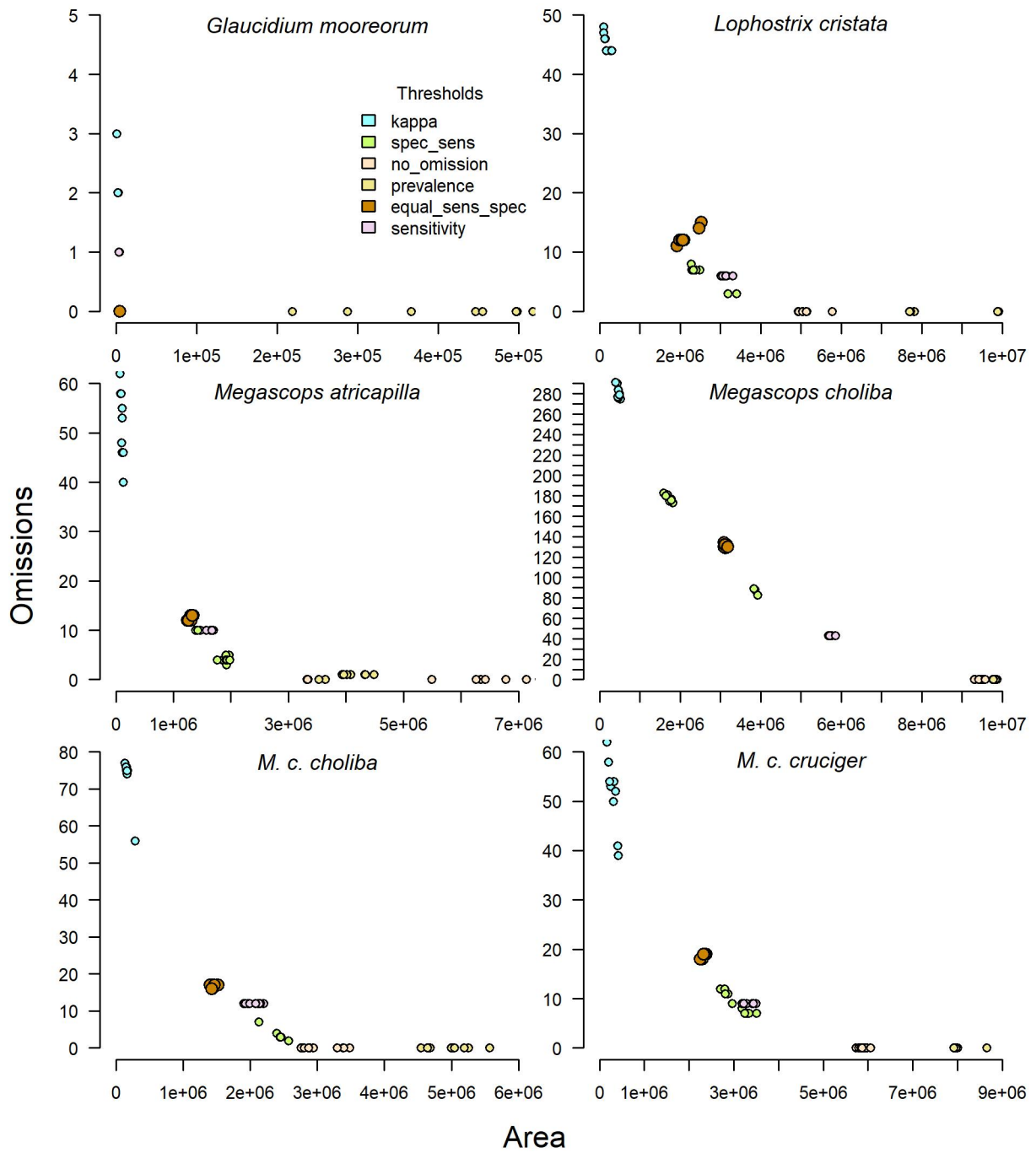


Figure D (cont.). Comparisons of the number of omissions and extension of the predicted areas according to the different thresholds for the different taxa modelled.

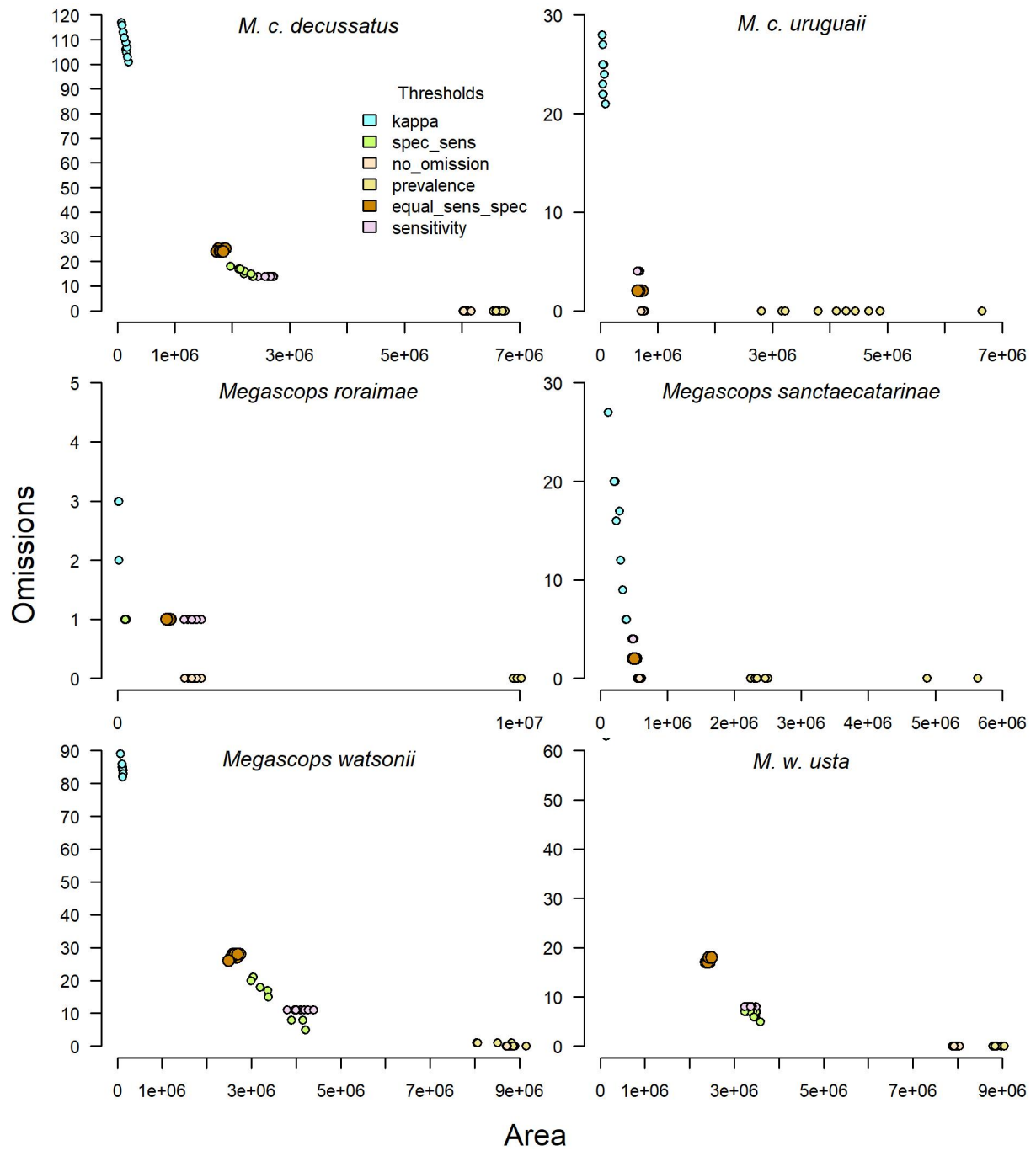


Figure D (cont.). Comparisons of the number of omissions and extension of the predicted areas according to the different thresholds for the different taxa modelled.

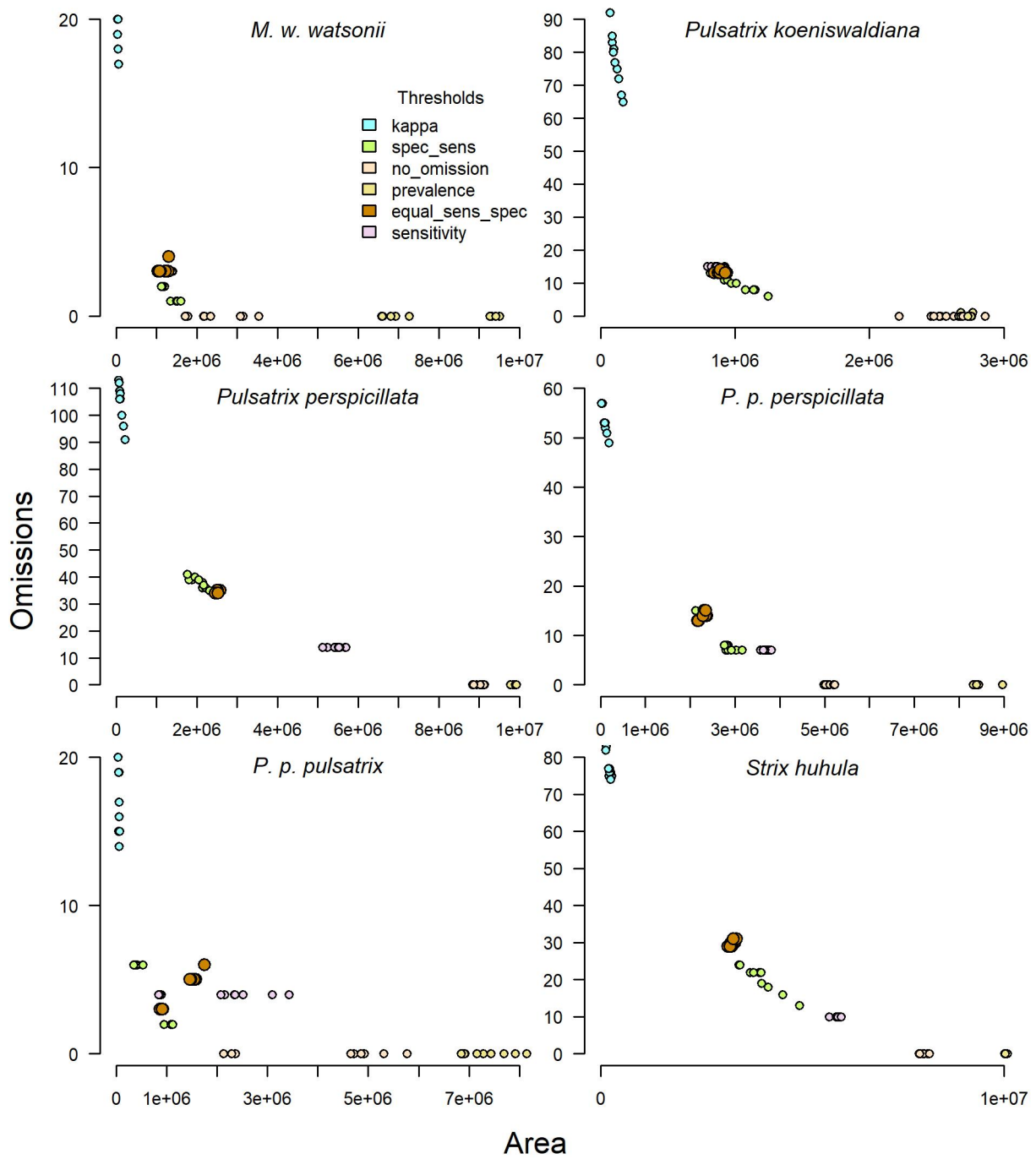


Figure D (cont.). Comparisons of the number of omissions and extension of the predicted areas according to the different thresholds for the different taxa modelled.

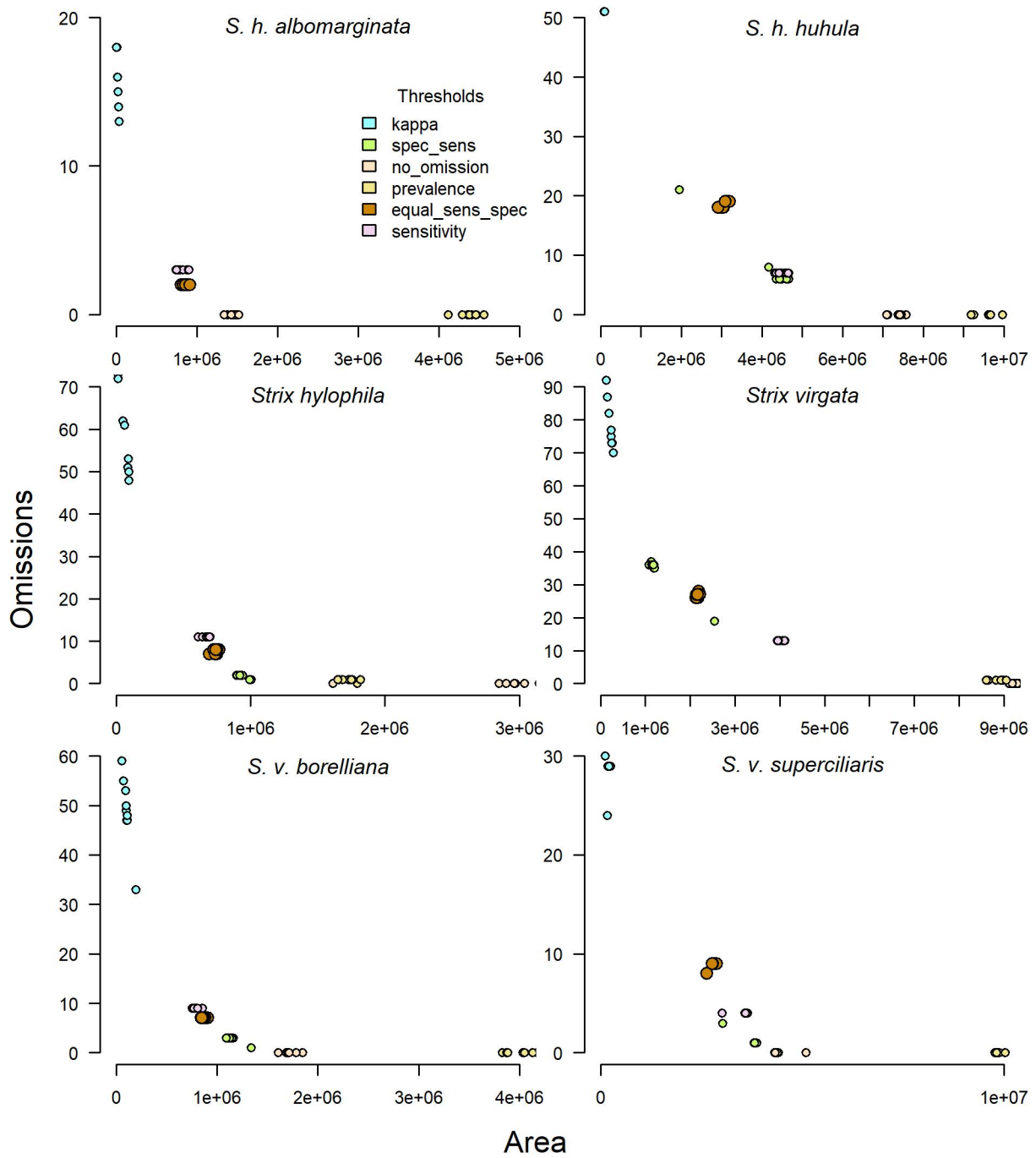


Figure E. Thresholded (binary) spatial distributions of each taxon of Brazilian Strigidae modelled as predicted by Maxent in G-space. Predicted suitable areas green, biomes delimited by gray lines.

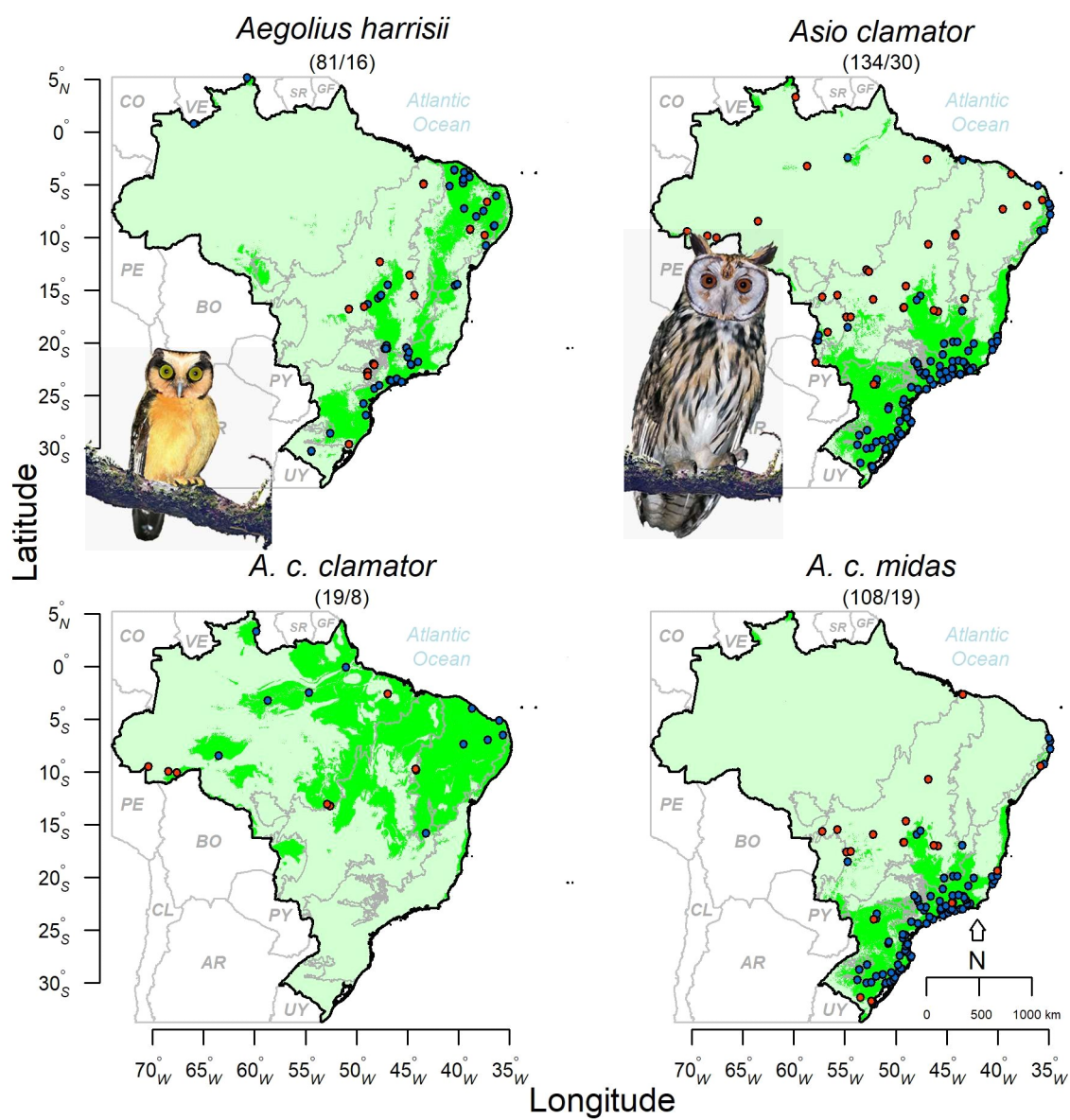


Figure E (cont.). Thresholded (binary) spatial distributions of each taxon of Brazilian Strigidae modelled as predicted by Maxent in G-space.

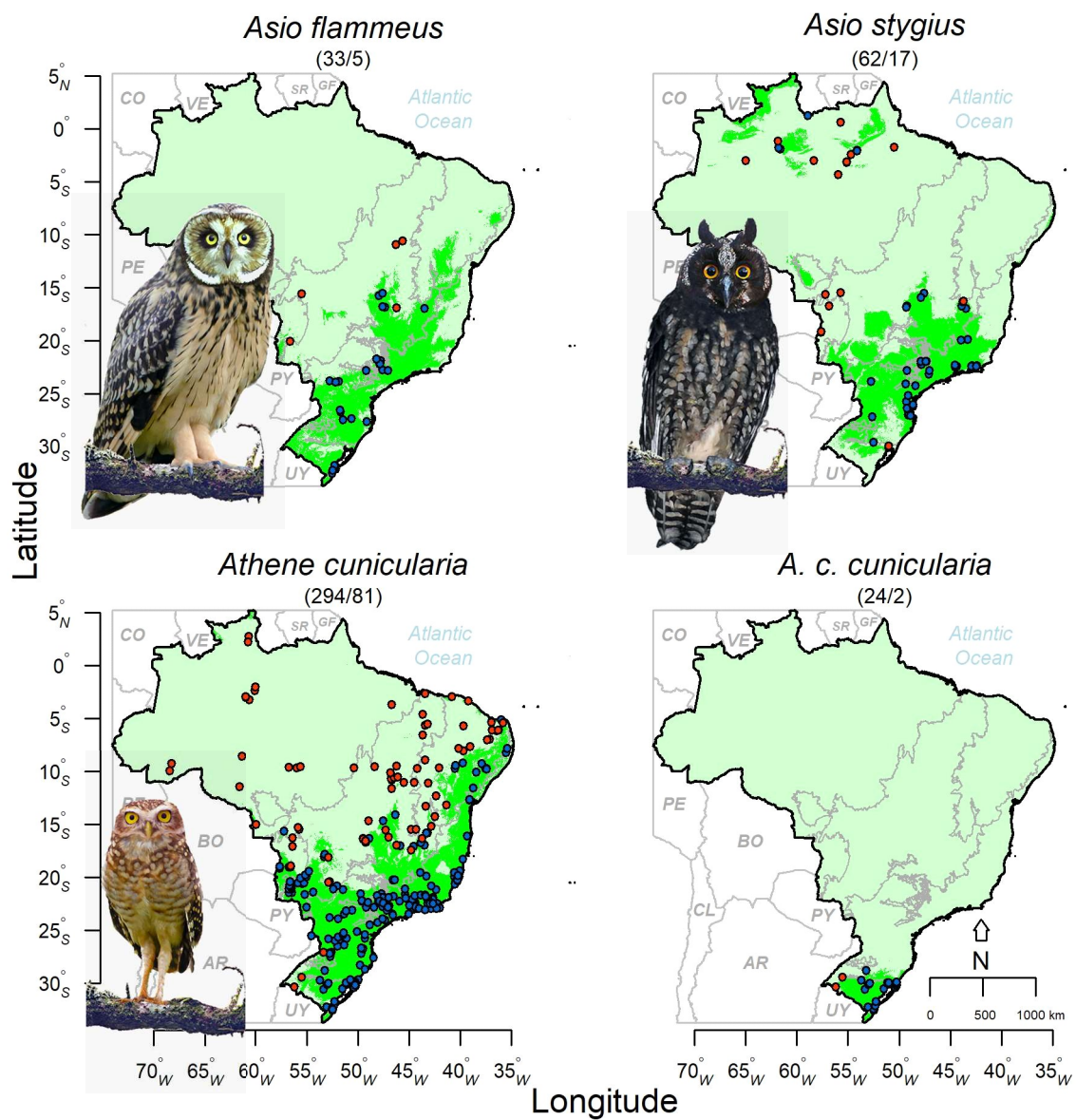


Figure E (cont.). Thresholded (binary) spatial distributions of each taxon of Brazilian Strigidae modelled as predicted by Maxent in G-space.

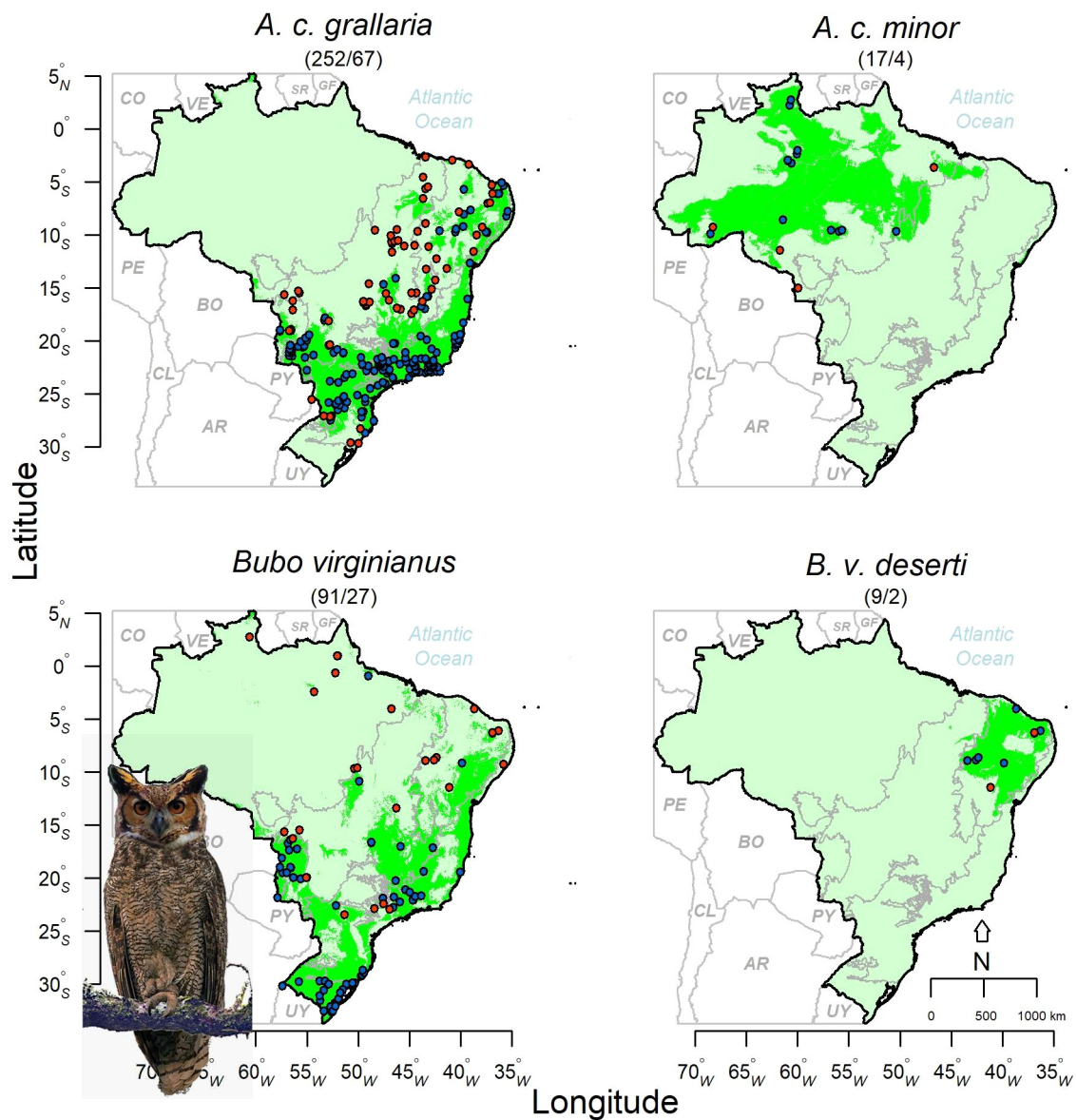


Figure E (cont.). Thresholded (binary) spatial distributions of each taxon of Brazilian Strigidae modelled as predicted by Maxent in G-space.

