

TABLES

Table 1: The reference names, current tenures and Geodetic Datum of Australia 1994 locations of the twenty CSIRO rainforest plots in the North to Far North Queensland region from Mackay to Cape York. Plots located within the boundary of the Wet Tropics World Heritage Area are marked with asterisks against tenure detail. Abbreviations: LA – logging area, ScA – Scientific Area, SF – State Forest. The tenures shown were current in May 2006. All Forest Reserves have been designated by the Queensland Government as future National Parks.

| Plot, file number and name | Land tenure (May 2006) | Latitude (approx.) | Longitude (approx.) | Grid reference | |
|----------------------------|---|--------------------|---------------------|----------------|----------|
| | | | | Easting | Northing |
| 1 (EP2) Downfall Creek | Danbulla Forest Drive* (see text) | 17° 09' S | 145° 35' E | 349690 | 8103676 |
| 2 (EP3) Mount Haig | Dinden National Park* | 17° 05' S | 145° 35' E | 350365 | 8110226 |
| 3 (EP4) Little Pine Creek | Malbon Thompson Forest Reserve* | 17° 00' S | 145° 50' E | 375564 | 8120676 |
| 4 (EP9) Robson LA | Danbulla National Park* | 17° 07' S | 145° 39' E | 354565 | 8107176 |
| 5 (EP18) Mount Lewis | Mount Lewis Forest Reserve* | 16° 31' S | 145° 16' E | 314965 | 8172426 |
| 6 (EP19) Garrawalt | Girringun National Park* | 18° 30' S | 145° 45' E | 368914 | 7954277 |
| 7 (EP29) Mount Fisher | Malaan National Park* | 17° 31' S | 145° 33' E | 345965 | 8059577 |
| 8 (EP30) Agapetes LA | Mount Windsor National Park* (see text) | 16° 16' S | 145° 04' E | 293915 | 8199325 |
| 9 (EP31) Woopen Creek | Wooroonooran National Park* | 17° 32' S | 145° 50' E | 375714 | 8061736 |
| 10 (EP32) Mcllwraith Range | Unallocated State Land (see text) | 13° 45' S | 143° 21' E | 105153 | 8477918 |
| 11 (EP33) Curtain Fig | Curtain Fig National Park* | 17° 17' S | 145° 34' E | 348115 | 8088376 |
| 12 (EP34) Russell River | Wooroonooran National Park * | 17° 25' S | 145° 46' E | 369514 | 8075026 |
| 13 (EP35) Whyanbeel | Unallocated State Land* | 16° 21' S | 145° 20' E | 322265 | 8191175 |
| 14 (EP37) Eungella | Crediton State Forest | 21° 15' S | 148° 33' E | 660212 | 7649280 |
| 15 (EP38) The Crater | Herberton Range Forest Reserve | 17° 25' S | 145° 25' E | 338615 | 8073676 |
| 16 (EP40) Agapetes ScA | Mount Windsor National Park* | 16° 17' S | 145° 06' E | 297265 | 8199125 |
| 17 (EP41) Oliver Creek | Daintree National Park* | 16° 08' S | 145° 26' E | 333315 | 8215375 |
| 18 (EP42) Iron Range | Iron Range National Park | 12° 44' S | 143° 15' E | 92883 | 8588539 |
| 19 (EP43) Mount Baldy | Herberton Range State Forest | 17° 19' S | 145° 26' E | 333715 | 8085676 |
| 20 (EP44) Fantail LA | Mount Windsor National Park* | 16° 13' S | 145° 04' E | 295265 | 8205975 |

Table 1(a): The reference names, tenures and Australian Geodetic Datum 1966 locations of the twenty CSIRO rainforest plots in the North to Far North Queensland region from Mackay to Cape York. The tenures shown were current in December 2000. Plots located within the boundary of the Wet Tropics World Heritage Area are marked with asterisks against tenure detail. Abbreviations: LA – logging area, ScA – Scientific Area, SF – State Forest, NP – National Park, TR – Timber Reserve. The thirteen plots inspected during 2000 and 2001 specifically for this report are marked with the + symbol. Key to derivation of AMG values: D – Department of Forestry 1981 Danbulla State Forest 1: 25,000; T – 1:50,000 topographic series, Australian Geodetic Datum 1966; T1 – 1:100,000 topographic series, Australian Geodetic Datum 1966; Q – Queensland Department of Forestry series, Australian Geodetic Datum 1966. Plot positions were transferred from uncontoured Queensland forestry maps where appropriate.

| Plot, file number and name | Land tenure (current at 2000) | 1:100 000 map and source code | Grid reference | |
|--|---|------------------------------------|---------------------|----------------------|
| | | | Easting | Northing |
| 1 (EP2) Downfall Creek ⁺ | Ridings LA, SF 185* | Bartle Frere (8063) ^D | 349575 | 8103500 |
| 2 (EP3) Mount Haig ⁺ | Emerald LA, SF 607* | Bartle Frere (8063) ^D | 350250 | 8110050 |
| 3 (EP4) Little Pine Creek ⁺ | Little Pine LA, SF 933* | Cairns (8064) ^T | 375450 | 8120500 |
| 4 (EP9) Robson LA ⁺ | Robson LA, SF 185* | Bartle Frere (8063) ^D | 354450 | 8107000 |
| 5 (EP18) Mount Lewis ⁺ | North Mary LA, SF 143* | Rumula (7964) ^T | 314850 | 8172250 |
| 6 (EP19) Garrawalt | Burgoo LA, SF 750* | Kangaroo Hills (8060) ^T | 368800 | 7954100 |
| 7 (EP29) Mount Fisher ⁺ | Dirran LA, SF 650* | Tully (8062) ^Q | 345850 | 8059400 |
| 8 (EP30) Agapetes LA | Agapetes LA, SF 144* | Mossman (7965) ^T | 293800 | 8199150 |
| 9 (EP31) Wooten Creek | Wooroonooran NP* (ex Barong LA, SF 755) | Tully (8062) ^T | 375600 | 8061560 |
| 10 (EP32) Mcllwraith Range | State Land (ex TR 14) | Coen (7570) ^{T1} | 754000 ^φ | 8479500 ^φ |
| 11 (EP33) Curtain Fig ⁺ | SF 452* | Bartle Frere (8063) ^T | 348000 | 8088200 |
| 12 (EP34) Russell River ⁺ | Wooroonooran NP* (ex Gosschalk LA, SF 755) | Bartle Frere (8063) ^T | 369400 | 8074850 |
| 13 (EP35) Whyanbeel ⁺ | Unallocated State Land* (ex Barratt LA, SF 206; or Chinaman LA, TR55) | Mossman (7965) ^T | 322150 | 8191000 |
| 14 (EP37) Eungella ⁺ | Range LA, SF 679 | Mirani (8655) ^{T1} | 660100 | 7649100 |
| 15 (EP38) The Crater ⁺ | Barron LA, SF 194 | Atherton (7963) ^T | 338500 | 8073500 |
| 16 (EP40) Agapetes ScA | Agapetes ScA, SF 144* | Mossman (7965) ^T | 297150 | 8198950 |
| 17 (EP41) Oliver Creek ⁺ | Daintree NP* (ex Oliver Ck NP 164) | Mossman (7965) ^T | 333200 | 8215200 |
| 18 (EP42) Iron Range | Iron Range NP | Cape Weymouth (7572) | 744400 ^φ | 8590250 ^φ |
| 19 (EP43) Mount Baldy ⁺ | Scrubby LA, SF 194 | Atherton (7963) ^T | 333600 | 8085500 |
| 20 (EP44) Fantail LA | Fantail LA, SF 144* | Mossman (7965) ^T | 295150 | 8205800 |

