Short Database Report

FIADB Vegetation Diversity and Structure Indicator (VEG)

Bethany K. Schulz & Kevin Dobelbower

Abstract: The FIADB Vegetation Diversity and Structure (VEG) Indicator (GIVD ID NA-US-007) is a suite of measurements including an inventory of vascular plants on an extensive systematic network of forest plots across the United States. This network is a subset of the standard forest inventory plots established by the U.S. Forest Service Forest Inventory and Analysis program. The VEG indicator provides data to assess trends in forest vascular plant species richness and composition, the relative abundance and spatial distribution of those species, and overall physical structure created by the plant species present. Permanent plots are established when at least one subplot in the plot configuration contains at least a portion of accessible forest. Only accessible forested land on the subplots is assessed; measurements are not taken on non-forested or inaccessible portions of the plot. The configuration of each permanent FIA ground plot consists of four 7.3 m-radius circular subplots arranged in a clustered formation. In addition, three 1 m^2 quadrats are established per subplot at 4.56 m along transects running at 30°, 150° and 270° from subplot centre. To help standardise the sampling effort in the many different forest types across the country, a time limit is imposed for subplot species searches (time spent searching for additional species). Estimates with (variances) can be produced for a population or domain of interest within the population. Although this is a sparse network of plots, species composition data can be cross-walked to locally developed forest classifications and provide community and species distribution metrics on permanent plots to track regional and national trends. Data and documentation are available via public access web site.

Keywords: forest; multiple-scale; population estimate; species distribution; species richness; variance.

GIVD Database ID: NA-US-007		**Last update:** 2012-05-04
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Scope: Census of vascular plants present on plot at time of visit is collected on a subset of forest inventory plots. Ocular assessments of total cover and by height layer are recorded for each species at the subplot level, as well and total combined cover (excluding overlap) by height layer and cover of ground variables are also recorded. Species present on quadrats placed within subplots (3 quadrats per subplot; 4 subplots per plot)		
Status: completed and continuing	**Period:** 2001-2010	
Database manager(s): Kevin Dobelbower (kdobelbower@fs.fed.us)		
Owner: USDA Forest Service. Forest Inventory and Analysis National Program		
Web address: http://apps.fs.fed.us/fiadb-downloads/datamart.html		
Availability: free online	**Online upload:** no	**Online search:** no
Database format(s): MS Access	**Export format(s):** MS Access, CSV file	
Publication: Woodall, C. W., B. L. Conkling, M. C. Amacher, J. W. Coulston, S. Jovan, C. H. Perry, B. K. Schulz, G. C. Smith, and S. Will-Wolf. 2010. The Forest Inventory and Analysis Database Version 4.0: Database Description and User's Manual for Phase 3. USDA Forest Service, Northern Research Station General Technical Report NRS-61. Newtown Square, PA.		
Plot type(s): nested plots; time series	**Plot-size range:** 1-672 m²	
Non-overlapping plots: 2,564	**Estimate of existing plots:** 2,850	**Completeness:** 90%
Total plot observations: 43,602	**Number of sources:** 1	**Valid taxa:** 4,500
Countries: US: 100.0%		
Forest: 100% — **Non-forest:** aquatic: 0%; semi-aquatic: 0%; arctic-alpine: 0%; natural: 0%; semi-natural: 0%; anthropogenic: 0%		
Guilds: all vascular plants: 100%		
Environmental data: altitude: 100%; slope aspect: 100%; slope inclination: 100%; soil depth: 100%; surface cover other than plants (open soil, litter, bare rock etc.): 80%; soil pH: 80%; other soil attributes: 100%		
Performance measure(s): presence/absence only: 74%; cover: 26%; measurements like diameter or height of trees: 26%		
Geographic localisation: point coordinates less precise than GPS, up to 1 km: 95%; political units or only on a coarser scale (>10 km): 100%		
Sampling periods: 2000-2009: 90.0%; 2010-2019: 10.0%		
Information as of 2012-07-12; further details and future updates available from http://www.givd.info/ID/NA-US-007		

Bethany K. Schulz* (bschulz@fs.fed.us), Kevin Dobelbower (kdobelbower@fs.fed.us)
US Department of Agriculture, Forest Service, Pacific Northwest Research Station, 161 East 1st Ave, Door 8, Anchorage, Alaska 99501, UNITED STATES

*Corresponding author

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