

Soil pit description: PR01

Images: PR01_01.jpg

Soil class: Barro Verde
Map unit: Z
Location: 20 m SE of marker 23, Armour Trail
Site position: Upper slope
Slope: 10%, linear, aspect 70°
Parent material: Caimito marine sedimentary facies colluvium
Forest structure: Closed low canopy, moderately thick understory, few palms
Litter: 95% cover, 3 layers, no root mat
Outcrops: None
Stones: None
Cracks: Continuous net of open 10 mm wide cracks at 10-15 cm spacing
Microrelief: Moderate micro-gilgai
Faunal activity: Few fine worm casts
Other surface features: None

| Horizon [cm] | | Samples [cm] |
|------------------|--|---|
| 0 - 9 | 7.5YR 4/1 (brownish grey); no mottles; clay; moderate medium subangular blocky, with common patches of medium worm casts; no cutans; common medium pores; slightly moist & firm; common fine & medium tree roots; no stones; no concretions; no charcoal; clear slightly wavy boundary to: | [0-9] |
| 9 - 34 | 10YR 5/1 (brownish grey); no mottles; clay; weak fine subangular blocky; no cutans; common medium pores; slightly moist & firm; few fine & medium tree roots; common very fine slightly hard white stones; few medium black ferrimanganiferous concretions; no charcoal; gradual regular boundary to: | [9-34] [9-20] [20-30] |
| 34 - 50 | 10YR 5/3 (dull yellowish brown) with few fine faint light orange & yellow mottles; clay; moderate medium fine subangular blocky breaking to moderate fine crumb; no cutans; common coarse pores; slightly moist & firm; rare fine & medium tree roots; common very fine white stones; few fine black ferrimanganiferous concretions; no charcoal; diffuse regular boundary to: | [34-50] [30-40] [40-50] |
| 50 - 112 | Slightly but distinctly greener than 5Y 7/3 (light yellow), no mottles; silty clay; massive breaking to moderate medium crumb; no cutans; many coarse pores; slightly moist & firm; rare medium & fine tree roots; few fine soft white. pink & orange stones; few fine very spherical black ferrimanganiferous concretions; no charcoal; diffuse boundary to: | [50-112] [50-60] [60-70] [70-80] [80-90] [90-100] [100-110] |
| 112 - 120 | Slightly greenish 5Y 7/3 (light yellow) with common coarse distinct red & purple mottles; sandy clay loam; massive breaking to moderate medium crumb; no cutans; few coarse pores; slightly moist & friable; very rare fine tree roots; no stones; few fine very spherical black ferrimanganiferous concretions; no charcoal; diffuse boundary to: | [112-120] [110-120] |
| 120 - 150 | 5Y 7/3 (light yellow) with many medium distinct red & purple mottles, silty clay loam. | None |
| 150 - 180 | 5Y 7/3 (light yellow) with few fine distinct red & purple mottles; silty clay loam. | None |

Correlations

Catapan

(1970): O T N Cv 1
 M C 1 0

**World
Reference**

Base: (Stagnic) Vertic Luvisol

Soil

Taxonomy: Aquertic Hapludalf

Features:

Clearly exemplifies difference between Barro Verde (BV) and Zetek. BV topsoil, is shallow, dark & highly cracking; there is no reddish brown upper subsoil; and the pale coloured gleyed horizons start in the upper subsoil. When initially described in late dry season, this profile was not wet and did not look like a gley. In the wet season the smectitic clays swell enough that unconfined free faces spall and slump, and the pit was two thirds infilled after 12 months, compared with < 5% infill in the red clay pits. No slickenside and cracks < 30 cm deep, so not vertic. Correlated with Luvisol/Alfisol on high CEC and high base status rather than argillic subsoil.