^φ Maps in Zone 54

Table 2: A schedule of establishment and dbh remeasurement dates together with the length of available data records (at December 2005) for the twenty CSIRO rainforest plots. Tree heights were measured only at establishment and again for plots enumerated in 1998 or, for the Eungella plot (plot 14), at establishment and in 2001.

| Year of Record | Plot | | | | | | | | | | | | | | | | | | | |
|----------------|------|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| | EP2 | EP3 | EP4 | EP9 | EP18 | EP19 | EP29 | EP30 | EP31 | EP32 | EP33 | EP34 | EP35 | EP37 | EP38 | EP40 | EP41 | EP42 | EP43 | EP44 |
| 1971 | M | M | | | | | | | | | | | | | | | | | | |
| 1972 | | | M | M | | | | | | | | | | | | | | | | |
| 1973 | M | M | | | M | | | | | | | | | | | | | | | |
| 1974 | | | M | M | | | | | | | | | | | | | | | | |
| 1975 | M | M | | | M | M | M | | | M | | | | | | | | | | |
| 1976 | | | M | M | | | | M | M | | M | M | | | | | | | | |
| 1977 | M | M | | | M | M | M | | | M | | | M | M | M | | M | M | | |
| 1978 | | | M | M | | | | M | M | | M | M | | | | M | | | M | |
| 1979 | M | M | | | M | M | M | | | M | | | M | M | M | | M | M | | |
| 1980 | | | M | M | | | | M | M | | M | M | | | | M | | | M | M |
| 1981 | M | M | | | M | M | M | | | M | | | M | M | M | | M | M | | |
| 1982 | | | M | M | | | | M | M | | M | M | | | | M | | | M | M |
| 1983 | M | M | | | M | M | M | | | M | | | M | M | M | | M | M | | |
| 1984 | | | M | M | | | | M | M | | M | M | | | | M | | | M | M |
| 1985 | M | M | | | M | M | M | | | M | | | M | M | M | | M | M | | |
| 1986 | | | M | M | | | | M | M | | M | M | | | | M | | | M | M |
| 1987 | M | M | | | M | M | M | | | M | | | M | M | M | | M | M | | |
| 1988 | | | M | M | | | | M | M | | M | M | | | | M | | | M | M |
| 1989 | M | M | | | M | M | M | | | | | | M | M | M | | M | | | |
| 1990 | | | M | M | | | | M | M | M | M | M | | | | M | | M | M | M |
| 1991 | M | M | | | M | M | M | | | | | | M | M | M | | M | | | |
| 1992 | | | | | | | | | | | | | | | | | | | | |
| 1993 | | | | | | | | | | | | | | | | | | | | |
| 1994 | | | | | | | | | | | | | | | | | | | | |
| 1995 | M | M | | M | | | M | | | | M | | M | | M | | M | | M | |
| 1996 | | | | | M | | | | | | | | | | | | | | | |
| 1997 | | | | | | | | | | | | | | | | | | | | |
| 1998 | M | M | M | M | M | M | M | M | | M | M | M | M | | M | M | M | M | M | M |
| 1999 | | | | | | | | | | | | | | | | | | | | |
| 2000 | | | | | | | | | | | | | | | | | | | | |
| 2001 | | | | | | | | | | | | | | | M | | | | | |
| 2002 | M | M | M | M | M | | M | M | | M | M | M | M | | M | M | M | M | M | |
| 2003 | | | | | | | | | | | | | | | | | | | | |
| 2004 | | | | | | | | | | | | | | | | | | | | M |
| 2005 | | | | | | M | | | M | | | | | | M | | | | | |
| Years of data | 31 | 31 | 30 | 30 | 29 | 30 | 27 | 26 | 29 | 27 | 26 | 26 | 25 | 28 | 25 | 24 | 25 | 25 | 24 | 24 |

Table 3: A summary of the soil data sets held for the twenty CSIRO rainforest plots. Key to abbreviations: A = available; I = incomplete. Numeral entries indicate the number of depths for which data is available. Abbreviations: LA – logging area, ScA – Scientific Area.

