

Seed rain of fleshy and dry propagules in different habitats in the temperate rainforests of Chiloé Island, Chile

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In temperate rainforests on Chiloé Island in southern Chile (42°S), most canopy trees bear fleshy, avian-dispersed propagules, whereas emergent tree species have dry, wind-borne propagules. In the present study, the following hypothesis was tested: regardless of species, fleshy propagules are deposited in greater numbers in canopy gaps and in forest margins and hence have a more heterogeneous seed shadow than wind-dispersed propagules. To test this hypothesis, the seed rains of these two types of propagules were compared in the following forest habitats: (i) tree-fall gaps (edges and centre); (ii) forest margins with adjacent pastures; and (iii) under closed canopy (forest interior). Seed collectors (30-cm diameter) were placed in two (15 and 100 ha) remnant forest patches (n = 60-100 seed collectors per patch) distributed in the four habitats. Seeds were retrieved monthly from each collector during two reproductive seasons (1996, 1997). In both years, the seed rain was numerically dom