RISCC TOOLS

Regulatory Visualization https://www.riscctools.org/regulatory-visualization/

- ☐ Update metadata in the 'How to use this tool'
  - ☐ **Updated text:** Choose a state from the dropdown to create a list of all regulated species in that state. Choose a species from the dropdown to create a list of all states where that species is regulated. The map will highlight your selections, and the table below will update.
    Data sources: The data from this resource was compiled from the National Plant Board Website here (Update this link to https://www.nationalplantboard.org/state-law--regulation-summaries.html). Learn more about regulatory level definitions in the Reg.Level Definitions tab here.
- ☐ Update metadata in the Native Status text box
  - ☐ **New text:** Native Status is derived from the USDA PLANTS Database and is written in the format Region(Status). Regions are as follow: AK=Alaska, CAN=Canada, GL=Greenland, HI=Hawaii, L48=Lower 48 states, NA=North America (only non-vascular plants and lichens have Native Status given at this level), NAV=Navassa Island (the sole Caribbean member of the United States Minor Outlying Islands), PB=Pacific Basin excluding Hawaii, PR=Puerto Rico, SPM=St. Pierre and Miquelon (France), VI = U.S. Virgin Islands.
    Status within the region are as follows: (N) = Native, (I) = Introduced, (W) = Waif/Occasional. Question marks note probable status.
- ☐ Add recommended citation at the bottom: Recommended Citation: Singh, K., J. Salva, M. Fertakos, and B.A., Bradley. RISCC Tools: State-based regulated plant data viewer. URL: https://www.riscctools.org/regulatory-visualization/ , access date.
- ☐ Update compatibility with mobile phone use (the right side is hard to access), currently better in landscape mode than portrait

Additional things that would be nice to consider:

- ☐ How do we deal with and symbolize no data values?
- ☐ Is it possible to have the mapframe rescale to where the species is present/regulated (or default to a whole-US view)? When you reset filters it should zoom back out to the original extents (full CONUS)
- ☐ On the regulation map is there a way to see where species are present, regulated, and present AND regulated- or only regulated?'
- ☐ For Puerto Rico specifically when the list of states is re-set to "All" the PR remains highlighted, even when you select "reset filters"
- ☐ The underlying data for this tool should match this database (it might be slightly out of date). We can also link to this database for people who want more underlying information.

- [ ] Is it possible to have the map center the states where a species is regulated upon searching? So for a species that is widely regulated the map would just re-center, and for one that is only regulated in one state/region it would zoom? For example: *Cyperus asper* is only regulated in Rhode Island which is difficult to notice with the map centered.
- [ ] Download file names - if a state is selected the output filename should be [state]_regulated_invasive_plants_[date]. If a species is selected the output filename should be [Genus_species]_regulated_states_[date]

C-Snap

Home page - updated text:

Why native plants?

Native plants, defined as species historically found growing without human intervention in a given location, provide substantial ecological benefits including increasing the abundance of native birds and pollinators (*learn more here and here*). Native plants are also far less likely to cause ecological harm than species introduced from other continents (*learn more*).
Looking for sources of native plants? Try searching for vendors through directories here, here, here, or here. Or if you're looking specifically for nurseries that sell *only* native plants sourced from local/regional genotypes, find those here.

Plant selection tool - updated text:

Climate-Smart Plant Selection

How to Use This Tool

Select your state and desired site and plant characteristics below. Filter columns must match for plants to appear in results. Sorting columns add to the match score to help rank plants by preference. This tool is still under construction. Resulting lists may not be fully correct.

Match score: Each plant earns +1 point for matching a sorting preference. The score helps rank plants by how well they fit your desired characteristics.

Looking for sources of native plants? Try searching for vendors through directories here, here, here, or here. Or if you're looking specifically for nurseries that sell *only* native plants sourced from local/regional genotypes, find those here.