| Plot | Profile description | Preliminary chemical analysis (bulked depths) | Preliminary particle size analysis (bulked depths) | Detail chemical analysis | Moisture retention data | Hydraulic conductivity data | Bulk density | Detailed particle size analysis | Particle density |
|----------------------------|---------------------|---|--|--------------------------|-------------------------|-----------------------------|--------------|---------------------------------|------------------|
| 1 (EP2) Downfall Creek | A5 | A | A1 | A5 | A3 | A4 | A3 | - | A2 |
| 2 (EP3) Mount Haig | A6 | A | - | A11 | A3 | A1 | A4 | A6 | - |
| 3 (EP4) Little Pine Creek | A6 | A | - | A11 | A5 | A4 | A6 | A13 | A3 |
| 4 (EP9) Robson LA | A6 | A | A1 | A9 | A5 | A4 | A5 | - | - |
| 5 (EP18) Mount Lewis | A7 | A | - | A8 | A2 | A2 | A2 | - | - |
| 6 (EP19) Garrawalt | A6 | A | - | A10 | A4 | A3 | A4 | A10 | - |
| 7 (EP29) Mount Fisher | I5 | A | A1 | A5 | A3 | (failed) | A6 | - | - |
| 8 (EP30) Agapetes LA | A9 | A | - | A9 | A4 | A4 | A4 | - | - |
| 9 (EP31) Woopen Creek | I6 | A | A1 | A6 | - | - | - | - | - |
| 10 (EP32) Mcllwraith Range | A7 | A | A1 | A12 | A3 | A4 | A5 | A11 | - |
| 11 (EP33) Curtain Fig | A9 | A | - | A11 | A5 | A2 | A5 | A12 | A3 |
| 12 (EP34) Russell River | I6 | A | A1 | A6 | - | - | - | - | - |
| 13 (EP35) Whyanbeel | A5 | A | A1 | A5 | - | - | - | - | - |
| 14 (EP37) Eungella | A8 | A | - | A11 | A5 | A2 | A6 | A11 | - |
| 15 (EP38) The Crater | - | A | - | A6+6* | - | - | A4 | - | - |
| 16 (EP40) Agapetes ScA | A6 | A | - | A6 | A4 | A3 | A4 | - | - |
| 17 (EP41) Oliver Creek | A5 | A | A1 | A5 | - | - | - | - | - |
| 18 (EP42) Iron Range | A6 | A | - | A9 | - | - | A3 | A9 | - |
| 19 (EP43) Mount Baldy | A8 | A | - | A9 | A4 | A5 | A4 | A6** | - |
| 20 (EP44) Fantail LA | A8 | - | A1 | A10 | A4 | A3 | A7 | - | A3 |

* Sampled during 2001/2002; ** Sampled in August 2003.

Table 4: A summary of the topographic, geological and landform characteristics of the twenty CSIRO rainforest plots. Asterisks indicate if the current soil parent material descriptions differ significantly from those previously listed in file or published records. Abbreviations: LA – logging area, ScA – Scientific Area.

| Plot | Altitude (m) | Plot aspect | Soil parent material | Landform pattern of site | Landform elements of 0.5 ha plot |
|----------------------------|--------------|-------------|--|---|--|
| 1 (EP2) Downfall Creek | 720 | SE | Granite | Hills (in mountains) | Hillcrest, upper slope |
| 2 (EP3) Mount Haig | 1120 | SE | Granite | Hills (in plateau remnant) | Upper, mid and lower slopes, landslide alcove and toe |
| 3 (EP4) Little Pine Creek | 110 | SW | Granite | Low hills (mountain foothills) | Hillcrest, upper and mid slopes |
| 4 (EP9) Robson LA | 800 | E | Meta-sediments* | Hills | Ridgecrest, upper, mid and lower slopes |
| 5 (EP18) Mount Lewis | 1100 | W | Granite | Low hills (in plateau remnant) | Hillcrest, upper slope |
| 6 (EP19) Garrawalt | 620 | SE | Rhyolite* | Plateau (low hills) | Upper and mid slopes with gully |
| 7 (EP29) Mount Fisher | 1200 | SE | Rhyolite* | Hills (in mountains) | Midslope with gully |
| 8 (EP30) Agapetes LA | 1060 | W | Granite | Plateau (low hills) | Hillcrest, upper, mid and lower slopes |
| 9 (EP31) Woopen Creek | 80 | S | Alluvium, possibly basalt enriched* | Low hills on a remnant of a relict alluvial terrace | Flat |
| 10 (EP32) McIlwraith Range | 450 | SW | Metamorphosed sandstone | Plateau | Upper and mid slopes |
| 11 (EP33) Curtain Fig | 720 | W | Basalt | Plateau (infilled landscape) | Flat and lower slope |
| 12 (EP34) Russell River | 380 | SW | Basalt enriched granitic alluvium, and basalt* | Alluvial terrace or fan with minor old valley infill by lava flow | Relict terrace (flat), minor gully and associated fan, lower and mid slope (lava flow) |
| 13 (EP35) Whyanbeel | 230 | SE | Metasediments | Plateau (low hills) | Hillcrest, upper, mid and lower slopes |
| 14 (EP37) Eungella | 920 | SE | Basalt | Plateau above escarpment margin | Midslope with minor crest, upper slope and gully |
| 15 (EP38) The Crater | 1000 | SE | Rhyolite with basaltic influence* | Plateau (low hills) | Upper, mid and lower slopes with relict valley flat |
| 16 (EP40) Agapetes ScA | 800 | N | Granite | Low hills (edge of plateau) | Ridge, upper and mid slopes with gully |
| 17 (EP41) Oliver Creek | 15 | SE | Alluvium | Hills (in mountains) | Lower slope, gully, active fan and valley flat |
| 18 (EP42) Iron Range | 60 | SE | Alluvium | Flood plain and low hills | Stream bank (eroding), oxbow, scroll, gully, footslope |
| 19 (EP43) Mount Baldy | 1120 | S | Rhyolite | Escarpment | Upper and mid slopes |
| 20 (EP44) Fantail LA | 910 | NE | Granite | Plateau (low hills) | Mid slope (extensive) |

Table 5: Estimates of the climatic settings of the twenty CSIRO rainforest plots. Values for those sites located within the Wet Tropics region (indicated by asterisks) are derived from the ANUCLIM model (McMahon *et al.* 1995) with annual rainfall and rainfall of the driest quarter calculated from the 80 m digital elevation model by Turton *et al.* (1999). For the remaining sites, annual rainfalls are estimates based on the available long-term records from the nearest recording stations. Abbreviations: LA – logging area, ScA – Scientific Area.

