

Project Update: June 2018

We sampled more than 1000 coihue trees from 15 different stands ranging from mature stands with low incidence of disturbance, to mature, intermediate and young stands with different levels of fire severity. We measured cavity availability, fire severity, time since last fire, and trees were tagged for long term studies of cavity availability and use. Diameter at breast height (DBH), fire severity and tree architecture characterised by lateral branches, resulted important factors for determining number of hollows. Greater number of hollows was found in mature less-disturbed forests, while in post-fire stands following a high severity fire, trees were characterised by upper crowns and absence of lateral branches, presenting low number of cavities. In general, number of hollows increases with DBH, but in high severity stands, this increase was less marked than in lower severity stands, and even trees with big diameters showed few hollows.



Mature forest stand, with low incidence of fire disturbance, characterized by presence of multiple cohorts and trees with lateral branches. A Magellanic woodpecker (*Campephilus magellanicus*) nest can be noticed in the dead coihue from the middle of the photo.



Post-fire (high-severity) forest stand, characterized by an even-aged cohort of coihue trees (a same cohort ranges between ± 40 years), with upper crowns, absence of lateral growth and low vegetation diversity in the forest understory.



Photo 3. Natalie behind an old burned coihue from an old high-severity fire. ©Pablo Alvear