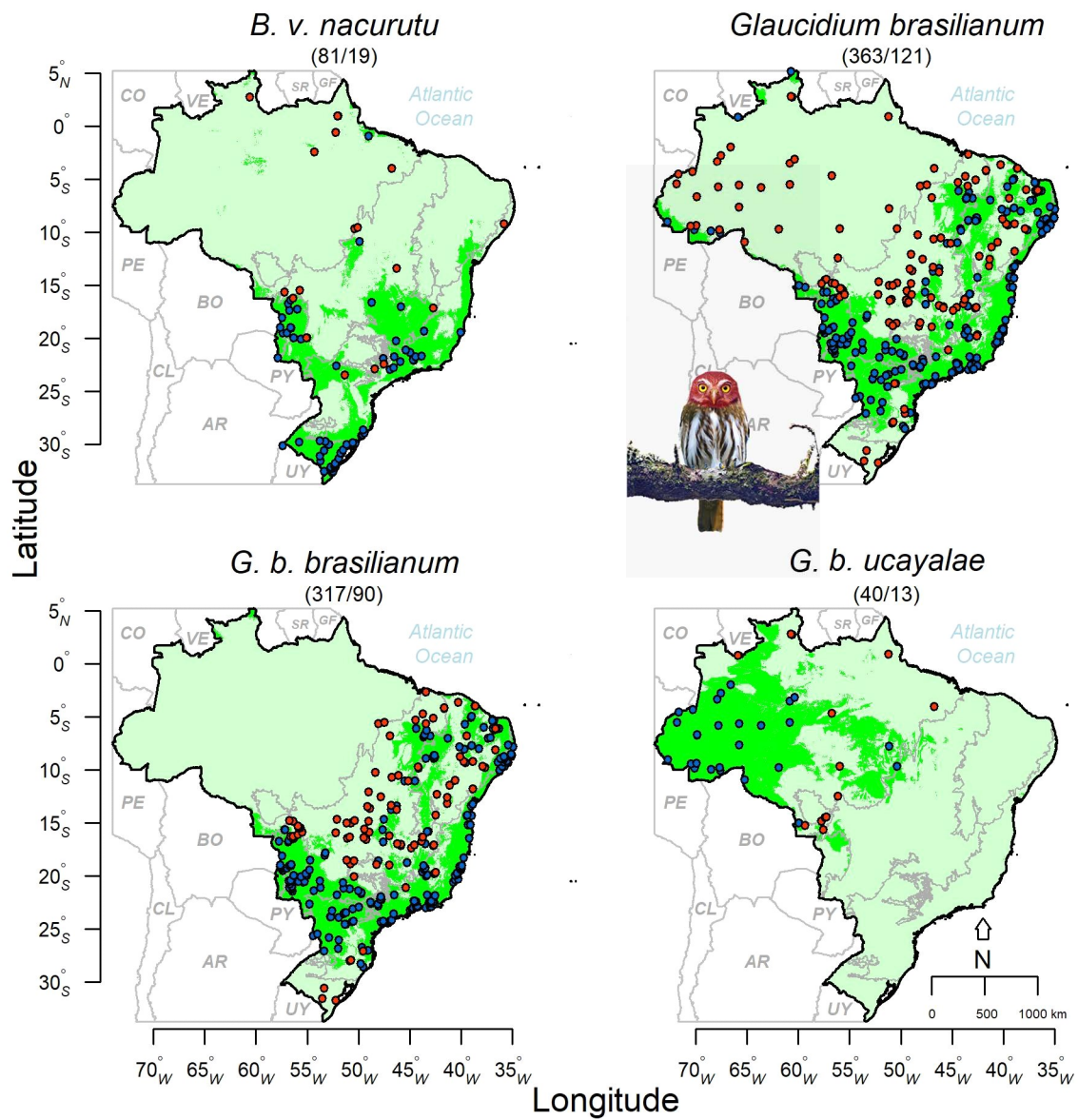


Figure E (cont.). Thresholded (binary) spatial distributions of each taxon of Brazilian Strigidae modelled as predicted by Maxent in G-space. Arrows highlight predicted suitable areas far from the known range.

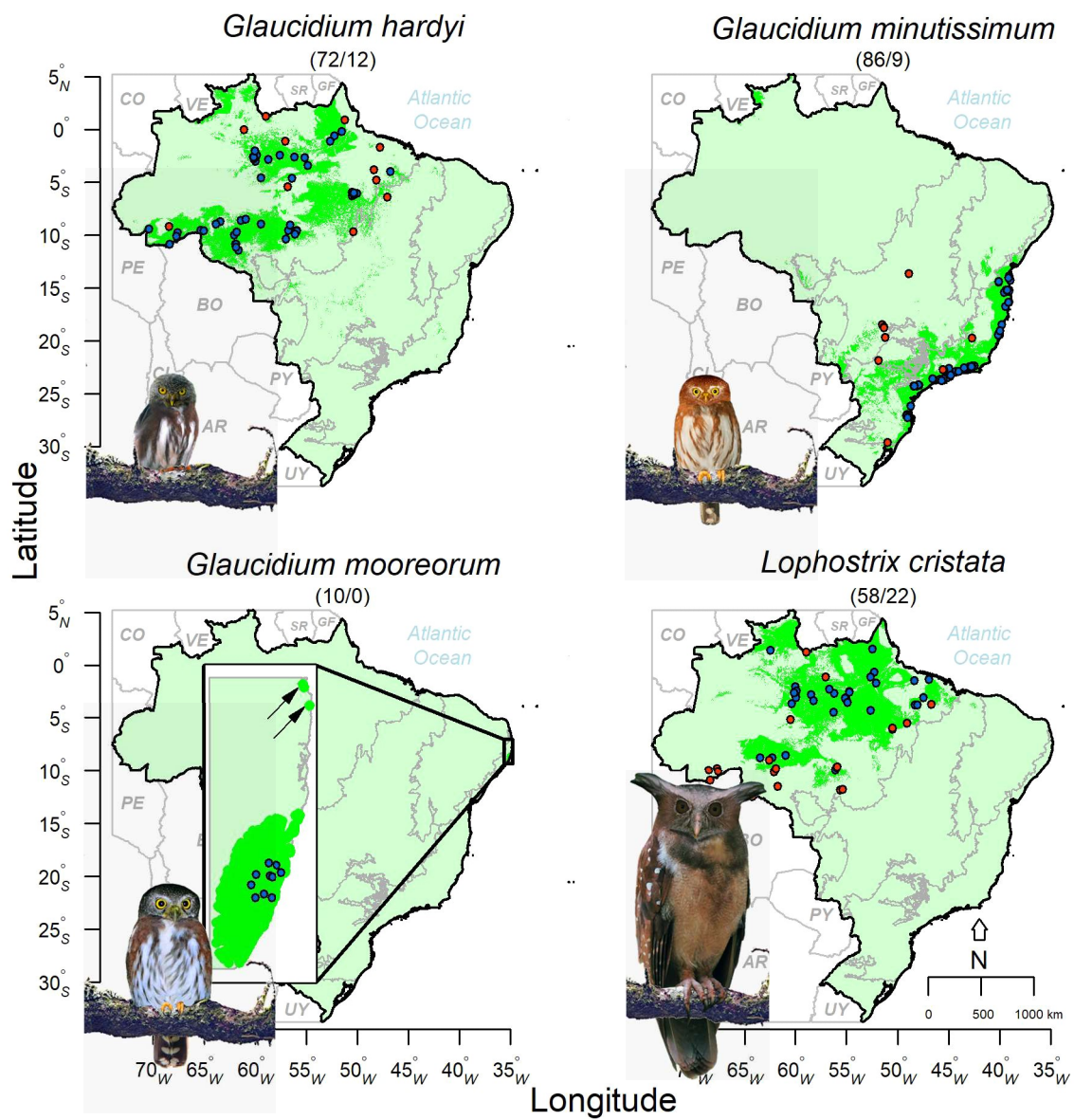


Figure E (cont.). Thresholded (binary) spatial distributions of each taxon of Brazilian Strigidae modelled as predicted by Maxent in G-space.

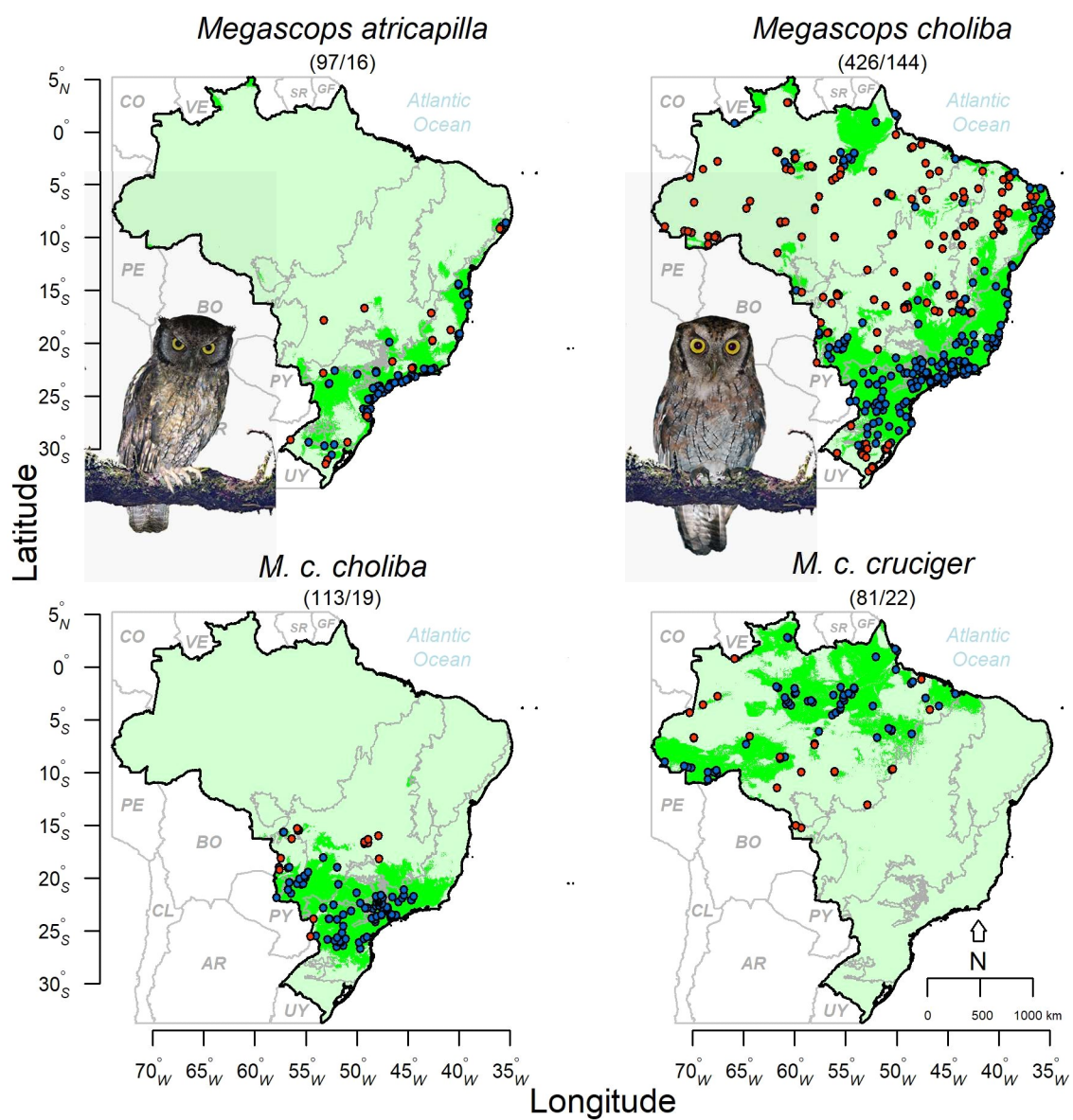


Figure E (cont.). Thresholded (binary) spatial distributions of each taxon of Brazilian Strigidae modelled as predicted by Maxent in G-space.

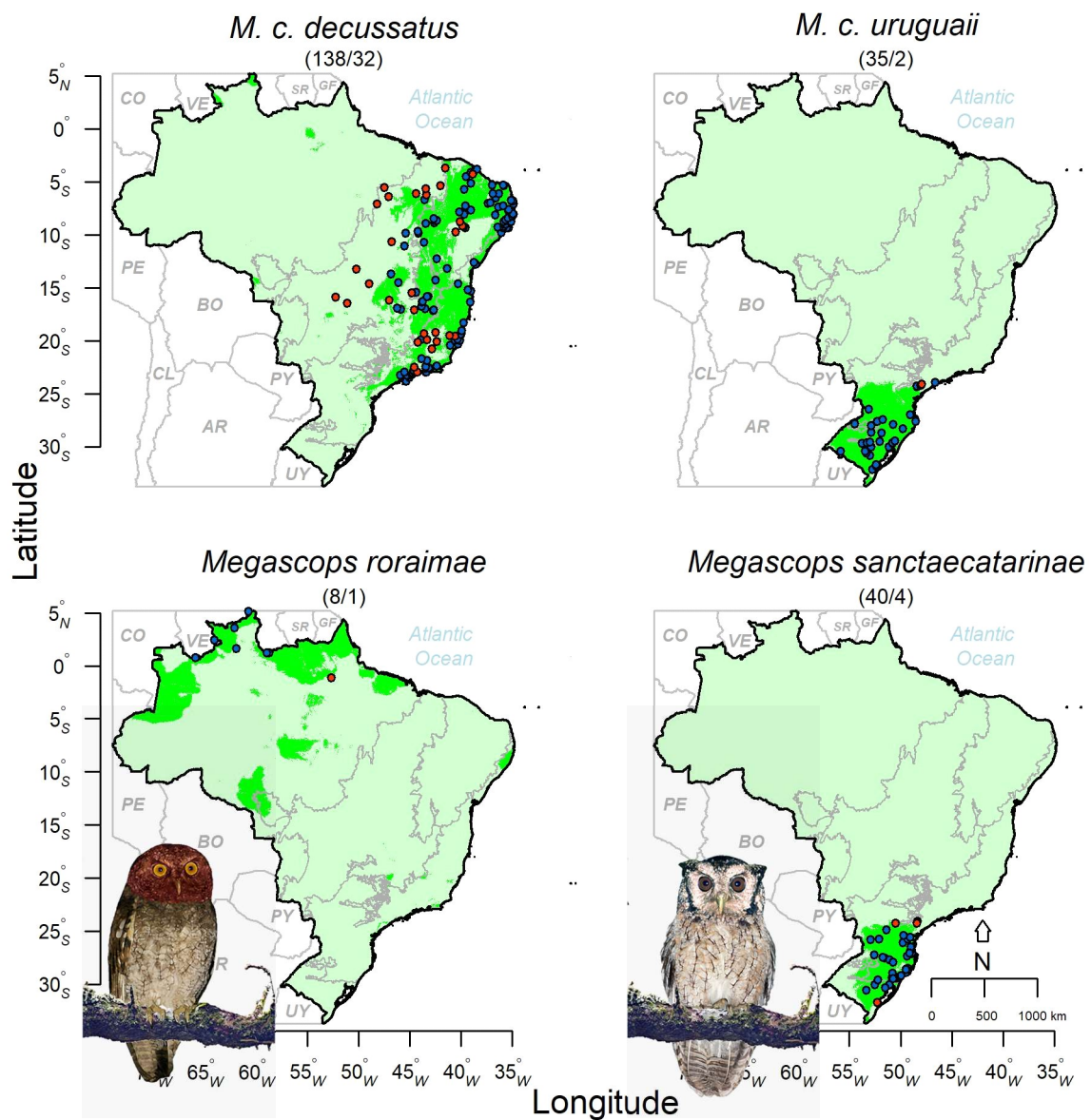


Figure E (cont.). Thresholded (binary) spatial distributions of each taxon of Brazilian Strigidae modelled as predicted by Maxent in G-space.

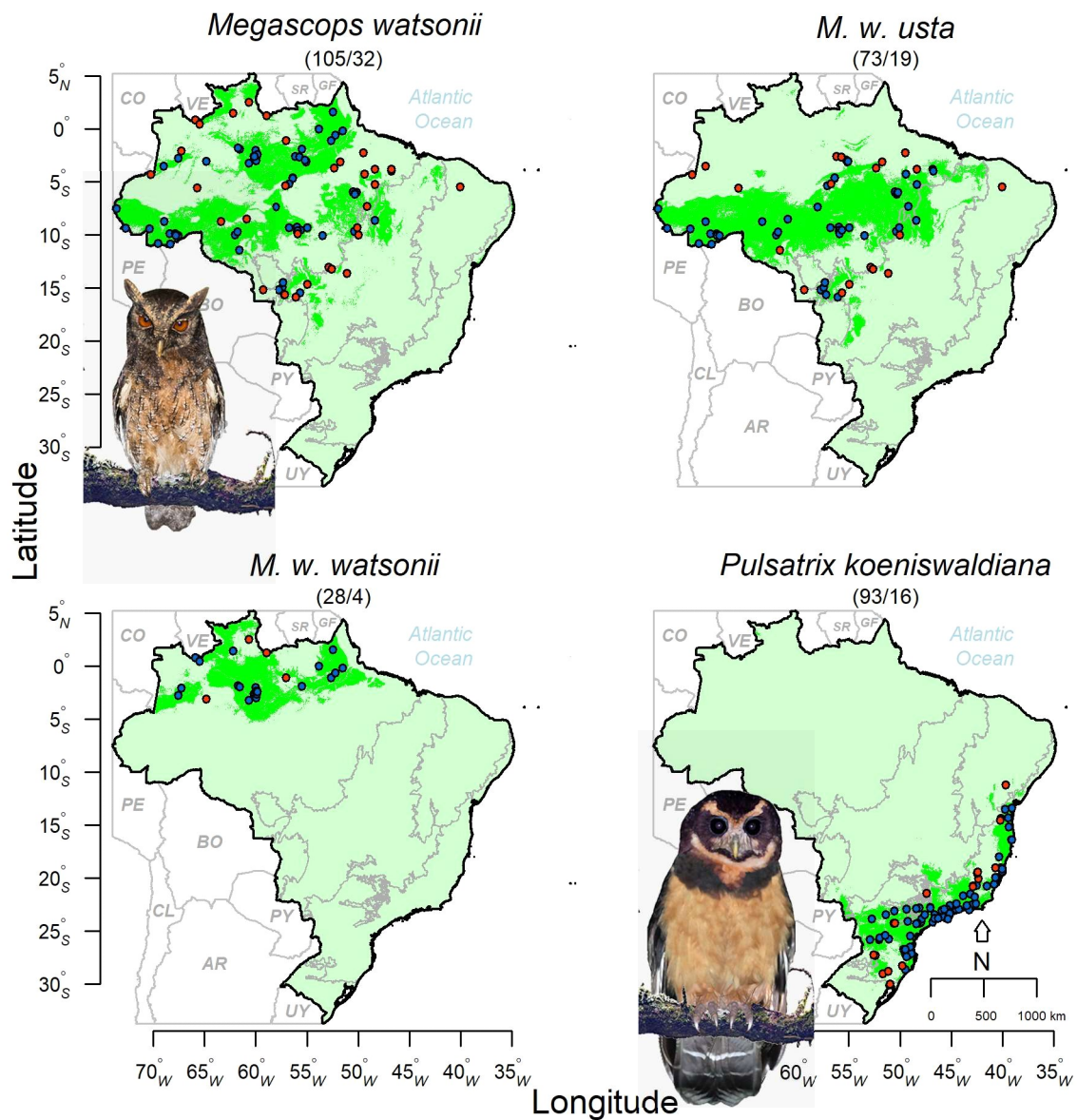


Figure E (cont.). Thresholded (binary) spatial distributions of each taxon of Brazilian Strigidae modelled as predicted by Maxent in G-space.

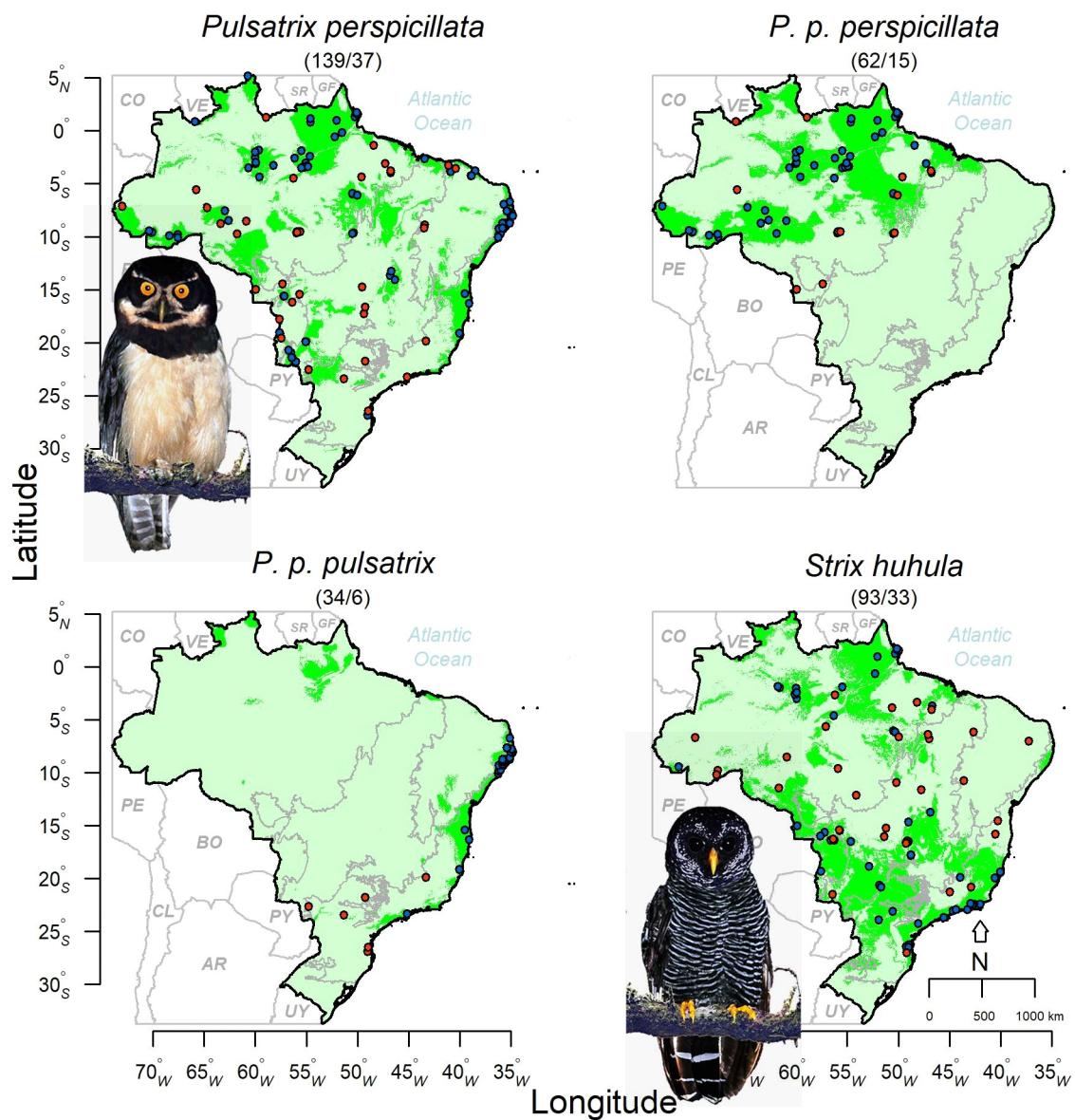


Figure E (cont.). Thresholded (binary) spatial distributions of each taxon of Brazilian Strigidae modelled as predicted by Maxent in G-space.

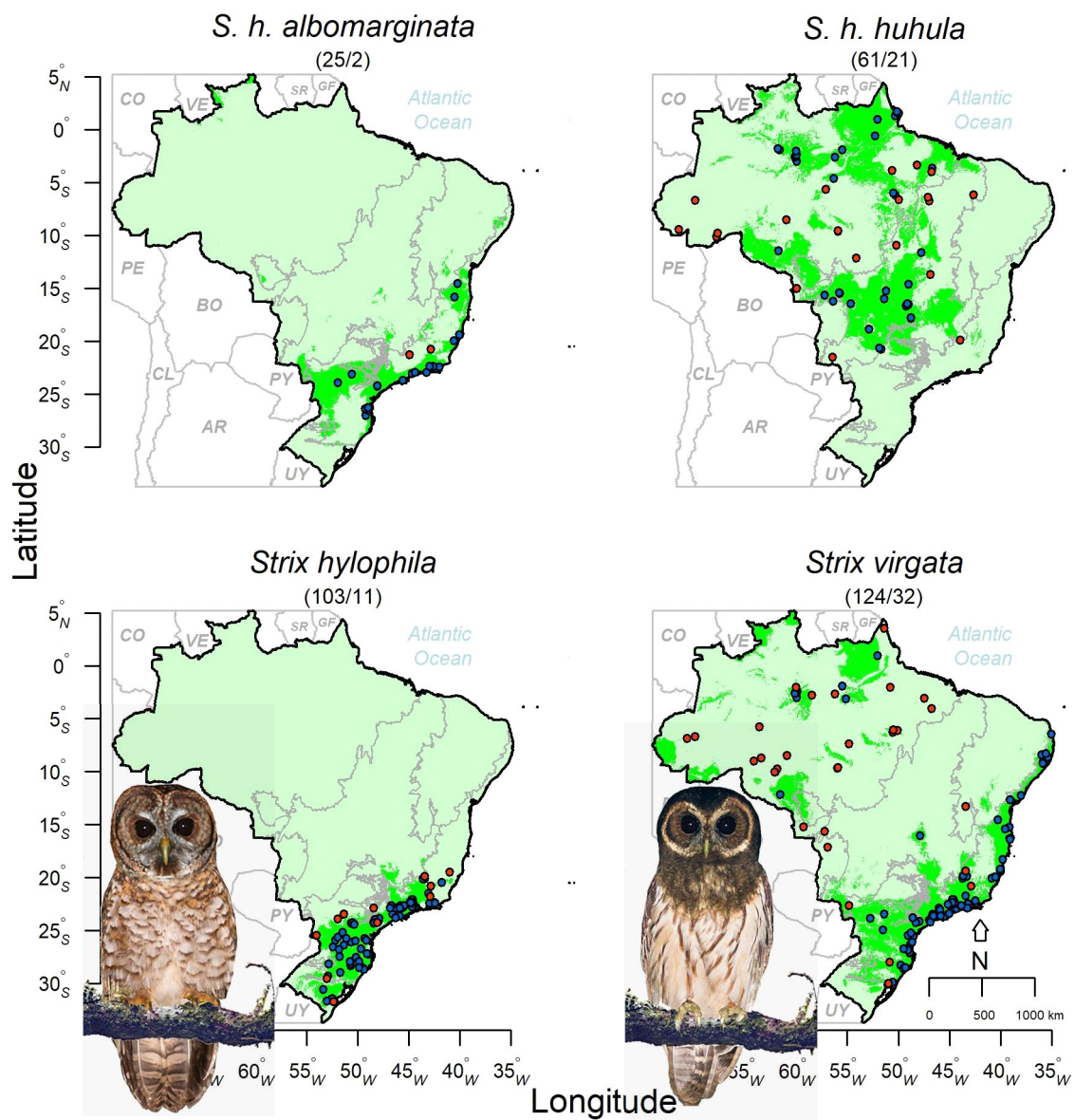


Figure E (cont.). Thresholded (binary) spatial distributions of each taxon of Brazilian Strigidae modelled as predicted by Maxent in G-space.

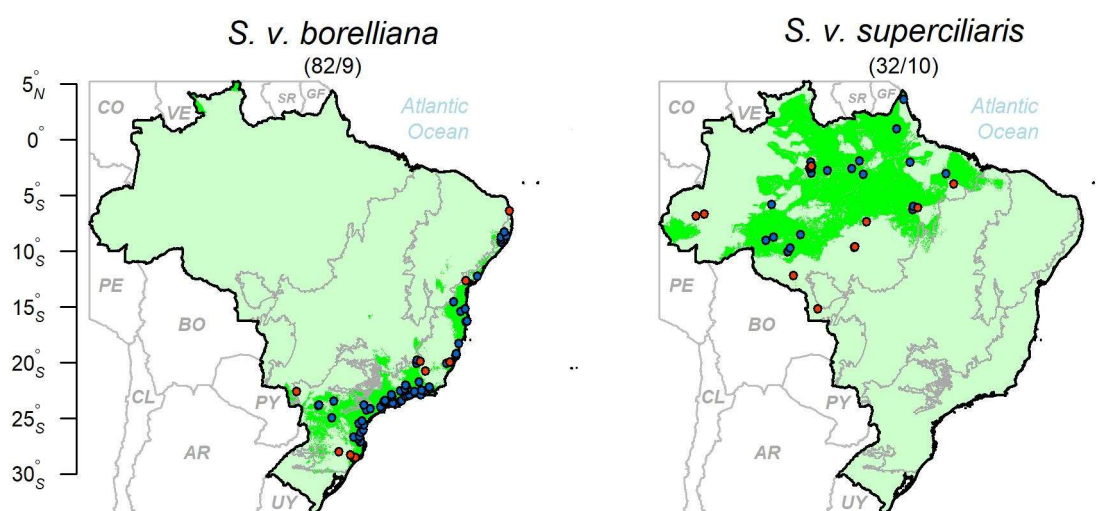


Figure F. Niche equivalency tests. Dashed vertical lines indicate the observed values relative to the frequency distributions of 100 random replicates of both measures included: *D* (lower-left half of the matrix) and *I* (upper-right half).