| Plot | Annual mean temperature (°C) | Temp. seasonality (C of V) | Mean temp. of warmest quarter (°C) | Mean temp. of coldest quarter (°C) | Annual rainfall (mm) | Precipitation Seasonality (C of V) | Rainfall of driest quarter (mm) | Annual mean moisture index |
|----------------------------|------------------------------|----------------------------|------------------------------------|------------------------------------|----------------------|------------------------------------|---------------------------------|----------------------------|
| 1 (EP2) Downfall Ck* | 20.7 | 97 | 23.9 | 16.8 | 1403 | 95 | 66 | 0.66 |
| 2 (EP3) Mount Haig* | 18.7 | 97 | 22.7 | 14.1 | 2884 | 69 | 237 | 0.97 |
| 3 (EP4) Little Pine Ck* | 24.9 | 96 | 27.5 | 21.8 | 2453 | 87 | 140 | 0.75 |
| 4 (EP9) Robson LA* | 20.4 | 97 | 23.7 | 16.5 | 1769 | 91 | 102 | 0.76 |
| 5 (EP18) Mount Lewis* | 19.2 | 97 | 23.0 | 14.8 | 2676 | 70 | 227 | 0.87 |
| 6 (EP19) Garrawalt* | 21.4 | 97 | 25.0 | 17.0 | 1236 | 93 | 72 | 0.74 |
| 7 (EP29) Mount Fisher* | 18.3 | 97 | 22.5 | 13.4 | 2857 | 67 | 252 | 0.98 |
| 8 (EP30) Agapetes LA* | 19.5 | 97 | 23.2 | 15.1 | 2597 | 69 | 228 | 0.82 |
| 9 (EP31) Woopen Ck* | 24.2 | 97 | 27.1 | 20.8 | 3365 | 78 | 260 | 0.92 |
| 10 (EP32) Mcllwraith Range | n.a. | n.a. | n.a. | n.a. | 2000 | n.a. | n.a. | n.a. |
| 11 (EP33) Curtain Fig* | 20.6 | 97 | 23.9 | 16.7 | 1424 | 88 | 84 | 0.73 |
| 12 (EP43) Russell River* | 22.8 | 97 | 25.9 | 19.0 | 3101 | 72 | 252 | 0.95 |
| 13 (EP35) Whyanbeel* | 24.4 | 97 | 27.0 | 21.3 | 2411 | 90 | 154 | 0.73 |
| 14 (EP37) Eungella | n.a. | n.a. | n.a. | n.a. | 2400 | n.a. | n.a. | n.a. |
| 15 (EP38) The Crater* | 19.2 | 97 | 23.1 | 14.7 | 1797 | 75 | 139 | 0.88 |
| 16 (EP40) Agapetes ScA* | 20.7 | 97 | 23.9 | 16.8 | 2097 | 81 | 167 | 0.73 |
| 17 (EP41) Oliver Ck* | 25.3 | 96 | 27.7 | 22.4 | 3470 | 80 | 225 | 0.86 |
| 18 (EP42) Iron Range | n.a. | n.a. | n.a. | n.a. | 2200 | n.a. | n.a. | n.a. |
| 19 (EP43) Mount Baldy* | 19.1 | 97 | 23.0 | 14.5 | 1655 | 87 | 121 | 0.81 |
| 20 (EP44) Fantail LA * | 20.2 | 97 | 23.6 | 16.2 | 2365 | 76 | 201 | 0.78 |

n.a. = not available; plot lies outside regions for which model estimate data are available.

Table 6: A summary of observations of disturbances in the twenty CSIRO rainforest plots. Abbreviations: C – cyclone damage; D – drought damage; E – meander migration erosion; F – fire, G – large gaps or tree fall damage; I – invasion by *Dendrocnide* spp.; L – selective logging; M – mining (insignificant pit diggings only); NO – no observation recorded; P – patch death confirmed or attributed as due to *Phytophthora cinnamomi*; R - recovering or recovered; RA – recovery advanced; S - patch death due to lightning strike; T – cattle/walking tracks, grazing; U – undisturbed; W – WWII military training activities; ? – uncertainty. Perturbations and observations that occurred during years in which no enumeration was carried out are shown in parentheses. Further details on the nature and timing of these disturbances are included in the detailed plot descriptions.

| Year of Record | Plot | | | | | | | | | | | | | | | | | | | |
|---------------------------|------|-----|----------|-----|------|------|------|------|------|------|----------|------|------|------|------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| | EP2 | EP3 | EP4 | EP9 | EP18 | EP19 | EP29 | EP30 | EP31 | EP32 | EP33 | EP34 | EP35 | EP37 | EP38 | EP40 | EP41 | EP42 | EP43 | EP44 |
| Pre-establishment | | | | | | | | | | | | | | | | | | | | |
| | W | | ?C ?L | L | | | | | | | ?C ?F | | | L | L | | | | | |
| Post-establishment | | | | | | | | | | | | | | | | | | | | |
| 1971 | U | U | | | | | | | | | | | | | | | | | | |
| 1972 | | | U | U | | | | | | | | | | | | | | | | |
| 1973 | U | U | | | U | | | | | | | | | | | | | | | |
| 1974 | | | U | U | | | | | | | | | | | | | | | | |
| 1975 | U | U | | | U | U | U | | | U | | | | | | | | | | |
| 1976 | | | U | U | | | | U | U | | U | U | | | | | | | | |
| 1977 | U | U | | | U | U | U | | | U | | | M | U | U | | U | U | | |
| 1978 | | | U | U | | (P) | | U | U | | U | U | | | | U | | | U | |
| 1979 | U | U | | | U | P | U | | | U | | | G | U | U | | U | E | | |
| 1980 | | | U | U | | | | U | U | | U | U | | | | U | | | U | U |
| 1981 | U | U | | | U | P | U | | | U | | | R | U | U | | U | E | | |
| 1982 | | | U | U | | | | U | U | | U | U | | | | U | | | U | U |
| 1983 | U | U | | | U | P | U | | | U | | | RA | G | U | | U | E | | |
| 1984 | | | U | U | | | | U | U | | U | U | | | | U | | | U | U |
| 1985 | U | U | | | G | P | U | | | U | | | RA | R | U | | T | E | | |
| 1986 | | | U | U | | (C) | | U | C | | U | C | (C) | | | U | | | C | U |
| 1987 | U | U | | | R, S | P | U | | | U | | | R | R | U | | U | E | | |
| 1988 | | | U | U | S | | | U | I | | U | R | | | | U | | | R | U |
| 1989 | U | U | | | S | P | U | | | | | | RA | C | P | | U | | | |
| 1990 | | | C | U | | | | U | I | U | U | G | | | | U | | E | RA | U |
| 1991 | U | U | | | S | R | U | | | | | | G | R | P | | U | | | |
| 1992 | | | | | | | | | | | (D) | | | | | | | | | |
| 1993 | | | | | | | | | | | | | | | | | | | | |
| 1994 | | | | | | | | | | | | | | | | | | | | |
| 1995 | U | U | | U | | | G | | | | D | | NO | | NO | | NO | | NO | |
| 1996 | | | | | R | | | | | | | | | | | | | | | |
| 1997 | | | | | | | | | | | | | | | | | | | | |
| 1998 | U | U | R | U | R | RA | RA | U | * | U | R | RA | RA | ** | R | U | U | E | U | G |
| 1999 | | | | | | | | | | | | | (C) | | | | (C) | | | |
| 2000 | (U) | (U) | (R) | (U) | (RA) | | (U) | (U) | | | (U) | | (R) | | (U) | | (R) | | (U) | |