Plant Selection https://www.climatesmartnativeplants.org/plant-selection/

- [ ] Add recommended citation at the bottom: Recommended Citation:. C-SNaP Tools: Singh, K., M.E. Fertakos, T.W.M. Nuhfer, J.M. Allen, E.M. Beaury, B.A. Bradley,. Climate-smart native plant selection. URL: https://www.climatesmartnativeplants.org/plant-selection/, access date.
- [ ] In the same area as the recommended citation, add: This tool is based on the following publication: Fertakos, M.E., T.W.M. Nuhfer, E.M. Beaury, S. Birch, K. Singh, B.A. Bradley, C. Marshner, and J.M. Allen. 2026. The-climate smart gardening database: Native and near-native garden plants for the northeastern United States. Ecology.
- [ ] Remove the hardiness zone slider bar (it is confusing and we can sort by hardiness zone)
- [ ] For the 'wildlife services' column, I know this is one where you combined a bunch of -columns. It would be better to have NA instead of 'None' for those species which have no documented benefits. I don't want us to imply they have no benefits, when in reality this was just due to a data deficiency.
- [ ] **Change text:** Sorting columns re-order plants based on a match score without reducing the list, putting "best match" species first. Match Score: The match score represents how many of your sorting criteria a given species meets. A higher match score is a better match to your preferences
- [ ] **Change text** "Sorting Preferences (sorts by match score)" -> "Sorting Preferences (sorts by best match)"
- [ ] The bloom period ranges got changed to commas making it unclear that it is a range now, try to bring back the dashes (-)
- [ ] Downloading a PDF, the table is very cut off - change the default to landscape instead of portrait orientation and/or split across multiple pages?
- [ ] Is a clear all filters button easy? Maybe not necessary
- [ ] Tooltip for search button that clarifies it searches only filtered data and only visible columns
- [ ] Not a huge deal, but the spaces were removed after commas in a lot of the columns

Stuff we need to revisit and figure out how to address:

- [ ] Replace blank entries with NA, and it would be worth adding a description somewhere that NAs mean no data was available
- [ ] I'm not really sure how/if we should incorporate height. It's a single value for some species and a range for others.
- [ ] Change the hardiness zone slider to a single dropdown hardiness selection tool?

RISCCTools

Abundance Visualization

- Can coordinates be derived by a pin on the map, or geocode lookup, or zipcode, or ecoregion selected by clicking? I think having to look up coordinates is tough
    - Display all eco-regions to start, then click and select which eco-region you want for the table, then select a species
- For both: Make sure the zoom on the map has a max
- Ecoregion is limited to the state in which the coordinate is selected
- Points can be different colors based on abundance vs occurrence
- Not all points are showing (Occurrence data is clearly missing)
- Ecoregions are cut to state boundaries - This should not be the case (these should be based on EPA Level III ecoregions)
- Do we need raw scientific name? I think just having the cleaned names would be fine
- Define an abundant species somewhere?
- Choose a species should ideally be alphabetical

Text for top: This tool visualizes introduced plant occurrence and abundance (source Bradley et al. 2025 in Scholarworks) across the continental U.S. Occurrence data are sourced from EDDMapS (link), iMap invasives (link), and twelve other state and regional databases. All data points include information about qualitative abundance (e.g., high), percent cover (from 0-100%), and cover class (the average of a range of percent cover e.g., 3 is the mean of 1-5%). NAs indicate no information about abundance (we only know that the species is present). 'Species present' indicates that the species has been reported as present at either unknown or low abundance. 'Species abundant' indicates that the species has been reported as present with a qualitative abundance value of X, a reported percent cover >Y, or an average cover class >Z.

