Manuscript Draft

What is long-distance dispersal? And a taxonomy of dispersal events

Supplementary Material

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Table 1: Summary of neighborhood area sizes and estimated neighborhood radius for tree species with different combinations of dispersal modes. Data from Nason *et al.* (1998); Garcia *et al.* (2005, 2007) and present study.

Species	Pollinator	Seed disperser	Density (ha^{-1})	Breeding unit (km^2)	Radius (km)
Ficus dugandii	Fig wasp	Vertebrates	0.004	631.7	14.2
Ficus obtusifolia	Fig wasp	Vertebrates	0.072	105.9	5.8
Prunus mahaleb	Bees, flies	Vertebrates	0.003	0.87	0.042
Frangula alnus	Bees, flies	Vertebrates	0.0004	0.45	0.013
Astrocaryum mexicanum	Beetle	Vertebrates	1364.0	0.011	0.06
Calophyllum longifolium	Bees	Vertebrates	0.28	1.241	0.629
Platypodium elegans	Bees	Wind	0.78	0.866	0.525
Cedrus atlantica	Wind	Wind	61.7	0.151	0.22
Fraxinus americana	Wind	Wind	24.7	0.008	0.05
Pseudotsuga menziesii	Wind	Wind	25.0	0.078	0.158

References

Garcia, C., Arroyo, J., Godoy, J. & Jordano, P. (2005) Mating patterns, pollen dispersal, and the ecological maternal neighbourhood in a Prunus mahaleb L. population. *Molecular Ecology*, **14**, 1821–1830, doi:10.1111/j.1365-294X.2005.02542.x.

Garcia, C., Jordano, P. & Godoy, J.A. (2007) Contemporary pollen and seed dispersal in a Prunus mahaleb population: patterns in distance and direction. *Molecular Ecology*, **16**, 1947–1955, doi:10.1111/j.1365-294X.2006.03126.x.

Nason, J.D., Herre, E. & Hamrick, J.L. (1998) The breeding structure of a tropical keystone plant resource. *Nature*, **391**, 685–687.