| Year of Record | Plot | | | | | | | | | | | | | | | | | | | |
|----------------|------|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| | EP2 | EP3 | EP4 | EP9 | EP18 | EP19 | EP29 | EP30 | EP31 | EP32 | EP33 | EP34 | EP35 | EP37 | EP38 | EP40 | EP41 | EP42 | EP43 | EP44 |
| 2001 | | | | | | | | | | | | | | G | | | | | | |
| 2002 | U | U | R | U | U | | U | U | | U | U | G | U | | U | U | U | E | U | |
| 2003 | | | | | | | | | | | | | | | | | | | | |
| 2004 | | | | | | | | | | | | | | | | | | | | U |
| 2005 | | | | | | R | | | R | (C) | | | | U | | | | (C) | | |

* Plot 9 was inaccessible in 1998 following road closure.

** Plot 14 was not visited in the 1998 assessment.

Table 7: The occurrence of soil charcoal at the ten CSIRO rainforest plots included in a new sampling program during 2000. Data are the upper profile distribution, spatial occurrence and bulk mass of soil charcoal fragments extracted from corehole samples collected using a tube sampler of 47 mm internal diameter. The total volume of each soil core to 0.2 m was 0.000347 m³. Asterisks indicate those samples from which a fragment was selected for radiocarbon dating. Abbreviation: LA – logging area.

| Plot | Depth (m) | Mass of bulked charcoal fragments (g) | | | | | |
|-----------------------------------|-----------|---------------------------------------|---------|--------|--------|---------|--------|
| | | Hole 1 | Hole 2 | Hole 3 | Hole 4 | Hole 5 | Hole 6 |
| 1 (EP2) Downfall Creek | 0.0-0.05 | - | - | - | - | - | - |
| | 0.05-0.10 | 0.0320 | 0.0073 | - | - | - | - |
| | 0.10-0.20 | - | - | - | - | - | - |
| 2 (EP3) Mount Haig | 0.0-0.05 | - | - | - | - | - | - |
| | 0.05-0.10 | - | - | - | - | - | - |
| | 0.10-0.20 | 0.0989 | - | 0.1551 | - | - | - |
| 3 (EP4) Little Pine Creek | 0.0-0.05 | - | - | - | - | - | - |
| | 0.05-0.10 | - | - | - | - | - | - |
| | 0.10-0.20 | - | 0.2277* | - | 0.0298 | 0.0450 | - |
| 4 (EP9) Robson LA | 0.0-0.05 | - | - | - | - | - | - |
| | 0.05-0.10 | - | - | - | - | - | - |
| | 0.10-0.20 | 0.0530* | - | - | - | - | - |
| 5 (EP18) Mount Lewis | 0.0-0.05 | - | - | - | - | - | - |
| | 0.05-0.10 | - | - | - | - | - | - |
| | 0.10-0.20 | - | - | - | - | - | - |
| 7 (EP29) Mount Fisher | 0.0-0.05 | - | - | - | - | - | - |
| | 0.05-0.10 | - | - | - | - | - | - |
| | 0.10-0.20 | - | - | - | - | - | - |
| 13 (EP35) Whyanbeel | 0.0-0.05 | - | - | - | - | - | - |
| | 0.05-0.10 | - | - | - | - | - | - |
| | 0.10-0.20 | 0.0742* | - | - | - | - | - |
| 15 (EP38) The Crater [#] | 0.0-0.05 | - | - | - | - | - | - |
| | 0.05-0.10 | - | - | - | - | - | - |
| | 0.10-0.20 | - | - | - | - | - | - |
| 17 (EP41) Oliver Creek | 0.0-0.05 | - | - | - | - | - | - |
| | 0.05-0.10 | - | - | - | - | - | - |
| | 0.10-0.20 | - | - | - | - | 0.0173 | - |
| 19 (EP43) Mount Baldy | 0.0-0.05 | - | - | - | - | - | - |
| | 0.05-0.10 | - | - | - | - | 0.2459 | - |
| | 0.10-0.20 | - | - | - | - | 0.5169* | 0.0118 |

[#] At this site, charcoal was subsequently recovered from a pit excavated for soil bulk density samples. See Appendix 1 Table 67.

Table 8: The conventional ^{14}C dates of single charcoal fragments either (i) extracted from soil cores at four of the seven CSIRO rainforest plots where charcoal was encountered in the new sampling program during 2000 (selection criteria detailed in the text); or (ii) collected during an earlier Quaternary vegetation history sampling program at Plot 11 (EP33) Curtain Fig.

| Plot | CSIRO charcoal sample number | ANSTO sample number | Conventional ^{14}C age $\pm 1\sigma$ error (years BP) | $\delta(^{13}\text{C})$ per mil |
|--------------------------------|------------------------------|---------------------|---|---------------------------------|
| Plot 3 (EP4) Little Pine Creek | L49 H2.3 | OZF174 | 1740 \pm 40 | -25.7 |
| Plot 4 (EP9) Robson LA | L50 H1.3 | OZF175 | 780 \pm 50 | -24.8 |
| Plot 11 (EP33) Curtain Fig | L34 S1.5 | OZG734 | 7790 \pm 70 | -27.8 |
| Plot 11 (EP33) Curtain Fig | L34 S2.6 | OZG736 | 1080 \pm 40 | -25.6 |
| Plot 13 (EP35) Whyanbeel | L51 H1.3 | OZF176 | 1950 \pm 40 | -24.3 |
| Plot 19 (EP43) Mount Baldy | L53 H5.3 | OZF177 | 2020 \pm 40 | -24.6 |