Older comments kept for posterity below C-Snap

Draft website: https://ngix-webpage-latest.onrender.com/

web domain: https://www.climatesmartnativeplants.org/
Access through Hover
login: Risccmanagement
pwd: !Invasi0n1

Comments from 11/25

In the works on Climate Smart Native plants:

- Info buttons
- Max height toggle
- Link to R2P2
- Funding acknowledgement
    - This tool was partially supported by the U.S. Geological Survey's Northeast Climate Adaptation Science Center through grants G23AC00614-00, G22AC00084-02, and G19AC00091 and NSF GRFP No. 1938059.
- Remove the slider and add it as a sorting variable 1-12 select your range (plants whose range dont include your zone are not included - do not match)
- Make match score a percent

Provenancing tools

- Set up meeting / email chain about shortening the data

Comments from 10/28

- Add an extra space before Why native plants? And Why climate-smart on the home page (the spacing looks a little tight to me)

-add caveat: “This tool is still under construction. Resulting lists may not be correct. Visit us again soon for the final version!”

-underlying dataset is incorrect (North Carolina should not be a state included), make sure number of species in the top right matches the number in the published resource here
-add height column back as a sorter

General Comments

- Check header on different screen sizes (the icon is cut off on my squarish computer screen)
- Consider having "for the Northeast" on a second line under "Climate Smart Native Plants"
- "Tools" menu tooltip text cuts off on the right side of my screen, may want to wrap tool names
- It would be so nice to have some photos / graphics on the site somewhere, thinking of Kabeera's nice native plant garden photos - anyone got pictures to share? Maybe our Belmont art collab eventually - yes!
- Can header & logo take you back to homepage?
- Add more information to footer, potentially? Contact info at least
- Change ‘About’ to ‘Contact Us’. Add a webform that will generate emails to risccmanagement@gmail.com with an email starting with C-SNAP: so that we can recognize them.
- At the top of the new ‘Contact Us’ page, add the following info: C-SNaP resources have been created by members of the Spatial Ecology Lab at the University of Massachusetts Amherst in collaboration with the Northeast Regional Invasive Species & Climate Change Network with support from the USGS Northeast Climate Adaptation Science Center.

Main Page / Information Resources

Information Resources page text edit:

A collection of research summaries, guides, and fact sheets to support climate-adapted restoration and gardening.

Add Seeds of Change (top of https://www.risccnetwork.org/research-to-practice)
Should we link out to other orgs? Jenica's NSN work in here somewhere - is there something to link? Link to RISCC, CASC, etc
Somewhere it should be stated these are NE RISCC resources (I know the image is on the R2P2s but they are small)
Do we want to add research summary links?
Could link to:
https://www.risccnetwork.org/research-summaries?category=Assisted%20Migration%20and%20Climate-Smart%20Restoration

Can you create links to pop into a new tab instead of taking you from the website?

Add RISCC and NE CASC logos to the bottom of each of the pages?

- Logo feels too tight to the top of the screen; make spacing even between the top and the green line under the menus?
- “Why climate-smart?” and “Why native plants?” headers should be spaced closer to their associated text than the paragraph above
- Feels a little odd that “Welcome to Climate-Smart Native Plant Tools” doesn’t have punctuation at the end, but the following sections do; maybe add an exclamation point?

Selection Tool

- **Add disclaimer about the data not being final**
- Metadata when mousing over filter categories would be helpful
- Definition of ‘match score’ is needed +1
- "Plants with a higher match score meet more of your sorting criteria. Sort by match score to see best -> worst match" (or something)
- Should match scores of zero not be included while doing filter?
- The hardiness zone range for some reason is not doing what I expect and I can't exactly tell how it's working. Doesn't it make sense to have a single hardiness zone (your own)? Some direction of how to use this might be helpful.
- "Sorting Preference s (match score)" - maybe change to "Sorting Preferences (sorts by best match)"
- PDF export looks good! It defaults to being called "pdf.pdf" - maybe this name could be changed to plant list or something? Same with xlsx and csv
- Number of rows does not match the amount in the resource
- Height column in sorting preferences

