**ESA Vegetation Classification Panel**

**Spring 2019 Meeting**

**May 22-23, 2019**

Rocky Mountain Research Station

Fraser Conference Room

240 W. Prospect Rd, Fort Collins, CO 80526

Participants: Emily Mastrianni, Jill Parsons, Don Faber-Langendoen, Esteban Muldavin, Michael Lee, Todd Keeler-Wolf, James Van Kley, Thomas Wentworth, Mark Tukman, Pat Comer, Jack Triepke, Scott Franklin, Julie Evens, Bob Peet, Chris Lea, Keith Schultz

Action Items:

* Finalize outline/proposal for future Regional Editor Workshop process (Don)
* Finalize Peer Review Tool for submitting plot data (VegPlot Template Working Group)
  + Resolve where Vegetation Plot data will be stored: Vegbank, webpage repository, etc?
* Develop document outlining key duties of Managing Editor Role
* Finalize standard page for submission to Proceedings
* Regional Editor’s call in June to reflect on recent meetings and plan for future
* Trial runs of the peer review tool/template by July 15th (Este, James, Dave, Jason Singhurst, Tynan).
* Work with Matt Jones- NCEAS to put together a one-pager for the future of VegBank (Jill, Michael)
  + Schedule initial phone call with NSF (Peter McCartney) to gauge interest in R proposal (Jill, Michael)
* Finalizing plans for Field Trip at TWS meeting in fall (Carol)
  + Field trip locations
  + Revising curriculum
  + Lunch options
* Nomenclature Review (Este, Don, Dave, Jack)
* Data Management Group will handle coordination of changes and updates to USNVC.org (Alexa, Pat, Michael, Jill)
* Develop inter-agency communications and outreach plan (Education subcommittee)

Topics for Business Meeting at ESA in August-Tuesday 8/13-

* Develop 5 year plan for future Regional Editor meetings (led by Don)
* Develop a 5 year plan for plot data submissions with plot template (VegPlot Template Working Group)
  + Review trial runs by Este, Dave, James, Jason, Tynan
* Develop one-page proposal for future of VegBank/R and budget (Jill and Michael)
* Archiving historical information (Bob)
  + Start dropbox of documents organized by content, share link with others
* Website updates
* Budget Priorities (each subcommittee)
* Communications Plan
  + Identify contacts from each agency
* Brainstorm sessions for ESA 2020 (Este and Scott)
* Discuss Plans for next face to face meeting: Early 2020

Day 1: Wednesday May 22, 2019

*Opening remarks- Esteban Muldavin, Chair*

* Introductions
* 2020 marks the 25th anniversary of the vegetation panel
  + Goal: Develop a widespread outreach and communication plan

*Peer Review Board Updates- Don Faber-Langendoen, Editor in-Chief of the US National Vegetation Classification*