Table 9: The rainforest structural types represented in the twenty CSIRO rainforest plots together with the climatic and altitudinal zones in which each plot is located (based on both field observations and the ANUCLIM data of Table 5). The typing and zonal terminologies follow Webb (1959, 1968, 1978), Tracey and Webb (1975) and Tracey (1982). Abbreviations: LA – logging area, ScA – Scientific Area.

| Plot | Rainforest structural form and most comparable humid tropics type | Plot climatic and altitudinal zones |
|----------------------------|---|-------------------------------------|
| 1 (EP2) Downfall Ck | Complex Notophyll Vine Forest with emergent <i>Agathis robusta</i> (CNVF), Type 6 | Dry upland |
| 2 (EP3) Mount Haig | Simple Microphyll Vine-Fern Forest (SMiVFF), Type 9 | Cloudy wet highland |
| 3 (EP4) Little Pine Ck | Mesophyll Vine Forest with patches of fan palm variant (MVF), Type 2a | Wet foothill |
| 4 (EP9) Robson LA | Simple Notophyll Vine Forest (SNVF), Type 8 | Cloudy moist upland |
| 5 (EP18) Mount Lewis | Simple Microphyll Vine-Fern Forest (SMiVFF), Type 9 | Cloudy wet highland |
| 6 (EP19) Garrawalt | Simple Notophyll Vine Forest (SNVF), Type 8 | Dry upland |
| 7 (EP29) Mount Fisher | Simple Microphyll Vine-Fern Forest (SMiVFF), Type 9 | Cloudy wet highland |
| 8 (EP30) Agapetes LA | Simple Notophyll to Microphyll Vine Forest (SN/MiVF), Type 8/9 | Cloudy (?) wet highland |
| 9 (EP31) Woopen Ck | Complex Mesophyll Vine Forest (CMVF), Type 1a (floristic variant) | Very wet lowland |
| 10 (EP32) McIlwraith Range | Hybrid type: Mesophyll Vine Forest, fan palm variant (MVF) and Simple Notophyll Vine Forest (SNVF) cf. Types 2a/8 | Cloudy (?) moist upland |
| 11 (EP33) Curtain Fig | Complex Notophyll Vine Forest (CNVF), Type 5b | Dry upland |
| 12 (EP43) Russell River | Complex Mesophyll Vine Forest (CMVF), Type 1a | Very wet foothill |
| 13 (EP35) Whyanbeel | Mesophyll Vine Forest (MVF), Type 2a | Wet foothill |
| 14 (EP37) Eungella | Complex Notophyll Vine Forest, feather palm variant (CNVF), cf. Type 5 | Cloudy wet highland |
| 15 (EP38) The Crater | Complex Notophyll Vine Forest (CNVF), Type 5a | Cloudy moist highland |
| 16 (EP40) Agapetes ScA | Complex Notophyll Vine Forest with emergent <i>Agathis robusta</i> (CNVF), Type 6 | Moist / wet up/highland |
| 17 (EP41) Oliver Ck | Complex Mesophyll Vine Forest (CMVF), Type 1a (floristic variant) | Very wet lowland |
| 18 (EP42) Iron Range | Semi-Deciduous Mesophyll Vine Forest (SDMVF), Type 4 | Moist lowland (riverine) |
| 19 (EP43) Mount Baldy | Simple Microphyll Vine-Fern Forest (SMiVFF), Type 9 | Cloudy moist highland |
| 20 (EP44) Fantail LA | Simple Notophyll Vine Forest (SNVF), Type 8 | Cloudy (?) wet highland |

Table 10: The main rainforest structural types in North Queensland defined by Tracey and Webb (1975) and Tracey (1982) showing the frequencies of those types represented by the twenty CSIRO plots.

| Rainforest structural type | Representation in CSIRO plots |
|---|-------------------------------|
| Complex Mesophyll Vine Forest (CMVF), Type 1a | 1 (+ 2 variants) |
| Complex Mesophyll Vine Forest (CMVF), Type 1b | 0 |
| Complex Mesophyll Vine Forest (CMVF), Type 1c | 0 |
| Mesophyll Vine Forest (MVF), Type 2a | 1 (+ 1 variant) |
| Mesophyll Vine Forest (MVF), Type 2b | 0 |
| Mesophyll Vine Forest with dominant feather palms (MVF+P), Type 3a | 0 |
| Mesophyll Vine Forest with dominant fan palms (MVF+P), Type 3b | 0 |
| Semi-Deciduous Mesophyll Vine Forest (SDMVF), Type 4 | 1 |
| Complex Notophyll Vine Forest (CNVF), Type 5a | 1 |
| Complex Notophyll Vine Forest (CNVF), Type 5b | 1 |
| Complex Notophyll Vine Forest, feather palm variant (CNVF), cf. Type 5 | 1 |
| Complex Notophyll Vine Forest with emergent <i>Agathis robusta</i> (CNVF), Type 6 | 2 |
| Notophyll Vine Forest, Type 7a | 0 |
| Notophyll Vine Forest, Type 7b | 0 |
| Simple Notophyll Vine Forest (SNVF), Type 8 | 2 |
| Simple Notophyll to Microphyll Vine Forest (SN/MiVF), Type 8/9 | 1 |
| Simple Microphyll Vine-Fern Forest (SMiVFF), Type 9 | 4 |
| Simple Microphyll Vine-Fern Thicket (SMiVFT), Type 10 | 0 |
| Deciduous Microphyll Vine Thicket (DMiVT), Type 11 | 0 |
| Hybrid type: Mesophyll Vine Forest, fan palm variant (MVF) and Simple Notophyll Vine Forest (SNVF) cf. Types 2a/8 | 1 |

