**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