



TFRC Permanent Plots

CSIRO – TFRC Permanent Plots

Twenty 0.5 ha permanently reserved plots were set up in primary rain forest between 1971-80.

Sites chosen encompassed a range of forest types and soil parent materials, and included both lowland and upland sites between the Seaview Range (north-west of Ingham) and the Iron Range (northwest of Lockhart River, Cape York).



The plots were initially established to 'record and analyse patterns of tree growth and stand dynamics in a broad range of permanently reserved plots in rain forest and associated forest types in north Queensland', and essentially provided control plots for an extensive series of experimental plots being established by the Forest & Timber Bureau at the same time.

These experimental plots sought to establish regrowth rates and therefore predict future harvesting potential following a range of management treatments.

Trees with diameters greater than 10cm have painted bands on their trunk around which girth re-measurements are taken every 4 years.

Full species inventories, individual heights and basal area data are also recorded for each plot, together with information about topography and soils.

The plot data themselves or floristic and stand data from particular plots have given rise to more than 40 publications to date, whilst CSIRO staff and students and a number of partner organisations continue to utilise them on a regular basis.

For example, the Curtain Fig plot is number 11 in the series, and represents one of the few remaining stands of the Type 5b Complex Notophyll Vine Forest (Mabi Forest) of Tracey & Webb (1975), and is regarded as a typical example of this now threatened community.

Tall to very tall forest with a seasonally sparse canopy on a eutrophic stony basalt soil, the community suffered severe water stress due to a drought between 1991 and 1993.

Consequently 49 enumerated trees died between the 1990-98 censuses, and this is the only plot to show a decrease in basal area over the life of the plots. One feature of the forest resulting from this phase is the locally dense understorey of turkey bush (*Hodgkinsonia frutescens*).



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