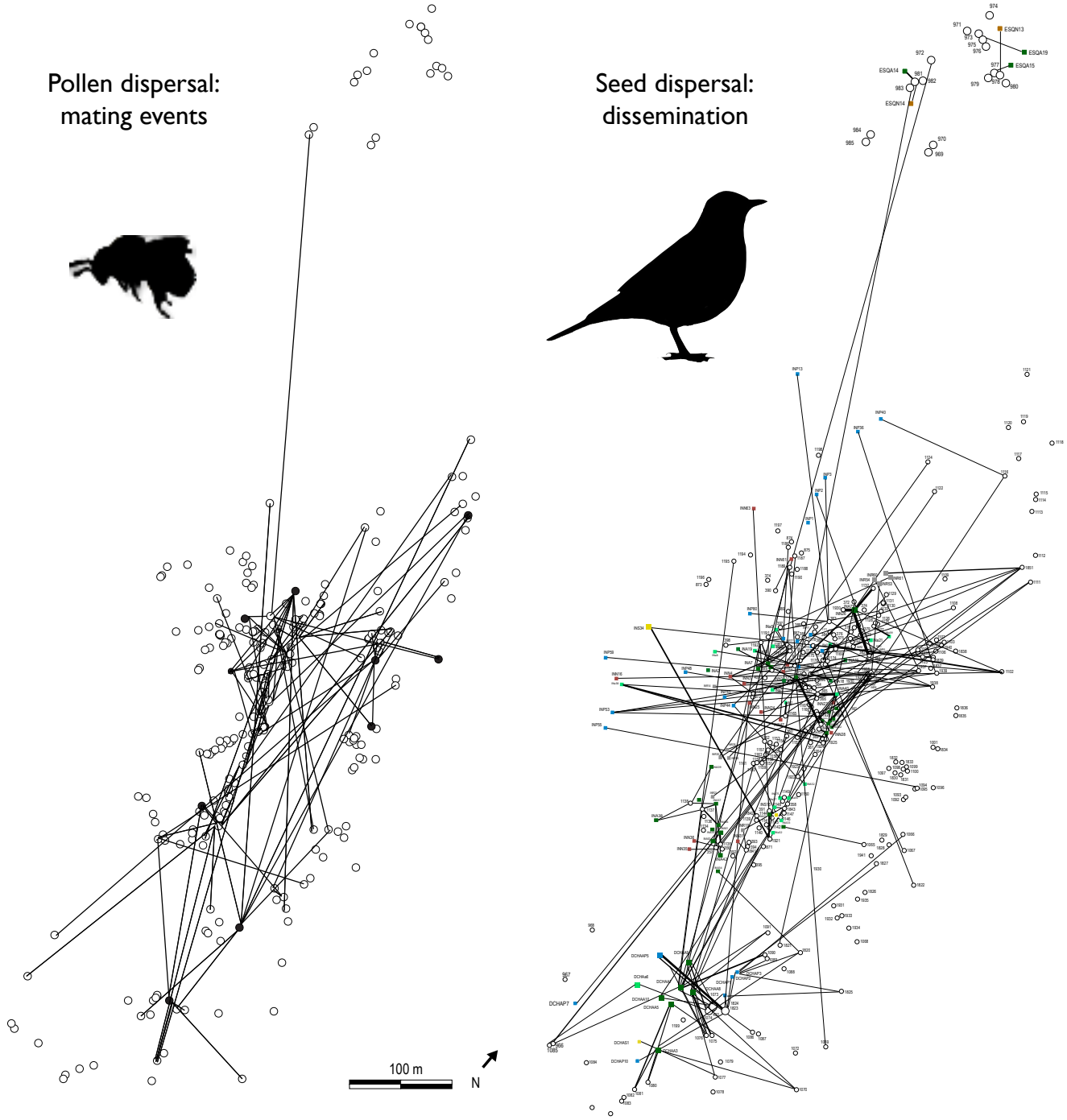

Figure 1: Dispersal events for pollen (left) and seeds (right) traced for *Prunus mahaleb* trees (white dots). All the adult, reproductive, trees in the population are mapped. Lines indicate mating events of pollen dispersal among trees (left) or seed dissemination events from source fruiting trees to seed traps (squares; right). Line thickness is proportional to the number of events recorded.

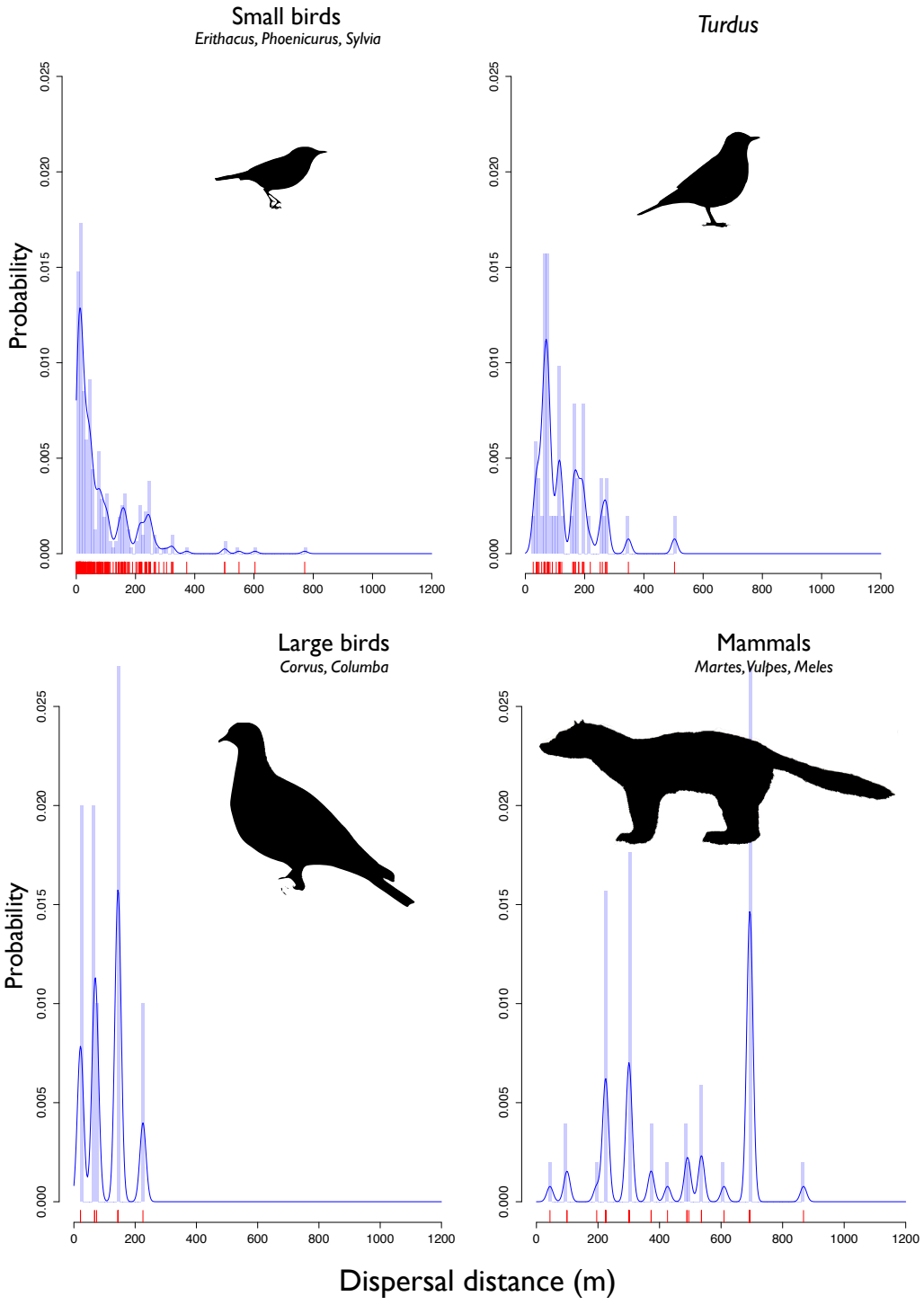

Figure 2: Differential contributions of functional groups of frugivores to the short- (SDD_{loc}) and long-distance (LDD_{loc}) local seed dispersal events for *Prunus mahaleb*.