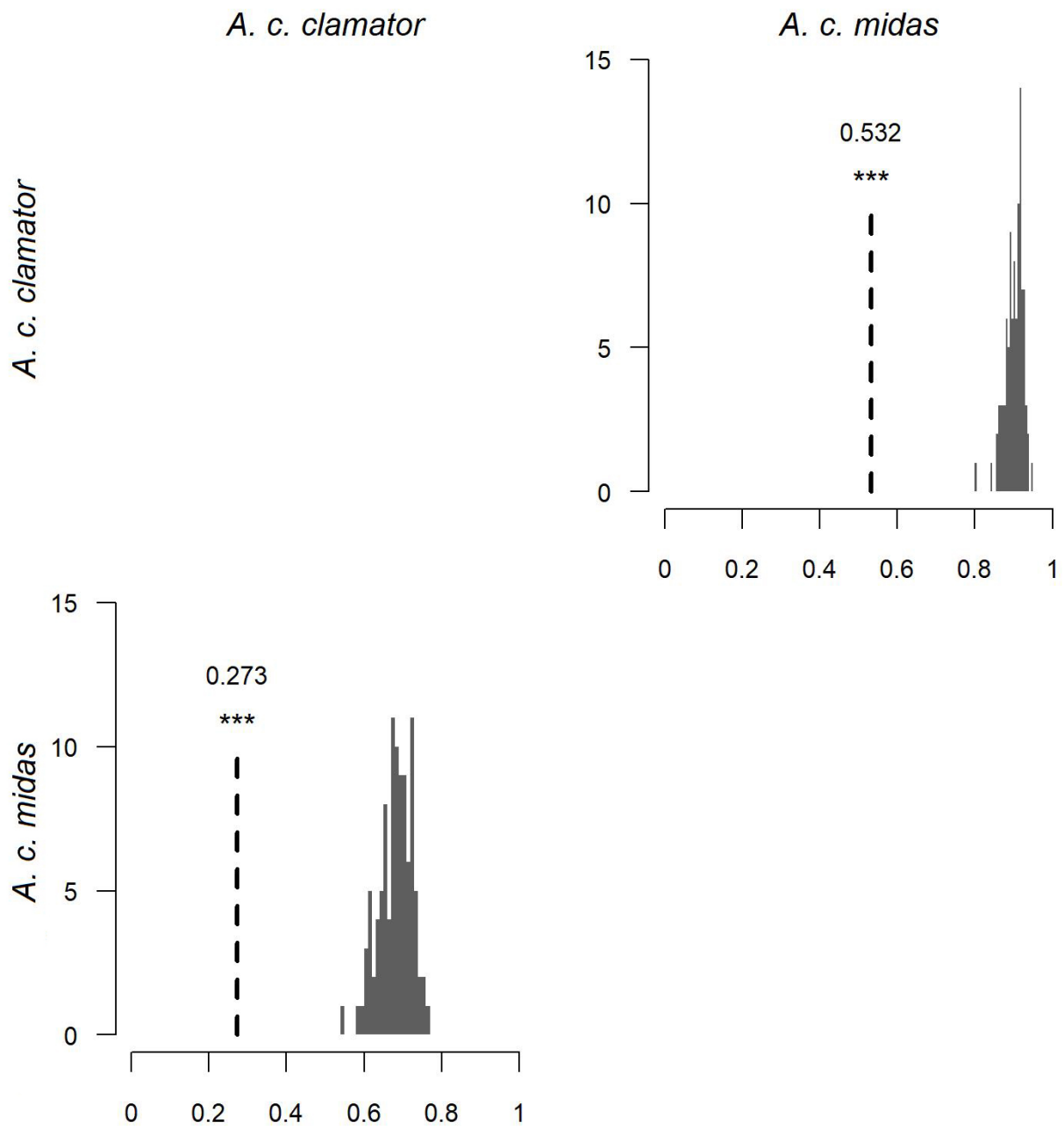


Figure F (cont.). Niche equivalency tests.

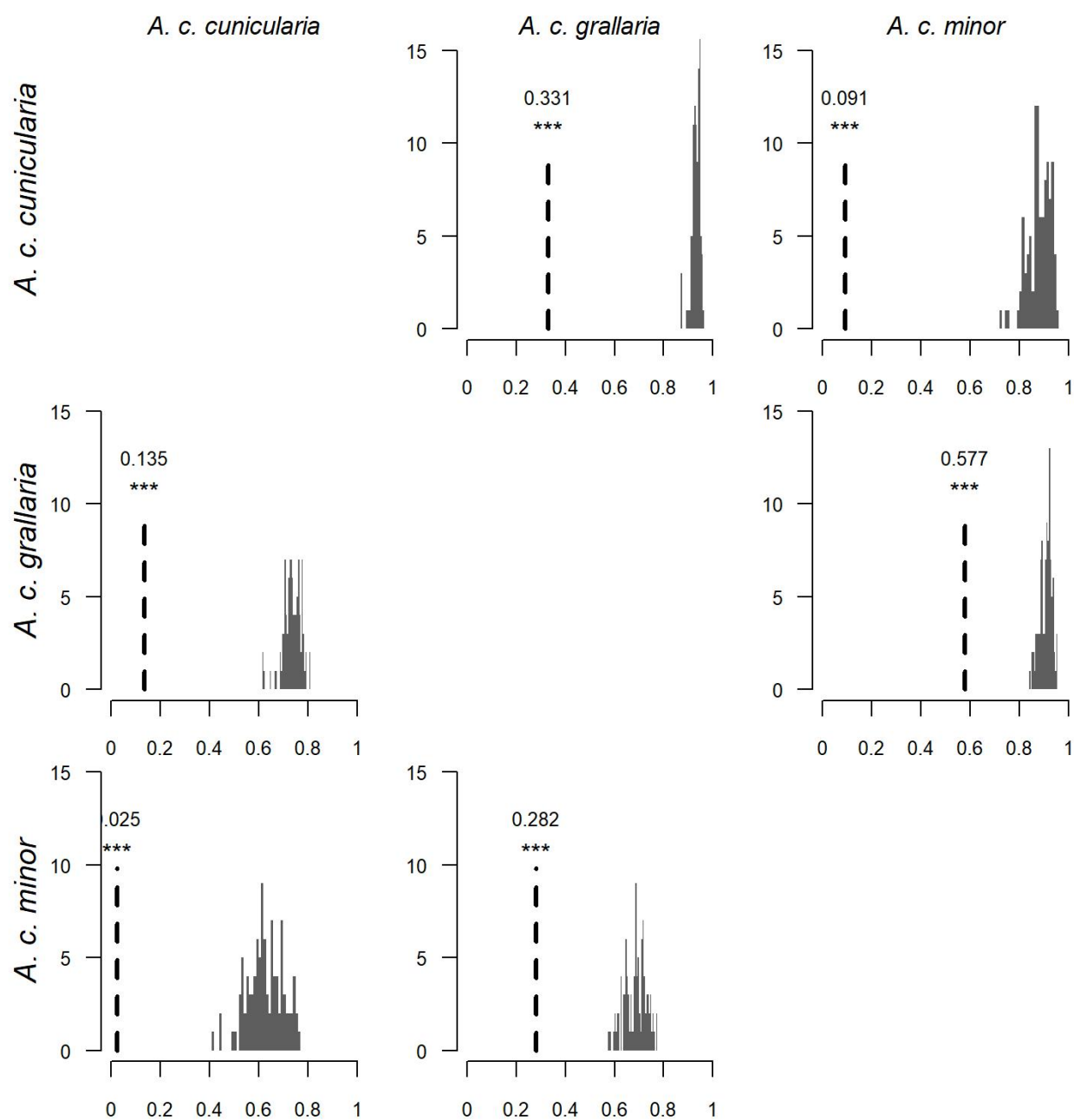


Figure F (cont.). Niche equivalency tests.

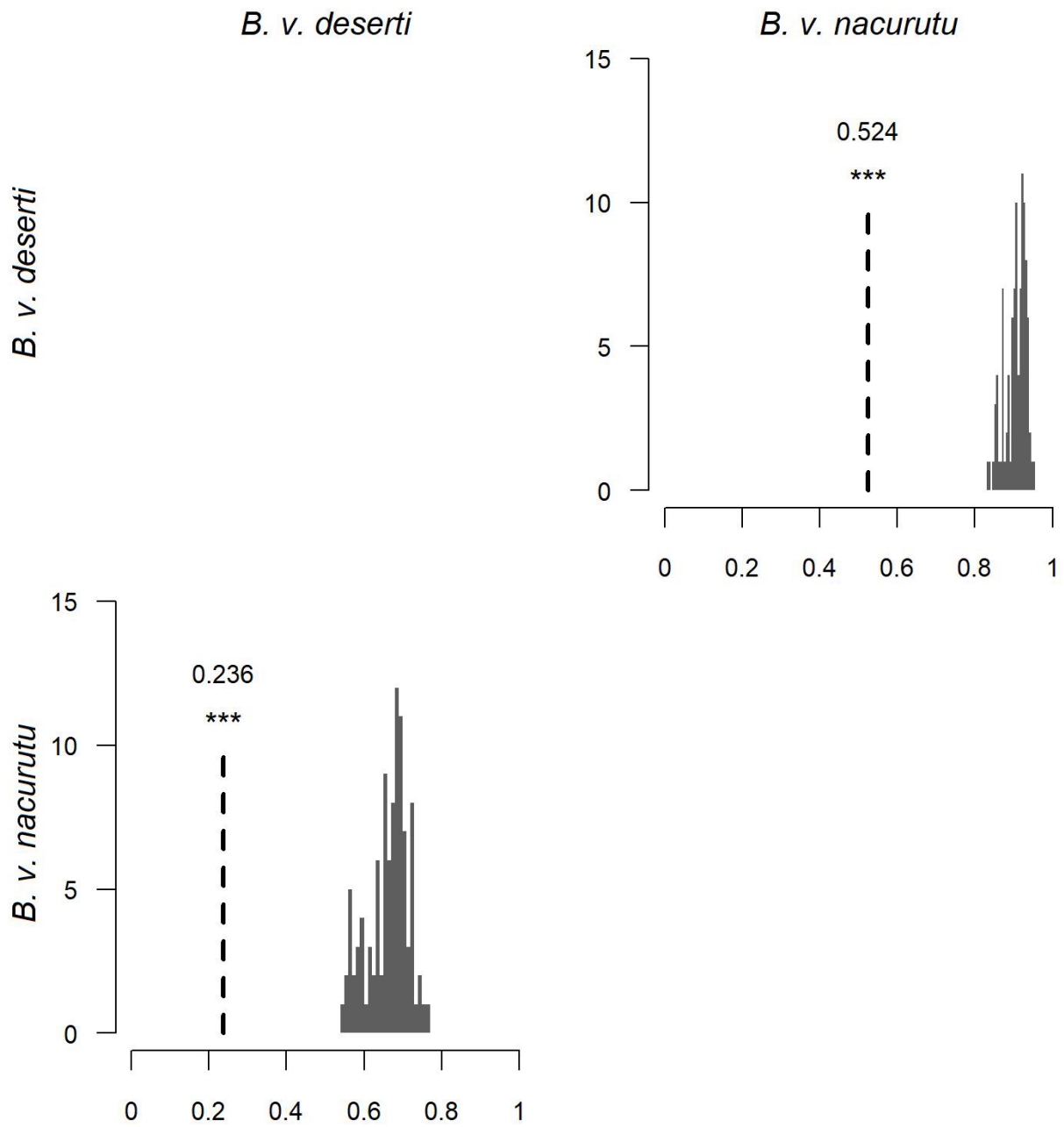


Figure F (cont.). Niche equivalency tests.

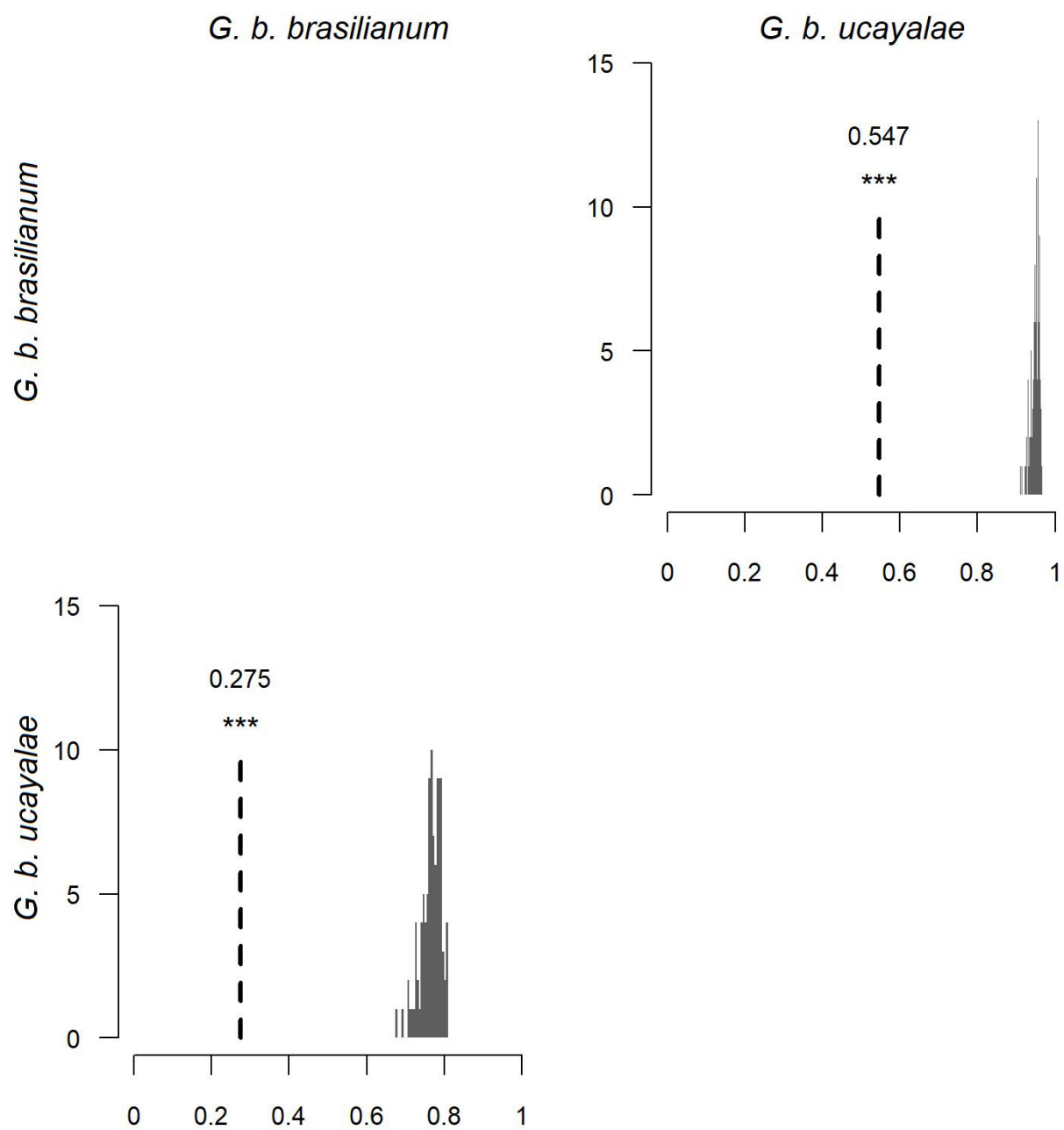


Figure F (cont.). Niche equivalency tests.

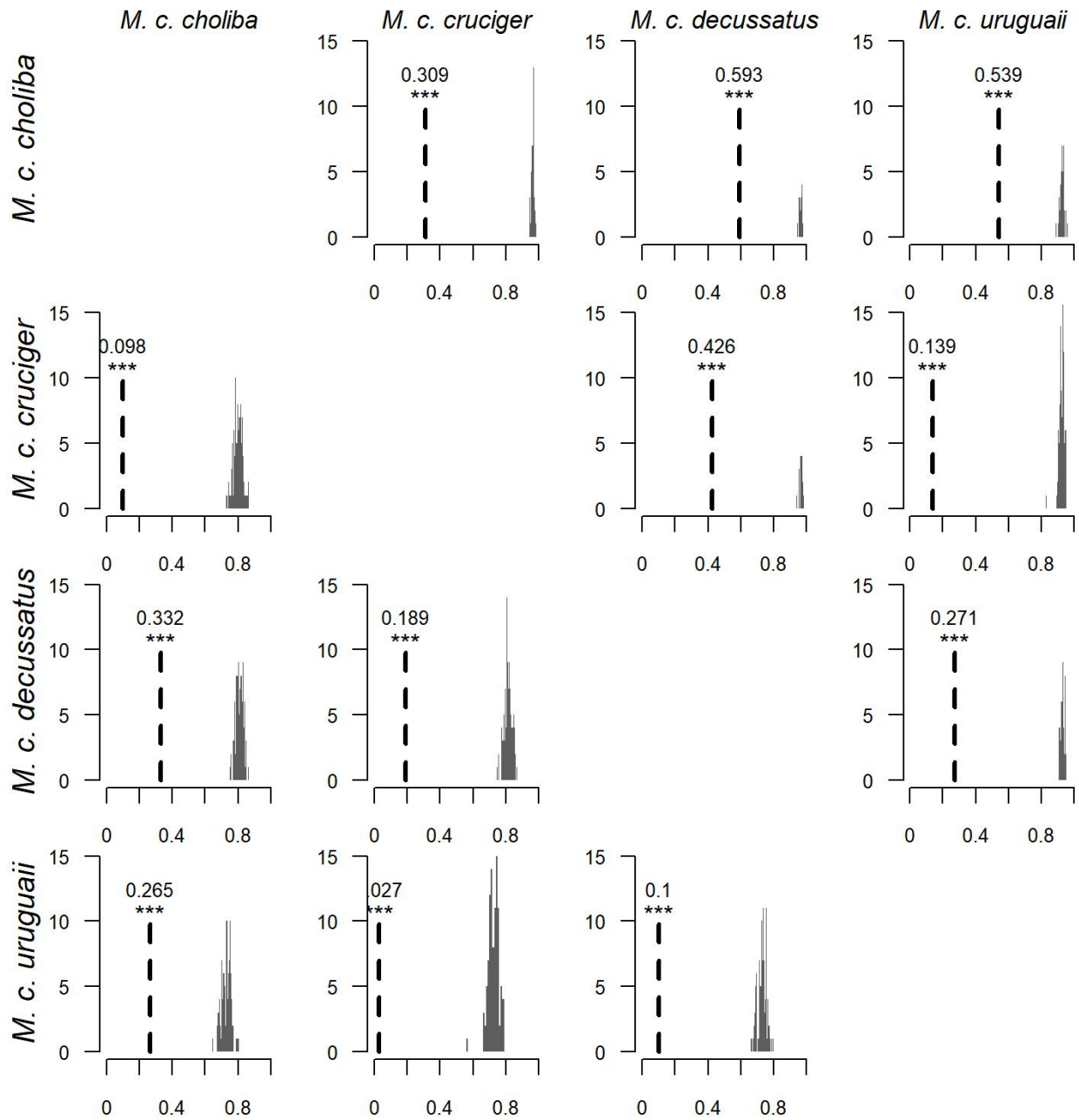


Figure F (cont.). Niche equivalency tests.

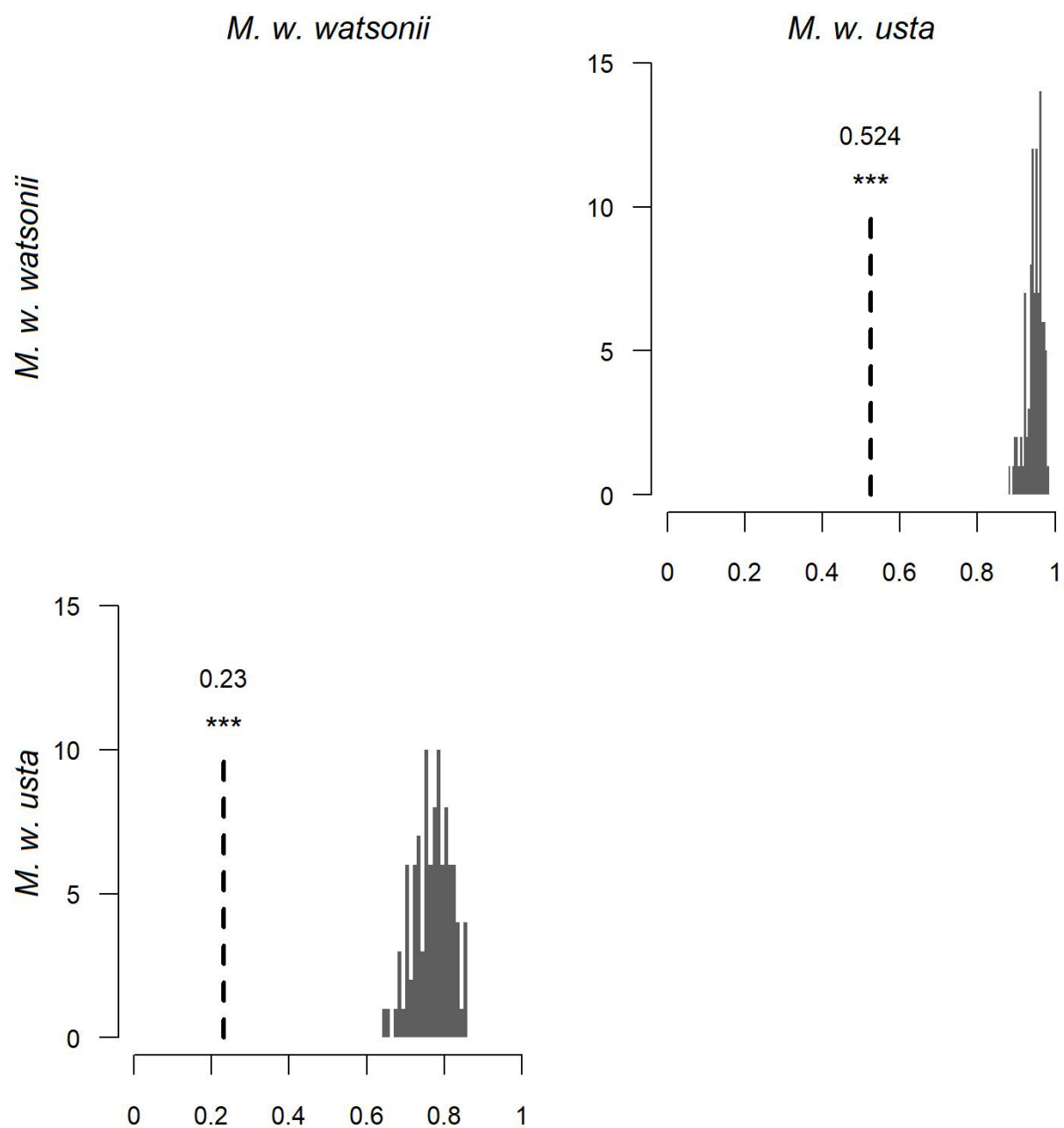


Figure F (cont.). Niche equivalency tests.

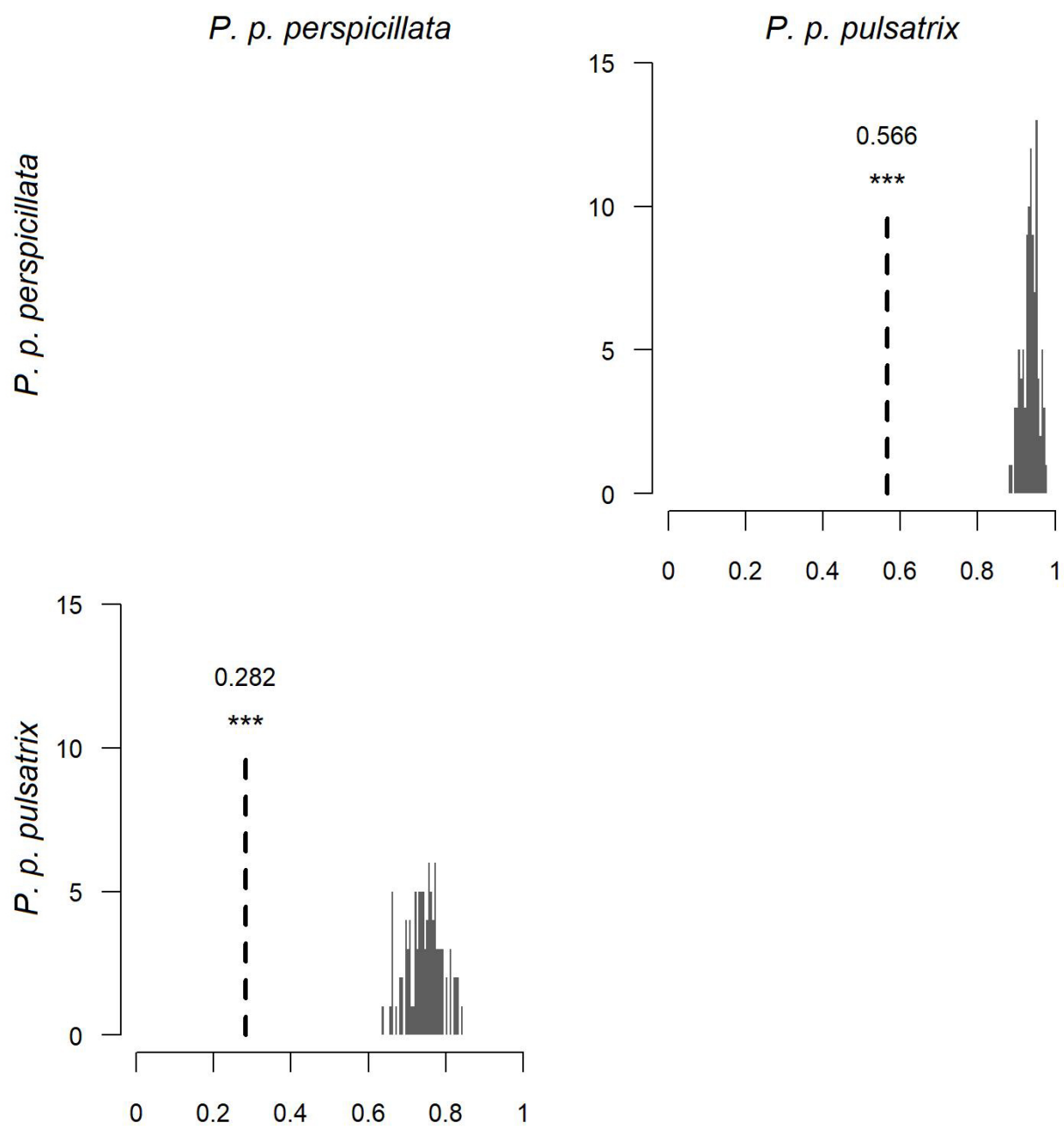


Figure F (cont.). Niche equivalency tests.

