

# Age structure and dynamics of Patagonian beech forests in Torres del Paine National Park, Chile

Armesto, J. J.

Casassa, I.

Dollenz, O.

This study documents the stem size and age-structure in forests dominated by different species of *Nothofagus* in Torres del Paine National Park (51° S), in the Chilean Patagonian region. We also explored the relationship between the various types of *Nothofagus* forest and postglacial succession. Pioneer stands on moraine fields 1-2 km of the glacier front are dominated by *Nothofagus betuloides* and *Nothofagus antarctica*. Moraines appear to be first colonized by the evergreen *N. betuloides*, followed within 5-7 years by deciduous *N. antarctica*. *Nothofagus antarctica* may replace the former species and develop monospecific stands on glacial valleys. Most trees in the *N. antarctica* stand studied were older than 40 years and floods may cause a significant mortality of young trees. Recruitment from seed seems to be infrequent. Old-growth stands dominated by deciduous *Nothofagus pumilio* occupy more stable substrates, and probably represent the last stage of postglacial succession. This long-lived