Provenancing Tool

- Click and drag was really sensitive on my computer and sent me way farther than it seems like it should have
- The legend text for the maps is very small
- Should #5 (select plant growth habits of interest) be all deselected so people can pick what they want versus having them all selected upon first view?
- The “How to Use This Tool” section says “current and future climate conditions”, while the “Choose climate scenario” drop-down uses “contemporary”. Maybe should be the same word to minimize confusion?
- Should a metadata tab be populated when you download map data as a csv?
    - That would be ideal - or populating a readme line at the top of the csv reporting what the selection was
- Is it possible to scroll through the menu/selection separately from scrolling through the map displays?
- Hyperlink journal citation to Petri
- 1) Input the coordinates of your focal site. (Amherst Massachusetts is -72.5 longitude and 42.4 latitude; look yours up here)
- This seems pretty navigable by tab, which I'm impressed by! It's good for accessibility and I wasn't expecting it

Past Comments

General comments:

Can we maintain color from the main page on the app pages and also on a (new) resources page? Change to the green color of the climate-smart native plant selection tool.

Everything takes a while to load - is that just a render site thing? If not, we need to add in a caveat on the home page that folks need to be patient while the sites load.
I keep getting disconnected from the server - is that also a render site thing?

We could host two listening sessions or focus groups to beta test each tool. Could use a listserv announcement with a google form sign up vs an 'everyone is invited' approach, which could be hard to facilitate in a short time frame.

Comments for the main page:

(TODO: Update Logo)

Climate-Smart Native Plants for the Northeast

Home
Informational Resources
Tools
- Climate-Smart Plant Selection Tool
- Climate-Adjusted Provenancing Tool
About

Welcome to Climate-Smart Native Plant Tools (cSNaP tools)

This website aims to serve restoration ecologists, landscape professionals, and home gardeners interested in identifying and locating plants that support ecosystem function and are likely to persist with climate change. Our tools focus on the northeastern U.S. from Kentucky to

Maine with informational resources that may be relevant more broadly. Our work is led by members of the Spatial Ecology Lab at the University of Massachusetts Amherst in collaboration with the Northeast Regional Invasive Species & Climate Change Network with support from the USGS Northeast Climate Adaptation Science Center.

Why native plants?

Native plants, defined as species historically found growing without human intervention in a given location, provide substantial ecological benefits including increasing the abundance of native birds and pollinators (*learn more here and here*). Native plants are also far less likely to cause ecological harm than species introduced from other continents (*learn more*).

Why climate-smart?

On their own, native species are moving much too slowly to 'keep up' with the rapid pace of climate change (*learn more*). To build ecological resilience to climate change, ecologists have suggested use of warm-adapted genotypes over local genotypes and planting warm-adapted plants beyond the margins of their historical ranges (*learn more*).

I'm thinking about future expansion and the structure of the home page. Perhaps the two buttons should be boxes labeled 'Tools' and 'Informational Resources' that link to two landing pages with a similar structure to the home page. The buttons on those pages could be as below for 'tools' and 'Research to Practice Papers' and 'Research Summaries'(?) for the 'informational resources'. This leaves room for expansion of tools and brings informational resources to the home page.

Climate-Smart Plant Selection Tool

Discover climate-smart plants suitable for your state and hardiness zone. Filter by plant characteristics, growth requirements, and climate tolerance to find species that will thrive in your local conditions now and under future climate conditions.

Climate-Adjusted Provenancing Tool

Identify potential seed sources for a restoration project. This tool identifies potential seed or plant sourcing locations for target native species based on current and future climate projections at a user-defined location. It also identifies plant species of multiple functional types likely to occur there as climate warms.

Comments for the climate-adjusted provenancing tool:

Welcome to the Climate Adjusted Provenancing Tool. Use this tool to (1) map sites where vegetation composition has been measured and that correspond to the current and/or future climate conditions of your location and (2) identify species by growth form within the mapped sites. This tool can be used to inform native seed collected for restoration using a climate-adjusted provenancing approach (*learn more*). The data underlying this product come from Petri et al. 2022
(Metadata and additional information about this tool can be found here.)

Add suggested citation (there's room on left side under the download section).

Any way to click the map to input coordinates? I had to use google maps to find them.

