USNVC

Interacting with the National Vegetation Classification: A Window on the Ecological Landscape of the United States.

VegBank.org: A Permanent, Open-Access Archive for Vegetation Plot Data.

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Background

Rapid progress is being made in North American vegetation science through recent developments with the U.S. National Vegetation Classification (NVC). Central to these advances is sharing, archiving, and disseminating field plots, the fundamental data required for describing and understanding vegetation communities. VegBank is the vegetation plot database of the Ecological Society of America's Panel on Vegetation Classification. VegBank consists of three linked databases:

1. Plot records, submitted by the public
2. Vegetation types recognized in the NVC and other types added by users
3. All plant taxa recognized by ITIS/USDA as well as other plant taxa recorded in plot records

http://vegbank.org

User-friendly

Powerful Search

- Easily search for plots based on:
  - Location
  - Species
  - Investigator
  - Community type
  - Environmental variables
  - Project
  - Date sampled
  - Methods
- Search engine uses comprehensive keyword indexes, so users type what they are looking for and find it (e.g. CEGL code, common names).
- Search for plants, communities, projects, methods, and people, as well as plots.
- Results show and link to related data: plots for a community, related taxa, plots using a particular method, etc.

Find Valuable Data

- Users build datasets of plots of interest as they search or browse VegBank.
- VegBank can summarize datasets through an interactive map of plots or a constancy table.
- Datasets may be downloaded for analysis.
- Users may annotate plots to update species identification and community type classification. No previous information is overwritten, allowing multiple user opinions to coexist.
- The VegBank framework and data model is open-source, allowing organizations to build on our efforts, comply with national standards, and avoid reinventing the wheel.

Manage and Contribute Data

- Download the VegBranch tool for simple data entry or to import data from other data files.
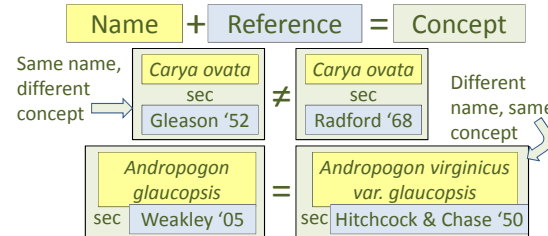- Convert taxonomy, check data for errors, fill in metadata, then upload your plots to VegBank.

Open Access

Current Data

- More than 70,000 vegetation plots.
- Plots span 36 states and provinces.
- 90,000 plant concepts, following USDA.
- 16,000 community concepts, following NVC.

Concept-Based Taxonomy

Projects use different taxonomic standards. VegBank defines a plant concept as a name combined with a reference. Mapping between multiple taxonomic standards allows comparison of taxa across plots with different standards. This is essential for interpreting valuable legacy plots.

$$\text{Name} + \text{Reference} = \text{Concept}$$

Same name, different concept

| Carya ovata sec Gleason '52 | ≠ | Carya ovata sec Radford '68 |

Different name, same concept

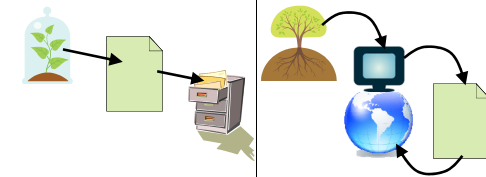| Andropogon glaucopsis sec Weakley '05 | = | Andropogon virginicus var. glaucopsis sec Hitchcock & Chase '50 |

Intellectual Property

To prevent harvesting, plots with endangered species are shown with reduced precision geocoordinates (e.g., within 1km, 10km). The approximate location is still useful for many purposes. Plots may also have all location fields hidden or may be temporarily embargoed.

Plots may be individually cited with a unique VegBank Accession Code, giving original investigators credit. Groups of plots may be cited using datasets.

Comprehensive

Data Life Cycle

Old	VegBank
Collect data.	Collect data.
Enter your data into spreadsheets in custom formats.	Import or enter your data into the VegBank client, VegBranch.
Call people you happen to know and ask them if you can include their data for comparison.	Search VegBank for similar locations, taxa, communities, or methods.
Transform their data to match your data format.	Do nothing. All data are in the same format.
Analyze data .	Analyze data.
Publish findings.	Publish findings.
File your data.	Add plots to VegBank.
If people call you and ask for your data, try to find it and explain the format to them.	People find your data online and don't have to bother you about them.
Eventually your data are lost in files somewhere.	Your data continues to inform future investigators.

Permanent