

**ESA Vegetation Panel Meeting Notes**  
**ESA 101<sup>st</sup> Annual Meeting – Fort Lauderdale, FL**  
**Tuesday, August 9, 2016**  
**Ft Lauderdale Convention Center, Room 216**

**Attendees:**

Alexa McKerrow, Abigail Benson, Scott Franklin (chair), Jill Parsons, Janet Franklin, Alan Weakley, Don Faber-Langendoen, Jennifer Buck, Dave Tart, Todd Keeler-Wolf, Bob Peet, Cliff Duke, Kim Quach, Don Long, Hazel Gordon, Bruce Orr

**Attending Remotely:**

Tom Wentworth, Julie Evens, Marianne Burke, Pat Comer

*Status Reports (Scott)*

NVC booth activity

- Dave Tart and Jennifer Buck spoke with a researcher from Jornada while working at the booth; they demonstrated the hierarchy browser and VegBank.
- Other interested people who visited the booth included Jerry Olson, a PhD student from the University of Washington interested in cultural vegetation, and a woman from the French Forest Inventory office.
- So far there hasn't been a huge number of people stopping by, but the people who have received information and viewed demonstrations have been very interested and engaged.
- We still have a lot of work to do to get the word out about the NVC.
  - o Marianne mentioned a new Facebook USFS R&D page where she can post announcements.
  - o We can promote the new World Formations report and the NVC on social media as well.  
**Jill will ask Liza to promote this on ESA's social media accounts.**

Budget report/status (Jill/Cliff)

- Our planned Year 2 budget is for \$150K. It includes funding for EIC support, VegBank support, an honoraria pool for Regional Associate Editors, and travel funding to support a 3-day face-to-face meeting of the Panel/NVC Review Board. There is no funding available to support training and outreach activities.
- We do still have approximately \$5K remaining from the Macrogroups project. Thus far, Exec has agreed that this should be saved as a "rainy day fund" for potential future gaps in funding.
- Marianne confirmed that the USFS is trying to push the funding through soon. The Year 2 funding should start retroactively on July 1.
- On the need for NVC education and outreach:
  - o In the FGDC Veg Subcommittee and various agencies using the NVC, we keep identifying a real need for education and outreach; we haven't focused on this in a while but it needs to be a priority very soon.
  - o Within the USFS they are planning some targeted workshops on crosswalking.

Working committee reports

- Publications (Este/Scott)
  - o The effort to compile a database of NVC publications has stalled; we want to reinvigorate that effort again.
  - o The goal is to collect all papers that have led to the creation of or are using the NVC and have everything listed in one place. We want to create a comprehensive resource for people who are just starting to use the NVC.
  - o **Alexa will circulate the list she has compiled thus far; Everyone should review and help add to the list of publications.**

- Don and Bob are both working on papers for Phytocoenologia.
  - The journal wants to do an issue on major veg classifications across the world.
  - Don is leading a paper that will focus on the USNVC and CNVC.
  - Bob is working on a paper on CVS – the idea is to update Whitaker’s compendium so we have an idea of the world’s classification systems.
- If anyone wants hard copies of the new World Formations report, ask Dave Tart.
- In the future we also hope to submit the peer review process document for publication.
- Keys to the NVC
  - Dave T has talked with Jim Alegria at the USFS; they want to encourage people to crosswalk and users need keys to do that.
  - We need to think carefully about what format or approach should be taken (e.g. a traditional dichotomous key may be an antiquated approach, but may also help users better understand the classification’s structure).
  - Marianne is having conversations with FIA, BLM, and LANDFIRE about possibilities in terms of NVC keys. The USFS hopes to come up with a protocol for writing keys, and this is a topic at the upcoming quarterly meeting. The plan is for the Chief to issue a reminder to all field staff about using the NVC and then follow up with webinars.
  - Don is doing a poster session on keys at the SAF conference this fall.
  - **Don will send the latest key to Marianne and Dave T.**
  - **Marianne and Greg Reams will discuss the mandate to produce tools/keys.**
  - **Volunteers to help move the keys issue forward include: Dave T, Alexa, and Marianne.** The goal is to help coordinate what the USFS is going to do with the Panel.

