

Ecosystem services restoration by seed dispersion approach, the case of the Goro plateau and germination study of some genera from NewCaledonia

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New Caledonia has the important mission to reconcile its exceptional biodiversity (74,7% of endemic plant species) with the rapid development of human activities. One of the most important threats is habitat fragmentation especially due to mining exploration. Over the past 40 years, revegetation has been developed to reduce such impacts but ecological restoration concept capability and concepts have only been developed in the past 15 years. Nowadays, New Caledonian's research programs dealing with ecological restoration tend to, more and more, take into account ecosystem services as the focus restoration. In this context, a large synthesis on what is already known regarding seed ecology has been carried out into plants species occurring on the Goro plateau in the south of New Caledonia. A database was constructed containing more than 3849 values on life-traits of all the 876 species of the Goro plateau. This database presents data dealing with 41 life-traits such as the reproductive type, the adult height, the type of fruit, the size and weight of seeds, the dispersion type, the germination and dormancy types. An analysis of all these data will be presented; it allowed us to evaluate the proportion of the different kind of dispersion. This approach also enabled a strategy for the establishment of ecological continuum on the Goro plateau. Finally, in order to complete the gaps in restoration knowledge noted in the database, field surveys and study of seeds are underway. To date germination dormancy types and capacities were carried out on different species from shrubby "maquis" or forest: *Arillastrum gummiferum*, *Cloezia artensis* (Myrtaceae), *Cerberiopsis candelabra* (Apocynaceae), *Codia discolor*, *Cunonia balansae*, *Pancheria confusa* (Cunoniaceae), *Flindersia fourneri* (Rutaceae), *Garcinia balansae*, *Montrouziera* spp. (Clusiaceae), *Ilex sebertii* (Aquifoliaceae), *Ixora francii* (Rubiaceae), *Myodocarpus involucreatus* (Myodocarpaceae), *Pittosporum* spp. (Pittosporaceae).

Biography – Lead/Presenting Author

Yawiya ITITIATY

Yawiya worked two years as technician conservation flora in Vale NC where she realized the importance of restored and preserved biodiversity. So she pursued a Master of tropical plant biodiversity. She completed her master with an internship in the New Caledonian Agronomic Institute and then began a PhD thesis on "pollination, dispersal and germination in relation to the dynamics of ecosystems" in the same institute.