Table 11: The mean, minima and maxima data for tree stem density (stems ha⁻¹) and basal area (m² ha⁻¹) over the period of available plot records to 2002, except for Plot 20 (EP44) Fantain LA which is current to 2004, while data for Plot 6 (EP19) Garrawalt, Plot 9 (EP31) Woopen Creek and Plot 14 (EP37) Eungella are current to 2005. Data are calculated from enumerations of all trees ≥10 cm dbh on the 0.5 ha plots. Note that the commencement dates as well as the number and duration of the enumeration periods varies between plots, and that maxima or minima have no temporal relationship in this table. Abbreviations: LA – logging area, ScA – Scientific Area.

| Plot | Date of initial record | No. of measures | Years of data | Stem density (trees ≥10 cm dbh, stems ha ⁻¹) | | | Basal area (trees ≥10 cm dbh, m ² ha ⁻¹) | | |
|----------------------------|------------------------|-----------------|---------------|--|------|------|---|------|------|
| | | | | Mean | Min. | Max. | Mean | Min. | Max. |
| 1 (EP2) Downfall Ck | 1971 | 14 | 31 | 1015 | 924 | 1062 | 31.5 | 28.6 | 34.1 |
| 2 (EP3) Mount Haig | 1971 | 14 | 31 | 993 | 960 | 1014 | 65.7 | 63.4 | 67 |
| 3 (EP4) Little Pine Ck | 1972 | 12 | 30 | 971 | 844 | 1022 | 39.2 | 36 | 43.4 |
| 4 (EP9) Robson LA | 1972 | 13 | 30 | 892 | 878 | 926 | 55.3 | 51.8 | 59.9 |
| 5 (EP18) Mount Lewis | 1973 | 13 | 29 | 885 | 854 | 908 | 61.2 | 59.4 | 62.1 |
| 6 (EP19) Garrawalt | 1975 | 11 | 30 | 841 | 790 | 1014 | 38.8 | 35.8 | 44.9 |
| 7 (EP29) Mount Fisher | 1975 | 12 | 27 | 957 | 902 | 990 | 42.5 | 40 | 45.5 |
| 8 (EP30) Agapetes LA, | 1976 | 10 | 26 | 1136 | 1106 | 1170 | 61.7 | 58.8 | 64.6 |
| 9 (EP31) Woopen Ck | 1976 | 9 | 29 | 449 | 408 | 484 | 40.0 | 36 | 43.4 |
| 10 (EP32) Mcllwraith Range | 1975 | 10 | 27 | 871 | 846 | 894 | 30.0 | 29.4 | 30.6 |
| 11 (EP33) Curtain Fig | 1976 | 11 | 26 | 598 | 520 | 630 | 65.5 | 61.2 | 69.8 |
| 12 (EP43) Russell River | 1976 | 10 | 26 | 575 | 534 | 604 | 49.8 | 48.2 | 51.6 |
| 13 (EP35) Whyanbeel | 1977 | 11 | 25 | 949 | 856 | 1002 | 41.2 | 38 | 44.0 |
| 14 (EP37) Eungella | 1977 | 10 | 28 | 834 | 754 | 880 | 61.8 | 60.2 | 63.2 |
| 15 (EP38) The Crater | 1977 | 11 | 25 | 730 | 684 | 764 | 48.0 | 45.4 | 49.9 |
| 16 (EP40) Agapetes ScA | 1978 | 9 | 24 | 970 | 932 | 996 | 57.8 | 55.6 | 61.2 |
| 17 (EP41) Oliver Ck | 1977 | 11 | 25 | 718 | 644 | 792 | 44.4 | 43.2 | 45.6 |
| 18 (EP42) Iron Range | 1977 | 9 | 25 | 442 | 418 | 554 | 37.0 | 32.2 | 43 |
| 19 (EP43) Mount Baldy | 1978 | 10 | 24 | 750 | 698 | 784 | 65.1 | 64.2 | 66.2 |
| 20 (EP44) Fantail LA | 1980 | 8 | 24 | 876 | 792 | 890 | 57.6 | 56.2 | 59.4 |

Table 12: Soil chemical analysis data from a preliminary survey of the first nineteen of the twenty CSIRO rainforest plots. These data represent analysis of a bulked sampling from 0 to 0.30 m depth at each plot. Available details of collection and analytical methods are presented in the main text. Abbreviations: LA – logging area, ScA – Scientific Area.

| Plot | pH | Org. | Tot. | Tot. | Exchangeable cations | | | | Sum |
|------------------------------------|-----|------|------|--------|-----------------------------|------|------|------|-----------------------------|
| | | C | N | P | Ca | Mg | K | Na | CEC |
| | | % | % | % | (cmol(+) kg ⁻¹) | | | | (cmol(+) kg ⁻¹) |
| 1 (EP2) Downfall Creek | 5.3 | 3.5 | 0.44 | 0.018 | 0.72 | 0.51 | 0.30 | n.a. | 14.5 |
| 2 (EP3) Mount Haig | 4.5 | 7.8 | 0.51 | 0.031 | 0.32 | 2.10 | 0.10 | n.a. | 26.0 |
| 3 (EP4) Little Pine Creek | 4.8 | 2.6 | 0.24 | 0.017 | 0.30 | 2.20 | 0.20 | n.a. | 8.2 |
| 4 (EP9) Robson LA | 4.7 | 2.9 | 0.32 | 0.027 | 0.20 | 1.70 | 0.20 | n.a. | 16.4 |
| 5 (EP18) Mount Lewis | 5.1 | 5.6 | 0.33 | 0.050 | 0.30 | 0.30 | 0.20 | 0.08 | 12.3 |
| 6 (EP19) Garrawalt | 4.1 | 2.5 | 0.18 | 0.0763 | 0.30 | 0.50 | 0.15 | 0.09 | 13.2 |
| 7 (EP29) Mount Fisher | 4.3 | 3.1 | 0.25 | 0.066 | 0.19 | 0.21 | 0.11 | 0.05 | 5.0 |
| 8 (EP30) Agapetes LA | 4.4 | 3.3 | 0.22 | 0.013 | 0.38 | 0.66 | 0.30 | 0.07 | 9.4 |
| 9 (EP31) Woopen Creek | 4.8 | 1.6 | 0.17 | 0.046 | 0.84 | 0.39 | 0.17 | 0.06 | 8.2 |
| 10 (EP32) Mcllwraith Range | 4.3 | 2.4 | 0.18 | 0.047 | 0.13 | 0.25 | 0.10 | 0.06 | 7.5 |
| 11 (EP33) Curtain Fig | 6.5 | 3.0 | 0.42 | 0.379 | 20.30 | 3.30 | 1.01 | 0.14 | 35.1 |
| 12 (EP34) Russell River | 4.7 | 2.7 | 0.32 | 0.161 | 0.82 | 0.54 | 0.28 | 0.11 | 15.2 |
| 13 (EP35) Whyanbeel | 4.5 | 1.8 | 0.17 | 0.012 | 0.12 | 0.38 | 0.13 | 0.08 | 9.8 |
| 14 (EP37) Eungella | 5.1 | 4.3 | 0.54 | 0.259 | 2.96 | 2.05 | 0.73 | 0.22 | 28.3 |
| 15 (EP38) The Crater | 6.1 | 5.4 | 0.57 | 0.079 | 14.60 | 3.67 | 0.12 | 0.14 | 30.7 |
| 16 (EP40) Agapetes Scientific Area | 5.8 | 1.2 | 0.08 | 0.011 | 3.13 | 0.58 | 0.26 | 0.06 | 4.3 |
| 17 (EP41) Oliver Creek | 4.8 | 4.8 | 0.48 | 0.052 | 1.68 | 1.14 | 0.15 | 0.21 | 19.1 |
| 18 (EP42) Iron Range | 5.6 | 2.6 | 0.23 | 0.038 | 7.64 | 2.07 | 0.18 | 0.11 | 12.6 |
| 19 (EP43) Mount Baldy | 4.3 | 4.5 | 0.32 | 0.014 | 0.33 | 0.62 | 0.20 | 0.10 | 14.5 |