#### Annual report – what we accomplished last year (Don/Bob)

- Update on VegBank (Bob)
  - We have added 30K plots in the last year.
  - Michael upgraded code to keep VegBank running; he could work to get more plots in VegBank if we had more funding to support his time.
  - The VegBank map is not automatically updated, but it says we have 108,000 plots (which is close to the actual number).
  - We need to keep in mind both infrastructure needs and staff support to hopefully continue supporting Michael’s time working on VegBank.
  - We also need a VegBank community of supporters. We need to do more in terms of selling it and making sure people know it’s there. A key selling point is the big push towards open data.
- General Panel update: 2016 was a benchmark year with multiple significant accomplishments:
  - Early in the year we revised the nomenclature of much of the existing classification to simplify the system and reduce redundancies. Especially at the lower-level Alliance and Association levels, names were changed to correspond with previously made changes to the physiognomic classification accompanying the vegetation classification.
  - We completed the descriptions of classification units at the mid-level Division, Macrogroup, and Group levels for all vegetation in the conterminous US.
  - We focused on developing the peer-review process and protocol, writing formal job descriptions for editors and reviewers, and establishing operating procedures for all participants in the process.
  - Most significantly, we formally, publically unveiled the US National Vegetation Classification on February 24, 2016. This highlighted our 20-year collaborative effort to devise a unified and consistent national reporting system for plant communities and opened new avenues for broad-scale and long-term analyses of landscape change. ESA featured the release prominently with a press release on its website (<http://www.esa.org/esa/national-vegetation-classification-press-release/>), and the ESA Panel provided a detailed summary of the release at (<http://esa.org/vegpanel/nvc-full-release/>)

- Given the dynamic nature of the NVC, some revisions have already been proposed to the classification since the February release. The formal release represents the culmination of 20 years of work from the collaboration of ESA-affiliated vegetation ecologists, NatureServe, and multiple federal agencies.

### *NVC Review Board Update (Don)*

#### Overview of current and completed projects/activities since February 2016: (Alexa)

- The Alaska Project (completed)
  - This project examined 792 veg plots from the boreal arctic region; the focus was on the Macrogroup level, and it described a few new Macrogroup types and clarified descriptions in others.
  - This project followed the example of the Longleaf proposal.
  - We are hoping to have a workshop with NatureServe in March to review some of the types described.
  - **Alexa will share the report on the Alaska project with the Panel.**
- Este Muldavin's desert plot analysis (in progress):
  - Este asked for an extension to hold a joint workshop with NatureServe and hold it at Jornada to review what he's developed.
  - The focus is on putting NVC revisions in the context of ecological site descriptions; the education subcommittee is discussing this as well.
- Extension of Longleaf Pine revision work (in progress):
  - We have over 1,000 high quality plots (in NC, SC, GA, FL) that cover much of the range of Longleaf Pine. Revisions of four NVC Groups will be proposed (G009, G154, G190 & G596).
  - With this revision work, we hope to set a precedent for how NVC proposals are created and submitted.
- Additional USGS projects/grants:
  - There are lots of data in National Park Service plots databases. We have developed a tool to export this data into VegBank, but access to and control of the data varies greatly by park. Ideally these NPS plots could be included in VegBank, especially considering the benefit of getting all data that supports the NVC in one place and creating efficiencies.  
**Dave Tart might be a good candidate for someone to contact Karl Brown, our key contact at the NPS, and move this forward.**

#### Peer Review Process (Don)

- There is a simple form to fill out when submitting a proposal (we need to put this on the NVC website).
- We hope to have funding soon to develop a peer review tool.
- We are finalizing the formatting for how proposals should be submitted.

#### Voting to approve Regional Associate Editors (Don)

- Don introduced a motion to approve the current list of Regional Editors.
- Scott seconded the motion and the Panel approved.
- **Don will investigate the idea of term limits for Regional Editors** (possibly a 3-5 year limit).

### *Creating NVC State Partnerships (Don)*

#### Report out on enquiries regarding state partnerships and the State Ecology Program Survey

- Don would like to conduct a survey this fall to determine the level of interest in becoming an NVC state partner. States would be working primarily with the Panel and NVC review board, but we want to have the survey and process of forming of state partners vetted by the FGDC vegetation subcommittee. **Marianne will help bring the state partnership survey before the Veg Subcommittee.**

- The survey will ask state ecology programs to be part of classification, submit data, and participate in peer review.
- Establishing state partners could be a good way to further our outreach.
- **The Education Subcommittee will work with Don to:**
  - o Scope out different outreach attempts for state agencies at different levels (in terms of current NVC involvement).
  - o Fine-tune the survey questions and any accompanying documents.
  - o Add material highlighting the benefits to state agencies for each level of involvement.
- NatureServe will work to distribute the survey and identify people who have been engaging with the NVC.
  - o NatureServe has a Navajo Nation network.
  - o CEMML out of Colorado State would be another good contact.
- **Jill will help schedule the next education subcommittee call and put the state programs survey on the agenda.**
- Jill can also help with SurveyMonkey if needed.

