

Soils of Cape York Peninsula

A.J.W. Biggs & S.R. Philip 1994
 Queensland Department of Primary Industries
 CYPLUS NR02 PROJECT
 Soil Survey and Agricultural Land Suitability Assessment

This map accompanies the report: Soil Survey and Agricultural Land Suitability of Cape York Peninsula (Biggs, A.J.W. & Philip, S.R. 1994)

This map is compiled from a reconnaissance survey involving air photo interpretation and ground observations of the order of one observation per 50m². Linework depicts unique mapping areas which usually contain more than one soil type, but are coloured according to the dominant soil only.

SOURCE: The information shown on this map has been supplied by the Queensland Department of Primary Industries, Land Use and Fisheries.
CURRENCY: Soil information shown on this map is current to October 1994.
 Base information was supplied by the Queensland Department of Lands and is current to June 1992. Drainage information was supplied by the Department of Primary Industries, Water Resources, Mareeba.

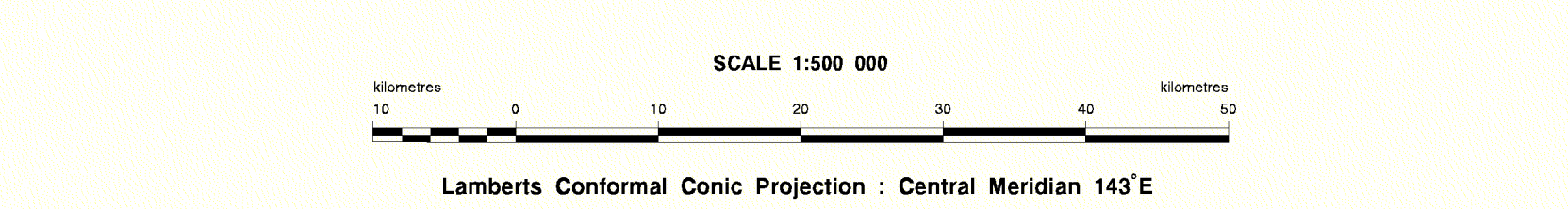
Map Reference Explanation

- Explanation of terms used in Concept 1. The following are definitions of the terminology used in the concept statements. All other terms not described below, are taken from McDonald et al. (1990).
Example
 Hk HESKET Deep Gradisol¹ mottled grey soils with a bleached A2 horizon and nodules (F)
 Gt Grey Podzolic Soil
 Pz Podzolic Hydrozol
 Sd Swamps, drainage
 Ld, Bv, M Ld, Bv, M
 Ld, Bv, M Ld, Bv, M
- Depth of soil (taken from Isbell, 1993)
 i Very shallow <0.25 m
 Shallow 0.25 - 0.6 m
 Moderately deep 0.6 - 0.9 m
 Very deep 0.9 - 1.5 m
 Gt 1.5 - 5.0 m
 Gt 5.0 m
- Profile texture trend (taken from Northcote, 1979)
 Uniform - profiles in which the texture gradually becomes finer (more clay) with increasing depth, such that there is a difference in texture between upper and lower horizons
 Duplex - profiles with a marked texture increase between the upper and lower horizons
- Horizonation (soil layers)
 A1 - horizon at or near the soil surface with some accumulation of organic matter
 A2 - horizon having, either alone or in combination, less organic matter, clay-cemented or silicate clay than the upper horizons. It is usually differentiated by its pale colour. A bleached horizon is significantly paler than the horizons above and below it.
- Segregations
 A - aluminous (bauxite) nodules
 F - ferruginous nodules
 M - manganese nodules
 N - ferro-manganese nodules

- Great Soil Group is derived from Spier et al. (1968). NSG indicates No Suitable Group.
- Australian Soil Classification is derived from Isbell (1993). Only Suborder and Order are indicated.
- Landform element terminology is derived from McDonald et al. (1990).
- Associated soils are those soils most commonly occurring in conjunction with a given soil type. Although a particular soil e.g. Dp, may be associated with another soil e.g. Am, it does not automatically follow that the Am is associated with the Dp, as other soils e.g. Cr, Qr may occur more often in conjunction with the Dp.
- Dt also occurs on: 7. SOILS ON DEEP REMNANT SANDS OF A FORMER SANDSTONE SURFACE

