

Soil pit description: PF05

Images: PF05_01.jpg, PF05_02.jpg
Soil class: Balboa (Fairchild)
Map unit: F
Location: 10 m at 320o from marker 17, Barbour-Lathrop Trail
Site position: Peninsular ridge knoll
Slope: 3%, slightly convex, aspect 320°
Parent material: Bohio
Forest structure: Closed canopy, moderate understory, common palms
Litter: 100% cover, 3 layers, no root mat
Outcrops: None
Stones: None
Cracks: None
Microrelief: None
Faunal activity: None
Other surface features: None

Horizon [cm]		Samples [cm]
0 - 5	7.5YR 3/3 (dark brown); no mottles; clay loam; weak fine subangular blocky breaking to fine crumb, including few fine worm casts; no cutans; common coarse pores; slightly moist & friable; many fine & medium tree roots; few fine grit; no concretions; no charcoal; clear regular boundary to:	[0-5]
5 - 15	7.5YR 4/4 (dark brown); no mottles; silty clay loam; moderate coarse breaking to moderate medium subangular blocky; no cutans; few fine pores & common medium faunal channels; slightly moist & friable; common medium & fine tree roots; no stones; few fine black ferrimanganiferous concretions; few fine charcoal; clear regular boundary to:	[5-15]
15 -40	2.5YR 4/6 (red); no mottles; (silty) clay loam; moderate medium breaking to medium fine subangular blocky, & many fine worm casts; no cutans; many medium & coarse pores; slightly moist & firm; common fine & medium tree roots; no stones; few fine black ferrimanganiferous concretions; no charcoal; clear regular boundary to:	[15-25] [25-35] [35-45]
40 -80	2.5YR 4/6 (red); no mottles; sandy clay loam; moderate medium subangular blocky breaking to moderate medium crumb; no cutans; common medium & coarse pores, including few fine faunal channels; slightly moist & firm; few fine & medium tree roots; many fine grey & orange slightly weathered stones & few coarse grey hard boulders; few fine black ferrimanganiferous concretions; no charcoal; diffuse boundary to:	[45-55] [55-65] [65-75] [75-85]
80-160	2.5YR 4/6 (red); no mottles; sandy clay loam; weak coarse subangular blocky breaking to moderate fine crumb; no cutans; common medium & coarse pores, including few fine faunal channels; slightly moist & friable; few fine & medium tree roots; many fine grey & yellow slightly weathered stones & many medium & large grey & yellow hard boulders, & patches soft light grey & purple weathered rock; few fine black ferrimanganiferous concretions; no charcoal.	[85-95] [95-105] [105-115] [115-125] [125-135] [135-145] [145-155]
160 – 205	2.5YR 4/6 (red); no mottles; sandy clay loam; many fine – coarse patches of slightly hard light grey & purple weathered rock	None
205 – 270+	Mixed red, purple & grey weathered rock, hand textures as sandy clay;	None

Correlations

Catapan (1970): O X W Kc 1
E A 1 1

World Reference Base: Haplic (-Eutric) Ferralsol

Soil Taxonomy: Typic Hapludox (- Eutrudox)

Features: Has enough boulders < 100 cm to look like a Fairchild when augering. However solum is quite deep, to 160 cm, and highlights the problem of assessing solum depth by augering in stony soils. Clay increase erratic and no cutans seen, so clearly Ferralsol/Oxisol. CEC & ECEC values diverge in subsoil. High CEC gives low BS% and impression of base deficiency. The bases: Al balance indicates that this soil is marginally dystic, with extremely low contents of exchangeable K.