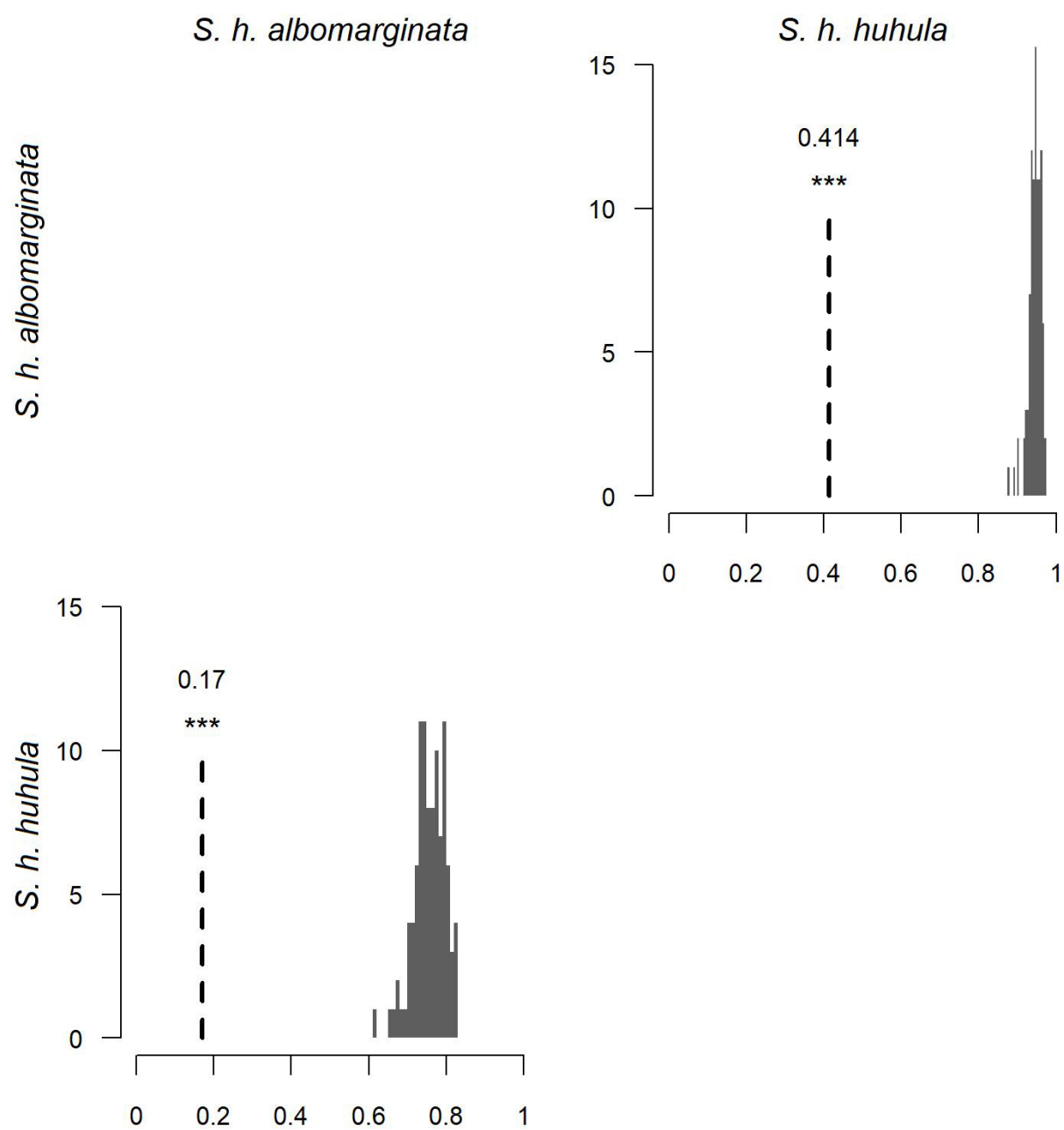


Figure F (cont.). Niche equivalency tests.

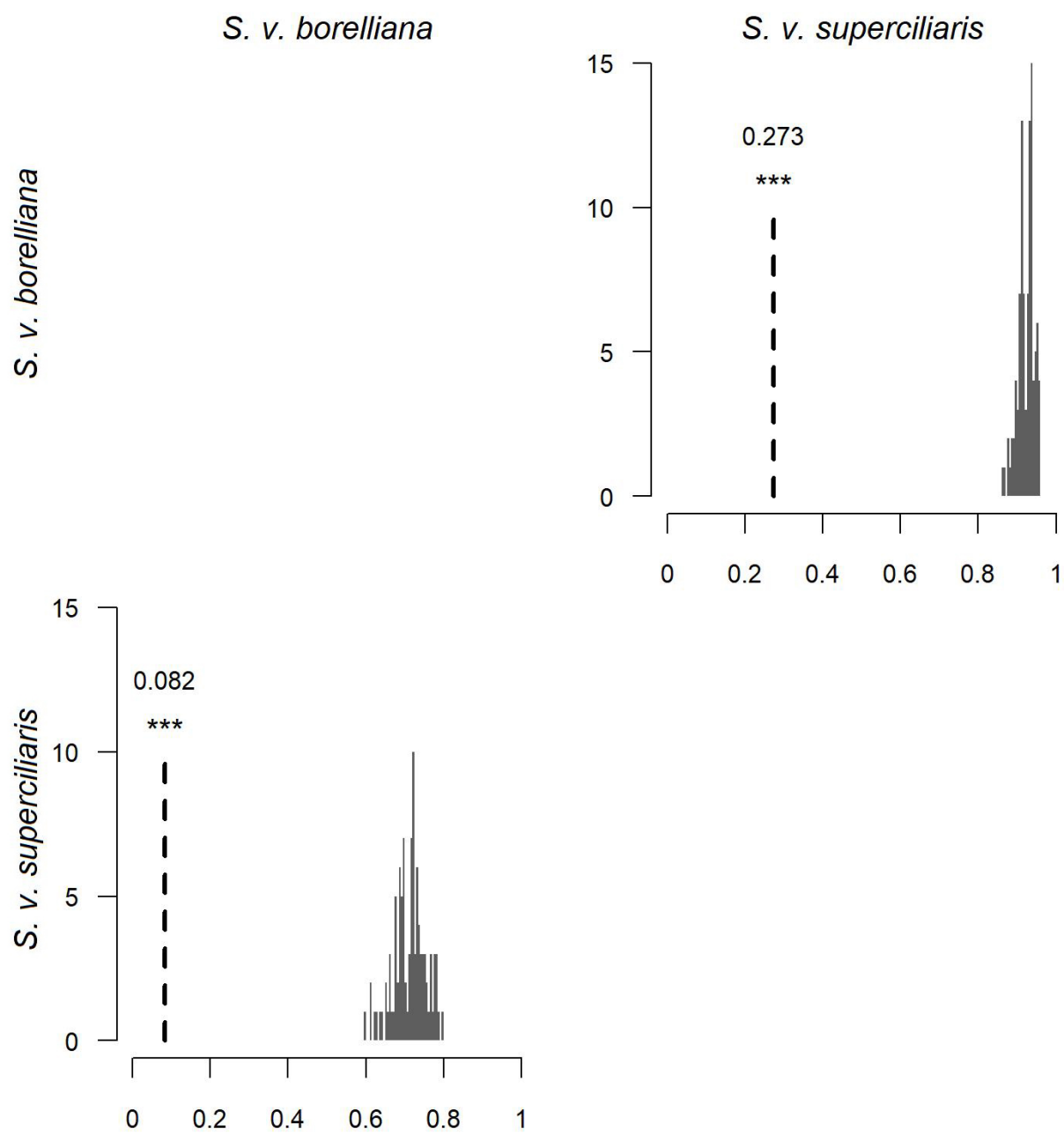


Figure G. Background similarity tests for the subspecies under study. The dashed vertical lines correspond to the observed values relative to the frequency distributions of 100 random replicates of both measures included: *D* (lower-left half) and *I* (upper-right).

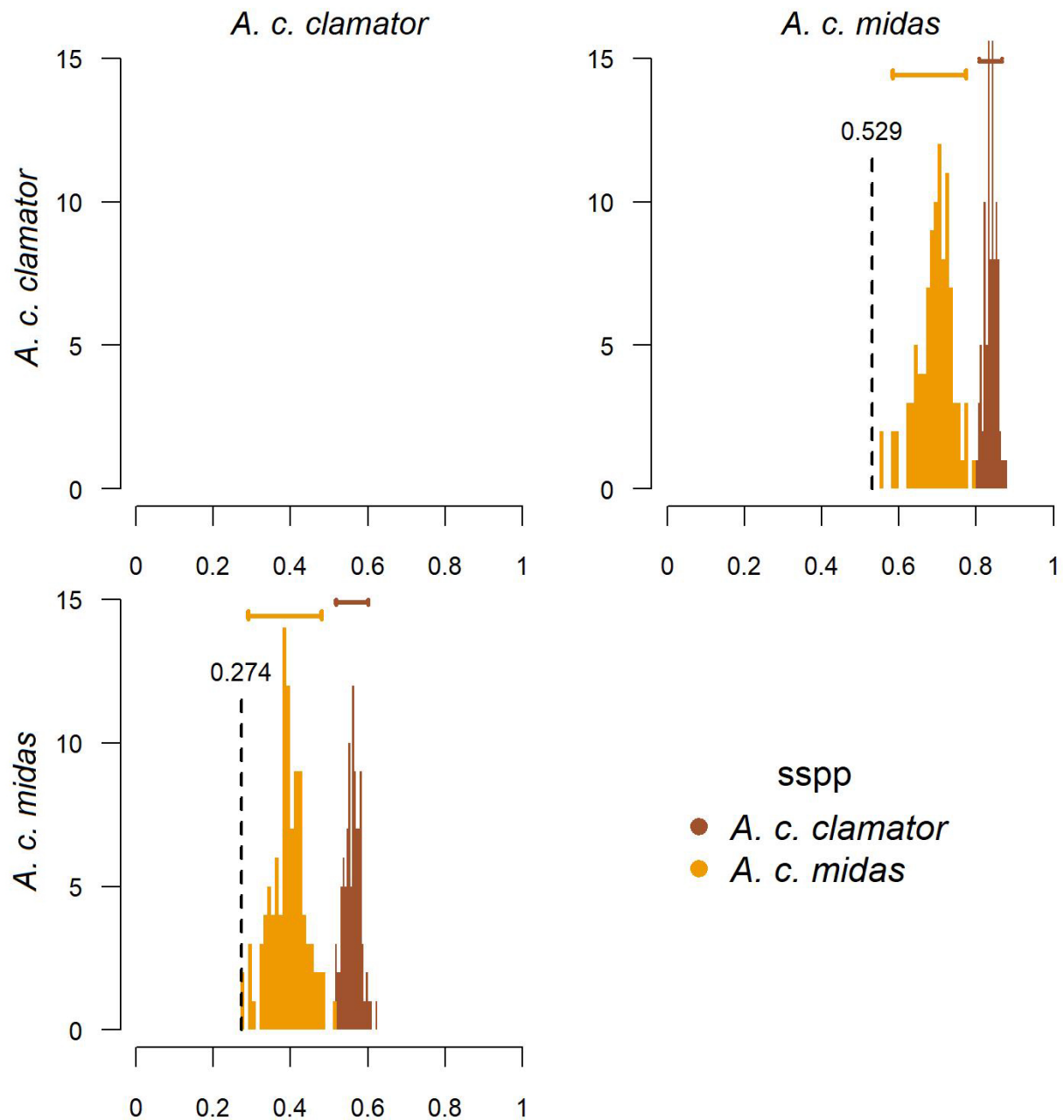


Figure G (cont.). Background similarity tests for the subspecies under study.

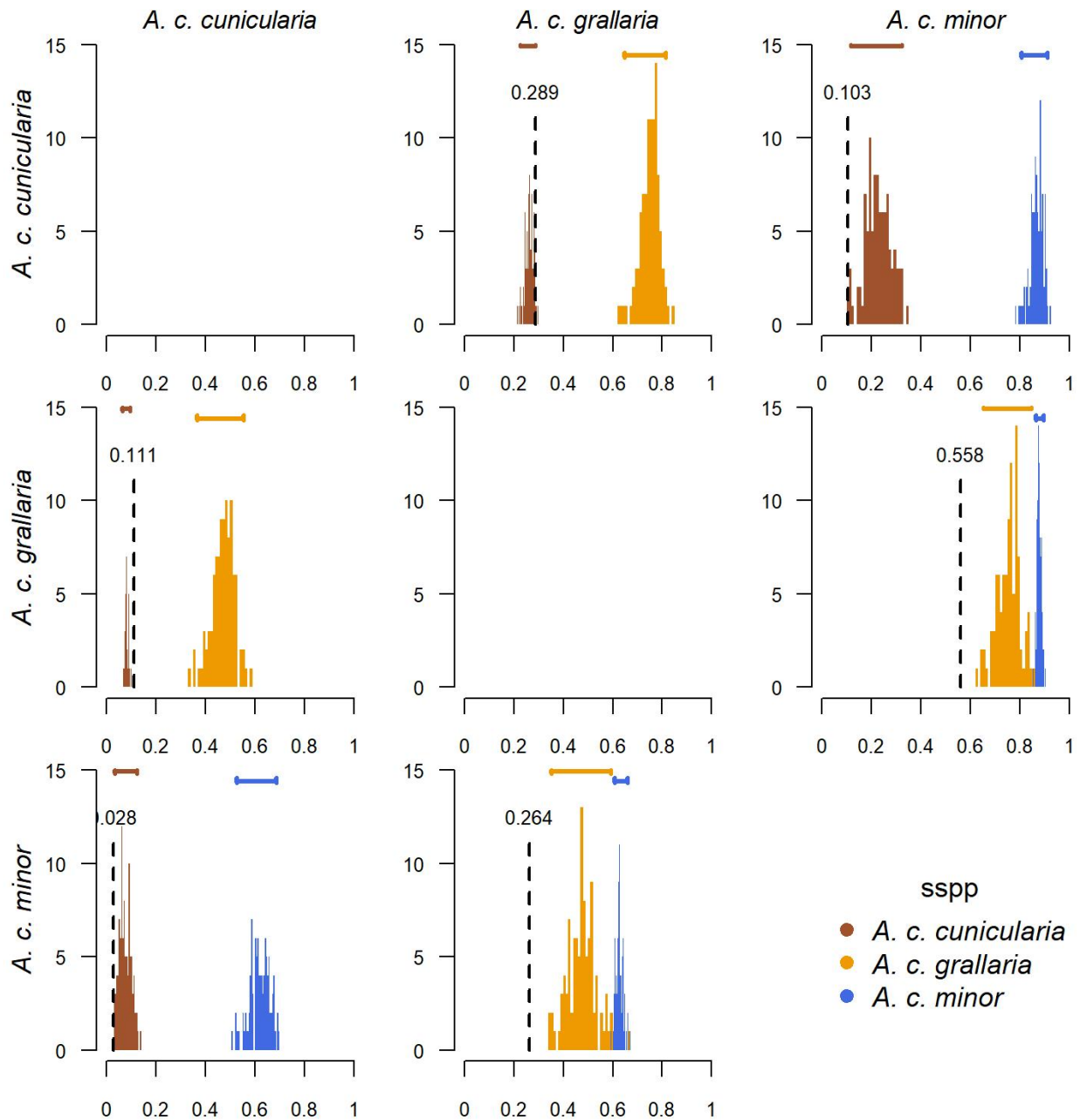


Figure G (cont.). Background similarity tests for the subspecies under study.

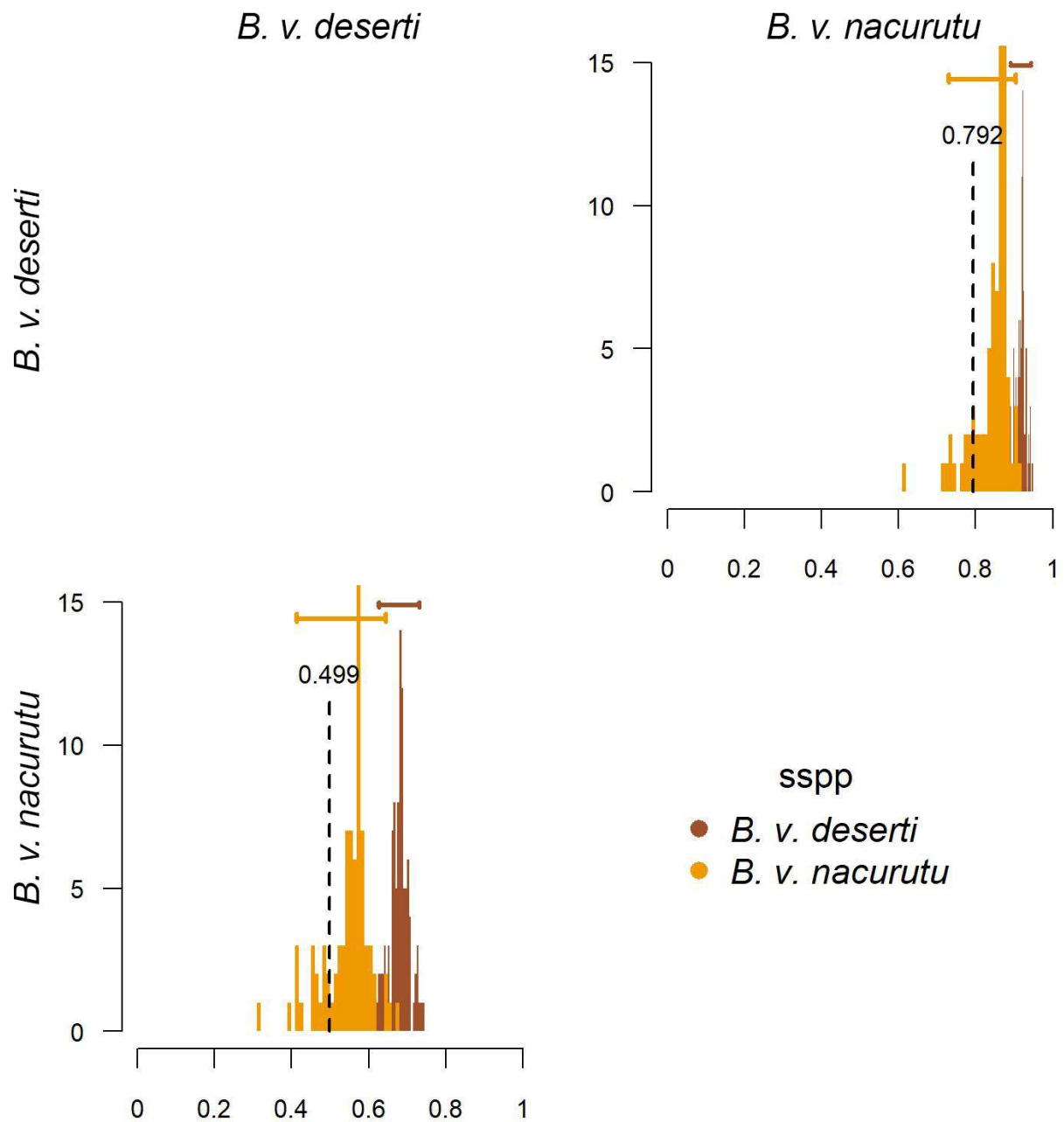


Figure G (cont.). Background similarity tests for the subspecies under study.

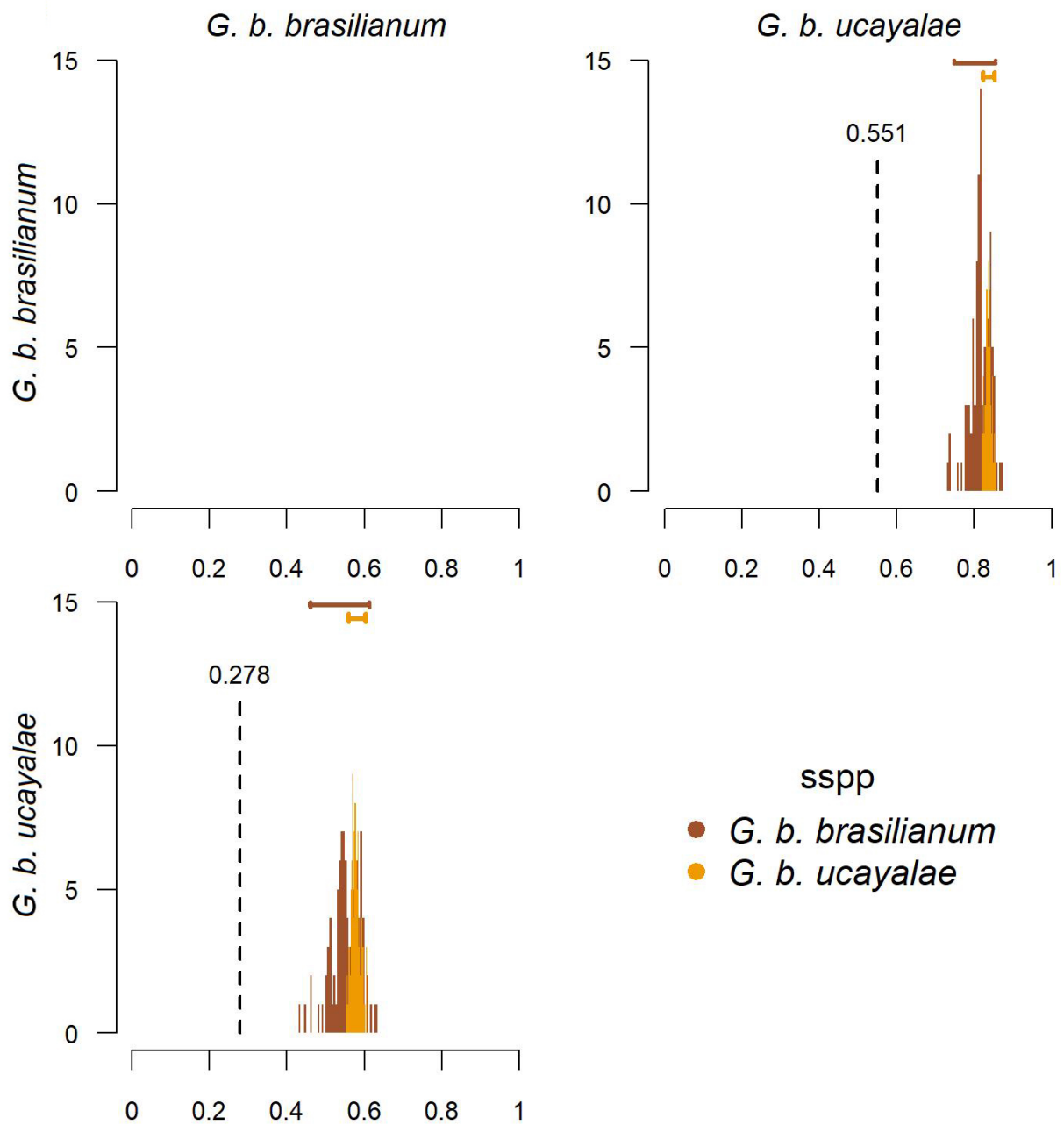


Figure G (cont.). Background similarity tests for the subspecies under study.

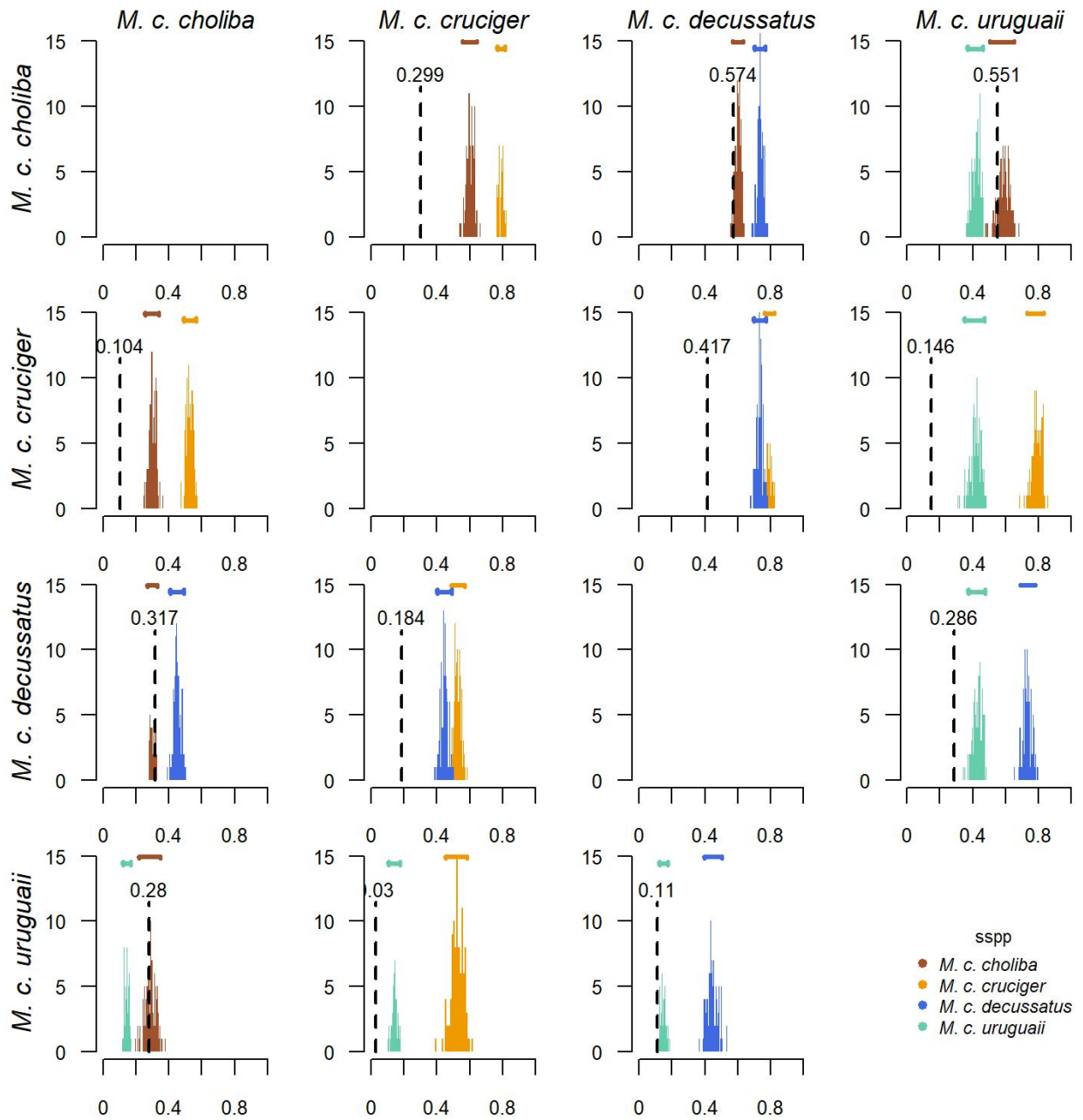


Figure G (cont.). Background similarity tests for the subspecies under study.

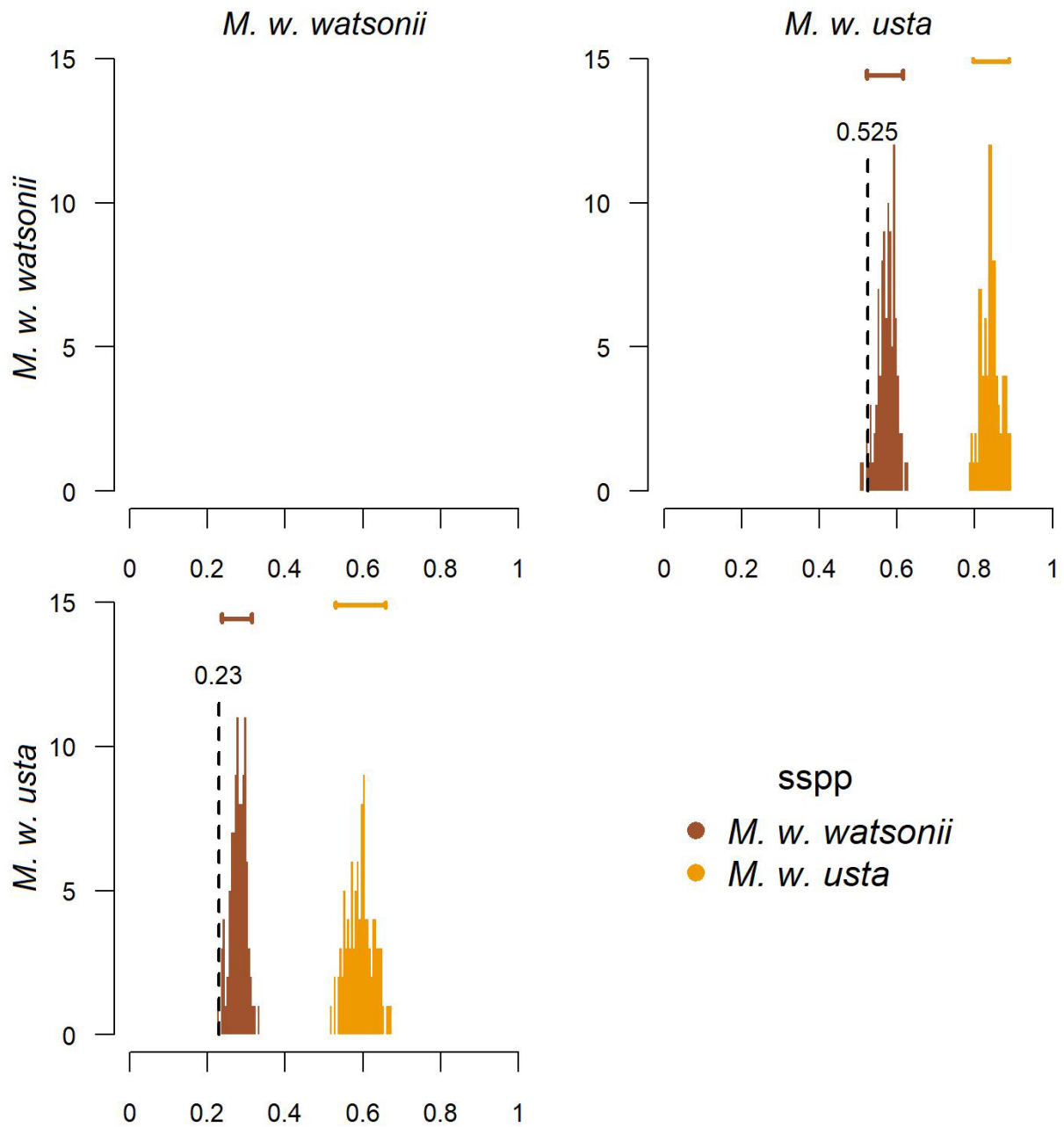


Figure G (cont.). Background similarity tests for the subspecies under study.