Alphabetical Key to Locate Soils in Map Reference

| Soil Code | Reference Group | Soil Code | Reference Group | Soil Code | Reference Group | Soil Code | Reference Group | Soil Code | Reference Group |
|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|
| A B | 8 a | C I | 7 a | F d | 8 a | J d | 6 b | M p | 9 a |
| A B A | 8 a | C D | 7 a | F a | 8 a | J n | 4 a | N p | 8 a |
| A B A | 8 a | C D | 7 a | F a | 8 a | K c | 7 a | N p | 8 a |
| A B A | 8 a | C D | 7 a | F a | 8 a | K c | 7 a | N p | 8 a |
| A B A | 8 a | C D | 7 a | F a | 8 a | K c | 7 a | N p | 8 a |
| A B A | 8 a | C D | 7 a | F a | 8 a | K c | 7 a | N p | 8 a |
| A B A | 8 a | C D | 7 a | F a | 8 a | K c | 7 a | N p | 8 a |
| A B A | 8 a | C D | 7 a | F a | 8 a | K c | 7 a | N p | 8 a |
| A B A | 8 a | C D | 7 a | F a | 8 a | K c | 7 a | N p | 8 a |
| A B A | 8 a | C D | 7 a | F a | 8 a | K c | 7 a | N p | 8 a |