n.a. = data not available.

Table 13: The total number[#] of plant species recorded at establishment for each of the twenty CSIRO rainforest plots together with the numbers of species represented in each of the life forms recognised. Groundstorey individuals less than 0.25 m in height were not recorded.

| Plot | Species richness and life forms | Number of species in each life form | | | | | | | | | | | | | | |
|--|---------------------------------|-------------------------------------|-----------|-----------|---------------|------------|-------|------------|--------|-----------|------|-------|-------|-----------|--------------|-----------|
| | | Tree | Palm tree | Tree fern | Tree pandanus | Tree cycad | Shrub | Palm shrub | Vines | Scrambler | Herb | Grass | Sedge | Epiphytes | Hemepiphytes | Parasites |
| 1 (EP2) Downfall Creek [#] | 91 (8) | 58 | - | - | - | - | 7 | - | 12 | 1 | 4 | 1 | 1 | 7 | - | - |
| 2 (EP3) Mount Haig | 144 (9) | 110 | 1 | 1 | - | - | 9 | - | 11 | - | 1 | - | 1 | 9 | 1 | - |
| 3 (EP4) Little Pine Ck | 160 (11) | 115 | 1 | - | 1 | 1 | 7 | 1 | 22 | - | 5 | - | - | 4 | 2 | 1 |
| 4 (EP9) Robson LA | 189 (9) | 142 | - | 1 | 1 | - | 13 | - | 15 | - | 4 | - | 1 | 9 | 3 | - |
| 5 (EP18) Mount Lewis | 183 (9) | 127 | 1 | - | - | - | 10 | 1 | 18 | - | 3 | - | - | 21 | 1 | 1 |
| 6 (EP19) Garrawalt | 150 (8) | 112 | - | 1* | 1 | - | 5 | - | 17 | - | 4 | - | - | 7 | 3 | - |
| 7 (EP29) Mount Fisher | 123 (7) | 88 | - | 1 | - | - | 10 | 1 | 14 | - | 6 | - | - | 3 | - | - |
| 8 (EP30) Agapetes LA | 147 (8) | 110 | - | 1* | - | - | 7 | - | 17 | - | 2 | - | 1 | 8 | - | 1 |
| 9 (EP31) Woopan Creek | 153 (8) | 101 | 1 | - | - | - | 19 | 1 | 12 [2] | - | 11 | - | - | 5 | 3 | - |
| 10 (EP32) McIlwraith Ra | 112 (9) | 71 | 1 | 1 | 1 | - | 7 | 2 | 15 | - | 5 | - | - | 9 | - | - |
| 11 (EP33) Curtain Fig | 116 (6) | 75 | - | - | - | - | 12 | - | 16 | - | 6 | - | - | 6 | 1 | - |
| 12 (EP34) Russell River | 154 (7) | 99 | - | - | - | - | 15 | 1 | 17 | - | 8 | - | - | 10 | 4 | - |
| 13 (EP35) Whyanbeel | 121 (11) | 89 | 2 | 1* | 1 | 1 | 11 | 1 | 5 | - | 1 | - | - | 7 | 2 | - |
| 14 (EP37) Eungella | 84 (7) | 48 | 1 | - | - | - | 4 | - | 9 | - | 6 | - | - | 13 | 3 | - |
| 15 (EP38) The Crater | 141 (7) | 95 | - | - | - | - | 11 | - | 21 | 1 | 9 | - | - | 2 | 2 | - |
| 16 (EP40) Agapetes ScA | 118 (6) | 86 | - | - | - | - | 11 | - | 12 | - | 4 | - | 1 | 4 | - | - |
| 17 (EP41) Oliver Creek | 121 (8) | 85 | 1 | - | - | - | 13 | 1 | 14 | - | 1 | - | - | 1 | 5 | - |
| 18 (EP42) Iron Range | 111 (7) | 84 | - | - | - | - | 8 | 1 | 10 | - | 4 | - | - | 2 | 2 | - |
| 19 (EP43) Mount Baldy | 157 (8) | 118 | - | - | - | - | 9 | - | 13 | - | 6 | - | 1 | 7 | 2 | 1 |
| 20 (EP44) Fantail LA [#] | 119 (6) | 89 | - | - [1] | - | - | 12 | - | 12 | - | 1 | - | - | 3 [+2] | 2 [+1] | - |

* Based on plot descriptions by Stocker (1983).

Entries in square parentheses were not included in plot lists by K. Sanderson and M. Bradford, in some cases possibly because some were unvouchered identifications. These data were not considered in site comparisons but have been added to species lists of Appendix 2.