* Peer review process is still a work-in-progress
  + 14 Regional Editors across the country
    - Need: more defined roles for both Regional and Associate Editors
    - REs can delegate review to AEs if they have better knowledge of a specific proposal
  + How do we oversee the USNVC across different levels of changes?
  + How do we define a process to suggest changes and have Regional Editors, Editor in Chief, and authors carry through the review, revision, and public review?
  + Final submissions:
    - Publication summarizing process (analysis) and changes
    - Updates to type descriptions, eventually leading to release of a new version of the USNVC
    - Partial acceptance idea
      * Identifying areas of proposals that are unresolved, or split into different segments that can be accepted and others that need more work
    - Update in biotics
* 3 Regional Editor meetings this year
  + Great Plains- February 27-28, Noble Research Institute, Ardmore, Oklahoma
    - Focus: Southern Great Plains Alliances and Groups
  + Eastern- March 14-15, North Carolina Botanical Gardens, Chapel Hill, North Carolina
    - Focus: Appalachian Forests
  + Western- May 20-21, Rocky Mountain Research Station, Fort Collins, Colorado
    - Current ongoing analysis from Washington Natural Heritage Program
      * 5,000 plots clustered around 3 National Parks
* Future Regional Editor meetings
  + Regional Editors can host meetings
  + Needs:
    - Funding
    - time/personnel to conduct analysis
    - meeting location
  + Proposal for future workshop process
    - Authors review summary document
    - Summary posted to a larger group
    - One month window for public comment – possibly in google docs
    - If someone says public comment window needs to be longer, we can honor that
    - Comments come back to REs
  + Goals:
    - focus on range-wide analysis
    - regional editors review changes before meetings
    - Have 5 year plan by ESA Annual Meeting
  + Suggestions:
    - Western Texas- Gulf classification (James Van-Kley/Alan Weakley)
    - Greater sagebrush habitats
      * Ruderal vs Natural Vegetation
      * Effects on conservation and land-use management
      * Alliance descriptions
* Peer Review Software Update
  + Website tool: Scholastica
    - Chosen in part for financial sustainability
  + Need to finalize peer review tool template for authors to submit manuscript and plot data
  + How to track confidence? Revisions would be to downgrade confidence of CEGL codes
* Managing Editor Role Update
  + Roles and Responsibilities
    - Review submissions to the NVC Proceedings to:
      * Ensure they adhere to the established style guide, and
      * Are free of grammatical and typographical errors.
      * Note: the author instructions and style guide should hopefully minimize this work; REs/AEs should note errors during the review process as they go along to minimize final changes.
      * *Question: who liaises with the author to make needed editorial changes? Or does ME or EIC make final changes?*
    - Assist with setting up and fully implementing the Scholastica peer review tool, including:
      * Helping to schedule and set up tool demos,
      * Assisting the EIC with workflow and process issues.
    - Maintain the NVC Proceedings website, including:
      * Ensuring author guidelines are current and clear,
      * Posting new Proceedings,
      * Liaising with the ESA webmaster re: site maintenance as needed.
  + Need agreement on key duties/roles of ME (draft document)
    - Work with author on changes – send it to them in track changes
    - Template – impose style on a template
      * Can a designer help us put together a template and logo for the panel?
        + ESA Designer
        + In-house expertise (Carol, NPS Communication folks)
    - Supply a checklist – make sure they have everything needed for submission
* Proceedings Updates
  + Need a standard page for submissions.
    - Attached is last year’s idea “Updated Proceedings Cover”
    - Embed figures and tables in their proper place
    - Design ESA Vegetation Panel Logo, or keep USNVC logo, since this is the partnership? Or, describe the partnership on the Proceedings homepage, rather than on each article?
      * USNVC Logo only on cover- final decision
    - Acknowledge editors in the proceedings and NVC Review Board
  + Provisional things can go into proceedings, just not fully incorporated into the classification.
    - NVC database tracks provisionals
    - Who can see provisionals?
    - Can there be a filtering capacity?
* Vegetation Plot Template Update
  + The Vegetation Plot Template Working group developed an excel spreadsheet to provide a standard format for users to submit plots for revision
    - Captures minimum requirements
      * Are these fields the right ones?
    - Simple, familiar technology (excel)
      * Is this format something people can work with?
    - Designed to import data specifically for revision work
    - Includes data-dictionary of fields, instruction page
    - Other ideas:
      * Extra sheet for supplemental data that could be dropped with official submission
        + As is, template not designed to handle many nuances, what authors submit may be only partial data compared to their complete dataset.
      * Concerns over USDA plant code and/or name, taxonomy changes
        + need date of access for USDA plants database (access date)?
        + Author vs. original plant name: author is most up-to-date

resolution: provide examples and perhaps not require this; for lots of people these might all be the same thing

* + What happens to data after it is submitted?
    - If template is not filled out correctly, it can be kicked back to authors
    - Needs to go to a larger database. Is there a tool that can do that?
      * This is originally what VegBank was for (see section below). Can Vegbank query the data/spreadsheets? How do we make that link?
        + VegBank Issues- complicated xml, loading process slow and often fails
        + In theory, we could write a script to get data from template directly to VegBank
      * We could keep two systems – VB and the spreadsheets; unique IDs for each data row would help keep track of everything
      * Have an annually published list of the data?
  + Compiling plot databases for analyses/proposals
    - 1: Build tools that can import this into their databases from the template file – one option
    - 2: Compile all of these into one big spreadsheet that can be downloaded and circulated for analyses (approximating VegBank’s functionality)
    - 3: Push template directly into VegBank
    - 4: interface for this simple dataset so you can do simple queries (Googlesheets); would provide an update mechanism – Python, R, can connect to them; would it still work if this got really big?
  + Need to find out how/where plot template will live on Proceedings site
  + Annual publication of plot data and the changes in NVC
    - Proceedings has changes; VegBank has plot data
* Next steps:
  + Regional Editor’s call in June to reflect on recent meetings and plan for future
  + Developing 5-year plan for review at ESA Annual Meeting
  + Scheduling trial runs of the peer review tool by July 15th
    - Este, James, Dave, Jason Singhurst, Tynan. Revisit at ESA Annual Meeting to see how well it works
  + Resolve where Vegetation Plot data will be stored: Vegbank, webpage repository, etc?

