

# A network analysis of plant-pollinator interactions in temperate rain forests of Chiloé Island, Chile

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This study characterizes the structure of a plant-pollinator network in a temperate rain forest of Chiloé Island, southern Chile, where woody species are strongly dependent on biotic pollinators, and analyzes its robustness to the loss of participating species. Degree distribution, nestedness, and expected species persistence were evaluated. In addition, we assessed the roles of predefined subsets of plants (classified by life forms) and pollinators (grouped by taxonomic orders) in the network's structure and dynamics. For this, we simulated the complete removal of each plant and pollinator subset and analyzed the resultant connectivity patterns, as well as the expected long-term species losses by running a stochastic model. Finally, we evaluated the sensitivity of the network structure to the loss of single species in order to identify potential targets for conservation. Our results show that the plant-pollinator network of this Chilean temperate rain forest exhibits a nested structure