I struggled to get the tool to work. I looked up coordinates in Google Maps, entered them, and saw the map starting to update. In some cases, it seemed to finish loading, and the blue pin stayed at the default location. The map then continued to reload even though I wasn't interacting with the tool or that browser window at all. In some instances the 'climate projections' box returned -Inf values, but then the map would spontaneously reload, the climate projections box would grey out while the map was loading, and then I'd get numeric values.

The barplot (4) was not clickable, so map 2 was a blank space.

I (BB) think that we should delete all FIA plots from this dataset because they are not the correct locations (fuzzed and swapped locations). Kabeera - double check with Dan.

Rather than pre-populating a site location, can we combine boxes 1-3 into a single that fills left to right (below the description text)? Put what was formerly 1-2 at the top and make an 'apply' button (so that the tool doesn't have to spend time loading data at the start)?

1) Input the coordinates of your focal site. (Amherst Massachusetts is -72.5 longitude and 42.4 latitude; look yours up here)
2) Select the climate scenario (current vs. future) and variable (temperature or water deficit) you'd like to use to find reference sites
Select climate scenario (*learn more*)
Select a climate variable

In terms of usability, it'd be easier to have the map (and bar plot, if it fits) visible on one screen, as the top results, with the tables below, or to the side as Bethany suggested.

Map of potential sources of seed for restoration. Mapped sites are ones where vegetation composition has been measured and that correspond to the climate scenario and variable(s) selected for your focal site. If both temperature and water deficit variables are selected, the map displays only the temperature gradient.

Map 1: Click on any points to access additional information about the vegetation plot. Large datasets are loaded progressively.

Change the color scale of the map to be graduated color (two color gradient not diverging) from light red (cooler) to dark red (hotter) for temperature and from light blue (higher water deficit, drier) to dark blue (lower water deficit, wetter). If both temperature and water deficit are selected as predictors, just display temperature.

The download data for the map isn't useful at the moment because it includes a lot of duplicate rows (these rows were formerly associated with different species). Instead, we need a look up table of plots with this information as well as the top 10 species found at that site and maybe the L3 ecoregion and collector? That should make the output more directly useful for practice. Ask Dan to do this?

5) Identify common species within the mapped sites and subset based on growth habit. The bar chart below shows the 30 most common species of the selected growth habits found at the mapped sites above. Click on the bars to see the total and climate-adjusted ranges of the target species on the map below.

The bar chart labels run together - specify that it be taller than it currently is so they are legible.

Data from Map 2 is what we want to provide with a download button (plotid, species name, lat, lon, relative cover, AND whether the location is within the climate-adjusted range)

Comments for the climate-smart plant selection tool:

We were once able to see min and max hardiness zone (for the plant), I think - is that functionality still there?

There are some repeats due to inconsistent capitalization - see "Part shade" and "Part Shade". I don't know if "Shade" should pull up all descriptions that contain the word shade? Also, there are some synonymous terms (from using multiple data sources) that we can clean up (e.g., Full sun and Sun are the same)

I don't know what's going on under the hood, but I really appreciate the 'soil type' and propagation' filters. I know those are messy and inconsistent text fields. I also am interested in how this happened it looks great!

Can it be possible to scroll sideways? I can't see all my columns

I'd like a user to be able to see all of the associated data with a species on the results list, not just the attributes used to filter the list. As a potential user, I have certain criteria that must be met for selecting a species (e.g., sun, moisture) but I still care secondarily about bloom color, bloom time, etc. That would also mean that the downloads include all of that info.

PDF download: Swap the blue to green to match the site color palette and italicize scientific names if possible. If my suggestion above to return all data fields is implemented, will need to change to landscape orientation too.

We talked about having the option to choose either best-match or a full filter - is that still in the works? (Matt:) I still think a best fit should be the default because otherwise its hard to know where the threshold is of plants that are no longer suitable if they are all listed just ranked

When the tool loads, it should default to having no boxes checked - this will show all plants with a match score of 0

My preference is to have the characteristics filters collapsed when you load the tool, then have the user expand the ones they want.