*VegBank Updates*-

* Concerns:
  + Hard to get data in without a simplified format
  + Hard to upload bigger data
  + Security/longevity
  + Lack of funding to fix or address solutions
* NCEAS Status:
  + Funds have been transferred
    - 1 month of developer time to address security risks and put a patch in place.
    - Developer will attempt to fix the application by upgrading the underlying Struts library to a new secure version
    - Will also perform a more thorough vulnerability assessment to determine what other risks may be present
    - Believe work will be completed by end of June; will update Panel with results/outcomes
* New Strategies to rebuild VegBank
  + What are the pieces that only VegBank can do?
  + Database design is healthy; but hard to get data in
  + What would it look like not to have web interface? Processing is happening on their machine, not ours
  + Download files will look very similar to our template
  + Path forward: write new VegBank API to get information out of VB – skip the browser (no longer relying on libraries); could do a demo for users not familiar with R
  + We can design functions based on what people want
  + Other packages exist to help you do more analysis
  + Much less expensive
  + Are there issues downloading data from VB with R?
    - Many packages would help with this
    - Those were people clicking through the website – not done with an API – the API would solve the problem
    - The solution is an R VegBank package
    - Would this address getting data into VegBank? Yes – adding data through API; can one user add data through spreadsheets??? REs could help with this process
* How can we get users engaged?
  + Look at GBIF interface – integrated publishing toolkit (an API that uploads data in the right format); do we need a tool that everyone can upload into VegBank, or just rely on a data manager to do uploads?
  + Rudimentary interface – maybe we could do this inexpensively? Phasing could be such that VB data is protected and accessible as first priority, and then add capabilities to add data
  + Visualize data on a map – people might want this (would lose
  + Schema of back end – building API on top of that, or is this a chance to simplify the schema and change the back end?
    - We could build an API on a simplified version but still keep original as copy of record
    - Simplification is an ideal, but also takes a lot of people and time to implement; it would probably not save us money to simplify the 35 tables
    - If we change things too much it could affect data citations out there
    - Simplification would result in loss of analysis
    - Do we create a flattened version of data structure
    - If we keep complicated data structure, we can add more functions late on if more funding becomes available
    - Explain user side – they’d know where to go
    - Linda, Kristen, Michael, Bob, Don, (data management working group) – relate to veg plot template; ask Dave Roberts; Mark; Skye will review proposal
* Future paths/funding
  + NSF Infrastructure Capacity for Biology Program, Sustaining Databases Track
    - Can we demonstrate that VegBank is valuable and relevant to a user community that is proportional to the funding that we are requesting?
    - Current user trends: decline in recent years due to lack of outreach, site running on old software.
      * Can we expect an uptick if we address these issues?
      * Big hurdle: making it easier to get data into VegBank
  + Michael Lee’s Proposal for Modernizing VegBank with R- attached
    - Write a new API to allow users to get data from R
    - Fits the need to build a foundation for VegBank at much less cost
    - Matt Jones, NCEAS, positive about this idea
  + Goal: get a proposal together within next 6 months
* Next steps:
  + work with Matt (back in town in mid-June), Michael, and others to put together a one-pager; schedule initial phone call with NSF (Peter McCartney) to gauge interest and get suggestions, and then write full proposal from there
  + Update at the Louisville meeting on progress for one-pager and budget