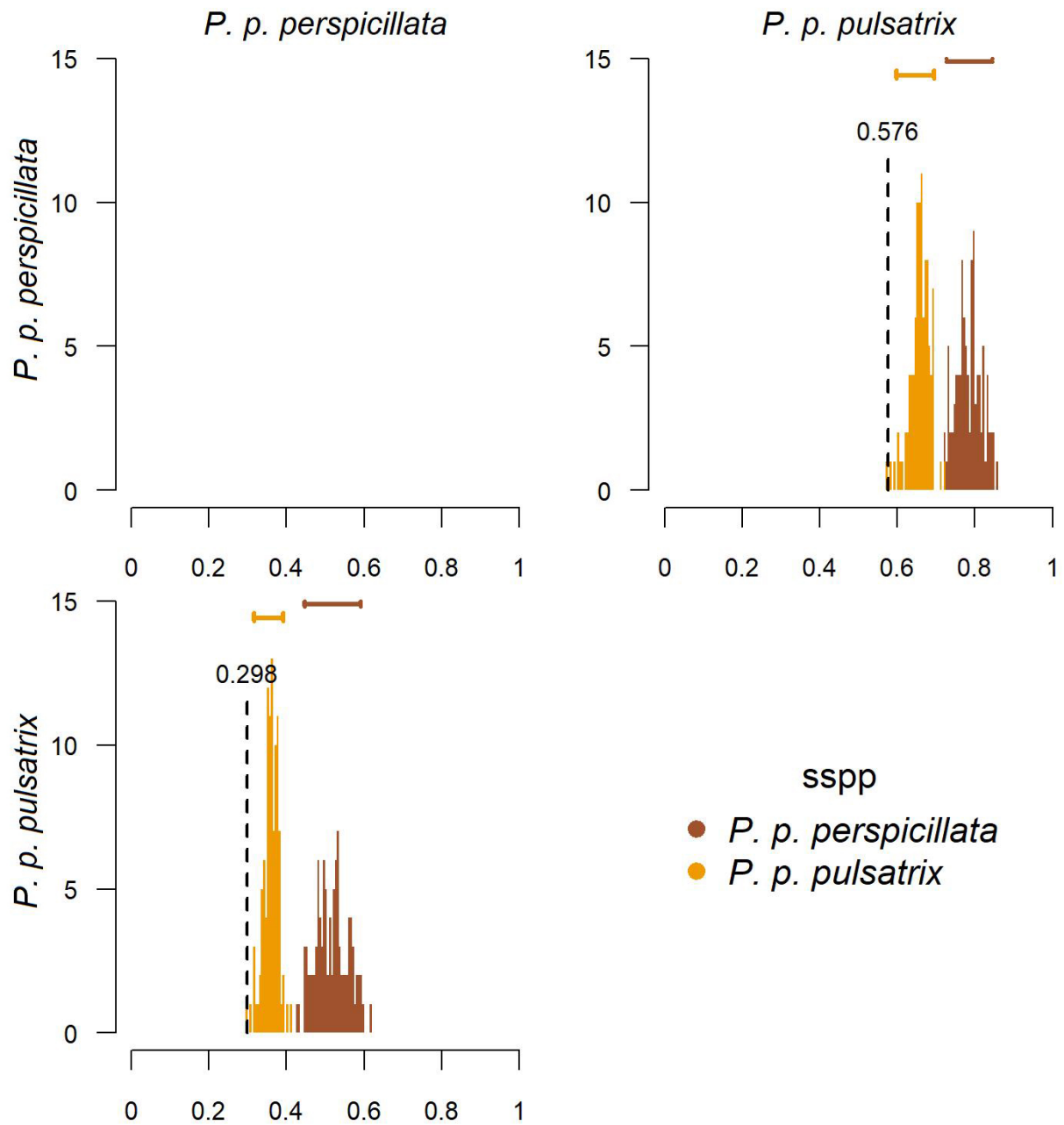


Figure G (cont.). Background similarity tests for the subspecies under study.

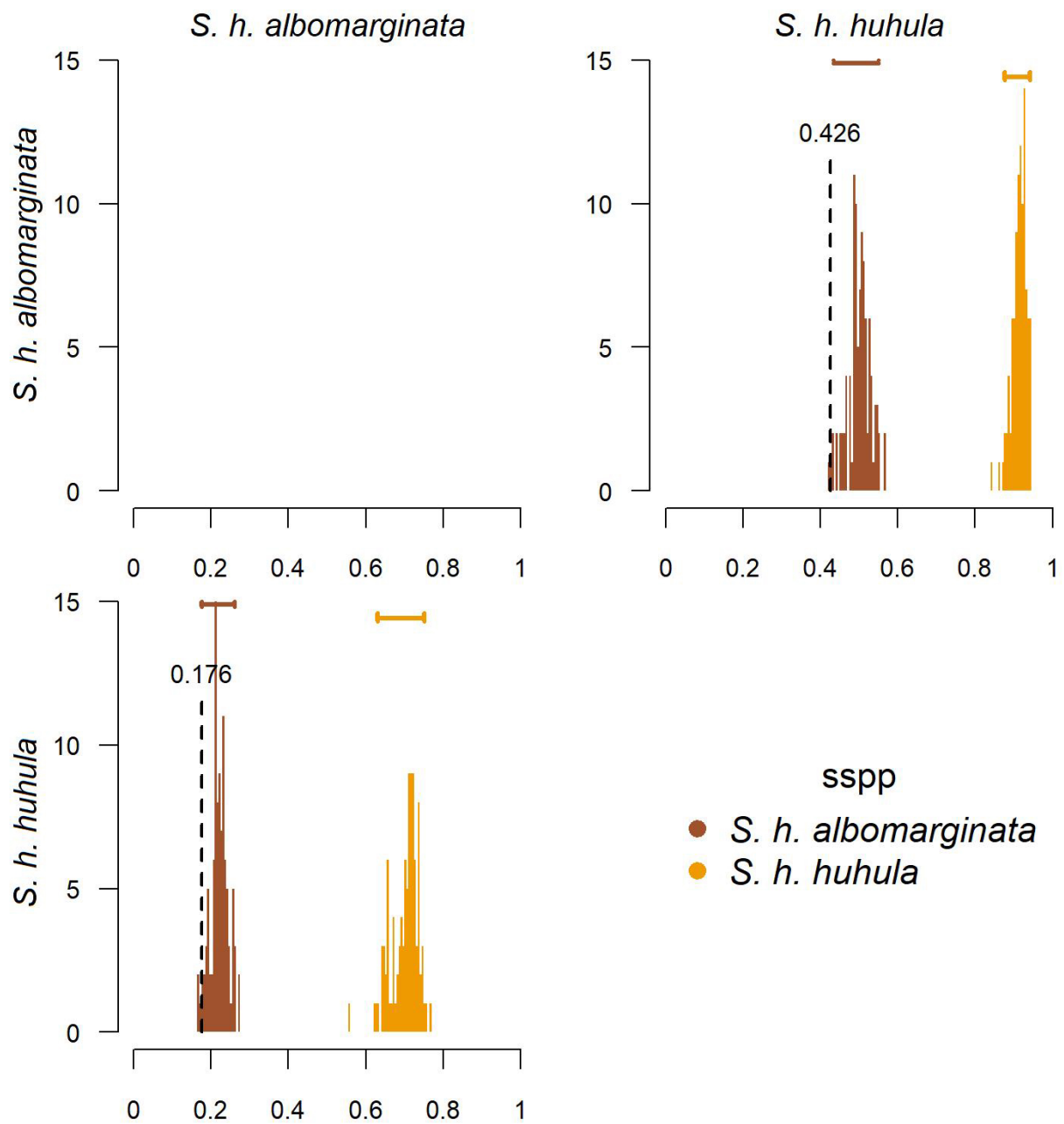
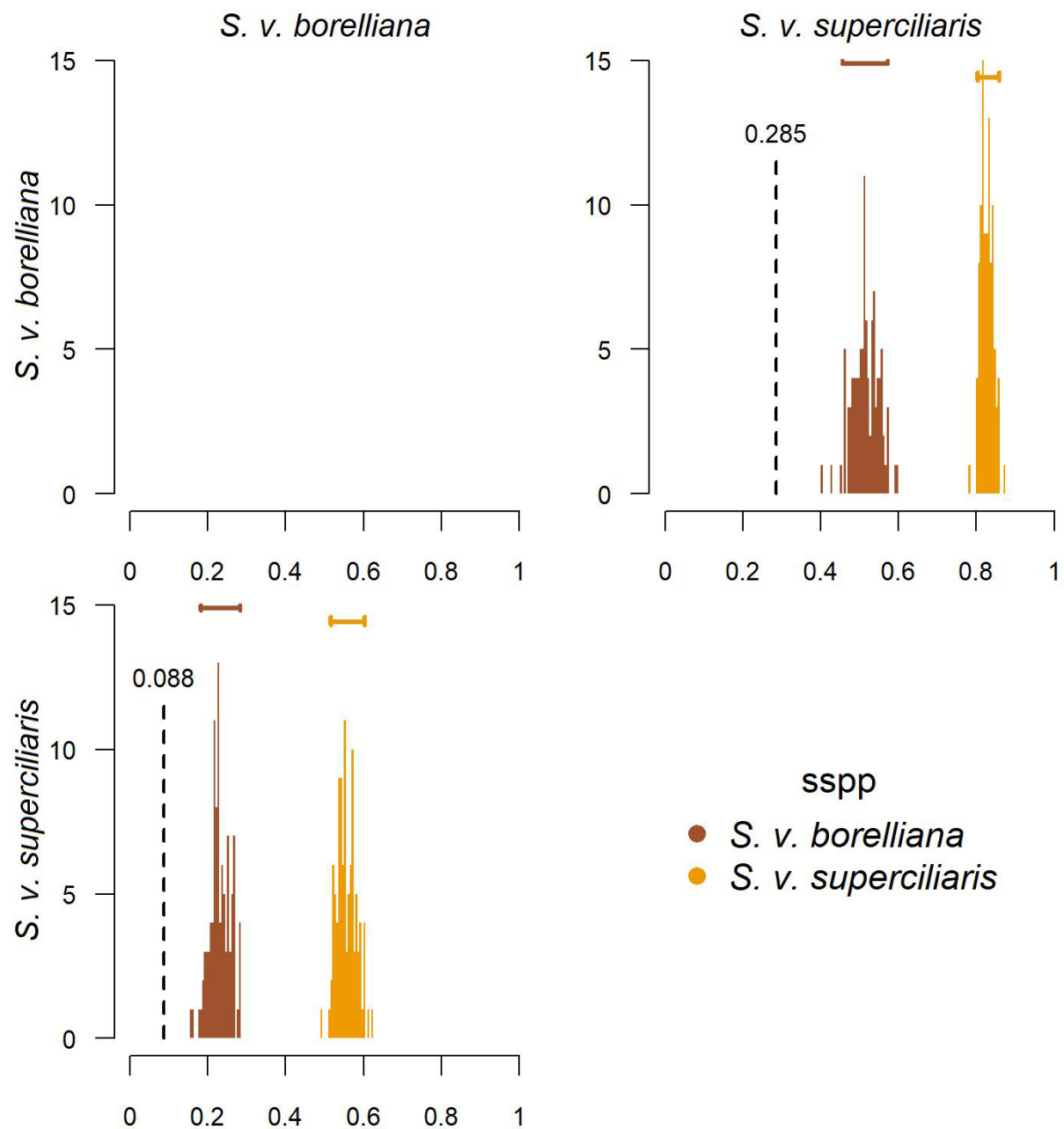


Figure G (cont.). Background similarity tests for the subspecies under study.



Appendix 2

References of the occurrences

1. Academy of Natural Sciences. ORN. Occurrence dataset <https://doi.org/10.15468/d5tdxh> accessed via GBIF.org on 2019-12-27.
2. Accordi I. 2003. Levantamento e análise da conservação da avifauna na sub-bacia do baixo Jacuí, Rio Grande do Sul, Brasil. *Atualidades Ornitológicas* **114**:7.
3. Accordi I, Barcellos A. 2008. Novas ocorrências e registros notáveis sobre distribuição de aves em Santa Catarina, sul do Brasil. *Biotemas* **21**:85–93.
4. Aguiar KMO, Naiff RH. 2009. Aspectos reprodutivos e dieta alimentar dos ninhegos de *Rhinoptynx clamator* (Aves: Strigidae) no campus Marco Zero da Universidade Federal do Amapá, Macapá-AP. *Acta Amazonica* **39**:221–224.
5. Aguiar KMO, Naiff RH, Xavier B. 2010. Aves da Reserva Biológica do Lago Piratuba, Amapá, Brasil. *Ornithologia* **4**:1–14.
6. Aleixo A. 2019. Museu Paraense Emílio Goeldi-Ornithology Collection Nests. Museu Paraense Emílio Goeldi. Occurrence dataset <https://doi.org/10.15468/8enga9> accessed via GBIF.org on 2019-12-27.
7. Aleixo A. 2019. Museu Paraense Emílio Goeldi - Ornithology Collection - Feathers and Skin. Version 13.2. Museu Paraense Emílio Goeldi. Occurrence dataset <https://doi.org/10.15468/54sd1x> accessed via GBIF.org on 2019-12-27.
8. Aleixo A. 2019. Museu Paraense Emílio Goeldi - Ornithology Collection - Anatomic. Version 1.2. Museu Paraense Emílio Goeldi. Occurrence dataset <https://doi.org/10.15468/wbhleb> accessed via GBIF.org on 2019-12-27.
9. Aleixo A. 2019. Museu Paraense Emílio Goeldi - Ornithology Collection - Osteological. Version 1.2. Museu Paraense Emílio Goeldi. Occurrence dataset <https://doi.org/10.15468/5yzclc> accessed via GBIF.org on 2019-12-27.
10. Aleixo A, Fab, and Poletto F. 2007. Birds of an open vegetation enclave in southern Brazilian Amazonia. *The Wilson Journal of Ornithology* **119**:610–630.
11. Aleixo A, Galetti M. 1997. The conservation of the avifauna in a lowland Atlantic forest in south-east Brazil. *Bird Conservation International* **7**:235–261.
12. Aleixo A, Poletto F, Lima M de FC, Castro M, Portes E, Miranda L de S. 2011. Notes on the Vertebrates of northern Pará Brazil: a forgotten part of the Guianan Region, II. Avifauna. *Boletim do Museu Paraense Emílio Goeldi Ciências Naturais* **6**:11–65.
13. Aleixo A, Vielliard JME. 1995. Composição e dinâmica da avifauna da mata de Santa Genebra, Campinas, São Paulo, Brasil. *Revista Brasileira de Zoologia* **12**:493–511.
14. Alves MA, Vecchi M, Vallejos LM, Ribeiro E, Martins-Silva J, Clair RS. 2016. New records of bird species from Ilha Grande, state of Rio de Janeiro, southeastern Brazil. *Check List* **12**:2017.
15. Andriola JVP, Marcon AP. 2017. Contribuição ao conhecimento da avifauna do Sul da Serra do Cachimbo, Pará, Brasil. *Atualidades Ornitológicas* **200**:5–7.
16. Anjos L dos, Graf V. 1993. Riqueza de aves da Fazenda Santa Rita, região dos Campos Gerais, Palmeira, Paraná, Brasil. *Revista Brasileira de Zoologia* **10**:673–693.
17. Antunes AZ, Silva BG da, Matsukuma CK, Eston MR de, Santos AMR dos. 2013. Aves do Parque Estadual Carlos Botelho _ SP. *Biota Neotropica* **13**:124–140.
18. Araujo G. 2017. Coleção de Aves do Museu Nacional / UFRJ. Version 2.6. Museu Nacional / UFRJ. Occurrence dataset <https://doi.org/10.15468/ga2jww> accessed via GBIF.org on 2019-12-27.
19. Araujo HFP de, Rodrigues RC, Nishida AK. 2006. Composição da avifauna em complexos estuarinos no estado da Paraíba, Brasil. *Revista Brasileira de Ornithologia* **14**:249–259.
20. Arend Ú. 2017. UNIVATES - Coleção de Ornithologia do Museu de Ciências Naturais da Universidade do Vale do Taquari - Univates (ZOUNCN-UNIVATES). Version 1.8. Universidade do Vale do Taquari - UNIVATES. Occurrence dataset <https://doi.org/10.15468/ntcyur> accessed via GBIF.org on 2019-12-27.
21. Azevedo TR de. 1995. Estudo da avifauna do campus da Universidade Federal de Santa Catarina (Florianópolis). *Biotemas* **8**:7–35.
22. Barbosa JH, Fernandes PF, Aparecido RMB. 2019. fauna do município de araraquara-sp. Version 1.3. Sistema de Informação sobre a Biodiversidade Brasileira - SiBBR. Occurrence dataset <https://doi.org/10.15468/k6ezkv> accessed via GBIF.org on 2019-12-27.
23. Barnett JM, da Silva CLG, de Araujo HFP, Roos AL, Machado CG, Uejima AMK, Naka LN. 2014. The avifauna of Curaçá (Bahia): the last stronghold of Spix's Macaw. *Revista Brasileira de Ornithologia* **22**:121–137.
24. Barros OG, Cintra R. 2009. The effects of forest structure on occurrence and abundance of three owl species (Aves: Strigidae) in the Central Amazon forest. *Zoologia (Curitiba)* **26**:85–96.
25. Becker AM, Povaluk M. 2013. Levantamento das espécies de aves da área denominada Zona de Preservação Ambiental e Lazer 1 (ZPAL1), situada no perímetro urbano de Mafra – SC. *Saúde Meio Ambiente* **2**:3–15.
26. Besson L. 2016. Collection ornithologique A. Maës. Version 1.1. Muséum d'Histoire Naturelle de Bourges. Occurrence dataset <https://doi.org/10.15468/udvrl6> accessed via GBIF.org on 2019-12-27.

27. Biologiezentrum Linz Oberösterreich. Occurrence dataset <https://doi.org/10.15468/ynjblx> accessed via GBIF.org on 2019-12-27.
28. Borges S, Henriques L, Carvalhaes A. 2004. Density and habitat use by owls in two Amazonian forest types. *Journal of Field Ornithology* **75**:176–182.
29. Borges S, Whittaker A, Almeida R, Cornélius C, Santos-Jr M dos, Moreira M. 2018. Bird records in the northwestern and central portions of the Amazon basin highlight the needs for inventories and long-term monitoring in the region. *Revista Brasileira de Ornitologia* **25**:206–220.
30. Borges SH. 2004. Species poor but distinct: bird assemblages in white sand vegetation in Jaú National Park, Brazilian Amazon. *Ibis* **146**:114–124.
31. Bornschein MR, Reinert BL. 2000. Aves de três remanescentes florestais do norte do Estado do Paraná sul do Brasil, com sugestões para a conservação e manejo. *Revista Brasileira de Zoologia* **17**:615–636.
32. Boss RL, Aguiar KMO. 2011. Caracterização preliminar da avifauna em um trecho do rio Amapari, Serra do Navio, Amapá, Brasil. *Ornithologia* **4**:110–125.
33. Braga ACR, Motta-Junior JC. 2009. Weather conditions and moon phase influence on Tropical Screech owl and Burrowing owl detection by playback in Southeast Brazil. *Ardea* **97**:395–401.
34. Braun, M., Robbins, M., Milensky, C., O'Shea, B., Barber, B., Hinds, W., Prince, W., 2003. New birds for Guyana from Mts Roraima and Ayanganna. *Bulletin of the British Ornithologists' Club* **123**: 24–33.
35. Cardiff S. 2016. LSUMZ Birds Collection. Louisiana State University Museum of Natural Science. Occurrence dataset <https://doi.org/10.15468/d90jm5> accessed via GBIF.org on 2019-12-27.
36. Carvalho L, Cunha N, Fischer E, Santos C. 2013. Predation on Broad-eared bat *Nyctinomops laticaudatus* by the Spectacled Owl *Pulsatrix perspicillata* in southwestern Brazil. *Revista Brasileira de Ornitologia* **19**:417–418.
37. Castro W, Franchin A, Marçal-Júnior O. 2010. Breeding of *Glaucidium brasilianum* (Gmelin 1788) in the urban environment of Uberlândia, State of Minas Gerais. *Revista Brasileira de Ornitologia* **18**:55–58.
38. Catroxo MH, Taniguchi DL, Melo NA, Milanelo L, Petrella S, Alves M, Martins A, Rebouças M. 2010. Viral research in Brazilian Owls (*Tyto alba* and *Rhinoptynx clamator*) by transmission electron microscopy. *International Journal of Morphology* **28**:627–636.
39. Cicero C. 2019. MVZ Bird Collection (Arctos). Version 43.33. Museum of Vertebrate Zoology. Occurrence dataset <https://doi.org/10.15468/r1woj3> accessed via GBIF.org on 2019-12-27.
40. Claudino R, Rodrigues R, Silva M. 2012. New record of nesting site of Tropical screech owl (*Megascops choliba*) from Brazil. *Ornitología Neotropical* **23**:137–141.
41. Costa T, Aguiar-Silva F, Silva O, Moreira E. 2018. Diversidade de aves de rapina em uma paisagem fragmentada no sudoeste da Amazônia, Cacoal, Rondônia, Brasil. *Cotinga* **40**:23–30.
42. Creuwels J. 2019. Naturalis Biodiversity Center (NL) - Aves. Naturalis Biodiversity Center. Occurrence dataset <https://doi.org/10.15468/dxmzbx> accessed via GBIF.org on 2019-12-27.
43. Cunha FC, Vasconcelos M. 2009. Birds attracted by the vocalization of the Ferruginous Pygmy-owl *Glaucidium brasilianum* (Aves: Strigidae). *Ararajuba* **2**:144–149.
44. Dantas M, Santana A, Soares L, Sousa S. 2013. Avifauna of Serra Vermelha, southern Piauí, Brazil. *Revista Brasileira de Ornitologia* **20**:199–214.
45. Dantas MP, Aleixo A, d'Horta F, Portes CE. 2013. Avifauna of the Juruti Region, Pará, Brazil. *Revista Brasileira de Ornitologia* **19**:134–153.
46. de Pinho JB, Lopes LE, Marini MÂ. 2016. Birds from the Pirizal region, Pantanal of Poconé, Mato Grosso, Brazil. *Revista Brasileira de Ornitologia* **24**:267–285.
47. Dias RI, Lima MR. 2015. Breeding biology and nest survival in Tropical Screech-Owls (*Megascops choliba*) in the Brazilian Cerrado. *The Wilson Journal of Ornithology* **127**:432–440.
48. Dickerman, RW, WH Phelps. 1982. An annotated list of the birds of Cerro Urutaní on the border of Estado Bolívar, Venezuela, and Territorio Roraima, Brazil. *American Museum novitates*:1–20.
49. Dittmann D. 2016. LSUMZ Bird Tissues. Version 3.1. Louisiana State University Museum of Natural Science. Occurrence dataset <https://doi.org/10.15468/vns3kp> accessed via GBIF.org on 2019-12-27.
50. Dornas T, Agne C, Kajiki L, D'Acosta N, Borges K. 2017. Extensão da distribuição geográfica de *Aegolius harrisii* na região central do Brasil: registros inéditos para estados de Goiás e Tocantins. *Atualidades Ornitológicas* **196**:18–22.
51. Duque Estrada T, Rebollo C. 2016. Occurrences in SinBIOTA. Version 1.8. Programa BIOTA/FAPESP - The Virtual Institute of Biodiversity. Occurrence dataset <https://doi.org/10.15468/j4zyyt> accessed via GBIF.org on 2019-12-27.
52. Efe MA, Mohr LV, Bugoni L, Scherer A, Scherer SB. 2001. Inventário e distribuição da avifauna do Parque Saint'Hilaire, Viamão, Rio Grande do Sul, Brasil. *Tangara* **1**:12–25.
53. Esclarski P, Cintra R. 2014. Effects of terra firme-forest structure on habitat use by owls (Aves: Strigiformes) in central Brazilian Amazonia. *Ornitologia Neotropical* **25**:433–458.
54. European Nucleotide Archive (EMBL-EBI). 2019. Geographically tagged INSDC sequences. Occurrence

- dataset <https://doi.org/10.15468/cndomv> accessed via GBIF.org on 2019-12-27.
55. Faria CMA, Rodrigues M, Amaral FQ do, Módena É, Fernandes AM. 2006. Aves de um fragmento de Mata Atlântica no alto Rio Doce, Minas Gerais: colonização e extinção. *Revista Brasileira de Zoologia* **23**:1217–1230.
 56. Faria IP de. 2007. Registros de aves globalmente ameaçadas, raras e endêmicas para a região de Vicente Pires, Distrito Federal, Brasil. *Revista Brasileira de Ornithologia* **15**:117–122.
 57. Faria LCP, Carrara LA, Amaral FQ do, Vasconcelos MF de, Diniz MG, Encarnação CD, Hoffmann D, Gomes HB, Lopes LE, Rodrigues M. 2009. The birds of Fazenda Brejão: a conservation priority area of Cerrado in northwestern Minas Gerais, Brazil. *Biota Neotropica* **9**:223–240.
 58. Farias GB de, Alves ÂGC, Silva ACBL e. 2007. Riqueza de aves em cinco fragmentos de Floresta Atlântica na Zona da Mata Norte de Pernambuco, Brasil. *Biotemas* **20**:111–122.
 59. Favretto M, Geuster C, Spier EF, Lingnau R. 2008. Observações ornitológicas no oeste de Santa Catarina, Brasil - parte III. *Atualidades Ornitológicas* **148**:50–51.
 60. Fink D, Brandt CS, Rupp AE, Zimmermann CE. 2012. Comunidade de corujas (Aves: Strigiformes) na RPPN Bugerkopf, Blumenau, Santa Catarina. *Biotemas* **25**:75–80.
 61. Feeney R. 2019. LACM Vertebrate Collection. Version 18.6. Natural History Museum of Los Angeles County. Occurrence dataset <https://doi.org/10.15468/77rmwd> accessed via GBIF.org on 2019-12-27.
 62. Fernandes H de QB (2019). MBML-Aves - Coleção de Aves MBML. Version 1.38. Instituto Nacional da Mata Atlântica. Occurrence dataset <https://doi.org/10.15468/soqusy> accessed via GBIF.org on 2019-12-27.
 63. Fontana SC. 2019. MCP-Aves - Coleção de Aves. Version 1.3. Pontifícia Universidade Católica do Rio Grande do Sul. Occurrence dataset <https://doi.org/10.15468/z9wv95> accessed via GBIF.org on 2019-12-27.
 64. Forero S 2019. Avifauna around mining sites in Pará, Brazil. UMS PatriNat (AFB-CNRS-MNHN), Paris. Sampling event dataset <https://doi.org/10.15468/pl6uph> accessed via GBIF.org on 2019-12-27.
 65. Freitas MA de. 2011. Avifauna do município de Mata de São João, Bahia, Brasil. *Atualidades Ornitológicas* **163**:48–56.
 66. Freitas MA de, Filadelfo T, França DPF de, Moraes EP de F. 2016. Avifauna de Mucugê: Levantamento de avifauna na fazenda Caraíbas, Bahia. *Atualidades Ornitológicas* **190**:33–43.
 67. Freitas M, França D. 2009. Primeiro registro do mocho-dos-banhados *Asio flammeus* (Aves; Strigidae) para o nordeste brasileiro. *Atualidades Ornitológicas* **148**:4–5.
 68. GBIF.org, 2019. GBIF Occurrence Download. <https://doi.org/10.15468/dl.5m0awm>
 69. Gall L. 2019. Vertebrate Zoology Division - Ornithology, Yale Peabody Museum. Yale University Peabody Museum. Occurrence dataset <https://doi.org/10.15468/h25uz7> accessed via GBIF.org on 2019-12-27.
 70. Ghizoni-Jr. IR, Azevedo MAG de. 2020. Registros de algumas aves raras ou com distribuição pouco conhecida em Santa Catarina, sul do Brasil, e relatos de três novas espécies para o Estado. *Atualidades Ornitológicas* **154**:33–46.
 71. Girão W, Albano C. 2010. Sinopse da história, taxonomia, distribuição e biologia do caboré *Aegolius harrisii* (Cassin, 1849). *Revista Brasileira de Ornithologia* **18**:102–109.
 72. Godoi MN, Morante-Filho JC, Faxina C, Modena ES, Pivatto MAC, Manço DDG, Bocchese R, Teribele R, Rosa ALM, Stavis VK. 2020. Aves de rapina raras no estado de Mato Grosso do Sul, Brasil. *Atualidades Ornitológicas* **170**:41–47.
 73. Godoi MN, Souza FL, Laps RR, Ribeiro DB. 2016. Composition and structure of bird communities in vegetational gradients of Bodoquena Mountains, western Brazil. *Anais da Academia Brasileira de Ciências* **88**:211–225.
 74. Gonçalves CS, Lopez-Baucells A, Rocha R. 2017. Opportunistic predation of a silky short-tailed bat (*Carollia brevicauda*) by a tawny-bellied screech-owl (*Megascops watsonii*), with a compilation of predation events upon bats entangled in mist-nets. *Barbastella* **10**:41–46.
 75. Gonzaga LP, Castiglioni GDA. 2004. Registros recentes de *Strix huhula* no Estado do Rio de Janeiro (Strigiformes: Strigidae). *Ararajuba* **12**:141–144.
 76. Gracioli G, Carvalho CJB de. 2003. Hippoboscidae (Diptera, Hippoboscoidea) no Estado do Paraná, Brasil: chaves de identificação, hospedeiros e distribuição geográfica. *Revista Brasileira de Zoologia* **20**:667–674.
 77. Grant S, Marks B. 2019. Field Museum of Natural History (Zoology) Bird Collection. Version 14.16. Field Museum. Occurrence dataset <https://doi.org/10.15468/exkxdx> accessed via GBIF.org on 2019-12-27.
 78. Guilherme E, Dantas MP. 2009. Birds Associated with Bamboo Forests in Eastern Acre, Brazil. *Bulletin of the British Ornithologists' Club*. **129**:229–240.
 79. Guilherme E, Souza IR de. 2017. Nestling development of the tropical screech-owl (*Megascops choliba*): a successful case report from the southwestern Amazon. *Acta Amazonica* **47**:269–272.

