

Seed predation and seedling recruitment in plants: The effect of the distance between parents

Bustamante, Ramiro O.

Simonetti, Javier A.

We present a graphic model that explores the effect of distance between parent plants on seed predation and seedling recruitment. Based on the assumption that distance between parents may affect the shape of the seed shadow, the model predicts that seed predators may affect seedling recruitment curves under isolated plants but they are unable to affect these curves under close parent plants. The predictions of the model are tested experimentally in *Cryptocarya alba* (Lauraceae), a common tree of the Mediterranean forest, Central Chile. Results show that predictions are not met under isolated parent plants. Although seed density decreases significantly away from parent plants, this effect is not relevant for seed predation and seedling recruitment. The biotic/abiotic contrast existing under the canopy vs outside the canopy, plus the shade-tolerance of this tree, better explains the seedling recruitment observed under isolated parent plants. Nevertheless, the predictions of the model are