REFERENCE

| Dominant Soil | Concept 1 | Great Soil Group 2 | Australian Soil Classification 3 | Landform 4 | Associated Soil 5 | Dominant Soil | Concept 1 | Great Soil Group 2 | Australian Soil Classification 3 | Landform 4 | Associated Soil 5 | Dominant Soil | Concept 1 | Great Soil Group 2 | Australian Soil Classification 3 | Landform 4 | Associated Soil 5 | |
|--------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------|-------------------|----------------|-----------|--------------------|------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------|-------------------|----------------|--------------------|----------------------------------|------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------|
| 1. SOILS ON ACID IGNEOUS ROCKS (DAMELITES AND GRANITES) | | | | | | | | | | | | | | | | | | |
| AL | ALTAIR | Moderately deep Uniform brown coarse sands | Earthy Sand | Other Tonalit | Hillslope | Dx, Dr | AL | ALTAIR | Moderately deep Uniform brown coarse sands | Earthy Sand | Other Tonalit | Hillslope | Dx, Dr | AL | ALTAIR | Moderately deep Uniform brown coarse sands | Earthy Sand | Other Tonalit |
| DR | DROP | Moderately deep Gradisol yellow soils | Yellow Earthly | Yellow Kandisol or Yellow Dermosol | Hillslope | Dx, Cr, Hb | DR | DROP | Moderately deep Gradisol yellow soils | Yellow Earthly | Yellow Kandisol or Yellow Dermosol | Hillslope | Dx, Cr, Hb | DR | DROP | Moderately deep Gradisol yellow soils | Yellow Earthly | Yellow Kandisol or Yellow Dermosol |
| DI | DIE | Deep Uniform grey and yellow coarse sands with a bleached A2 horizon | Earthy Sand | Other Tonalit | Hillslope | Dx, Cr | DI | DIE | Deep Uniform grey and yellow coarse sands with a bleached A2 horizon | Earthy Sand | Other Tonalit | Hillslope | Dx, Cr | DI | DIE | Deep Uniform grey and yellow coarse sands with a bleached A2 horizon | Earthy Sand | Other Tonalit |
| HL | HENDERSON | Moderately deep Duplex non-oxidic red soils | Red Podzolic Soil | Red Chromosol | Hillslope | Dx, Cr | HL | HENDERSON | Moderately deep Duplex non-oxidic red soils | Red Podzolic Soil | Red Chromosol | Hillslope | Dx, Cr | HL | HENDERSON | Moderately deep Duplex non-oxidic red soils | Red Podzolic Soil | Red Chromosol |
| OR | ORCHARD | Deep Gradisol red structured soils | NSG, affily with NSG | Red Chromosol | Hillslope | Dx, Dr | OR | ORCHARD | Deep Gradisol red structured soils | NSG, affily with NSG | Red Chromosol | Hillslope | Dx, Dr | OR | ORCHARD | Deep Gradisol red structured soils | NSG, affily with NSG | Red Chromosol |
| PA | PRINACLE | Deep Gradisol grey massive soils with a bleached A2 horizon | NSG | Grey Kandisol | Hillslope, plains | Dx, Dr, Gt | PA | PRINACLE | Deep Gradisol grey massive soils with a bleached A2 horizon | NSG | Grey Kandisol | Hillslope, plains | Dx, Dr, Gt | PA | PRINACLE | Deep Gradisol grey massive soils with a bleached A2 horizon | NSG | Grey Kandisol |
| QU | QUARANTINE | Moderately deep Duplex acidic normal to alkaline soils with a bleached A2 horizon | Solids Soil | Footslope | Hillslope | Dx, Dr, Gt | QU | QUARANTINE | Moderately deep Duplex acidic normal to alkaline soils with a bleached A2 horizon | Solids Soil | Footslope | Hillslope | Dx, Dr, Gt | QU | QUARANTINE | Moderately deep Duplex acidic normal to alkaline soils with a bleached A2 horizon | Solids Soil | Footslope |
| SH | SHEA | Moderately deep Gradisol red massive soils | Red Earth | Red Kandisol | Plains, hillslope | Dx, Cr, Gt | SH | SHEA | Moderately deep Gradisol red massive soils | Red Earth | Red Kandisol | Plains, hillslope | Dx, Cr, Gt | SH | SHEA | Moderately deep Gradisol red massive soils | Red Earth | Red Kandisol |
| 1b. Associated eucalyptus plains and pediments | | | | | | | | | | | | | | | | | | |
| AI | ATTACK | Deep Gradisol mottled yellow massive soils with a bleached A2 horizon | Yellow Earth | Yellow Kandisol | Plains | Dx, Sn, Gt | AI | ATTACK | Deep Gradisol mottled yellow massive soils with a bleached A2 horizon | Yellow Earth | Yellow Kandisol | Plains | Dx, Sn, Gt | AI | ATTACK | Deep Gradisol mottled yellow massive soils with a bleached A2 horizon | Yellow Earth | Yellow Kandisol |
| GB | GEHE | Deep Duplex acidic soils with moderately deep coarse sand A horizon with a bleached A2 horizon | NSG | Grey Kandisol | Plains | A | GB | GEHE | Deep Duplex acidic soils with moderately deep coarse sand A horizon with a bleached A2 horizon | NSG | Grey Kandisol | Plains | A | GB | GEHE | Deep Duplex acidic soils with moderately deep coarse sand A horizon with a bleached A2 horizon | NSG | Grey Kandisol |
| SL | SILVER | Deep Duplex acidic soils with moderately deep coarse sand A horizon with a bleached A2 horizon | Solids Soil | Podzolic Hydrozol | Plains | Dx, Cr, Gt | SL | SILVER | Deep Duplex acidic soils with moderately deep coarse sand A horizon with a bleached A2 horizon | Solids Soil | Podzolic Hydrozol | Plains | Dx, Cr, Gt | SL | SILVER | Deep Duplex acidic soils with moderately deep coarse sand A horizon with a bleached A2 horizon | Solids Soil | Podzolic Hydrozol |
