An assessment of post-dispersal seed predation in temperate rain forest fragments in Chiloe Island, Chile

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Seeds of seven tree species, six shrub species, and one epiphyte were tested for their rates of removal by seed predators in two remnant patches (15-20 ha) of old-growth temperate forest in Chiloe Island, southern Chile (42°30'S). Field assays were aimed at assessing the rates of post-dispersal seed consumption, mainly by rodents and understory birds. Assays were conducted in summer and early fall of 1996 and 1997. We investigated whether seed consumption differed among habitats, between seasons and among species differing in seed mass and abundance in the canopy of remnant patches. Trays containing 20 seeds each, 6-8 replicate trays per species and habitat, were placed in the forest floor in each of three habitats: forest edges adjacent to pastures, forest interior (100 m away from any edge), and inside canopy gaps formed by tree falls. Overall, 7-65% of the seeds in experimental trays were removed by predators from 43 to 93% of all the trays within five days. Removal rates increased