

# Regeneration microsites and tree species coexistence in temperate rain forests of Chiloé Island, Chile

Christie, Duncan A.

Armesto, Juan J.

1. We studied the importance of fallen logs as recruitment sites for tree species, their role in species coexistence, and also the influence of canopy openness and litter depth on tree species establishment in mid-successional and old-growth temperate rain forests of Chiloé Island, southern Chile. 2. Old-growth (OG) stands showed significantly more fallen logs than mid-successional (MS) stands. Concomitantly, the proportion of seedlings and saplings established on logs was significantly greater in OG than MS stands. 3. Of 13 tree species found at our study sites, eight showed a significant bias towards establishment on logs, especially those in advanced stages of decomposition. 4. In some stands, all seedlings of *Eucryphia cordifolia*, *Laureliopsis philippiana*, *Nothofagus nitida*, *Tepualia stipularis* and *Weinmannia trichosperma* occurred on decaying logs, whereas all *Podocarpus nubigena* seedlings were found on undisturbed soil sites. 5. Small-seeded species were more common on logs, where