

## Short Database Report

# Thirty Years of Permanent Vegetation Plots, Mount St. Helens, Washington

Roger del Moral

**Abstract:** I established 92 permanent plots on Mount St. Helens starting in 1980 in order to document vegetation recovery from volcanic disturbances. I report data through 2009, a total of 1,743 records that contain 85 species. These species are most of the common species found in non-forested habitats on Mount St. Helens. Richness, percentage cover, diversity ( $H'$  and evenness) and species frequency of a plot are reported. Plots were sampled by 24 0.25 m<sup>2</sup> quadrats placed in the same location each sampling year. Habitats sampled included those experiencing primary succession, secondary succession and recovery from disturbance. These data have been used to test hypotheses concerning succession trajectories and patterns of species assembly. They also may be used to test models of succession, determine succession rates and for exploring assembly processes and rules. Four files provide the data: 1) The matrix of species in each plot in each year; 2) The matrix of structural measures (e.g. richness) in each plot in each year; 3) taxonomic and life history characteristics of species in the data set; and 4) geographic and landscape factors for each plot. These data are described in a metadata file that includes numerous time-series images. This report describes the available content in the vegetation-plot database "Thirty Years of Permanent Vegetation Plots, Mount St. Helens, Washington" (GIVD ID NA-US-004).

**Keywords:** primary succession; secondary succession; species assembly; species – time relationship; succession trajectory; vegetation dynamics; volcano.

GIVD Database ID: NA-US-004	Last update: 2012-05-06
<b>Thirty Years of Permanent Vegetation Plots, Mount St. Helens, Washington</b>	
<b>Scope:</b> There are 92 permanent plots from 1980 to document recovery from volcanic disturbances. I report composition and structure in 1743 records and 85 species. Most habitats are experiencing succession. These data can test hypotheses about succession. Four files provide the data: 1) species in each plot in each year; 2) structural measures in each plot in each year; 3) taxonomic and life history characteristics; and 4) geographic and landscape factors for each plot. A metadata file describes the data	
<b>Status:</b> finished	<b>Period:</b> -
<b>Database manager(s):</b> Roger del Moral (moral@uw.edu)	
<b>Owner:</b> Roger del Moral	
<b>Web address:</b> <a href="http://faculty.washington.edu/moral">http://faculty.washington.edu/moral</a>	
<b>Availability:</b> free upon request	<b>Online upload:</b> [NA] <b>Online search:</b> [NA]
<b>Database format(s):</b> Excel	<b>Export format(s):</b> Excel
<b>Publication:</b> del Moral, R. 2010. Thirty years of permanent vegetation plots, Mount St. Helens, Washington (Data Paper). Ecology 91:2185.	
<b>Plot type(s):</b> time series	<b>Plot-size range:</b> 250-250 m <sup>2</sup>
<b>Non-overlapping plots:</b> 92	<b>Estimate of existing plots:</b> [NA]
<b>Total plot observations:</b> 1,743	<b>Number of sources:</b> [NA] <b>Completeness:</b> [NA]
<b>Countries:</b> US: 100.0%	<b>Valid taxa:</b> [NA]
<b>Forest:</b> [NA] — <b>Non-forest:</b> [NA]	
<b>Guilds:</b> all vascular plants: 100%; bryophytes (terricolous or aquatic): 100%	
<b>Environmental data:</b> altitude: 100%; slope aspect: 100%; slope inclination: 100%; microrelief: 100%	
<b>Performance measure(s):</b> cover: 100%	
<b>Geographic localisation:</b> GPS coordinates (precision 25 m or less): 100%	
<b>Sampling periods:</b> 1980-1989: 100.0%	
<i>Information as of 2012-07-12; further details and future updates available from <a href="http://www.givd.info&gt;ID/NA-US-004">http://www.givd.info&gt;ID/NA-US-004</a></i>	

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