United States National Vegetation Classification Database

Release of the USNVC 2.04 for the U.S.!

In June 2022 U.S. National Vegetation Classification Version 2.04 is being made available through the USNVC.org website. This release contains information on vegetation types for all levels of the new USNVC Hierarchy and is based on the FGDC Vegetation Subcommittee's 2008 Standard (FGDC 2008). Table 1 below provides the status of the classification by hierarchy level and geography. Most of the levels are complete across the U.S., but lowest levels are comprehensive for the lower 48 states.

How often will the NVC be updated?
The NVC upper levels (L1-L5) will not change (except due to minor concept edits) more frequently than every five years. Lower levels (L6-L8) will change on a rolling basis. Starting in 2016, accepted revisions to the USNVC are being published through the USNVC Proceedings – ESA Vegetation Classification Panel. Users will always be able to access the official published version on the web (usnvc.org). This updating approach strikes a balance between making available ongoing improvements (dynamic content) and providing stable and robust versions of the national classification.

The USNVC 2023 Edition

In 2023, a new edition of the USNVC will be released, with a major emphasis on revisions to the alliance level. As of May 2022, 26 states have been comprehensively reviewed, 17 states have over 50% of their alliances reviewed, and the remaining 7 states are still in the early stage of alliance review (less than 50% reviewed). Completion of the alliance level will provide users with a consistent, systematic, and relatively fine-scaled set of units across all the states, nested within regionally scaled group and macrogroup units, suitable for mapping, monitoring, and assessments. Association level units will continue to be developed over a longer period, as a comprehensive set of units across the entire country is not yet feasible, but users will be informed as to where complete units do exist in various parts of the country.

To cite the USNVC Database:

USNVC (United States National Vegetation Classification) Database [Version]. [Year] Federal Geographic Data Committee, Vegetation Subcommittee. Washington D.C. Date Month Year Accessed.

E.g. USNVC (United States National Vegetation Classification) Database Ver 2.032. 2022. Federal Geographic Data Committee, Vegetation Subcommittee. Washington D.C. 28 Feb 2022.

To cite a specific type description:

Author(s). PublicationYear. Description Title [last revised revisionDate]. United States National Vegetation Classification [version]. Federal Geographic Data Committee, Washington, D.C.

E.g. Simon, S. and D. Zollner. 2002. *Quercus stellata / Forestiera ligustrina - Symphoricarpos orbiculatus / Carex cherokeensis - Schizachyrium scoparium* Woodland (CEGL007777). United States National Vegetation Classification. Federal Geographic Data Committee, Washington, D.C.
Date Accessed: 02/05/2022.

Table 1. Status of the USNVC Natural Vegetation Hierarchy, February 2022

Upper Levels				
Formation Class	Concepts & descriptions written by the Hierarchy Revisions Working Group (HRWG), reviewed by ESA Panel and international experts. *Completed FY2014* (Faber-Langendoen et al. 2016).			
Formation Subclass				
Formation				
	Conterminous U.S.	Alaska	Hawai'i	Caribbean
Middle Levels				
Division	Concepts & descriptions written by HRWG and ESA Peer Review Board Regional Associate Editors. *Completed FY2016*			
Macrogroup	Concepts & descriptions completed by NVC partners; Reviewed by ESA panel *Completed FY2015*	Concepts drafted; by NVC partners; Reviewed by ESA Panel. *Completed FY2020*	Concepts drafted by NVC partners; **Descriptions needed.**	Concepts drafted by NatureServe; *Descriptions in progress*
Group	Concepts & Descriptions drafted by NVC partners; Reviewed by ESA Panel; *Completed FY2016*	Concepts drafted by NVC partners and Alaska Heritage Program; Reviewed by ESA Panel; *Completed FY2020*	Concepts & Descriptions completed by NVC partners; *Completed 2016.*	Concepts drafted by NVC partners; *Descriptions in progress for 2023 Edition*
Lower Levels				
Alliance	Concepts & Descriptions completed by NatureServe; Reviewed by ESA Panel; *Completed FY2016.* Revisions by USNVC Peer Review Board in progress for 2023 Edition	Concepts completed by Alaska partners and NatureServe. Descriptions partly completed; ongoing refinement Revisions in progress for 2023 Edition.	Concepts incomplete; **Review and integration work needed.**	Concepts incomplete; **Review and integration work needed.** Revisions in progress for 2023 Edition.
Association	Concepts & Descriptions of available associations in 2016 completed by NatureServe, with screening criteria developed by ESA Panel, Revisions in progress for 2023 Edition.	Concepts in draft form by Alaska Heritage Program; **Review and integration with USNVC needed.**	Concepts and Descriptions drafted by state partners; **Review and integration with USNVC needed.**	Concepts incomplete; **integration work needed.**

