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Project title: Integrating the FGDC National Vegetation Classification (NVC) Standard with the CNPS/CDFG *Manual of California Vegetation, second edition*

Interim report

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2) NatureServe; Marion Reid, 2108 55th Street, Suite 220, Boulder, CO 80301; Kristin Snow, Western Regional Office, 4600 N. Fairfax Drive, 7th Floor Arlington, VA 22203; and Don Faber-Langendoen, 3467 Amber Road, Syracuse, NY 13215; www.NatureServe.org;
3) USGS Core Science Systems and North Carolina State University, Department of Biology; Alexa McKerrow; Southeast Gap Land Cover, 218 David Clark Labs, Raleigh, NC 27695.

Executive Summary

The project to integrate the US National Vegetation Classification with the California state classification was initiated through a kick-off meeting with the project partners and supporting federal agency staff, and then a subsequent check-in meeting a few months into the project. CNPS provided a brief PowerPoint presentation with a project overview of goals and expected outcomes. Project partners (CNPS, CDFG, and NatureServe) had follow-up conference calls to confirm the best ways to share information between our organizations regarding the information on the 2009 version of the California Manual of California Vegetation (MCV) classification to relate with the current National Vegetation Classification (NVC) hierarchy. One of the first outcomes has been to establish relationships between the current NVC Groups and Macrogroups and the 2009 California classification of MCV Alliances, Groups and Macrogroups. NatureServe conducted an initial crosswalk between the NVC and the MCV and provided the information as an MS Access databases and Excel spreadsheets. NatureServe also provided supporting documents of a database and spreadsheet of the entire NVC hierarchy down to the Group, a Word document of NVC Group Descriptions, and Word documents of peer-reviewed Group descriptions. CNPS and CDFW have begun reviewing this initial crosswalk relating the NVC hierarchy to the California classification, and we have noted comments and provided edits in both the NatureServe and CNPS databases. We have reviewed the NVC classification hierarchy for approximately 70 California Alliances, and we have prioritized additional review including approximately 170 alliances that are endemic to California deserts and floristic province.

Proposal Narrative:

The project began with one kick-off meeting (in June 2012) and one check-in meeting (in November 2012) as conference calls that included the project partners of CNPS, CDFW and NatureServe as well as the supporting federal agency staff of FGDC/USGS. At the first meeting, CNPS provided a brief PowerPoint presentation containing an overview of the project goals and projected outcomes. Additionally, the project partners of CNPS, CDFW and NatureServe had conference calls to determine the best ways to share information on the current California Alliance-level classification and related draft Group and Macrogroup hierarchy and the current National Vegetation Classification (NVC) hierarchy, and we had a follow-up meeting to discuss the information that NatureServe provided to CNPS and CDFW on the NVC hierarchy.

One of the first outcomes has been to relate the current NVC Groups and Macrogroups to the California classification of the Manual of California Vegetation (MCV). Upon CNPS sharing a database of 2009 California Alliances, Groups and Macrogroups, NatureServe staff (including Kristin Snow, Marion Reid and Don Faber-Landendoen) conducted an initial crosswalk between the current NVC and the 2009 MCV, and they provided the information as MS Access databases and Excel spreadsheets. In this crosswalk, many of the NVC Groups and Macrogroups crosswalked cleanly (with 1:1 relationships) to MCV Groups and Macrogroups; however, a number had more complex relationships (with 1:2 or 1:3 or 3:1 or 2:1 relationships). Where the relationships were not 1:1, the NatureServe staff included a draft crosswalk with all of the projected relationships. In addition, NatureServe provided supporting documents of both a database and spreadsheet for the entire NVC hierarchy down to Group, which included a concept summary and classification comments for all levels where available. They also provided a Word report of Group Descriptions and access to NatureServe's SharePoint site of peer-reviewed Group descriptions organized by the current NVC hierarchy.

CNPS and CDFW staff (Julie Evens, Deborah Stout, and Todd Keeler-Wolf) have begun reviewing this initial crosswalk of the current NVC Groups and Macrogroups to the 2009 MCV list of Alliances, Groups and Macrogroups. The documents provided by NatureServe are being used by CNPS and CDFW staff to verify and/or establish relationships between the California vegetation types and the full national hierarchy, and we have noted comments and provided edits in the CNPS and NatureServe databases of these NVC hierarchy relationships, especially at the Group level. At this time, CNPS and CDFW have reviewed the NVC hierarchy of Groups and Macrogroups for approximately 70 Alliances, in which we have confirmed their relationships and noted questions and inconsistencies when using the current hierarchy to link them with the California types. We also have identified which Alliances are endemic to the California deserts and floristic province, i.e., approximately 170 Alliances out of more than 400, as a way to prioritize types to review linkages with the NVC hierarchy in the next few months.

We have had no major deviations from the original proposal, other than the timeframes for completing some of the specific deliverables may be later than originally expected in the grant proposal for this project. In particular, CNPS and CDFW received the Group level descriptions and other supporting NVC documents from NatureServe a few months later than expected. However, NatureServe has provided an initial set of linkages between the California Alliances,

Groups and Macrogroups and the NVC Groups and Macrogroups along with the supporting documents, and then CNPS has created a tracking process to denote our progress in reviewing the hierarchy. While some of the dates for specific deliverables may shift 3–4 months in 2013, we still plan to finish the entire project by the end of 2013.

This project will provide a means toward accomplishing peer-review of Alliance concepts from the California floristic province. This is in effect a part of the overall goal of the FGDC Vegetation subcommittee, which has requested a full classification and descriptive materials of all levels of the NVC over a 4-year period. The Alliance level is the last remaining large portion of the classification to be assembled and good portion of the work will be based on this pilot project from California.



A recent ESA Vegetation Panel meeting (Chapel Hill, NC, January 2013) with panel members discussing the Alliance peer-review process (Photo by T. Keeler-Wolf).

Next Steps:

Over the next 3–4 months, CNPS and CDFW are planning to have a couple follow-up conference calls with NatureServe staff to draw upon their subject matter experts (e.g., Marion Reid, Don Faber-Langendoen, and Keith Schulz at NatureServe). We will discuss the relationships and formations of the current NVC hierarchy and will go over our questions so that we can best understand and integrate the current NVC hierarchy with the California classification. While some of the relationships in the NVC hierarchy are complex when related

to the California set of Alliances, Macrogroups and Groups, we have set up an efficient system to integrate the hierarchy and to track our review and questions during this stage in the project.

We plan to integrate the NVC hierarchy with the California classification for the 170 endemic alliances over the next few months, which will allow CNPS and CDFW to provide comments to NatureServe and the ESA Vegetation Panel about this NVC standard. Also, we plan to post relationships between the California classification of Alliances to the NVC hierarchy on online websites (i.e., CNPS, CDFW, USNVC and NatureServe websites), so that users can access this information. In addition, we will be scheduling two vegetation workshops in which we will present the current NVC hierarchy browser, and the integration of the NVC hierarchy with the California classification.