

LOCATION POPOSHIA

WY+UT

Established Series
Rev. JEI/MCS/SSP
06/2009

POPOSHIA SERIES

The Poposhia series consists of very deep, well drained soils formed in alluvium and slope alluvium derived from shale interbedded with sandstone. The Poposhia soils are on coalescing fans, footslopes, fan aprons, hillslopes, and terraces. Slopes are 0 to 30 percent. The mean annual precipitation is 12 inches, and the mean annual temperature is 42 degrees F.

TAXONOMIC CLASS: Fine-loamy, mixed, superactive, frigid Ustic Haplocambids

TYPICAL PEDON: Poposhia loam on southwest-facing convex slope of 3 percent-native range. (Colors are for dry soil unless otherwise stated.)

A--0 to 3 inches; brown (10YR 5/3) loam, brown (10YR 4/3) moist; weak fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic many very fine, fine and few medium roots; slightly effervescent, carbonates disseminated; moderately alkaline (pH 8.0); abrupt smooth boundary. (2 to 8 inches thick)

Bk--3 to 15 inches; pale brown (10YR 6/3) clay loam, light olive brown (2.5Y 5/4) moist; weak medium prismatic structure; hard, firm, moderately sticky and moderately plastic; common very fine, fine, and few medium roots; slightly effervescent, carbonates disseminated and as few fine threads and seams; moderately alkaline (pH 8.2); clear wavy boundary. (6 to 20 inches thick)

C--15 to 60 inches; pale brown (10YR 6/3) loam, light olive brown (2.5Y 5/4) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine, fine and medium roots to 22 inches; slightly effervescent, carbonates disseminated; moderately alkaline (pH 8.0).

TYPE LOCATION: Fremont County, Wyoming, about 5.8 miles south and 2.9 east of Hudson; 800 feet east, 2,975 feet south of the NW corner of sec. 23, T. 33 N., R. 98 W.

RANGE IN CHARACTERISTICS:

Soil moisture: The soil moisture control section is usually dry, but is moist in some parts for 30 to 50 cumulative days between June 10 and October 10; and is moist 50 to 65 percent of the time when the soil temperature is above 5 deg. C.; aridic regime bordering ustic.

Mean annual soil temperature: 42 to 47 degrees F.

Mean summer temperature: 59 to about 63 degrees F.

Depth to cambic horizon: 2 to 8 inches

The soil is typically calcareous throughout but may be leached a few inches in some pedons.

Particle-size control section: is loam, clay loam, or sandy clay loam with 18 to 35 percent clay, 20 to 50 percent silt, and 20 to 55 percent sand

A horizon:

Hue: 7.5YR through 2.5Y

Value: 4 through 7 dry, 3 through 5 moist

Chroma: 2 through 4 dry or moist

EC: 1 to 4 mmhos.

Rock fragments: 0 to 15 percent

Reaction: is slightly through strongly alkaline

Bk horizon:

Hue: 7.5YR through 2.5Y

Value: 5 through 8 dry, 4 through 6 moist

Chroma: 2 through 4 dry

Texture: loam, clay loam, and less commonly sandy clay loam

Rock fragments: 0 to 20 percent

Calcium carbonate equivalent: 4 to 14 percent

EC: 1 to 8 mmhos

Reaction: slightly through strongly alkaline

C horizon

Hue: 7.5YR through 2.5Y

Value: 5 through 7 dry, 4 through 6 moist

Chroma: 2 through 4 dry or moist

Texture: loam, clay loam, or sandy clay loam

Rock fragments: 0 to 20 percent

EC: 1 to 8 mmhos

Reaction: moderately or strongly alkaline

COMPETING SERIES: These are the [Chaperton](#), [Piceance](#), and [Yamo](#) series.

Chaperton: have a paralithic contact between 20 and 40 inches deep

Piceance: have a lithic contact between 20 and 40 inches deep

Yamo: have soil moisture control sections that are drier during the months of [May](#) and June**GEOGRAPHIC SETTING:**

Parent material: alluvium and slope alluvium derived from shale interbedded with sandstone

Landform: gently sloping and moderately sloping coalescing fans, footslopes, hillslopes, and terraces

Slopes: 0 to 30 percent

Elevation: 5,200 to 7,800 feet

Mean annual temperature: 39 to 45 degrees F.

Mean annual precipitation: 8 to 15 inches

Frost-free period: 85 to 120 days

GEOGRAPHICALLY ASSOCIATED SOILS: These are the [Absher](#), [Blackhall](#), [Blazon](#), [Diamondville](#), [Ryan Park](#), [Tisworth](#), and the competing [Delphill](#) and [Sinkson](#) soils. Absher and Tisworth soils have a natric horizon. Blackhall, Blazon, and Diamondville soils have bedrock above 40 inches. Ryan Park soils are coarse-loamy. Diamondville and Ryan Park soils have argillic horizons.**DRAINAGE AND PERMEABILITY:** Well drained; runoff is slow or medium; permeability is moderate.**USE AND VEGETATION:** Mainly native range but some is used for irrigated small grain, hay, and pasture. Native vegetation is western wheatgrass, big sagebrush, Canby bluegrass, sheep fescue, needleandthread, and some annual forbs (mustards). Poposhia soils are mainly correlated to ecological sites in the 10 to 14 inch zone in Wyoming. At the type location the potential native vegetation is mainly big sagebrush, thickspike wheatgrass, green needlegrass, bluebunch wheatgrass, and bottlebrush squirreltail.**DISTRIBUTION AND EXTENT:** Southern and western Wyoming. The series is moderately extensive.**MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE:** Bozeman, Montana**SERIES ESTABLISHED:** Fremont County, Wyoming, East Part; 1985.**REMARKS:** Diagnostic horizons and features recognized in this pedon are:
Ochric epipedon - 0 to 3 inches (A)

Cambic horizon - 3 to 15 inches (Bk)
Secondary calcium carbonate - 3 to 15 inches (Bk)

Classification was changed from Ustic Torriorthents to Ustic Haplocambids 5/1999.
Taxonomic version: Tenth Edition, 2006.

National Cooperative Soil Survey
U.S.A.