

Database Code: TV070

Title:Primary succession on Mount St. Helens: long-term permanent plots

Abstract:

<p>The data in this database describe the permanent plots collected on Mount St. Helens from 1980 to 2005 by Roger del Moral. Plots occur in mildly impacted tephra, scoured sites on the southwest and northeast portions of the cone, on lahars on the southwest side and devastated sites on the Plains of Abraham, Pumice Plain, Pine Creek Ridge, Toutle Ridge and Studebaker Ridge. These plots permit monitoring of the development of vegetation in a detailed way. Data include species composition, richness, cover, frequency and diversity for each year sampled. Summaries are found at: <http://protist.biology.washington.edu/delmoral/permplots.html></p> <p>The data from these plots have formed the basis of several papers. Citations are available at: <http://faculty.washington.edu/moral/publications.html></p>

Keywords:Conifers;Disturbance;Forbs;Grass legume;Mosses;Permanent plots;Shrubs;Succession;Volcano;permanent plots;succession;disturbance;volcanic;grasses;forbs;shrubs;conifers;mosses;

Date data commenced:1980-06-01

Date data terminated:2005-09-30

Principal Investigator:Roger del Moral

List of Entities:

1. Species cover data by year and plot.
2. Richness, cover, Hprime, evenness and species frequency by year and plot.

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Attribute List:

DBC CODE	N	N	char(5)	enum			
ENTITY	N	N	numeric(1,0)	range	1.0000	1.0000	number
ZONE	Y	N	char(3)	enum			
SITE	Y	N	char(3)	place			
PLOT	Y	N	numeric(2,0)	range	1.0000	20.0000	number
YEAR	Y	N	numeric(4,0)	range			YYYY
SPECIES	Y	N	varchar(30)	taxa			
SPPCOVER	N	N	numeric(4,1)	range	0.0000	44.7000	%

2. Richness, cover, Hprime, evenness and species frequency by year and plot.

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DBC CODE	N	N	char(5)	enum			
ENTITY	N	N	numeric(1,0)	range	2.0000	2.0000	number
ZONE	Y	N	char(3)	enum			
SITE	Y	N	char(3)	place			
PLOT	Y	N	numeric(2,0)	range	1.0000	20.0000	number
YEAR	Y	N	numeric(4,0)	range			YYYY
RICHNESS	N	N	numeric(3,0)	range	0.0000	29.0000	number
PLOT COVER	N	N	numeric(4,1)	range	0.0000	82.4000	%

HPRIME	N	N	numeric(5,3)	range	0.0000	14.6100	number
EVENNESS	N	N	numeric(5,3)	range	0.0000	1.0000	number
FREQ	N	N	numeric(4,1)	range	0.0000	83.0000	number

Attributes Definitions:

DBC CODE

Database Code

ENTITY

Entity number

EVENNESS

equitability based on cover = $H/\ln(\text{richness})$

FREQ

Mean frequency of the species

HPRIME

Shannon function for diversity based on the natural log of cover proportions

PLOT

Plot number

PLOT COVER

Total plot cover (sum of all species)

RICHNESS

Total number of species

SITE

Site name near where data was collected

SPECIES

Species scientific name

SPP COVER

Total species cover

YEAR

Year of data collection

ZONE

Descriptive zone where data was collected

Enumerated Domains:

Enumerated Domain for Attribute: DBCODE

TV070	FSDb database code TV070; Category code TV (Terrestrial Vegetation)
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Enumerated Domain for Attribute: ZONE

HS	Heavy Scour; sites that received a heavy degree of erosion from rapidly melting glaciers
MS	Moderate Scour; sites that received a moderate degree of erosion from rapidly melting glaciers
LS	Light Scour; sites that received a light degree of erosion from rapidly melting

glaciers

T	Tephra; received only coarse airfall deposits and recovered within a few years
SB	Secondary Blast; affected primarily by the hot directed blast with substantial survival of understory
PB	Primary Blast; affected primarily by the hot directed blast and no plants survived
P	Pumice; plots established on newly emplaced pumice in the blast zone
L	Lahars; plots on newly emplace mud flows near intact vegetation

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