80. Hannibal W, Claro H, Figueiredo V, Oliveira R. 2016. Predation of *Calomys expulsus* (Rodentia: Cricetidae) by *Glaucidium brasilianum* (Strigiformes: Strigidae) in a semi-deciduous seasonal forest fragment. *Boletim do Museu de Biologia Mello Leitão* **38**:181–185.
81. Iwan D. 2017. Bird Collection of Museum and Institute of Zoology PAS. Museum and Institute of Zoology, Polish Academy of Sciences. Occurrence dataset <https://doi.org/10.15468/go0am7> accessed via GBIF.org on 2019-12-27.
82. Jones A. 2018. CMNH Birds Collection. Cleveland Museum of Natural History. Occurrence dataset <https://doi.org/10.15468/3fnybx> accessed via GBIF.org on 2019-12-27.
83. Just J, Júnior B, Romagna R, Zocche JJ. 2020. Avifauna do Parque Estadual da Serra Furada, mata atlântica do sul de Santa Catarina, Brasil **7**:123–139.
84. Just JPG, Rosoni JRR, Romagna RS, Zocche JJ. 2018. Bird diversity and conservation in the southern coast of Santa Catarina state, Brazil. *Papéis Avulsos de Zoologia* **58**:e20185830.
85. Khidas K, Shorthouse D. 2019. Canadian Museum of Nature Bird Collection. Version 1.11. Canadian Museum of Nature. Occurrence dataset <https://doi.org/10.15468/srfesr> accessed via GBIF.org on 2019-12-27.
86. Legal E, João T, Glauco C, Kohler U. 2009. Strigiformes e Caprimulgiformes em Santa Catarina, sul do Brasil: Registros relevantes e novas localidades. *Biotemas* **22**:125–132.
87. Lifjeld J T, Johnsen A, Johannessen L E, Bjerke B A. 2019. The avian collection at the Natural History Museum, Oslo, Norway. Version 1.19. Natural History Museum, University of Oslo. Occurrence dataset <https://doi.org/10.15468/skcono> accessed via GBIF.org on 2019-12-27.
88. Lima DM, Martínez C, Raíces DSL. 2014. An avifaunal inventory and conservation prospects for the Gurupi Biological Reserve, Maranhão, Brazil. *Revista Brasileira de Ornitologia* **22**:317–340.
89. Lima RD, Dantas HR, Oliveira DV de. 2018. Ocorrência de *Bubo virginianus* (Strigiformes: Strigidae) no extremo nordeste do Brasil: primeiro registro documentado para o estado do Rio Grande do Norte e revisão dos registros no Nordeste brasileiro. *Atualidades Ornitológicas* **206**:11–15.
90. Lopes L, Goes R, Souza S, Ferreira R. 2004. Observations on a nest of the Stygian Owl (*Asio stygius*) in the central Brazilian Cerrado. *Ornitologia Neotropical* **15**:423–427.
91. Lopes L, Malacco G, Vasconcelos M, Carvalho C, Duca C, Fernandes A, Neto S, Marini M. 2008. Aves da região de Unaí e Cabeceira Grande, noroeste de Minas Gerais, Brasil. *Revista Brasileira de Ornitologia* **16**:193–206.
92. Lopes LE, Pinho JB de, Bernardon B, Oliveira FF de, Bernardon G, Ferreira LP, Vasconcelos MF de, Maldonado-Coelho M, Nóbrega PFA de, Rubio TC. 2009. Aves da Chapada dos Guimarães, Mato Grosso, Brasil: uma síntese histórica do conhecimento. *Papéis Avulsos de Zoologia* **49**:9–47.
93. Loures-Ribeiro A, Manhães MA, Dias MM, Silva SJCN andc MA de A, Ribeiro HM, Lima NF. 2011. Aves de sub-bosque de uma área de Mata Atlântica de baixada do sudeste do Brasil. *Ornithologia* **4**:76–85.
94. Lowe M. 2019. UMZC Zoological Specimens. Version 6.1. The University Museum of Zoology, Cambridge. Occurrence dataset <https://doi.org/10.15468/pjmjvn> accessed via GBIF.org on 2019-12-27.
95. Lucindo A da S, Antunes AZ, Kanashiro MM, Dias MM. 2015. Birds at Santa Bárbara Ecological Station, one of the last Cerrado remnants in the state of São Paulo, Brazil. *Biota Neotropica* **15**:e0155.
96. Macedo Silva T, Sakai A, Silva L, Smaniotto B, Da Silva R, Andreatti Filho R. 2014. New record of *Pelecitus* sp (Nematoda, Onchocercidae) as a parasite of *Athene cunicularia* (Strigiformes, Strigidae) in southeastern Brazil. *Revista brasileira de parasitologia veterinária* **23**:274–275.
97. Mallet-Rodrigues F, Parrini R, Pimentel LMS, Bessa R. 2010. Altitudinal distribution of birds in a mountainous region in southeastern Brazil. *Zoologia* **27**:503–522.
98. Mallet-Rodrigues F, Parrini R, Rennó B. 2015. Bird species richness and composition along three elevational gradients in southeastern Brazil. *Atualidades Ornitológicas* **188**:39–58.
99. Mamédio D, Cordeiro V, Cardoso C, Andrea M, Adorno E, Oliveira KN. 2017. Caracterização alimentar da *Athene cunicularia* (Strigiformes: Strigidae) (Coruja buraqueira). *Ciência Animal Brasileira* **18**:1–9.
100. Manica L, Telles M, Dias M. 2010. Bird richness and composition in a Cerrado fragment in the State of São Paulo. *Brazilian Journal of Biology* **70**:243–254.
101. Mascarenhas CS, Coimbra MAA, Müller G, Brum JGW. 2009. Ocorrência de *Ornithonyssus bursa* (Berlese, 1888) (Acari: Macronyssidae) em filhotes de *Megascops choliba* (corujinha-do-mato) e *Pitangus sulphuratus* (bem-te-vi), no Rio Grande do Sul, Brasil. *Revista Brasileira de Parasitologia Veterinária* **18**:69–70.
102. Mauricio G, Dias R. 2001. Distribuição e conservação da avifauna florestal na Serra dos Tapes, Rio Grande do Sul, Brasil. Pages 137–158 *Ornitologia e Conservação: da Ciência às Estratégias*. Tubarão: Ed. Unisul.
103. Menezes M dos S. 2014. Avifauna do Sítio Pedra das Palmeiras, Caiçara do Norte, Estado do Rio Grande do Norte, Brasil. *Carpe Diem: Revista Cultural e Científica do UNIFACEX* **12**:1–11.
104. Menq W, Anjos L. 2015. Habitat selection by owls in a seasonal semi-deciduous forest in southern Brazil. *Brazilian Journal of Biology* **75**:143–149.

105. Menq W, Delariva RL. 2015. Aves de rapina (Cathartiformes, Accipitriformes, Strigiformes e Falconiformes) na Reserva Biológica das Perobas, Paraná, Brasil, e seu entorno. *Biotemas* **28**:145–154.
106. Milensky CM, Robbins MB, Saucier JR, O'Shea BJ, Radosavljevic A, Davis TJ, Pierre M. 2016. Notes on breeding birds from the Guyana highlands with new records from a recent inventory of Mount Ayanganna. *Cotinga* **38**:64–78.
107. Millen B. 2018. Ornithology Collection Non Passeriformes - Royal Ontario Museum. Version 16.13. Royal Ontario Museum. Occurrence dataset <https://doi.org/10.15468/s0pqqg> accessed via GBIF.org on 2019-12-27.
108. Motta-Junior J. 2007. Ferruginous Pygmy-owl (*Glaucidium brasilianum*) predation on a mobbing Forktailed Flycatcher (*Tyrannus savana*) in south-east Brazil. *Biota Neotropica* **7**:bn04407022007.
109. Motta-Junior JC, Granzinolli MAM, Devey PF. 2008. Aves da Estação Ecológica de Itirapina, estado de São Paulo, Brasil. *Biota Neotropica* **8**:207–227.
110. Motta-Junior JC, Granzinolli MAM, Monteiro AR. 2010. Miscellaneous ecological notes on Brazilian birds of prey and owls. *Biota Neotropica* **10**:255–259.
111. Moura AS de, Souza DB de, Machado FS, Menezes UCL, Leite LH, Mariano RF, Fontes MAL. 2020. Aves de hábitos noturnos e crepusculares de áreas com grande biodiversidade no sul de Minas Gerais. *Atualidades Ornitológicas* **215**:67–74.
112. Müller Rebelato M, Hartmann P, Cunha G, Machado R. 2011. Novo registro do caburé-acanelado (*Aegolius harrisii*) no Bioma Pampa, sul do Brasil. *Biotemas* **24**:105–107.
113. Museum für Naturkunde Berlin. Anymals+plants - Citizen Science Data. Occurrence dataset <https://doi.org/10.15468/ee6ps6> accessed via GBIF.org on 2019-12-27.
114. Museum George Sand et de la Vallee Noire. 2012. Baillon Collection. Occurrence dataset <https://doi.org/10.15468/xdk8df> accessed via GBIF.org on 2019-12-27.
115. Museum National d'Histoire Naturelle. 2019. The birds collection (ZO) of the Muséum national d'Histoire Naturelle (MNHN - Paris). Version 42.141. Occurrence dataset <https://doi.org/10.15468/h0xtwv> accessed via GBIF.org on 2019-12-27.
116. Naka L, Cohn-Haft M, Whittaker A, Barnett JM, Torres M. 2009. Avian biogeography of Amazonian flooded forests in the Rio Branco Basin, Brazil. *The Wilson Journal of Ornithology* **119**:439–449.
117. Navega-Gonçalves MEC, Lima VGR. 2020. Avifauna do campus Taquaral da Universidade Metodista de Piracicaba, São Paulo e uso do habitat. *Atualidades Ornitológicas* **215**:33–46.
118. Natural History Museum. 2019. Natural History Museum (London) Collection Specimens. Occurrence dataset <https://doi.org/10.5519/0002965> accessed via GBIF.org on 2019-12-27.
119. Nelson A, Johnson N. 2018. Ohio State University Tetrapod Division - Bird Collection (OSUM). Version 95.36. Museum of Biological Diversity, The Ohio State University. Occurrence dataset <https://doi.org/10.15468/h6n5vl> accessed via GBIF.org on 2019-12-27.
120. Novaes FC. 1980. Observações sobre a avifauna do alto curso do Rio Paru de Leste, estado do Pará. *Boletim do Museu Paraense Emílio Goeldi. Nova Série Zoologia, Belém* **100**:1–58.
121. Nunes A et al. 2013. Aves da Serra de Maracaju, Mato Grosso do Sul, Brasil. *Ararajuba* **21**:75–100.
122. Nunes A et al. 2019. Aves da borda oeste do Pantanal, Mato Grosso do Sul, Brasil. *Atualidades Ornitológicas* **206**:47–69.
123. Nunes A, Tizianel F, Tomas W, Lupinetti C. 2009. Aves da Fazenda Nhumirim e seus arredores: Lista 2008. *Page Bol. Pesq. Desenv. EMBRAPA, Corumbá*.
124. Oliveira A, Cabral L, Silva A, Souza V, Florêncio S, Júnior W, Lyra-Neves R. 2019. First record of the buff-fronted owl, *Aegolius harrisii* - (Aves - Strigidae) from the Brazilian state of Pernambuco. *Brazilian Journal of Biology* **80**:190–191.
125. Olmos F. 1993. Birds of Serra da Capivara National Park, in the “caatinga” of north-eastern Brazil. *Bird Conservation International* **3**:21–36.
126. Olmos F, Silva WA de G e, Albano CG. 2005. Aves em oito áreas de Caatinga no Sul do Ceará e Oeste de Pernambuco, nordeste do Brasil: composição, riqueza e similaridade. *Papéis Avulsos de Zoologia* **45**:179–199.
127. Oren DC, Parker TA. 1997. Avifauna of the Tapajós National Park and vicinity, Amazonian Brazil. *Ornithological Monographs*:493–525.
128. Orrell T. 2019. NMNH Extant Specimen Records. Version 1.26. National Museum of Natural History, Smithsonian Institution. Occurrence dataset <https://doi.org/10.15468/hnhrg3> accessed via GBIF.org on 2019-12-27.
129. Pacheco F, Kirwan G, Parrini R, Serpa G. 2014. Birds of Vale das Taquaras region. *Cotinga* **36**:74–102.
130. Pacheco JF, Kirwan GM, Aleixo A, Whitney BM, Whittaker A, Minns J, Zimmer KJ, Fonseca PSM da, Lima M de FC, Oren DC. 2007. An avifaunal inventory of the CVRD Serra dos Carajás project, Pará, Brazil. *Cotinga* **27**:15–30.
131. Pacheco JF, Parrini R, Lopes LE, Vasconcelos MF de. 2008. A avifauna do Parque Estadual do Ibitipoca e áreas adjacentes, Minas Gerais, Brasil, com uma revisão crítica dos registros prévios e comentários sobre biogeografia e conservação. *Cotinga* **30**:16–32.
132. Paulete F, Alexandrino E, Gobbo S. 2019. Registros de comportamentos do mocho-dos-banhados, *Asio*

- flammeus* (Strigiformes: Strigidae) durante atividade reprodutiva em ambiente antropizado **210**:59–67.
133. Pedroza D, Melo TN de, Machado TL da S, Guimarães DP, Lima JM, Guilherme E. 2020. Birds of Humaitá Forest Reserve, Acre, Brazil: an important forest fragment in south-west Amazonia. *Bulletin of the British Ornithologists' Club* **140**:58–79.
 134. Pereira GA. 2010. Avifauna associada a três lagoas temporárias no estado do Rio Grande do Norte, Brasil. *Atualidades Ornitológicas* **156**:53–60.
 135. Pereira GA et al. 2012. Important bird records from Alagoas, Pernambuco and Paraíba, north-east Brazil **34**:91–95.
 136. Pereira GA, Medcraft J, Santos SS dos, Neto FP da F. 2014. Riqueza e conservação de aves em cinco áreas de caatinga no nordeste do Brasil. *Cotinga* **36**:16–26.
 137. Pérez Granados C, Schuchmann K-L, Marques M. 2020. Vocal activity of the Ferruginous pygmy-owl (*Glaucidium brasilianum*) is strongly correlated with moon phase and nocturnal temperature. *Ethology Ecology and Evolution* **32**:62–72.
 138. Phelps Jr. WH. 1973. Adiciones a las listas de aves de Sur América, Brasil y Venezuela y notas sobre aves venezolanas. *Boletín de la Sociedad Venezolana de Ciencias Naturales* **30**:23–40.
 139. Pichorim M, Oliveira DV de, Júnior TM de O, Câmara TPF, Nascimento ÉPG do. 2016. Pristine semi-arid areas in northeastern Brazil remain mainly on slopes of mountain ranges: a case study based on bird community of Serra de Santana. *Tropical Zoology* **29**:189–204.
 140. Pivatto MAC, Manço DDG, Straube FC, Urban-Filho A, Milano M. 2006. Aves do Planalto da Bodoquena, Estado de Mato Grosso do Sul (Brasil). *Atualidades Ornitológicas* **129**:1–26.
 141. Quesada Lara J, Agulló Villaronga J. 2019. Museu de Ciències Naturals de Barcelona: MCNB-Cord. Museu de Ciències Naturals de Barcelona. Occurrence dataset <https://doi.org/10.15468/yta7zj> accessed via GBIF.org on 2019-12-27.
 142. Rasmussen DT, Rehg JA, Guilherme E. 2005. Avifauna da Fazenda Experimental Catuaba: uma pequena reserva florestal no leste do Estado do Acre, Brasil. Pages 173–178 in P. M. Drumond, editor. *Fauna do Acre*. Edefac, Rio Branco, AC.
 143. Rego MA, Silveira LF, Piacentini V de Q, Schunck F, Machado É, Pinheiro RT, Reis E. 2011. As aves da Estação Ecológica Serra Geral do Tocantins, Centro do Brasil. *Biota Neotropica* **11**:283–297.
 144. Ribas CF, Santos REF. 2007. Novo registro documentado do caburé-acanelado *Aegolius harrisii* iheringi (Sharpe, 1899) para o Estado do Paraná. *Atualidades Ornitológicas* **140**:4–5.
 145. Ribon R, Lamas IR, Gomes HB. 2004. Avifauna da Zona da Mata de Minas Gerais: municípios de Goianá e Rio Novo, com alguns registros para Coronel Pacheco e Juiz de Fora. *Revista Árvore* **28**:291–305.
 146. Robbins M. 2019. KUBI Ornithology Collection. Version 10.24. University of Kansas Biodiversity Institute. Occurrence dataset <https://doi.org/10.15468/hlh5ud> accessed via GBIF.org on 2019-12-27.
 147. Robbins M, Braun M, Miiensl C, Schmidt B, Rice N, Finch D, O'Shea B. 2007. Avifauna of the upper Essequibo River and Acary Mountains, southern Guyana. *Ornitologia Neotropical* **18**:339–368.
 148. Rocha R, López-Baucells A. 2014. *Erratum* to: Opportunistic predation by Crested Owl *Lophostrix cristata* upon Seba's Short-tailed Bat *Carollia perspicillata*. *Ornithology Research* **22**:244–244.
 149. Roda AS, Pereira GA. 2006. Distribuição recente e conservação das aves de rapina florestais do Centro Pernambuco. *Revista Brasileira de Ornitologia* **14**:331–344.
 150. Rodrigues M, Carrara LA, Faria LP, Gomes HB. 2005. Aves do Parque Nacional da Serra do Cipó: o Vale do Rio Cipó, Minas Gerais, Brasil. *Revista Brasileira de Zoologia* **22**:326–338.
 151. Rodrigues RC, Araujo HFP de, Lyra-Neves RM de, Telino-Júnior WR, Botelho M da CN. 2007. Caracterização da avifauna na Área de Proteção Ambiental de Guadalupe, Pernambuco. *Ornithologia* **2**:47–61.
 152. Rogers S. 2016. CM Birds Collection. Version 9.1. Carnegie Museums. Occurrence dataset <https://doi.org/10.15468/dv1ojv> accessed via GBIF.org on 2019-12-27.
 153. Royal Belgian Institute of Natural Sciences. 2017. RBINS DaRWIn. Occurrence dataset <https://doi.org/10.15468/qxy4mc> accessed via GBIF.org on 2019-12-27.
 154. Ruiz-Esparza J, Costa JPM, Santos C, Ruiz-Esparza DPB, Beltrão-Mendes R, Ferrari SF. 2017. Range extension for Buff-fronted Owl *Aegolius harrisii* in north-east Brazil and a case of Heterochromia iridis in Strigidae. *Bulletin of the British Ornithologists' Club* **137**:91–93.
 155. Rutt CL, Jirinec V, Johnson EI, Cohn-Haft M, Vargas CF, Stouffer PC. 2017. Twenty years later: an update to the birds of the Biological Dynamics of Forest Fragments Project, Amazonas, Brazil. *Revista Brasileira de Ornitologia* **25**:277–296.
 156. Sagot-Martin F, Lima RD, Pacheco JF, Irusta JB, Pichorim M, Hassett DM. 2020. An updated checklist of the birds of Rio Grande do Norte, Brazil, with comments on new, rare, and unconfirmed species. *Bulletin of the British Ornithologists' Club* **140**:218–298.
 157. Santos K, Miguel M, Lombardi V. 2014. Novos registros do caburé-acanelado *Aegolius harrisii* (Cassin, 1849) para o estado de Minas Gerais e comentários sobre sua biogeografia. *Atualidades Ornitológicas*:7–11.

158. Santos MPD, Cerqueira PV, Soares LM dos S. 2010. Avifauna em seis localidades no Centro-Sul do Estado do Maranhão, Brasil. *Ornithologia* **4**:49–65.
159. Sberze M, Cohn-Haft M, Ferraz G. 2010. Old growth and secondary forest site occupancy by nocturnal birds in a Neotropical landscape. *Animal Conservation* **13**:3–11.
160. Scherer Neto P, Bispo AA. 2011. Avifauna do Parque Estadual de Vila Rica do Espírito Santo, Fênix, Paraná. *Biota Neotropica* **11**:317–329.
161. Scholes III, E. 2015. Macaulay Library Audio and Video Collection. Cornell Lab of Ornithology. Occurrence dataset <https://doi.org/10.15468/ckcdpy> accessed via GBIF.org on 2019-12-27.
162. Schunck F, De Luca A, Piacentini V, Rêgo M, Renno B, Corrêa A. 2011. Avifauna of two localities in the south of Amapá, Brazil, with comments on the distribution and taxonomy of some species. *Revista Brasileira de Ornitologia* **19**:93–107.
163. Schunck F, Pacheco JF, Antunes AZ, Gagliardi RL, Silveira LF. 2018. A review of the ornithological knowledge of the northern Serra do Mar mountains in the state of São Paulo, southeastern Brazil. *Revista Brasileira de Ornitologia* **26**:15–44.
164. Senckenberg. Collection Aves (bird skeletons) SMF. Occurrence dataset <https://doi.org/10.15468/kseo4n> accessed via GBIF.org on 2019-12-27.
165. Senckenberg. Collection Aves (bird skins) SMF. Occurrence dataset <https://doi.org/10.15468/qn6jaa> accessed via GBIF.org on 2019-12-27.
166. Silva AFT da, Melo HRS de, Ubaid F. 2021. First records of Buff-fronted Owl, *Aegolius harrisi* (Cassin, 1849) (Aves, Strigiformes), from the state of Maranhão, northeastern Brazil, and the northernmost record for the Cerrado domain. *Check List* **17**:353–358.
167. Silva T, Marques E, Guilherme E. 2015. Recuperation of the Terra Firme Forest Understory Bird Fauna Eight Years after a Wildfire in Eastern Acre, Brazil. *International Journal of Ecology* **2015**:1–12.
168. Silva WR, Sazima I. 2019. ZUEC-AVE - Coleção de Aves do Museu de Zoologia da UNICAMP. Version 1.40. Universidade Estadual de Campinas - Instituto de Biologia. Occurrence dataset <https://doi.org/10.15468/skokpl> accessed via GBIF.org on 2019-12-27.
169. Silveira L, Develey P, Pacheco F, Whitney B. 2005. Avifauna of the Serra das Lontras-Javi montane complex, Bahia, Brazil. *Cotinga* **24**:45–54.
170. Silveira L, Santos M. 2012. Bird richness in Serra das Confusões National Park, Brazil: how many species may be found in an undisturbed caatinga? *Revista Brasileira de Ornitologia* **20**:188–198.
171. Silveira LF, d'Horta FM. 2002. A avifauna da região de Vila Bela da Santíssima Trindade, Mato Grosso. *Papeis Avulsos de Zoologia* **42**:265–286.
172. Silveira LF, Olmos F, Long AJ. 2003. Birds in Atlantic Forest fragments in north-east Brazil. *Cotinga* **20**:32–46.
173. Silveira MHB, Machado CG. 2012. Estrutura da comunidade de aves em áreas de caatinga arbórea na Bacia do Rio Salitre, Bahia, Brasil. *Revista Brasileira de Ornitologia* **20**:161–172.
174. Simon J, Lima SR, Cardinali T. 2007. Comunidade de aves no Parque Estadual da Fonte Grande, Vitória, Espírito Santo, Brasil. *Revista Brasileira de Zoologia* **24**:121–132.
175. Simpson R, Cavarzere V, Simpson E. 2012. List of documented bird species from the municipality of Ubatuba, state of São Paulo, Brazil. *Papeis Avulsos de Zoologia* **52**:233–254.
176. Skipper B, Revelez M. 2016. Angelo State Natural History Collections (ASNHC) - Ornithology Collection. Angelo State Natural History Collections (ASNHC). Occurrence dataset <https://doi.org/10.15468/mavql6> accessed via GBIF.org on 2019-12-27.
177. Somenzari M, Silveira L, Piacentini V, Rego MA, Schunck F, Cavarzere V. 2013. Birds of an Amazonia-Cerrado ecotone in southern Pará, Brazil, and the efficiency of associating multiple methods in avifaunal inventories. *Revista Brasileira de Ornitologia* **19**:260–275.
178. Souza I, Guilherme E. 2013. First record of nesting behavior in the Austral Screech-Owl (*Megascops usta*) in an urban forest fragment in eastern Acre, Brazil. *Atualidades Ornitológicas* **173**:24.
179. Spellman G 2019. DMNS Bird Collection (Arctos). Version 34.33. Denver Museum of Nature & Science. Occurrence dataset <https://doi.org/10.15468/t3bsxx> accessed via GBIF.org on 2019-12-27.
180. Stafford B, Ferreira F. 2008. Predation attempts on Callitrichids in the Atlantic Coastal rain forest of Brazil. *Folia Primatologica* **65**:229–233.
181. Stotz D, Lanyon S, Schulenberg T, Willard D, Peterson A, Fitzpatrick J. 1997. An Avifaunal Survey of Two Tropical Forest Localities on the Middle Rio Jiparaná, Rondônia, Brazil. *Ornithological Monographs* **48**:763–781.
182. Straube FC. 1988. Contribuição ao conhecimento da avifauna da região da região sudoeste do Estado do Paraná (Brasil). *Biotemas* **1**:63–75.
183. Straube FC, Krul R, Carrano E. 2005. Coletânea da avifauna da região sul do Estado do Paraná (Brasil). *Atualidades Ornitológicas* **125**:1–15.
184. Straube FC, Urban-Filho A. 2005. Observações sobre a avifauna de pequenos remanescentes florestais na região noroeste do Paraná (Brasil). *Atualidades Ornitológicas* **123**:1–10.
185. Studer A, Teixeira D. 1994. Notes on buff-fronted owl *Aegolius harrisi* in Brazil. *Bulletin of the British Ornithologists' Club* **114**:62–63.