*Education and Outreach Updates*

* The Wildlife Society Conference Workshop
  + Conference Dates: September 29th-October 3rd, 2019
  + VegPanel Workshop date: October 1st
    - Sagebrush Habitat Field trip, full day
      * 2 hour introduction in classroom, followed by a field trip to various sagebrush habitat locations
  + Organizer: Carol Spurrier
  + Pat Comer, Dave Tart, and Todd Keeler-Wolf also offered to help
  + Next steps:
    - Determine locations for field trip stops: assisted by Nevada Natural Heritage program
    - Revise curriculum:
      * Missing USNVC descriptions with sagebrush
      * Targeting wildlife biologists and their interactions with NVC
    - Determine lunch options
      * Bring-your-own
      * Provided by ESA
* Education and Outreach Subcommittee of the Vegetation Panel
  + What has already been done?
    - Workshops
    - Field trips
    - Organized oral sessions at ESA Annual Meetings
    - Webinars
  + Current chair, Todd Keeler-Wolf is retiring. Jack Triepke is going to take over gradually and temporarily while Todd looks for another, more permanent chair.
  + 2019 Webinars:
    - April 18th: Introduction to the USNVC, presented by Pat Comer
      * Audience: Vegetation ecologists, biologists, students
      * Main message: Introduce value of vegetation classification and USNVC, and how it is applied to decision making.
      * 20 minute talk
      * 65 people attended
      * 90 people viewed recording
      * Recording available at: <https://register.gotowebinar.com/recording/2694939681798008323>
    - May 9th: Using Concepts and Products of the USNVC to Address Agency-Wide Business Needs, presented by Todd Keeler-Wolf
      * Audience: Current users of USNVC
      * Main message: Overview of USNVC partnership, organization, and examples of how USNVC helps natural resource agencies develop land management and conservation plans.
      * 45 minute talk
      * 50 people attended
      * 40 people viewed recording
      * Recording available at: <https://register.gotowebinar.com/recording/2350816732024468232>
    - Feedback/Future Webinars:
      * Production value: sound and delay in recording
      * Using examples that are representative
      * Communicating the right messages
      * Engaging audience through polls, questions
  + Future educational programming
    - Where are we getting the most impact?
      * How do we have a good dialogue with other agencies based on understanding their needs and facilitating that
    - How can we include a call to action
    - Using follow ups, evaluation surveys with webinars, other activities
    - High level agency leadership
      * Who do they listen to? Their peers
      * Share at agency leadership meetings with regional foresters
    - Developing curriculum for college-level classes:
      * lab write ups, case studies, active learning
      * Land grant universities- shared curriculum resources
    - EcoEd Digital Library
    - ESRI
    - Continuing education credits, training programs/workshops
  + *See discussion below about developing a communications and outreach plan with NPS*

*USNVC Archiving*

* Historical communications, reports, and pubs
  + Bob is identifying files to send to ESA archives at UGA
  + Dropbox archive of historical Panel documents
    - Bob will continue adding documents, first, and organize them according to content – he’ll try to do this before August
    - Then he will share the address, by time of Louisville meeting
    - Paper copies: Bob will bring to ESA sometime? He will check in with archivist at UGA about whether they want digital and paper copies
    - Flesh out info on Panel history on website
    - Add bios and photos to Panel website – why you’re here
  + How do we coordinate historical records for the Panel? (ESA, USGS, FGDC)
  + Lost plots – from late 80s that were never digitized – what do we do with these?
    - Scanning has gotten a lot cheaper – company pics it up, checks with you that
* Bulletin piece for 25th anniversary of the Veg Panel

*Nomenclature Review*

* Goals
  + Make physiognomic terms as ecologically meaningful as possible
  + Identify issues
  + Create consistency within classification for clients to communicate better
* 2015 working group convened before the release of USNVC 2.0 in 2016 to develop automated rules to screen alliance nomenclature, there are definitions for every term now.
  + NVC Review Board is responsible for checking this as proposals come in
* Issues:
  + Colloquial names vs Latin names (Latin names difficult for non-specialists)
  + Wording in the standard isn’t clear
  + Rules for mapping ecological criteria
    - Without hard, fast rules, we might see the same unit mapped 2 different ways in neighboring forests. Would be helpful to have operational rules along with standards
    - Floristic vs physiognomic
      * Physiognomic terms are not informative at Alliance and Association levels. Could they be eliminated to make types more useable for the end-user?
    - Standardizing threshold, range criteria for different geographic regions
      * Formation level publication describes rationale for ranges.
  + Next steps:
    - Re-engage working group to clean up terminology, update guide
      * Este, Don, Dave, Jack volunteered to be part of this group
      * Can we make terminology consistent with international usage?
      * Simplify terminology
      * Step 1: word analysis to fully evaluate the totality of the issues

*Website Updates*

* Vegetation Panel Website
  + Needs biographies for Panel members: why are you here, why is this important to you, photo
* USNVC.org
  + Alexa offered to make changes with suggestions of others
  + Old version of hierarchy
  + New download from NatureServe
    - Need to sync database
  + Decision was made to re-vamp the back end of the database (has not happened yet) for improved functionality.
  + Prioritize access to the provisional list
  + Adding photos representative of different parts of the US
* NatureServe
  + Re-vamping NatureServe Explorer to a new platform
  + Need to work in parallel with USNVC updates to increase interaction and links to content
* Data Management Group will handle coordination of changes and updates
  + Pat Comer, Michael Lee, ESA will join
  + Goal: updates made by ESA Annual Meeting in August