### *Cross-walking, Outreach, and Engagement (Scott/Don)*

#### Crosswalking:

- It would be useful to have a number of example crosswalks to the NVC.
  - o NatureServe has a long history of working with Region 8 – they have developed a forest specific classification at the regional level. Each national forest has a report of the description of each type. Marianne can use these reports to follow up with each regional botanist.
  - o We designed VegBank so users could document the relationship of different classifications within its structure.
  - o Todd's group (Region 5 and CalVeg keys) took polygons and deduced how many would translate to NVC types. They developed a concept to polygon relationship, which could work for assigning types to map units, potentially to the Alliance level.
- Regarding FIA data, and crosswalking efforts:
  - o They want to have major crosswalk to the NVC, but keying out FIA plots are difficult – they don't always include cover by species information.
  - o Marianne is having an implementation management team meeting about crosswalking within the FS soon. Jim Alegria is trying to develop more detailed guidance on how to go about crosswalking map units (typically mid-level regional maps). After this discussion, she can let us know if the Panel can help provide guidance in some way.
  - o Auto keys for the FIA plots can help move forward with mapping in Region 4.
  - o We also need to keep in mind the ultimate purpose of crosswalking: to refine the NVC.
  - o We also need to involve younger staff and get them engaged with the NVC now, in addition to working from the top down. Setting up a workshop at the next SAF meeting next fall could help. Don Long and Hazel Gordon are willing to help with this.

#### Outreach:

- We have not done much due to lack of funding in recent years.
- We do have some previously developed webinar material we could share, mostly about the uses of the Group/Macrogroup levels and a general introduction to the NVC.
- **Todd will send these files to Marianne and Jill.**
- **Jill will make sure they are posted on the Veg Panel Website.**
- Don Long will send an email with a link to the Higher Science exchange network; there are 15 around the country and this is a good audience for webinars.
- On the next education subcommittee call we can discuss the following:
  - o State partnership survey
  - o Collaborations with ecological site descriptions and next year's workshop in Portland

- The materials Don L is sending around.

### *NVC Infrastructure and Data Management Needs (Alexa/Marianne/Bob)*

#### Data management and infrastructure plan:

- Marianne will meet with the FGDC theme leads (land use /land cover; biodiversity and ecosystems) [Greg Reams and Jonathan Smith are leads for land use/land cover]; we want them to help elevate NVC infrastructure needs to the coordinating committee level.
- The next coordination meeting is in September. **Marianne will let the Panel know if it would be helpful for Panel members to attend** (likely Don, Bob, ESA staff).
- The Panel is in favor of option #1 in the plan; Stage 1 of VegBank is a very high priority.
- **Marianne will incorporate Karl's comments and then redistribute the plan, asking for more input.**
- **After receiving final comments from the Panel, Marianne and Alexa will pressure leadership in the USGS and USFS to move on this.**

#### Peer review tools:

- We could start with what NatureServe developed for the coastal marine classification, but it would be better to have a full peer review tool.
- It's important that the tool is transparent (this is a big priority for USGS) and enables a high quality science process.
- The more efficient the tool, the less manpower we require; we need to make sure the cost of manpower is accounted for in the infrastructure plan. Also, if the process is streamlined people will be more engaged.

#### NVC Proceedings feedback:

- Ideally we could link to plots in VegBank that were referenced in each article.
- Being able to cite a DOI in an article (for each pdf) is a helpful thing; but issuing a DOI for every type we have creates a problem of versioning. (*to be determined...*)
- Some (hopefully) simple functions that we'd like to add to the Proceedings site include:
  - On each article summary page, include:
    - A listing of CEGL codes for the relevant types in each article
    - If possible, a link to plots if plots are identified by the author, or a link to send an auto query to VegBank
      - We could always have an option that says "not available with this paper"
      - This also raises the question of whether a database is publicly available; if it's not publicly available, is the data free to give away? (possibly not compliant with the Standard)
  - Enable the search results to take you to the relevant place in each article.
  - Add volumes and issues (e.g. 2016 #1, #2, etc.)
  - We need to add the ESA logo and NVC logo to the page somewhere.
  - A link to the Proceedings should be included under the resources tab on usnvc.org.
  - We should create a standard header for the site.
  - Re: the landing page on the Veg Panel site – make the links bigger and bolder.
  - **Jill will discuss these possible changes with Gordon to see if/when we can implement them.**
- Editorial changes – we don't plan to include these in the Proceedings, but where should we keep the public record of all these changes?
  - We could include a list of editorial changes on the proceedings, noting in the individual descriptions what changed.
  - We want the database to have a clear record of what's been changed and when (when you download a description); for editorial changes, most people want to know when the change was made; (the date would be in biotics and in the description).