186. SysTax. Zoological Collections. Occurrence dataset <https://doi.org/10.15468/zyqkbl> accessed via GBIF.org on 2019-12-27.
187. Telino-Júnior WR, Lyra-Neves RM de, Nascimento JLX de. 2005. Biologia e composição da avifauna em uma Reserva Particular de Patrimônio Natural da caatinga paraibana. *Ornithologia* **1**:49–58.
188. Telles M, Dias M. 2010. Bird communities in two fragments of Cerrado in Itirapina, Brazil. *Revista brasileira de biologia* **70**:537–50.
189. The International Barcode of Life Consortium (2016). International Barcode of Life project (iBOL). Occurrence dataset <https://doi.org/10.15468/inycg6> accessed via GBIF.org on 2019-12-27.
190. Toledo LF. 2019. FNVJ - Fonoteca Neotropical Jacques Vieliard. Version 1.44. Universidade Estadual de Campinas - Instituto de Biologia. Occurrence dataset <https://doi.org/10.15468/fr6q2k> accessed via GBIF.org on 2019-12-27.
191. Tonetti VR, Rego MA, Luca ACD, Develey PF, Schunck F, Silveira LF. 2017. Historical knowledge, richness and relative representativeness of the avifauna of the largest native urban rainforest in the world. *Zoologia* **34**:1–18.
192. Torezan L, Calsavara L, Bochio G, Anjos L. 2021. Vulnerability of bird species in highly fragmented forests of southern Brazil: implications for conservation. *Ornithology Research* **28**:233–240.
193. Tomek T. 2017. Aves Collection of Institute of Systematics and Evolution of Animals. Institute of Systematics and Evolution of Animals, Polish Academy of Sciences. Occurrence dataset <https://doi.org/10.15468/mtymli> accessed via GBIF.org on 2019-12-27.
194. Trombone T. 2013. AMNH Bird Collection. American Museum of Natural History. Occurrence dataset <https://doi.org/10.15468/xvzdcn> accessed via GBIF.org on 2019-12-27.
195. Tubelis D, Delitti W. 2010. Fire management and the nesting of *Athene cunicularia* (Aves, Strigidae) in grasslands in central Cerrado, Brazil. *Biota Neotropica* **10**:93–101.
196. Ubaid F, Maffei F, Moya G, Donatelli R. 2012. Range extension for Buff-fronted Owl *Aegolius harrisii* in south-east Brazil. *Bulletin of the British Ornithologists' Club* **132**:175–179.
197. University of Michigan Museum of Zoology. 2019. University of Michigan Museum of Zoology, Division of Birds. Version 14.17. Occurrence dataset <https://doi.org/10.15468/lms1qm> accessed via GBIF.org on 2019-12-27.
198. Valadão RM. 2012. As aves da Estação Ecológica Serra das Araras, Mato Grosso, Brasil. *Biota Neotropica* **12**:263–281.
199. Valim M, Lambrecht F, Vianna É. 2009. New records of chewing lice (Insecta, Phthiraptera) from birds of southern Brazil, with description of a new species. *Iheringia Série Zoologia* **99**:249–258.
200. Vasconcelos M, Dantas S, Da Silva JM. 2011. Avifaunal inventory of the Amazonian savannas and adjacent habitats of the Monte Alegre region (Para, Brazil), with comments on biogeography and conservation. *Boletim do Museu Paraense Emílio Goeldi, Ciências Naturais* **6**:119–145.
201. Vasconcelos M, Neto S. 2018. First avifaunal survey of a Cerrado dry forest enclave on the right bank of the São Francisco River, Minas Gerais, Brazil, with insights on geographic variation of some species. *Papéis Avulsos de Zoologia* **58**:e20185815.
202. Vasconcelos M, Souza L, Duca C, Pacheco JF, Parrini R, Serpa G, Albano C, Abreu CR, Santos S dos, Neto FF. 2013. The avifauna of Brejinho das Ametistas, Bahia, Brazil: birds in a caatinga-cerrado transitional zone, with comments on taxonomy and biogeography. *Revista Brasileira de Ornithologia* **20**:246–267.
203. Vasconcelos MF, D'Angelo-Neto S. 2007. Padrões de distribuição e conservação da avifauna na região central da Cadeia do Espinhaço e áreas adjacentes, Minas Gerais, Brasil. *Cotinga* **28**:27–44.
204. Vasconcelos MF, Diniz M. 2008. 170 years after Lund: Rediscovery of the Black-banded Owl *Strix huhula* in the metropolitan region of Belo Horizonte, Minas Gerais, Brazil (Strigiformes: Strigidae):277–280.
205. Vasconcelos MF, Pacheco JF, Parrini R. 2007. Levantamento e conservação da avifauna na zona urbana de Marabá. *Cotinga* **28**:45–52.
206. Vellinga W. 2019. Xeno-canto - Bird sounds from around the world. Xeno-canto Foundation for Nature Sounds. Occurrence dataset <https://doi.org/10.15468/qv0ksn> accessed via GBIF.org on 2019-12-27.
207. Vieira RLA, Bento HJ, Souza HR de, Costa CM, Andrea MV. 2019. Avifauna do campus da Universidade Federal do Recôncavo da Bahia, Cruz Das Almas-BA. *Enciclopédia Biosfera* **16**:1901–1910.
208. Vieliard J. 1989. Uma nova espécie de *Glaucidium* (Aves, Strigidae) da Amazônia. *Revista Brasileira de Zoologia* **6**:685–693. scielo.
209. Wandhammer M, Meister M. 2018. Aves MZS. Version 3.7. Musée Zoologique de la Ville de Strasbourg. Occurrence dataset <https://doi.org/10.15468/lzfqq2> accessed via GBIF.org on 2019-12-27.
210. Whittaker A. 2009. Pousada Rio Roosevelt: A provisional avifaunal inventory in south-western Amazonian Brazil, with information on life history, new distributional data and comments on taxonomy. *Cotinga* **31**:23–46.
211. Willard DE, Foster MS, Barrowclough GF, Dickerman RW, Cannell PF, Coats SL, Cracraft JL, O'Neill JP. 1991. The birds of Cerro de la Neblina, Territorio Federal Amazonas, Venezuela. Report 65. Available from <http://pubs.er.usgs.gov/publication/5200195>.

212. Willis E. 2004. Birds of a habitat spectrum in the Itirapina Savanna, São Paulo, Brazil (1982-2003). *Revista brasileira de biologia* **64**:901–10.
213. Willis EO. 1976. Effects of a cold wave on an Amazonian avifauna in the upper Paraguay drainage, Western Mato Grosso, and suggestions on Oscine-Suboscine relationships. *Acta Amazonica* **6**:379–394.
214. Willis EO, Schuchmann K-L. 1993. Comparison of cloud-forest avifaunas in southeastern Brazil and western Colombia. *Ornitologia Neotropical* **4**:55–63.
215. Zilio F. 2006. Dieta de *Falco sparverius* (Aves: Falconidae) e *Athene cunicularia* (Aves: Strigidae) em uma região de dunas no sul do Brasil. *Revista Brasileira de Ornitologia* **14**:379–392.
216. Zilio F, Zucatti B. 2018. Diet of Long-tufted Screech-Owl in a Southern Brazilian agroecosystem. *Journal of Raptor Research* **52**:115–117.
217. Zimmer K, Parker T, Isler ML, Isler PR. 1997. Survey of a Southern Amazonian avifauna: The Alta Floresta region, Mato Grosso, Brazil. *Ornithological Monographs*:887–918.

Appendix 3

Table A. Parameters of the best models (those with AICc = 0), used in further analyses. (FC) Feature Class, the mathematical transformation of the environmental covariates used in the model: (L) linear; (LQ) linear and quadratic; (LQP) linear, quadratic and product. (RM) regularization multiplier, that adds new constraints or the penalty imposed to the model. (AUC_{train}) Area under the curve on train subsample. (AUC_{test}) area under the curve of the receiver operating characteristic plot made based on the test data subset. (Var_{test}) Variance of AUC_{test}. (Δ AUCs) Average difference between training and testing AUCs. (Var_{both}) Variance of such difference. (AICc) Akaike Information criterion with correction for small sample sizes. (w.AIC) AIC weights for a set of fitted models. (Par.) Number of parameters estimated for each model. (Area) the area predicted by the model, in pixels, after thresholding the values. (Om.) Omissions, or false negatives, in the binary map.

<i>Species/subspecies</i>	FC	RM	AUC _{train}	AUC _{test}	Var _{test}	Δ AUCs	Var _{both}	AICc	w.AIC	Par.	Area	Om.
<i>Aegolius harrisii</i>	3	11	0.9	0.93	0.03	0.03	0.87	0.1	0.06	2245.97	1722454	14
	3	11	0.9	0.96	0.04	0.06	0.87	0.1	0.03	2240.89	1776975	14
	3	11	0.9	0.94	0.04	0.02	0.87	0.1	0.03	2243.68	1768552	14
	3	11	0.9	0.93	0.05	0.04	0.86	0.1	0.06	2248.57	1804540	15
	3	11	0.9	0.93	0.04	0.03	0.86	0.1	0.03	2244.01	1746112	14
	3	11	0.9	0.94	0.06	0.03	0.86	0.1	0.07	2245.95	1833435	15
	3	11	0.9	0.96	0.04	0.04	0.86	0.1	0.06	2249.78	1771433	14
	3	11	0.9	0.91	0.04	0.04	0.87	0.1	0.06	2242.51	1677948	14
	3	11	0.9	0.91	0.03	0.03	0.87	0	0.06	2243.85	1800981	14
	3	11	0.9	0.92	0.04	0.03	0.87	0.1	0.06	2245.75	1771351	15
<i>Asio clamator</i>	3	11	0.87	0.96	0.04	0.02	0.83	0.1	0.02	3872.14	2065890	27
	3	11	0.87	0.98	0.03	0.03	0.84	0.1	0.02	3872.93	2073329	27
	3	11	0.87	0.98	0.04	0.03	0.84	0	0.04	3870.7	2093598	27
	3	11	0.87	0.98	0.03	0.03	0.84	0.1	0.02	3871.48	2106381	28
	3	11	0.86	0.96	0.04	0.03	0.84	0	0.04	3868.43	2047450	27
	3	11	0.86	0.97	0.04	0.03	0.83	0.1	0.02	3872.35	2115363	29
	3	11	0.86	0.97	0.04	0.02	0.83	0	0.02	3868.82	2036356	28
	3	11	0.86	0.97	0.04	0.02	0.83	0.1	0.02	3873.48	2022727	27
	3	11	0.86	0.97	0.04	0.02	0.84	0.1	0.02	3872.66	2066001	28
	3	11	0.86	0.98	0.04	0.04	0.83	0.1	0.02	3867.99	2059443	28
<i>A. c. clamator</i>	1	1	0.79	0.73	0.09	0.09	0.72	0.3	0.27	607.77	3556411	7
	1	1	0.79	0.72	0.19	0.15	0.64	0.2	0.29	607.42	3712145	7
	1	1	0.79	0.74	0.09	0.08	0.73	0.2	0.14	607.25	3662806	7
	1	1	0.79	0.75	0.14	0.12	0.7	0.2	0.22	607.56	3597931	7
	1	1	0.79	0.7	0.15	0.11	0.69	0.3	0.3	607.76	3684996	7
	1	1	0.79	0.75	0.14	0.15	0.69	0.3	0.16	607.72	3604083	7
	1	1	0.79	0.75	0.1	0.12	0.73	0.4	0.16	607.34	3580706	7
	1	1	0.8	0.75	0.09	0.09	0.71	0.2	0.22	607.38	3529348	7
	1	1	0.79	0.76	0.07	0.09	0.72	0.2	0.16	607.49	3602501	7
	1	1	0.79	0.75	0.09	0.06	0.74	0.1	0.14	607.43	3645196	7
<i>A. c. midas</i>	3	12	0.92	0.98	0.02	0.02	0.9	0.1	0.02	3214.23	1567554	17
	3	11	0.92	0.94	0.02	0.01	0.9	0	0.02	3209.58	1635877	17
	3	11	0.92	0.95	0.03	0.02	0.89	0.1	0.02	3213.22	1490327	16

<i>Species/subspecies</i>	FC	RM	AUC _{train}	AUC _{test}	Var _{test}	ΔAUCs	Var _{both}	AICc	w.AIC	Par.	Area	Om.
<i>A. c. midas</i> (cont.)	3	11	0.92	0.94	0.02	0.04	0.9	0.2	0.04	3213.8	1645738	17
	3	11	0.92	0.96	0.03	0.02	0.9	0.1	0.02	3218.53	1564335	16
	3	11	0.92	0.96	0.05	0.04	0.87	0.1	0.03	3213.42	1474629	16
	3	12	0.92	0.98	0.02	0.02	0.89	0.1	0.03	3218.05	1511154	16
	3	11	0.92	0.93	0.02	0.02	0.89	0.1	0.02	3213.43	1553630	17
	3	12	0.92	0.95	0.02	0.02	0.89	0.1	0.02	3211.7	1496924	16
	3	11	0.92	0.98	0.04	0.01	0.89	0.1	0.03	3217.08	1586654	17
<i>Asio flammeus</i>	2	6	0.91	0.87	0.04	0.02	0.89	0.1	0.07	929.3	1514266	5
	2	6	0.91	0.88	0.04	0.02	0.89	0.1	0	929.24	1502717	5
	2	6	0.91	0.85	0.03	0.04	0.9	0.2	0.09	926.28	1562576	5
	2	6	0.91	0.9	0.03	0.03	0.9	0.1	0	929.04	1571411	5
	2	6	0.91	0.85	0.03	0.03	0.9	0.1	0.07	926.17	1579437	5
	2	6	0.91	0.85	0.03	0.03	0.9	0.1	0.07	928.94	1518675	5
	2	6	0.91	0.83	0.05	0.06	0.9	0.3	0.26	932.41	1550197	5
	2	6	0.91	0.85	0.04	0.02	0.89	0.1	0	932.58	1524459	5
	2	6	0.91	0.89	0.04	0.03	0.9	0.2	0.09	929.37	1506780	5
	2	6	0.91	0.92	0.05	0.03	0.87	0.2	0.09	929.33	1497514	5
<i>Asio stygius</i>	3	11	0.86	0.95	0.07	0.05	0.81	0.2	0.07	1920.12	2432172	15
	3	11	0.86	0.93	0.06	0.07	0.8	0.1	0.07	1918.67	2254306	14
	3	11	0.86	0.95	0.06	0.11	0.81	0.2	0.04	1917.23	2455585	15
	3	11	0.86	0.91	0.06	0.03	0.79	0	0.04	1918.45	2306143	14
	3	11	0.86	0.9	0.08	0.07	0.77	0.1	0.06	1917.84	2215680	14
	3	11	0.86	0.91	0.11	0.12	0.76	0.3	0.11	1917.87	2400633	15
	3	11	0.86	0.88	0.07	0.01	0.8	0.1	0.07	1919.97	2274254	14
	3	11	0.86	0.79	0.09	0.09	0.78	0.2	0.07	1917.08	2284885	14
	3	11	0.86	0.95	0.08	0.04	0.79	0.1	0.04	1924.35	2386497	15
	3	13	0.83	0.95	0.08	0.04	0.79	0.1	0.07	1925.06	2398720	15
<i>Athene cunicularia</i>	3	11	0.83	0.98	0.03	0.02	0.81	0.1	0.01	9057.48	2467221	71
	3	11	0.83	0.98	0.03	0.02	0.81	0.1	0.02	9052.09	2577465	73
	3	11	0.83	0.99	0.03	0.01	0.82	0	0.01	9057.29	2515356	73
	3	11	0.83	0.96	0.02	0.02	0.8	0	0.01	9060.69	2465859	73
	3	11	0.83	0.98	0.03	0.02	0.81	0.1	0.01	9059.85	2537988	74
	3	11	0.83	0.98	0.02	0.03	0.82	0.1	0.02	9052.69	2568438	73
	3	11	0.83	0.98	0.02	0.01	0.82	0	0.01	9053.24	2490739	72
	3	11	0.83	0.99	0.03	0.02	0.81	0.1	0.01	9055.05	2549690	76
	3	11	0.83	0.99	0.03	0.02	0.81	0	0.01	9054.09	2489075	73
	3	11	0.83	0.99	0.02	0.01	0.81	0	0.01	9055.97	2550257	73
<i>A. c. minor</i>	2	7	0.81	0.78	0.13	0.12	0.71	0.3	0.22	535.71	2489820	4
	2	7	0.81	0.8	0.11	0.07	0.75	0.2	0.16	535.45	2470779	4
	2	7	0.81	0.83	0.06	0.09	0.75	0.2	0.24	535.39	2428058	4
	2	7	0.81	0.81	0.16	0.18	0.71	0.4	0.43	535.47	2489704	4
	2	7	0.82	0.84	0.12	0.13	0.73	0.4	0.16	535.3	2455623	4
	2	7	0.81	0.8	0.13	0.12	0.72	0.3	0.18	535.63	2409375	4
	2	7	0.82	0.85	0.09	0.1	0.75	0.2	0.16	535.15	2503105	4
	2	7	0.81	0.81	0.11	0.1	0.74	0.3	0.22	535.45	2511232	4

Species/subspecies	FC	RM	AUC_{train}	AUC_{test}	Var_{test}	ΔAUCs	Var_{both}	AICc	w.AIC	Par.	Area	Om.
<i>A. c. minor</i> (cont.)	2	7	0.81	0.81	0.12	0.11	0.73	0.3	0.33	535.6	2464486	4
	2	7	0.81	0.78	0.18	0.12	0.71	0.4	0.18	535.46	2500542	4
<i>A. c. cunicularia</i>	2	6	1	0.91	0	0.01	0.99	0.2	0.18	589.98	252958	1
	2	6	0.99	0.91	0.01	0.01	0.99	0.2	0.18	588.07	300865	1
	1	1	0.99	0.86	0.01	0	0.99	0.1	0.09	588.46	296983	1
	2	6	0.99	0.86	0	0	0.99	0.1	0.11	593.52	215864	0
	2	6	0.99	0.89	0	0	0.99	0.2	0.11	587.94	226778	1
	1	1	0.99	0.94	0.01	0	0.99	0.2	0.18	594.22	228769	1
	1	2	0.99	0.87	0	0	0.99	0.1	0.11	593.05	317851	1
	2	6	1	0.9	0	0	0.99	0.1	0.11	587.89	265693	1
	1	2	0.99	0.87	0	0	0.99	0.1	0.09	592.21	335686	1
	2	6	0.99	0.88	0.01	0.01	0.99	0.2	0.18	590.24	282323	1
<i>A. c. grallaria</i>	3	11	0.87	0.97	0.03	0.02	0.85	0.1	0.01	7654.38	2362985	57
	3	11	0.87	0.96	0.03	0.02	0.85	0.1	0.01	7652.2	2315322	58
	3	11	0.87	0.98	0.02	0.01	0.86	0	0.01	7651.56	2321866	56
	3	11	0.87	0.97	0.02	0.02	0.86	0.1	0.02	7654.2	2261047	57
	3	11	0.87	0.97	0.02	0.02	0.86	0.1	0.01	7652.82	2329891	57
	3	11	0.87	0.96	0.04	0.01	0.86	0.1	0.02	7653.43	2306177	57
	3	11	0.87	0.96	0.02	0.01	0.86	0.1	0.01	7653.82	2333545	58
	3	11	0.87	0.96	0.01	0.01	0.86	0.1	0.02	7654.06	2315275	57
	3	11	0.87	0.97	0.03	0.02	0.85	0.1	0.02	7652.02	2207294	56
	3	11	0.87	0.97	0.03	0.03	0.86	0.1	0.03	7651.95	2244980	56
<i>Bubo virginianus</i>	3	14	0.83	0.8	0.06	0.03	0.8	0.1	0.02	2742.37	2688113	23
	3	12	0.84	0.78	0.05	0.04	0.8	0	0.02	2743.31	2681736	24
	3	14	0.82	0.8	0.05	0.02	0.79	0.1	0.05	2745.44	2649677	24
	3	14	0.83	0.77	0.06	0.05	0.8	0.1	0.02	2749.15	2713281	24
	3	11	0.85	0.81	0.04	0.05	0.79	0.1	0.07	2745.62	2670221	24
	3	12	0.84	0.83	0.08	0.1	0.78	0.2	0.03	2741.56	2566017	23
	3	13	0.83	0.76	0.07	0.04	0.79	0.1	0.07	2739.75	2649352	23
	3	14	0.83	0.87	0.03	0.05	0.79	0.1	0.05	2740.73	2762915	25
	3	14	0.83	0.86	0.06	0.04	0.78	0.1	0.05	2744.53	2702307	24
	3	14	0.83	0.85	0.08	0.07	0.8	0.2	0.02	2740.96	2733360	25
<i>B. v. deserti</i>	2	7	0.96	-0.38	0.02	0.02	0.94	0.2	0.27	264.18	636001	1
	2	7	0.97	0	0.11	0.21	0.87	0.4	0.45	263.79	655628	1
	2	7	0.96	-0.2	0.03	0.04	0.94	0.3	0.27	264.3	662471	1
	2	7	0.96	-0.3	0.03	0.02	0.95	0.4	0.27	264.1	649943	1
	2	7	0.97	-0.35	0.03	0.03	0.95	0.4	0.45	263.91	637910	1
	2	7	0.96	-0.42	0.02	0.02	0.95	0.3	0.27	264.23	640619	1
	2	7	0.96	-0.28	0.04	0.02	0.94	0.4	0.42	264.35	640616	1
	2	7	0.96	-0.48	0.03	0.02	0.95	0.4	0.45	264.05	637661	1
	2	7	0.97	-0.29	0.04	0.04	0.94	0.4	0.42	263.93	632053	1
<i>B. v. nacurutu</i>	3	11	0.88	0.85	0.05	0.04	0.84	0.1	0.08	2418.82	2080644	17
	3	11	0.88	0.88	0.04	0.05	0.85	0.1	0.03	2413.44	2002366	16
	3	11	0.89	0.84	0.09	0.03	0.84	0.1	0.05	2419.51	2099097	17
	3	11	0.89	0.85	0.05	0.06	0.84	0.1	0.03	2422.57	2038234	16

<i>Species/subspecies</i>	FC	RM	AUC _{train}	AUC _{test}	Var _{test}	ΔAUCs	Var _{both}	AICc	w.AIC	Par.	Area	Om.
<i>B. v. nacurutu</i> (cont.)	3	11	0.88	0.81	0.04	0.06	0.82	0.1	0.03	2426.93	2038900	16
	3	11	0.88	0.88	0.05	0.05	0.83	0.1	0.08	2421.29	2109228	17
	3	11	0.89	0.92	0.06	0.04	0.83	0.1	0.06	2421.71	2016298	16
	3	11	0.89	0.87	0.06	0.04	0.85	0.1	0.06	2423.64	2023804	16
	3	11	0.89	0.87	0.1	0.03	0.84	0.1	0.06	2415.63	2005543	16
	3	11	0.89	0.77	0.07	0.04	0.84	0.1	0.06	2419.9	2071137	17
<i>Glaucidium brasilianum</i>	3	11	0.78	0.99	0.05	0.02	0.77	0.1	0.01	11206.23	2977335	105
	3	11	0.78	0.98	0.03	0.03	0.77	0	0.02	11204.95	2964783	105
	3	11	0.78	0.98	0.02	0.02	0.76	0.1	0.01	11213.45	2957681	107
	3	11	0.77	0.99	0.03	0.03	0.76	0.1	0.01	11213.38	2949913	109
	3	11	0.78	0.98	0.02	0.03	0.77	0	0.01	11211.56	2978993	105
	3	11	0.78	0.99	0.03	0.01	0.76	0	0.02	11209.47	3030447	109
	3	11	0.78	0.98	0.02	0.01	0.76	0	0.01	11207.2	3040304	108
	3	11	0.78	0.98	0.02	0.02	0.76	0	0.02	11208.94	2973447	109
	3	11	0.78	0.98	0.04	0.02	0.76	0.1	0.02	11206.17	3029285	110
	3	11	0.78	0.99	0.02	0.01	0.76	0	0.01	11213.75	2958176	106
<i>G. b. brasilianum</i>	3	11	0.83	0.96	0.02	0.01	0.81	0	0.01	9775.89	2550870	78
	3	11	0.83	0.96	0.03	0.01	0.81	0.1	0.03	9775.9	2538204	79
	3	11	0.83	0.96	0.02	0.01	0.82	0	0.01	9773.82	2597336	81
	3	11	0.83	0.95	0.02	0.01	0.82	0	0.01	9773.38	2543449	79
	3	11	0.83	0.96	0.03	0.01	0.82	0.1	0.01	9772.62	2590657	81
	3	11	0.83	0.97	0.02	0.01	0.81	0	0.01	9780.1	2602543	82
	3	11	0.83	0.96	0.03	0.02	0.81	0.1	0.02	9772.92	2619706	81
	3	11	0.83	0.97	0.02	0.01	0.82	0	0.01	9776.9	2606382	81
	3	11	0.83	0.97	0.03	0.02	0.82	0	0.02	9770.53	2555717	79
	3	11	0.83	0.96	0.02	0.02	0.82	0	0.01	9780.01	2526428	79
<i>G. b. ucayalae</i>	2	6	0.82	0.91	0.11	0.05	0.75	0.2	0.14	1259.56	2694966	11
	2	6	0.81	0.9	0.06	0.06	0.77	0.2	0.07	1259.58	2716038	11
	2	6	0.81	0.91	0.07	0.06	0.74	0.2	0.07	1259.72	2733318	11
	2	6	0.82	0.9	0.09	0.07	0.76	0.2	0.06	1259.37	2579126	10
	2	6	0.81	0.9	0.06	0.03	0.75	0.1	0.1	1259.85	2733201	11
	2	6	0.81	0.91	0.05	0.04	0.77	0.1	0.07	1259.66	2737042	11
	2	6	0.81	0.91	0.1	0.08	0.75	0.2	0.16	1259.51	2824043	11
	2	6	0.81	0.91	0.14	0.07	0.74	0.2	0.16	1259.54	2730193	11
	2	6	0.82	0.91	0.08	0.06	0.75	0.2	0.07	1259.43	2685002	10
	2	6	0.82	0.92	0.11	0.07	0.76	0.2	0.1	1259.44	2818174	11
<i>Glaucidium hardyi</i>	3	11	0.9	0.89	0.03	0.04	0.87	0.1	0.09	2045.18	1712627	12
	3	11	0.9	0.88	0.03	0.03	0.87	0.1	0.07	2046.19	1605731	12
	3	11	0.9	0.89	0.05	0.03	0.87	0.1	0.03	2046.28	1702837	12
	3	11	0.9	0.9	0.04	0.03	0.87	0.1	0.06	2045.41	1704167	12
	3	11	0.9	0.87	0.03	0.02	0.88	0.1	0.08	2044.42	1641503	12
	3	11	0.9	0.9	0.03	0.03	0.88	0.1	0.06	2047.86	1686917	12
	3	11	0.9	0.9	0.04	0.03	0.87	0.1	0.06	2050.44	1700470	12
	3	11	0.91	0.85	0.03	0.02	0.88	0.1	0.05	2050.31	1742466	12
	3	11	0.9	0.9	0.03	0.02	0.88	0.1	0.06	2045.06	1678799	12