Can the left filter panel be longer so that it matches the length of the right hand results table? A longer panel would require less scrolling in the filters. +1

Can we add a column that has bloom period length (number of months)? I think we might have had this before, but either way it should be easy to add

It's more intuitive to have the Bloom Period returned with a dash than a comma. For example: June - August vs June, August. If the dash is technically problematic, splitting into two columns would be better (Bloom Start, Bloom End).

It would be best if bloom period months were in chronological order, soil and sun values in ordinal order (wet -> dry, sun -> shade) and so on. Also, alphabetical order for nominal variables (e.g., soil type).
Remove ‘Not applicable’ as an option from Color.

Should be able to click garden aggressive "no" (or NA) - more useful than "yes"

We have some inconsistencies in how growth habit is provided. For example: annual, biennial herb, perennial herb, herb, and perennial are all herbaceous plants, some of which have life cycle included. Also, some shrubs and tree have evergreen or deciduous and others don’t. These are artifacts of the input datasets, but seems like we could clean it up to be more user friendly/filterable to three columns: growth form (herb, shrub, tree, vine, grass, fern), life cycle (annual, biennial, perennial), and evergreen/deciduous (evergreen, deciduous, NA)

Maybe not possible, but it’s be cleaner to have a filter called ‘Ecological Services’ and then have boxes to check for ‘bird’, ‘mammal’, ‘insect’, ‘reptile/amphibian’, ‘pollinators’ where checking the box means ==’yes’ under the hood.

If feasible, use ‘near-native’ instead of near native (I know that it’s not hyphenated in the dataset, but we used the hyphen in the R2P2)

Add a box at the bottom for suggested citation and a reference to the R2P2. If we decide to include this on the nursery natives grant reporting, we’ll also need to add the USGS logo per the funding acknowledgement agreement.

- Suggested Citation: Fertakos, M.E., T.W.M. Nuhfer, E.M. Beaury, K. Singh, M. Brinka, S. Birch, C. Marschner, B.A. Bradley, and J.M. Allen. 2025. Climate-Smart Plant Selection Tool. Climate-Smart Native Plants, Amherst, MA. URL: ADD LINK. Accessed [ADD ACCESS DATE].
- This tool is based on data from: Fertakos, M.E., T.W.M. Nuhfer, E.M. Beaury, K. Singh, M. Brinka, S. Birch, C. Marschner, B.A. Bradley, and J.M. Allen. 2025. Climate-Smart Gardening 2.0: Plants to Promote Climate Adaptation. Northeast Regional Invasive Species and Climate Change Management Network Research to Practice, Amherst, MA. DOI: https://doi.org/10.7275/8164.
- Last updated: Add date

Climate-Smart Plant Selection

Find native and near-native plants for your current and future local conditions

How to Use This Tool

Select your state and desired site and plant characteristics below. The tool will generate a list of native and near-native plants likely to survive both current and future climate conditions. The plant list will be sorted based on a "best match" with the selection criteria you input. Plants with a higher "match score" meet more of your selection criteria. If you select five criteria, a plant with a match score of 5 is a perfect match.

Does ‘hardiness zone’ mean current hardiness zone? If so, change to ‘current hardiness zone’ and add link to https://planthardiness.ars.usda.gov/

If I only select the state, it consistently returns that there are 88 matches. When I download this set (with nothing selected) it returns shrubs. I think there are some filters with defaults that there shouldn't be.

The counter in the upper right (n plants found) doesn’t match the number returned when I download the csv

I think just a csv and pdf outputs are fine - no need for excel since it’s easy to open a csv in excel.

Update the download file names to something more relevant than just “csv”. Maybe “CSN_DownloadDate”?

It looks like the tool only returns the columns with a selection. I think it makes sense to always return all of the columns - still good information to have. +1

Sometimes the download includes only species with the highest matching scores (e.g., 2-3) and sometimes it includes all species (including match scores of 0). Need to double check for internal consistency.

