

Soil pit description: PR06

Images: PR06_01.jpg

Soil class: Balboa
Map unit: S
Location: 2 m NE of marker 6, Barbour-Lathrop Trail
Site position: Upper slope
Slope: 1%, irregular, aspect 10°
Parent material: Bohio
Forest structure: Closed canopy, moderate understory, few palms
Litter: 100% cover, 3 layers, thin mat of fine surface roots
Outcrops: None
Stones: None
Cracks: None
Microrelief: None
Faunal activity: nd
Other surface features: None

Horizon**Samples**

[cm]		[cm]
0 - 5	5YR 4/6 (reddish brown); no mottles; silty clay loam; moderate medium & fine crumb, including many fine worm casts; no cutans; many fine pores; slightly moist & friable; common fine & medium tree roots; no stones; no concretions; no charcoal; clear regular wavy boundary to:	[0-5]
5 - 40	5YR 4/6 (yellowish red); no mottles; silty clay loam; moderate medium subangular blocky & many fine worm casts; no cutans; few fine pores & many fine faunal channels; slightly moist & friable; common medium, coarse & fine tree roots; no stones; few fine black ferrimanganiferous concretions; no charcoal; clear regular boundary to:	[5-15] [15-25] [25-35]
40 - 65	5YR 4/6 (yellowish red); no mottles; silty clay loam; moderate medium crumb; very weak discontinuous clayskins on channel walls; few fine pores & many fine faunal channels; moist & slightly firm; few medium & fine tree roots; few fine slightly hard orange stones; few fine black ferrimanganiferous concretions; no charcoal; clear wavy boundary to:	[35-45] [45-55] [55-65]
65 -165	7.5YR 5/8 (strong brown); no mottles; silty loam; weak medium crumb; no cutans; common medium & coarse pores, including common fine faunal channels; moist & friable; few fine & medium tree roots; few fine soft & slightly hard yellow weathered stones; few fine black ferrimanganiferous concretions; no charcoal.	[65-75] [75-85] [85-95] [95-105] [105-115] [115-125] [125-135] [135-145] [145-155]
165 – 210	7.5YR 5/8 (strong brown); no mottles; silty clay loam; slightly moist & friable; few fine soft orange weathered stones	None
210 - 220	7.5YR 5/8 (strong brown); no mottles; silty clay loam; slightly moist & firm; common medium soft orange weathered stones	None
220 – 260+	Mixed orange, red & white soft weathered rock, slightly moist & friable	None

Correlations

Catapan

(1970): O X W Lf 1
 E A 1 0

World

Reference

Base: Haplic Ferralsol

Soil

Taxonomy: Typic Hapludox

Features:

Good example of orange Balboa. This class was originally divided between subsoil 5YR hues (orange = Lathrop) and the redder Balboa clays, but are now amalgamated. This is the most ferralic/oxic profile seen: deep homogenous subsoil with no clay increase, silty hand textures, no blockiness, good micro-aggregation and friable consistence to more than 1.5 m. However, CEC and ECEC are moderate – high, and there is some albite (sodic feldspar) in the subsoil, so weathering is not complete. This soil is acid, base deficient and highly Al-saturated in most of the solum, but base saturation increases at depth, possibly due to weathering inputs. It has higher exchangeable K than other BCl red clays. This soil correlates better than most BCl red clays with typical tropical Ferralsols and Oxisols.