| WM | WYMOUTH | Deep Gradisol yellow massive soils | Yellow Earth | Yellow Kandisol | Plains | Dx, Gt, Sn, Gt | WM | WYMOUTH | Deep Gradisol yellow massive soils | Yellow Earth | Yellow Kandisol | Plains | Dx, Gt, Sn, Gt | WM | WYMOUTH | Deep Gradisol yellow massive soils | Yellow Earth | Yellow Kandisol |
| YK | YAM | Deep Gradisol yellow massive soils | Yellow Earth | Yellow Kandisol | Plains | Dx, Gt, Sn, Gt | YK | YAM | Deep Gradisol yellow massive soils | Yellow Earth | Yellow Kandisol | Plains | Dx, Gt, Sn, Gt | YK | YAM | Deep Gradisol yellow massive soils | Yellow Earth | Yellow Kandisol |
| 2. SOILS ON ACID VOLCANIC ROCKS (RYHOLITE) | | | | | | | | | | | | | | | | | | |
| DI | DIE | Moderately deep Duplex acidic mottled grey soils with a bleached A2 horizon | Solids Soil | Footslope | Hillslope | Dx, Gt | DI | DIE | Moderately deep Duplex acidic mottled grey soils with a bleached A2 horizon | Solids Soil | Footslope | Hillslope | Dx, Gt | DI | DIE | Moderately deep Duplex acidic mottled grey soils with a bleached A2 horizon | Solids Soil | Footslope |
| EB | EBORAC | Deep Duplex acidic soils with moderately deep coarse sand A horizon with a bleached A2 horizon | NSG, affily with Red Earth | Bleached-Lentic Tonalit | Hillslope | Dx, Gt, Dr | EB | EBORAC | Deep Duplex acidic soils with moderately deep coarse sand A horizon with a bleached A2 horizon | NSG, affily with Red Earth | Bleached-Lentic Tonalit | Hillslope | Dx, Gt, Dr | EB | EBORAC | Deep Duplex acidic soils with moderately deep coarse sand A horizon with a bleached A2 horizon | NSG, affily with Red Earth | Bleached-Lentic Tonalit |
| GA | GALLAWAY | Moderately deep Gradisol or Uniform red massive soils | Red Earth | Red Chromosol | Hillslope | Dx, Gt, An | GA | GALLAWAY | Moderately deep Gradisol or Uniform red massive soils | Red Earth | Red Chromosol | Hillslope | Dx, Gt, An | GA | GALLAWAY | Moderately deep Gradisol or Uniform red massive soils | Red Earth | Red Chromosol |
| TZ | TOZER | Deep Duplex non-oxidic red or brown soils | NSG, affily with Red Podzolic Soil | Red Chromosol | Hillslope | Dx, Gt, An | TZ | TOZER | Deep Duplex non-oxidic red or brown soils | NSG, affily with Red Podzolic Soil | Red Chromosol | Hillslope | Dx, Gt, An | TZ | TOZER | Deep Duplex non-oxidic red or brown soils | NSG, affily with Red Podzolic Soil | Red Chromosol |
| 2b. Associated eucalyptus plains | | | | | | | | | | | | | | | | | | |
| GA | GAP | Deep Gradisol yellow soils | Yellow Podzolic Soil | Oxygyp Hydrosol | Plains | Dr, Wn, Yn, Gt | GA | GAP | Deep Gradisol yellow soils | Yellow Podzolic Soil | Oxygyp Hydrosol | Plains | Dr, Wn, Yn, Gt | GA | GAP | Deep Gradisol yellow soils | Yellow Podzolic Soil | Oxygyp Hydrosol |
| 3. SOILS ON INTERMEDIATE AND BASIC VOLCANIC ROCKS (DOLERITE AND BASALT) | | | | | | | | | | | | | | | | | | |
| 3a. Secondary soils on plains and hillslopes | | | | | | | | | | | | | | | | | | |
| BI | BULL | Deep Uniform or occasionally Gradisol non-oxidic brown soils | Xanthosol | Brown Dermosol | Plains, hillslope | B, Nn, Gt | BI | BULL | Deep Uniform or occasionally Gradisol non-oxidic brown soils | Xanthosol | Brown Dermosol | Plains, hillslope | B, Nn, Gt | BI | BULL | Deep Uniform or occasionally Gradisol non-oxidic brown soils | Xanthosol | Brown Dermosol |
| BU | BURN | Deep Uniform or occasionally Gradisol non-oxidic brown soils | Xanthosol | Brown Dermosol | Plains, hillslope | B, Nn, Gt | BU | BURN | Deep Uniform or occasionally Gradisol non-oxidic brown soils | Xanthosol | Brown Dermosol | Plains, hillslope | B, Nn, Gt | BU | BURN | Deep Uniform or occasionally Gradisol non-oxidic brown soils | Xanthosol | Brown Dermosol |
| EN | ENDEAVOUR | Deep Uniform or occasionally Uniform red structured soils | Xanthosol | Brown Dermosol | Plains, hillslope | B, Nn, Gt | EN | ENDEAVOUR | Deep Uniform or occasionally Uniform red structured soils | Xanthosol | Brown Dermosol | Plains, hillslope | B, Nn, Gt | EN | ENDEAVOUR | Deep Uniform or occasionally Uniform red structured soils | Xanthosol | Brown Dermosol |
| NB | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth | Footslope | B, Br | NB | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth | Footslope | B, Br | NB | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth |
| NM | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth | Footslope | B, Br | NM | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth | Footslope | B, Br | NM | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth |
| NM | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth | Footslope | B, Br | NM | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth | Footslope | B, Br | NM | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth |
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| NM | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth | Footslope | B, Br | NM | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth | Footslope | B, Br | NM | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth |
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| NM | NORMAN | Moderately deep Duplex acidic soils with a bleached A2 horizon | Black or Brown Earth | Black or Brown Earth | Footslope | B, Br | NM | NORMAN | | | | | | | | | | |