In the download, it would be good to have some information about what the focal state was as well as all of the other selection criteria (otherwise hard to remember/recreate). Possible to include that in the first row of the CSV and as the header of the pdf?

I’d like to have a ‘clear all’ button next to the plant characteristics list

If it is possible to highlight the columns that match the selected criteria that might be helpful. Right now the static score doesn’t tell me about which criteria actually match. Also we need to make clear that this filters to best matches, not exact

matches (If I want a red evergreen for example a list will still appear but there are no red evergreens)

OLDER COMMENTS SAVED FOR POSTERITY

5/22/25 - Update to shiny app UI (note that the download options do not work properly yet)

5/15/25
This looks fantastic!!

Once we're in the tools, can we keep the headers so that it's easier to move back to the main page and/or to other tools?

- *I can not keep the same header, but I can add a button to take the user back to the main page.*

Climate resilient plants:
Can we make the hardiness zone a drop down that's only available hardiness zones within the selected state? (e.g., Mass would only have the options for 5,6?)

- *Yes, will work on this*

Climate resilient plant list still shows the total number in the state even if you subset it based on the selection criteria. Can we get the list to just show the selected species (and the number of selected species)? +1

- *Thomas' selection criteria only removes plants that are not in the correct hardiness zone. We should discuss how the plant list gets subset*

Can we make a download button?

- *Yes, working on this*

The data should be finalized now! Many of these columns were removed.

Can we default to more than 10 entries shown?

If you select one of the categories on the left, it would be helpful if the dropdown automatically shows up for further selection.

I think the tool should be green :)

Would it be possible for people to type in their address and it automatically selects the appropriate state list and hardiness zone?

Dan's Comments for App 2:

We are thinking of calling this tool the "Climate-Adjusted Provenancing Tool"

"This tool matches vegetation plots from a large database of vegetation survey plots to a user-determined location based on current and future climate projections, and identifies plant species of multiple functional-types likely to occur there as climate warms."

Is App 1 going to have a readme/instructions? Should we add a section of the main page for documentation for each app?

Question for the group: Is there a place we should make some kind of author attribution?

Jenica's stream of consciousness:
Landing page layout looks really nice!

Landing page: instead of apps at the top, could the headers be conceptual (e.g., 'Gardening', 'Restoration')? I'm thinking about future expansion and can envision multiple products that we'd want to add to the page. With shorter headers we also keep some room to expand to other thematic areas.

For general discussion:

- *Do we want this new site to house only tools, or multiple types of resources that are native plant related?*
- *What is the branding (RISCC? NE RISCC? Spatial Ecology Lab? All of the above?)? I could see other orgs wanting to partner with us as this gains traction. Would we possibly want that? If yes, leave some space to co-brand.*

Climate resilient plants:

- *I'm excited to revisit this tool now that the R2P2 is done.*
- *Looks like the list of attributes is from an earlier iteration of climate-smart gardening dataset. Be sure to update the published dataset.*
- *I really appreciate that the list-based attributes (e.g., bloom color) are broken out in the selection pane.*
- *We need to think through how to present species based on future suitability. We could simply ask for state input and return the list of species on that state's list that match the selected attributes (always return the climate category). Or we could do something more sophisticated and ask users to input current and future hardiness zones, then have some code under the hood that pulls from the state list to match those criteria.*
- *Not everyone will know their current hardiness zone and likely won't know future ones. We could link out to the Davey tool for people to get that info. A little risky though, since the tool could disappear at any time. If we only need current zone, could use USDA, though these days I'm not sure of government websites are more reliably stable.*
- *Remove the periods and replace with spaces in attribute names and Species List pane*
- *Would it be feasible to add another user selection that asks if they want to match all selected criteria vs some?*
- *Add a download button*
- *The list of attributes ends up being very long. Is it possible to make it a 2-column format within the pane?*
- *Add info about the climate-smart gardening R2P2 and recommended citation.*
- *Update tool name to align with R2P2*