<i>Species/subspecies</i>	FC	RM	AUC _{train}	AUC _{test}	Var _{test}	ΔAUCs	Var _{both}	AICc	w.AIC	Par.	Area	Om.
<i>Glaucidium hardyi</i> (cont.)	3	11	0.9	0.89	0.03	0.03	0.88	0.1	0.04	2044.02	1647439	12
<i>Glaucidium minutissimum</i>	3	11	0.97	0.91	0.01	0.01	0.97	0.1	0.03	2283.55	961524	8
	3	11	0.97	0.97	0.02	0.02	0.96	0.1	0.03	2276.52	978115	8
	3	11	0.97	0.88	0.02	0.02	0.97	0.1	0.05	2280.14	939666	8
	3	11	0.97	0.9	0.01	0.01	0.96	0	0.03	2281.78	928433	8
	3	11	0.97	0.87	0.02	0.01	0.96	0.1	0.03	2277.59	997572	8
	3	11	0.97	0.95	0.01	0.02	0.97	0.1	0.03	2287.28	998280	8
	3	11	0.97	0.91	0.02	0.01	0.97	0.1	0.05	2286.59	1003890	8
	3	11	0.97	0.95	0.02	0.02	0.96	0.1	0.05	2286.04	972210	8
	3	11	0.97	0.91	0.02	0.02	0.96	0.1	0.05	2285.9	1027005	9
	3	11	0.97	0.87	0.01	0.01	0.96	0	0.03	2280.41	993978	9
<i>Glaucidium mooreorum</i>	2	6	1	0.84	0	0	1	0.4	0.45	218.44	5223	0
	2	6	1	0.65	0	0	1	0.4	0.22	217.65	4879	0
	2	7	1	0.67	0	0	1	0.4	0.45	221.7	5182	0
	2	6	1	0.57	0	0	1	0.4	0.45	218.72	4793	0
	2	7	1	0.31	0	0	1	0.4	0.27	226.46	5350	0
	2	7	1	0.3	0	0	1	0.4	0.45	222.03	5110	0
	2	7	1	0.7	0	0	1	0.3	0.27	223.92	5058	0
	2	7	1	0.58	0	0	1	0.4	0.45	223.4	5118	0
	2	7	1	0.78	0	0	1	0.4	0.27	223.62	5043	0
	2	7	1	0.56	0	0	1	0.3	0.27	221.5	4925	0
<i>Lophotrix cristata</i>	3	11	0.87	0.92	0.05	0.04	0.84	0.2	0.07	1754.74	1922071	11
	3	11	0.87	0.89	0.05	0.03	0.84	0.1	0.08	1755.67	1995580	12
	3	14	0.85	0.91	0.04	0.01	0.83	0.1	0.04	1757.65	2525666	15
	3	11	0.87	0.92	0.03	0.03	0.84	0.1	0.05	1752.63	2099723	12
	3	11	0.87	0.92	0.05	0.05	0.83	0.2	0.15	1751.44	2052501	12
	3	11	0.87	0.92	0.06	0.06	0.82	0.2	0.08	1751.84	2059765	12
	3	11	0.87	0.9	0.04	0.02	0.84	0.1	0.08	1751.66	2047431	12
	3	11	0.87	0.89	0.06	0.06	0.82	0.2	0.12	1755.59	2064647	12
	3	11	0.88	0.92	0.04	0.03	0.84	0.1	0.05	1755.37	2075381	12
	3	14	0.85	0.92	0.03	0.03	0.83	0.1	0.04	1757.46	2474502	14
<i>Megascops atricapilla</i>	2	6	0.95	0.95	0.03	0.01	0.94	0.1	0.02	2711.38	1316163	13
	3	11	0.96	0.93	0.01	0.01	0.94	0	0.03	2710.68	1244937	12
	3	11	0.96	0.94	0.03	0.03	0.93	0	0.06	2706.97	1304900	13
	2	7	0.95	0.89	0.03	0.03	0.94	0.1	0.03	2712.89	1254179	12
	2	6	0.95	0.86	0.02	0.01	0.95	0.1	0.02	2719.85	1309822	12
	2	6	0.95	0.96	0.02	0.02	0.94	0.1	0.02	2711.29	1317331	13
	3	11	0.96	0.93	0.02	0.02	0.94	0.1	0.04	2713.42	1344472	13
	2	7	0.95	0.98	0.02	0.03	0.94	0.1	0.05	2711.72	1309222	12
	2	7	0.95	0.93	0.01	0.01	0.94	0	0.05	2712.43	1262013	12
	2	6	0.95	0.97	0.02	0.01	0.94	0.1	0.04	2711.28	1329789	13
<i>Megascops choliba</i>	3	11	0.79	0.96	0.02	0.02	0.77	0	0.01	13155.48	3159951	132
	3	11	0.78	0.96	0.02	0.02	0.77	0	0.01	13157.26	3099044	131
	3	11	0.78	0.97	0.03	0.03	0.76	0	0.02	13165.59	3094996	134
	3	11	0.78	0.96	0.01	0.01	0.77	0	0.01	13156.96	3127969	129

<i>Species/subspecies</i>	FC	RM	AUC _{train}	AUC _{test}	Var _{test}	ΔAUCs	Var _{both}	AICc	w.AIC	Par.	Area	Om.
<i>Megascops choliba</i> (cont.)	3	11	0.78	0.96	0.03	0.02	0.77	0	0.01	13160.12	3145939	130
	3	11	0.79	0.97	0.03	0.02	0.77	0	0.01	13157.02	3137459	129
	3	11	0.78	0.96	0.03	0.02	0.77	0	0.01	13158.21	3091423	130
	3	11	0.78	0.96	0.03	0.02	0.77	0.1	0.01	13159.28	3108073	132
	3	11	0.78	0.96	0.05	0.03	0.77	0.1	0.01	13157.01	3115559	132
	3	11	0.79	0.96	0.03	0.02	0.77	0	0.01	13158.56	3187374	130
<i>M. ch. choliba</i>	3	12	0.93	0.93	0.02	0.01	0.92	0.1	0.02	3300.28	1513267	17
	3	11	0.93	0.97	0.03	0.01	0.93	0.1	0.04	3295.02	1438607	16
	3	13	0.93	0.89	0.02	0.02	0.92	0.1	0.02	3299.4	1521622	17
	3	12	0.93	0.92	0.03	0.02	0.92	0.1	0.04	3297.87	1431332	16
	3	11	0.93	0.96	0.01	0.02	0.92	0.1	0.02	3299.7	1521894	17
	3	12	0.93	0.94	0.02	0.03	0.91	0.1	0.06	3294.99	1433286	17
	3	11	0.94	0.97	0.02	0.01	0.93	0	0.04	3289.79	1439704	16
	3	11	0.93	0.97	0.01	0.01	0.92	0.1	0.02	3293.34	1408281	17
	3	12	0.93	0.91	0.01	0.01	0.92	0.1	0.02	3298.87	1472827	17
	3	12	0.93	0.94	0.02	0.01	0.92	0.1	0.04	3293.63	1430419	16
<i>M. ch. cruciger</i>	3	11	0.88	0.82	0.05	0.04	0.83	0.1	0.05	2493.38	2287451	18
	3	11	0.87	0.8	0.05	0.02	0.84	0.1	0.05	2495.05	2340487	19
	3	11	0.88	0.81	0.05	0.04	0.83	0.2	0.05	2488.51	2324871	19
	3	11	0.88	0.77	0.05	0.03	0.84	0.1	0.06	2490.09	2382347	19
	3	11	0.88	0.86	0.05	0.06	0.83	0.2	0.09	2494.62	2304580	18
	3	11	0.88	0.84	0.04	0.03	0.83	0	0.05	2491.45	2253289	18
	3	12	0.86	0.95	0.04	0.04	0.81	0.1	0.05	2495.97	2351210	19
	3	11	0.88	0.75	0.07	0.05	0.84	0.2	0.03	2493.5	2335588	19
	3	12	0.86	0.93	0.05	0.04	0.82	0.1	0.05	2494.53	2366148	19
	3	11	0.87	0.83	0.03	0.02	0.84	0	0.05	2489.62	2329099	19
<i>M. ch. decussatus</i>	3	11	0.9	0.96	0.03	0.02	0.88	0.1	0.05	4167.33	1843161	24
	3	11	0.9	0.98	0.02	0.02	0.88	0	0.02	4161.69	1866592	25
	3	11	0.89	0.98	0.03	0.03	0.87	0	0.03	4161.52	1762927	25
	3	11	0.89	0.98	0.04	0.03	0.87	0.1	0.03	4166.78	1879396	25
	3	11	0.89	0.98	0.03	0.03	0.87	0.1	0.02	4166.29	1733764	24
	3	11	0.89	0.98	0.03	0.02	0.88	0.1	0.02	4165.51	1831628	24
	3	11	0.9	0.99	0.02	0.02	0.88	0.1	0.02	4165.59	1793021	24
	3	11	0.89	0.99	0.02	0.02	0.87	0.1	0.03	4167.16	1804846	24
	3	11	0.9	0.98	0.03	0.02	0.88	0.1	0.02	4161.44	1807242	24
	3	11	0.9	0.99	0.02	0.02	0.88	0	0.03	4164.49	1843418	24
<i>M. ch. uruguaii</i>	1	1	0.97	0.66	0.01	0.01	0.97	0.3	0.19	966.54	697657	2
	2	6	0.98	0.71	0.01	0.01	0.97	0.1	0.13	965.62	663979	2
	3	11	0.98	0.67	0.01	0.01	0.97	0.1	0.13	959.76	696037	2
	2	6	0.98	0.67	0.01	0.01	0.97	0.1	0.08	965.98	671557	2
	1	1	0.97	0.71	0.01	0.01	0.97	0.1	0.13	966.8	702140	2
	3	11	0.98	0.56	0.01	0.01	0.97	0.1	0.13	965.67	702960	2
	3	12	0.98	0.6	0.01	0.01	0.97	0.1	0.12	962.93	737581	2
	2	7	0.98	0.6	0.01	0.01	0.97	0.1	0.06	966.4	681676	2
	3	11	0.98	0.56	0.01	0.01	0.97	0.2	0.13	964.54	676961	2

<i>Species/subspecies</i>	FC	RM	AUC _{train}	AUC _{test}	Var _{test}	ΔAUCs	Var _{both}	AICc	w.AIC	Par.	Area	Om.
<i>M. ch. uruguayi</i> (cont.)	2	6	0.98	0.68	0.01	0	0.98	0.1	0.06	966	656031	2
<i>Megascops roraimae</i>	2	6	0.97	0.78	0.06	0.08	0.95	0.4	0.45	229.56	1240299	1
	2	6	0.97	0.8	0.13	0.24	0.88	0.4	0.45	231.84	1282636	1
	2	6	0.97	0.83	0.08	0.13	0.93	0.4	0.22	230.4	1242242	1
	2	6	0.97	0.78	0.06	0.09	0.95	0.4	0.22	231.04	1323488	1
	2	6	0.98	0.83	0.12	0.22	0.89	0.4	0.45	231.84	1310677	1
	2	6	0.97	0.8	0.07	0.09	0.95	0.4	0.22	229.65	1276418	1
	2	6	0.97	0.81	0.13	0.23	0.89	0.5	0.45	230.25	1311147	1
	2	6	0.97	0.86	0.09	0.15	0.92	0.4	0.22	232.07	1226796	1
<i>Megascops sanctaecatarinae</i>	2	6	0.98	0.69	0.01	0	0.97	0.1	0.07	1096.71	502562	2
	2	8	0.97	0.79	0	0	0.97	0.2	0.11	1093.48	523340	2
	2	8	0.97	0.74	0.01	0	0.97	0.1	0.11	1096.08	538400	2
	2	6	0.98	0.76	0	0	0.97	0.1	0.11	1092.5	508122	2
	2	6	0.98	0.74	0.01	0.01	0.97	0.2	0.07	1096.21	520859	2
	2	6	0.97	0.53	0.01	0.01	0.97	0.1	0.14	1097.82	491457	2
	2	6	0.98	0.83	0.01	0	0.97	0.1	0.11	1093.36	510356	2
	2	6	0.98	0.77	0.01	0.01	0.97	0.2	0.16	1092.91	511008	2
	2	6	0.97	0.61	0.01	0.01	0.97	0.1	0.06	1093.62	525317	2
	2	6	0.98	0.82	0.01	0	0.97	0.1	0.07	1093.74	511385	2
	3	13	0.82	0.97	0.04	0.05	0.77	0.1	0.02	3142.9	2584262	28
<i>Megascops watsonii</i>	3	13	0.83	0.98	0.04	0.04	0.77	0.1	0.02	3143.6	2748107	28
	3	13	0.82	0.96	0.04	0.03	0.77	0.1	0.02	3140.29	2582013	27
	3	13	0.82	0.98	0.04	0.03	0.77	0.1	0.04	3142.95	2658432	28
	3	13	0.82	0.97	0.04	0.03	0.77	0.1	0.02	3138.8	2674175	27
	3	12	0.83	0.96	0.07	0.06	0.75	0.1	0.02	3141.03	2555775	27
	3	13	0.82	0.98	0.05	0.03	0.78	0.1	0.02	3144.25	2642442	28
	3	11	0.84	0.96	0.04	0.03	0.8	0.1	0.02	3138.16	2488168	26
	3	14	0.82	0.98	0.05	0.05	0.78	0.1	0.02	3144.72	2703134	28
	3	11	0.84	0.94	0.06	0.04	0.79	0.1	0.04	3141.75	2495162	26
	2	7	0.83	0.96	0.04	0.03	0.8	0.1	0.06	2269.52	2450472	17
	2	6	0.83	0.95	0.07	0.05	0.79	0.1	0.03	2271.24	2401367	17
<i>M. w. usta</i>	2	6	0.83	0.94	0.05	0.02	0.81	0.1	0.06	2268.26	2471173	18
	2	7	0.83	0.95	0.05	0.03	0.8	0.1	0.06	2270.88	2377885	17
	2	6	0.83	0.95	0.05	0.04	0.81	0.1	0.03	2266.16	2466208	18
	2	6	0.84	0.95	0.06	0.03	0.8	0.1	0.04	2267.78	2408364	17
	2	6	0.83	0.96	0.05	0.04	0.81	0.1	0.06	2268.33	2463581	18
	2	6	0.83	0.94	0.05	0.03	0.8	0.1	0.06	2271.69	2451741	18
	2	6	0.83	0.95	0.06	0.05	0.79	0.1	0.04	2268.73	2431324	18
	2	6	0.84	0.94	0.05	0.02	0.81	0.1	0.04	2268.05	2491361	18
	3	12	0.96	0.94	0.04	0.04	0.93	0.2	0.09	815.64	1045549	3
	3	11	0.96	0.82	0.02	0.02	0.94	0.2	0.09	808.73	1210974	3
	2	7	0.95	0.67	0.04	0.04	0.93	0.3	0.07	811.89	1291193	3
<i>M. w. watsonii</i>	2	7	0.95	0.73	0.05	0.05	0.93	0.2	0.15	812.61	1225689	3
	3	12	0.96	0.94	0.03	0.03	0.94	0.2	0.07	808.93	1059622	3
	3	12	0.96	0.93	0.03	0.01	0.94	0.1	0.07	808.9	1075105	3

<i>Species/subspecies</i>	FC	RM	AUC _{train}	AUC _{test}	Var _{test}	ΔAUCs	Var _{both}	AICc	w.AIC	Par.	Area	Om.
<i>M. w. watsonii</i> (cont.)	3	11	0.96	0.9	0.02	0.02	0.95	0.1	0.09	805.22	1081368	3
	3	11	0.96	0.89	0.01	0.02	0.95	0.2	0.1	808.33	1110130	3
	2	7	0.95	0.79	0.04	0.05	0.93	0.2	0.18	811.63	1309217	4
	3	12	0.96	0.92	0.03	0.04	0.94	0.2	0.15	810.01	1078840	3
<i>Pulsatrix koenigswaldiana</i>	3	12	0.96	0.97	0.01	0.01	0.94	0.1	0.05	2640.52	876736	13
	3	11	0.96	0.96	0.02	0.02	0.95	0.1	0.05	2640.82	913598	13
	3	11	0.96	0.97	0.01	0.01	0.94	0.1	0.05	2636.82	848224	13
	3	12	0.96	0.94	0.02	0.01	0.94	0.1	0.05	2642.58	912139	14
	3	12	0.96	0.95	0.02	0.02	0.94	0.1	0.02	2645.89	873377	13
	3	12	0.96	0.96	0.02	0.01	0.94	0.1	0.05	2635.9	911362	13
	3	12	0.96	0.98	0.01	0.01	0.94	0.1	0.02	2635.97	886044	13
	3	11	0.96	0.94	0.01	0.01	0.95	0.1	0.05	2639.07	889923	14
	3	11	0.96	0.93	0.02	0.02	0.95	0.1	0.05	2636.61	938313	13
	3	11	0.96	0.93	0.01	0.01	0.95	0	0.02	2636.05	926075	13
<i>Pulsatrix perspicillata</i>	3	12	0.83	0.92	0.06	0.04	0.79	0.1	0.03	4073.99	2558413	35
	3	12	0.82	0.95	0.07	0.05	0.79	0.1	0.03	4065.59	2542108	35
	3	11	0.82	0.96	0.03	0.03	0.8	0.1	0.02	4069.81	2547522	35
	3	12	0.82	0.97	0.03	0.02	0.8	0	0.03	4078.44	2581561	35
	3	12	0.83	0.88	0.06	0.05	0.8	0.1	0.03	4072.32	2580775	35
	3	12	0.82	0.94	0.06	0.05	0.78	0.1	0.06	4074.02	2521101	35
	3	11	0.82	0.96	0.08	0.04	0.78	0.1	0.03	4071.77	2502698	35
	3	12	0.82	0.96	0.04	0.03	0.79	0.1	0.02	4073.07	2487102	34
	3	12	0.82	0.93	0.07	0.04	0.78	0.1	0.04	4073.19	2462883	34
	3	12	0.82	0.94	0.03	0.02	0.8	0.1	0.02	4077.39	2530887	34
<i>P. p. perspicillata</i>	3	11	0.87	0.94	0.02	0.03	0.84	0.1	0.07	1912.37	2310380	14
	3	11	0.87	0.93	0.05	0.04	0.85	0.1	0.1	1910.86	2372473	14
	3	11	0.87	0.95	0.05	0.05	0.83	0.1	0.13	1907.67	2185317	13
	3	11	0.87	0.92	0.04	0.02	0.84	0.1	0.07	1906.62	2307204	14
	3	11	0.87	0.92	0.04	0.04	0.83	0.1	0.04	1905.99	2348099	14
	3	11	0.87	0.95	0.05	0.04	0.82	0.1	0.11	1902.01	2163391	13
	3	11	0.87	0.95	0.05	0.04	0.83	0.1	0.07	1909.77	2173274	13
	3	11	0.87	0.92	0.04	0.04	0.83	0.1	0.09	1910.21	2315998	15
	3	11	0.87	0.93	0.03	0.02	0.84	0.1	0.11	1905.16	2288748	14
	3	12	0.86	0.97	0.03	0.02	0.83	0.1	0.03	1909.09	2352259	15
<i>P. p. pulsatrix</i>	3	11	0.97	0.88	0.04	0.02	0.95	0.2	0.13	929.95	929650	3
	2	7	0.93	0.89	0.07	0.04	0.91	0.1	0.08	949.14	1578031	5
	2	6	0.94	0.89	0.05	0.05	0.91	0.1	0.08	943.14	1752872	6
	3	11	0.97	0.91	0.04	0.04	0.93	0.1	0.12	939.35	871577	3
	2	6	0.94	0.91	0.06	0.05	0.9	0.1	0.13	946.52	1532631	5
	2	6	0.94	0.88	0.06	0.08	0.91	0.2	0.19	943.04	1548872	5
	2	6	0.94	0.93	0.05	0.04	0.92	0.1	0.08	948.7	1468865	5
	2	6	0.95	0.84	0.07	0.08	0.91	0.2	0.22	943.7	1490652	5
	2	7	0.93	0.93	0.04	0.04	0.91	0.1	0.08	950.18	1468923	5
	3	11	0.97	0.9	0.08	0.08	0.9	0.2	0.14	942.48	922279	3
<i>Strix huhula</i>	3	12	0.76	0.97	0.07	0.05	0.68	0.1	0.05	2938.41	3240398	30

<i>Species/subspecies</i>	FC	RM	AUC _{train}	AUC _{test}	Var _{test}	ΔAUCs	Var _{both}	AICc	w.AIC	Par.	Area	Om.
<i>Strix huhula</i> (cont.)	3	12	0.75	0.94	0.07	0.06	0.68	0.1	0.03	2935.76	3159360	29
	3	13	0.75	0.98	0.09	0.04	0.65	0.1	0.03	2940.31	3331061	30
	3	12	0.76	0.97	0.07	0.05	0.7	0.1	0.07	2938.67	3254623	29
	3	13	0.75	0.98	0.06	0.05	0.67	0.1	0.08	2934.97	3333774	30
	3	13	0.76	0.96	0.07	0.06	0.67	0.1	0.04	2934.03	3233319	29
	3	12	0.76	0.94	0.09	0.04	0.7	0.1	0.05	2937.75	3274823	30
	3	12	0.76	0.97	0.09	0.09	0.67	0.1	0.05	2934.76	3206623	29
	3	13	0.75	0.98	0.09	0.06	0.66	0.1	0.07	2934.55	3371094	31
	3	12	0.75	0.96	0.08	0.06	0.67	0.1	0.07	2934.72	3292977	31
<i>S. h. albomarginata</i>	2	6	0.97	0.74	0.02	0.01	0.96	0.2	0.11	709.01	854269	2
	2	6	0.97	0.74	0.03	0.02	0.96	0.3	0.11	709.7	830812	2
	2	6	0.97	0.79	0.03	0.02	0.95	0.2	0.18	707.76	836210	2
	2	6	0.97	0.76	0.03	0.03	0.95	0.3	0.35	708.81	810474	2
	2	6	0.97	0.74	0.02	0.01	0.96	0.1	0.11	709.57	880256	2
	2	6	0.97	0.75	0.03	0.04	0.95	0.3	0.09	705.78	837658	2
	2	6	0.97	0.74	0.02	0.02	0.96	0.1	0.11	708.18	834990	2
	2	6	0.97	0.7	0.02	0.02	0.96	0.2	0.14	710.59	898217	2
	2	6	0.98	0.76	0.02	0.01	0.96	0	0.11	707.91	859697	2
	2	6	0.97	0.78	0.02	0.02	0.96	0.2	0.18	709.06	912347	2
<i>S. h. huhula</i>	3	12	0.79	0.95	0.06	0.04	0.73	0.1	0.04	1925.57	2965812	18
	3	12	0.79	0.96	0.09	0.05	0.72	0.2	0.04	1926.02	3101026	19
	3	11	0.8	0.89	0.07	0.05	0.74	0.1	0.11	1926.15	2928476	18
	3	13	0.77	0.97	0.08	0.04	0.72	0.1	0.03	1926.21	3135890	19
	3	12	0.79	0.95	0.03	0.03	0.76	0.1	0.05	1925.4	3047427	18
	3	12	0.79	0.96	0.07	0.06	0.72	0.1	0.04	1925.75	3113949	19
	3	12	0.79	0.96	0.08	0.06	0.72	0.2	0.15	1926.06	3200637	19
	3	12	0.79	0.97	0.07	0.05	0.73	0.1	0.11	1924.99	3033890	18
	3	11	0.81	0.9	0.09	0.09	0.72	0.2	0.11	1922.29	2913672	18
	3	12	0.79	0.96	0.08	0.05	0.73	0.2	0.07	1925.75	3094895	19
<i>Strix hylophila</i>	3	11	0.98	0.94	0.01	0	0.97	0.1	0.04	2668.92	695585	7
	2	6	0.97	0.96	0.01	0.02	0.97	0.1	0.07	2667.08	735192	8
	2	6	0.98	0.94	0.01	0.01	0.97	0.1	0.02	2671.03	745736	7
	2	6	0.98	0.94	0.01	0.01	0.97	0.1	0.02	2671.24	749901	7
	2	6	0.97	0.97	0.01	0	0.97	0.1	0.02	2668.56	762486	8
	2	6	0.97	0.96	0.01	0	0.97	0.1	0.04	2669.82	724712	8
	2	6	0.98	0.95	0.01	0.01	0.97	0.1	0.02	2666.73	739173	7
	2	6	0.97	0.96	0.01	0.01	0.97	0.1	0.02	2664.98	768403	8
	2	6	0.97	0.94	0.01	0.01	0.97	0	0.04	2669.91	748903	8
	2	6	0.98	0.98	0.01	0.01	0.97	0.1	0.02	2663.96	744288	8
<i>Strix virgata</i>	3	11	0.87	0.98	0.03	0.03	0.85	0.1	0.02	3698.46	2179810	26
	3	12	0.86	0.96	0.06	0.03	0.83	0.1	0.04	3697.99	2132947	26
	3	12	0.86	0.94	0.04	0.04	0.84	0.1	0.02	3696.76	2142950	26
	3	12	0.86	0.96	0.06	0.02	0.84	0.1	0.02	3695.19	2142963	27
	3	12	0.86	0.93	0.05	0.03	0.83	0.1	0.02	3699.82	2173458	27
	3	11	0.86	0.92	0.06	0.02	0.83	0.1	0.02	3696.16	2189156	28

<i>Species/subspecies</i>	FC	RM	AUC _{train}	AUC _{test}	Var _{test}	ΔAUCs	Var _{both}	AICc	w.AIC	Par.	Area	Om.
<i>Strix virgata</i> (cont.)	3	12	0.86	0.94	0.04	0.02	0.84	0.1	0.02	3697.88	2195637	27
	3	12	0.87	0.92	0.05	0.03	0.83	0.1	0.02	3692.74	2220142	27
	3	12	0.86	0.94	0.04	0.03	0.84	0.1	0.02	3697.37	2214461	27
	3	12	0.86	0.94	0.05	0.03	0.84	0.1	0.02	3697.57	2171413	27
<i>S. v. borelliana</i>	3	11	0.97	0.88	0.02	0.01	0.96	0.1	0.03	2298.34	863451	7
	3	11	0.97	0.87	0.01	0.01	0.96	0.1	0.06	2303.45	907821	7
	3	11	0.97	0.9	0.02	0.04	0.95	0.1	0.08	2303.26	883218	7
	3	11	0.97	0.9	0.02	0.01	0.96	0.1	0.03	2288.82	866769	7
	3	11	0.97	0.9	0.01	0.01	0.96	0.1	0.03	2301.63	843181	7
	3	11	0.97	0.9	0.01	0.01	0.96	0.1	0.03	2295.4	848912	7
	3	11	0.97	0.92	0.01	0.01	0.96	0.1	0.06	2296.34	862956	7
	3	11	0.97	0.89	0.02	0.02	0.95	0.1	0.05	2289.84	856418	7
	3	11	0.97	0.84	0.02	0.01	0.95	0.1	0.06	2292.58	853667	7
	3	11	0.97	0.9	0.01	0.01	0.96	0.1	0.11	2295.14	848764	7
<i>S. v. supercilialis</i>	2	8	0.8	0.59	0.04	0.02	0.78	0.1	0.13	1004.71	2801076	9
	2	8	0.81	0.56	0.03	0.02	0.78	0.2	0.06	1004.69	2831677	9
	2	8	0.8	0.58	0.07	0.06	0.74	0.3	0.15	1004.73	2778963	9
	2	8	0.81	0.71	0.02	0.02	0.78	0.1	0.07	1004.07	2776989	9
	2	8	0.8	0.62	0.05	0.05	0.77	0.2	0.13	1004.52	2826687	9
	2	8	0.8	0.63	0.06	0.04	0.77	0.2	0.06	1004.55	2830098	9
	2	8	0.81	0.62	0.05	0.03	0.77	0.1	0.09	1004.3	2878924	9
	2	8	0.8	0.6	0.08	0.04	0.76	0.2	0.22	1005.06	2778973	9
	3	12	0.85	0.8	0.05	0.03	0.8	0.1	0.15	1005.06	2633134	8
	2	8	0.8	0.64	0.07	0.05	0.77	0.2	0.15	1004.32	2764426	9