*Discussion with NPS Natural Resource Office and Communication about developing a communications and outreach plan: Karl Brown and McKenzie Reed from NPS*

* Based on a discussion about developing a short video to present to higher-level agency leadership to increase support and funding for work of USNVC
  + The need is for a broader communications plan, not just a video
  + Inter-agency communications plan
* NPS willing to work with our group to develop this
  + Need to provide them a clear understanding of who/what we would like to address
  + Big ask:
    - “How do we keep USNVC working, do reasonable updates, make sure our users are informed, and keep provisional edits integrated?”
    - Funding
* Are there other government products that we can use as a model?
  + Soil survey- 2 level hierarchy
  + Maintain through USDA funding process
  + Many partners: state, county, etc all communicating together
* Ideas:
  + Using the 25th anniversary as an opportunity to focus communications plan on what we have done and what we would like to do
    - Long history of presentations
  + Focusing on individuals within the partnership to get more buy in
    - NPS, USFS, USGS, ESA, NatureServe, etc
    - ILMAG- a set of case studies of the NVC use
  + Developing a strong communications plan
    - Defining audience(s)
    - Defining goals
      * Developing tactics and strategies for each goal (ex. Videos, webinars, infographics)
    - Defining points of resistance and using those as communication points
    - NPS can provide us some lessons learned and best practices for development
    - Is there a communications coordination office within each partner agency that we could start a group with?
      * USGS, ESA, NatureServe- need to determine best contacts and bandwidth to help
  + Can we hold a communications workshop to help develop these ideas?
  + Can we bring these ideas into website updates?
    - Presenting message in a way that is useful, digestible, presents present value, and consistently dynamic
* Next steps:
  + Coordinate with Jeff Olson, NPS, about what it would take to put together an interagency communications plan
  + Convene education and outreach subcommittee
  + Define audience and goals- can be many
  + Communications intern?

*Budget Update*

* There are funds remaining in both Forest Service and USGS grants that will end this summer
  + Some can roll over
* Estimated $150k for year 2, combining USGS and USFS funds
* For 2020, Carol has requested $25k to incorporate some of USFS information into the USNVC
* $115k to NatureServe for LandFire
* Budget Components:
  + ESA staff time
    - may be able to hire a short term communications intern
    - need to determine scope of Managing Editor role
  + Honoraria
    - Available to regional REs doing substantial review projects
  + Participant support
    - Regional RE meetings were helpful this year
    - In future years, we may have to decide between doing regional RE meetings or a Panel face-to-face, depending on funding
* NatureServe Funding
  + Editor-in-Chief
  + NVC Database Management
  + VegBank plot database work
* Needs:
  + Determine priorities for ESA Annual Meeting so we have an ask for 2020

*Other*

* ESA 2019 Annual Meeting
  + Business meeting: Tuesday, August 13th
    - Panel call at the end of July to draft agenda
  + Attendance:
    - Jack, Bob, Este, Todd, Carol, Don, Alexa
    - Calling in to business meeting: Tom, James, Chris
  + Need help to staff booth
  + Topics:
    - Goals for each team/subcommittee
      * Due at end of July to Este
    - Identify communication contacts from all partners
      * Goal: Develop communications plan by October, 2019 for spring lobbying
    - Data maintenance plan- can we build the cost of this into our outreach plan?
    - Updates on plot template and pilots of people inputting data
    - Updates on VegBank funding and R interface
    - Revisiting archiving historical documents
  + Field trip: accepted, 4 people at USFS will help facilitate and are on site
* Next face-to-face meeting
  + Late January/Early February 2020
  + Focus: Communications plan
* ESA 2020 meeting
  + Theme: Harnessing the Ecological Data Revolution
  + Discuss symposium and organized oral session ideas
    - Application, conservation, monitoring
    - Essential biodiversity variables for global monitoring
    - Status and trends in vegetation at a continental scale
    - Ecosystem composition function variables
    - Cross-agency perspectives and assessments
  + INSPIRE sessions- series of 5 minute talks followed by a discussion
    - Success stories
    - Lead speaker with broad recognition that would increase attendance
    - Generic title to increase attendance (don’t include USNVC?)
      * “A Common Language for Resource Management”
    - Este and Scott willing to organize
      * Draft concept and speakers by August
      * Summarize ideas in Google Docs and circulate to panel