

Digital supplementary material to

CRIST, T.O. 2009: Biodiversity, species interactions, and functional roles of ants (Hymenoptera: Formicidae) in fragmented landscapes: a review. – *Myrmecological News* 12: 3-13.

Appendix: Studies that provided data sets (11 total) necessary to construct the additive partitions of ant species richness within (α) and among (β) habitat fragments of different areas. Data sets required a minimum of 10 habitat fragments for inclusion. Analysis is shown in Figure 3.

Reference	Habitat type	Location	No. habitat patches	Total no. spp. (γ)	Ave. no. spp. present (α)	Ave. no. spp. absent (β)
ABENSPERG-TRAUN & al. (1996)	<i>Eucalyptus</i> woodland	Western Australia	26	106	30.6	75.4
ARMBRECHT & ULLOA-CHACON (2003)	Tropical dry forest	Southwestern Colombia	14	233	55.1	177.9
DAUBER & al. (2006)	Grassland	Central Sweden	22	23	5.4	17.6
DEBUSE & al. (2007)	Semi-arid woodland	Eastern Australia	20	116	21.0	95.0
GOLDEN & CRIST (2000)	Old field	Eastern USA	16	20	3.4	16.6
MAETO & SATO (2004)	Temperate forest	Southwestern Japan	12	39	15.2	23.8
SCHOEREDER & al. (2004)	Tropical rain forest	Southeastern Brazil	17	134	20.3	113.7
SPIESMAN & CUMMING (2008)	Pine-oak savanna	Southeastern USA	33	64	25.2	38.8
SUAREZ & al. (1998)	Coastal scrub	Southwestern USA	40	41	5.9	35.1
VASCONCELOS & al. (2006)	Tropical savanna	Northeastern Brazil	32	268	74.6	193.4
ZSCHOKKE & al. (2000)	Grassland	Switzerland	48	13	1.6	11.4

References

- ABENSPERG-TRAUN, M., SMITH, G.T., ARNOLD, G.W. & STEVEN, D.E. 1996: The effects of habitat fragmentation and livestock grazing on animal communities in remnants of gimlet *Eucalyptus salubris* woodland in the Western Australian wheatbelt. I. Arthropods. – *Journal of Applied Ecology* 33: 1281-1301.
- ARMBRECHT, I. & ULLOA-CHACON, P. 2003: The little fire ant *Wasmannia auropunctata* (ROGER) (Hymenoptera: Formicidae) as a diversity indicator of ants in tropical dry forests of Colombia. – *Environmental Entomology* 32: 542-547.
- DAUBER, J. & WOLTERS, V. 2004: Edge effects on ant community structure and species richness in an agricultural landscape. – *Biodiversity and Conservation* 13: 901-915.
- DEBUSE, V.J., KING, J. & HOUSE, A.P.N. 2007: Effect of fragmentation, habitat loss and within-patch habitat characteristics on ant assemblages in semiarid woodlands of eastern Australia. – *Landscape Ecology* 22: 731-745.
- GOLDEN, D.M. & CRIST, T.O. 2000: Experimental effects of habitat fragmentation on rove beetles and ants: patch area or edge? – *Oikos* 90: 525-538.

- MAETO, K. & SATO, S. 2004: Impacts of forestry on ant species richness and composition in warm-temperate forests of Japan. – *Forest Ecology and Management* 187: 213-223.
- SCHOEREDER, J.H., GALBIATI, C., RIBAS, C.R., SOBRINHO, T.G., SPERBER, C.F., DESOUZA, O. & LOPES-ANDRADE, C. 2004: Should we use proportional sampling for species-area studies? – *Journal of Biogeography* 31: 1219-1226.
- SPIESMAN, B.J. & CUMMING, G.S. 2008: Communities in context: the influences of multiscale environmental variation on local ant community structure. – *Landscape Ecology* 23: 313-325.
- SUAREZ, A.V., BOLGER, B.T. & CASE, T.J. 1998: Effects of fragmentation and invasion on native ant communities in coastal southern California. – *Ecology* 79: 2041-2056.
- VASCONCELOS, H.L., VILHENA, J.M.S., MAGNUSSON, W.E. & ALBERNASZ, A.L.K.M. 2006: Long-term effects of forest fragmentation on Amazonian ant communities. – *Journal of Biogeography* 33: 1348-1356.
- ZSCHOKKE, S., DOLT, C., RUSTERHOLZ, H.-P., OGGIER, P., BRASCHLER, B., THOMMEN, G.H., LÜDIN, E., ERHARDT, A. & BAUR, B. 2000: Short-term responses of plants and invertebrates to experimental small-scale grassland fragmentation. – *Oecologia* 125: 559-572.