- We want to err on the side of inclusion initially; we can revisit this in the future.
- We could also add an “editorial revisions” page to the proceedings and reference the changes by CEG code, but this would not be practical unless there’s a way to automate it.

### *Creating a Standard Field Data Form (Alexa)*

- We want to help create a standard field data form – one that is as simple as possible with all critical fields included, and one that is as VegBank compatible as possible.
- **Alexa will collect different field forms and distinguish between required and recommended fields. Don and Dave T will help.**
  - They will focus on forms that the FGDC Standard endorses, which are also compliant with VegBank.
  - Alexa will then send all this information to the Panel.
- The goal is to establish a simple form and highlight alternative good examples from other agencies, assuming that agencies may need to tweak the form for their own needs.
- Don mentioned [Universalfqa.org](http://Universalfqa.org) (conservatism index) – we should be able to provide a simple data entry tool for basic plot data; a web based tool would be ideal.

### *Next Steps (Scott)*

#### Planning for a Joint Panel and Peer Review Board Meeting in 2017

- We discussed the possibility of having a smaller, truncated meeting with only the NVC Regional Editors attending. A primary purpose of this meeting would be to analyze the state partnership survey and discuss how to implement NVC state partnerships.
- A larger Panel meeting would be very useful IF we receive funding for some of the tools/infrastructure – an opportunity to fine-tune design in a face-to-face meeting would be ideal. However, it doesn’t look like the timing for this would coincide with a 2017 meeting.
- Any cost savings from having a smaller meeting could be diverted to education and outreach activities.
- We are tentatively planning the NVC Regional Editors meeting for February or March, 2017. As the time approaches, we will consider whether a full Panel meeting is needed at that time.

#### International Collaboration Efforts

- IAVS:
  - All members are welcome to participate in the Veg Classification Working Group; a plot-based world classification effort may be starting soon.
  - Bob is planning to attend the meeting next year in Sicily. There may be an opportunity to develop our own symposium.
- The European Veg Survey meets annually, usually in April; there is usually a lot of ad hoc activity happening on an international level at that meeting, so it would help to have a Panel member attend.
- Don was exploring work with international partners on the Division level - potentially developing Macrogroups globally within a certain timeframe. We’re in a good position to do that, but need people who are willing to work on it (primarily synthesis of existing information)

### *Planning for the 2017 ESA Meeting – Portland, OR (Scott)*

- Field trip/possible workshop idea: (proposals due Nov. 17<sup>th</sup>)
  - **Todd will talk to Este and Gene about a possible workshop/field trip combo** (potentially visiting Mt. Hood) focusing on NVC and ecological site descriptions.
- OPS idea: (proposals due Sept. 15<sup>th</sup>)
  - A poster session would showcase how the peer review process has helped to shape and update the NVC. **Alexa will take the lead in organizing the poster session and**

**submitting the proposal.** Posters must be submitted in multiples of five. Some ideas discussed at the meeting include:

- LANDFIRE auto keys (Pat Comer)
  - Crosswalking (USFS) (Dave T)
  - FIA computerized key
  - NVC review board how to get involved (Don FL)
  - Longleaf Pine Revision (Kyle P)
  - Introduction to NVC (Scott)
  - International one (Canadian)
  - Revision of desert classification (Julie)
  - Economic study (CalState data) on the cost/benefit analysis of veg mapping
  - Introduction to VegBank
  - Alexa will take the lead on the OPS proposal
- We could potentially have some of the posters available at the Panel/NVC booth after the session.

*Planning for the 2018 IAVS Meeting in Montana (Scott)*

- We should do something as a Panel at this meeting: potentially redo the poster session we are planning for ESA 2017, or a workshop on NVC development.