About spatial standards
The United States Federal Geographic Data Committee (hereafter called the FGDC) is tasked to develop geospatial data standards that will enable sharing of spatial data among producers and users and support the growing National Spatial Data Infrastructure (NSDI), acting under the Office of Management Budget (OMB) Circular A-16 (OMB 1990, 2000) and Executive Order #12906 (Clinton 1994) as amended by Executive Order #13286 (Bush 2003). FGDC subcommittees and working groups, in consultation and cooperation with state, local, tribal, private, academic, and international communities, develop standards for the content, quality, and transferability of geospatial data. FGDC standards are developed through a structured process, integrated with one another to the extent possible, supportable by the current vendor community (but are independent of specific technologies), and publicly available.

About this database
This database contains type descriptions for natural vegetation at all levels of the U.S. National Vegetation Classification. Upper formation descriptions were written by the Hierarchy Revisions Working Group, mid-levels by NatureServe staff and ESA Peer Review Board members, and lower levels by NatureServe staff. The process was conducted in collaboration with Federal Geographic Data Committee Vegetation Subcommittee and a wide variety of state, federal and private partners as a part of the implementation of the National Vegetation Classification. The descriptions are based on consultation with natural resource professionals, published literature, summaries of vegetation plot data, and other vegetation classification systems. The Ecological Society of America's Panel on Vegetation Classification is responsible for managing the review and formal adoption of these types into the National Vegetation Classification. Partners involved in the implementation of the USNVC include:

U.S. Government
- Department of Agriculture (USDA)
- Department of Commerce (DOC)
- Department of Defense (DOD)
- Department of the Interior (USDI)
- Forest Service (FS) - Chair
- National Agriculture Statistical Service (NASS)
- Natural Resources Conservation Service (NRCS)
- National Oceanic and Atmospheric Administration (NOAA)
- National Marine Fisheries Service (NMFS)
- U.S. Army Corps of Engineers (USACE)
- U.S. Navy (NAVY)
- Bureau of Land Management (BLM)
- Fish and Wildlife Service (FWS)
- National Park Service (NPS)
- U.S. Geological Survey (USGS)
- Environmental Protection Agency (EPA)
- National Aeronautics and Space Administration (NASA)

Non U.S. Government
- NatureServe (NS)
- Ecological Society of America (ESA)

For information on the concepts of vegetation classification and processes used to develop these descriptions see:

ESA Panel. 2015. How can a national vegetation classification help ecological research and management? Frontiers in Ecology and the Environment 13: 185-186.

Faber-Langendoen, T. Keeler-Wolf, D. Meidinger, C. Josse, A. Weakley, D. Tart, G. Navarro, B. Hoagland, S. Ponomarenko, G. Fults, Eileen Helmer. 2016. Classification and description of world formation types. Gen. Tech. Rep. RMRS-GTR-346. Fort Collins, CO, U.S. Department of Agriculture, Forest Service, Rocky Mountain Station. 222p: https://www.fs.usda.gov/treesearch/pubs/52217.

Faber-Langendoen, D., T. Keeler-Wolf, D. Meidinger, D. Tart, B. Hoagland, C. Josse, G. Navarro, S. Ponomarenko, J.-P. Saucier, A. Weakley, P. Comer. 2014.   EcoVeg: A New Approach to Vegetation Description and Classification. Ecological Monographs 84:533-561).

Franklin, S., D. Faber-Langendoen, M. Jennings, T. Keeler-Wolf, O. Loucks, A. McKerrow, R.K. Peet, and D. Roberts. 2012. Building the United States National Vegetation Classification. Annali di Botanica 2: 1-9.

Jennings, M. D., D. Faber-Langendoen, O., Loucks, R. K. Peet, and D. Roberts. 2009. Standards for associations and alliances of the U.S. National Vegetation Classification. Ecological Monographs. 79(2)"173-199.

FGDC [Federal Geographic Data Committee]. 2008. Vegetation Classification Standard, FGDC-STD-005, Version 2. Washington, DC., USA. [http://www.fgdc.gov/standards/projects/FGDC-standards-projects/vegetation/NVCS_V2_FINAL_2008-02.pdf]

For additional information contact:

- Implementation of the U.S. National Vegetation Classification Standard - Alexa McKerrow (amckerrow@usgs.gov)
- Development of NVC Type Descriptions - Don Faber-Langendoen (don_faber-langendoen@natureserve.org)
- Ecological Society of America Panel on Vegetation Classification – Este Muldavin (mudavin@unm.edu)
- Federal Geographic Data Committee – Vegetation Subcommittee's Activities – Carol Spurrier, (cspurrier@fs.fed.us)