

WSSA Standing Committee Report

Committee Name and Code: P23

Committee Chair: Theresa Piskáčková

Committee Members (includes sub-committee members): Committee composition can be found at (<u>WSSA Committee Roster</u>). Lauren Lazaro, Joan Campbell, Karla Gage, Eugene Law, Chris Taliga

Board of Directors Liaison: Andrew Howell

Committee members rotating off and recommended replacements:

Lauren Lazaro and Joan Campbell are due to rotate off this year, if they choose. Joan has agreed to stay on the committee for another term.

We already have commitment from Junjun Ou and Ruby Tiwari to join the committee. Sara Martin is also recommended from Canada, but has not confirmed. We are open to more members.

Summary of past year's activities including:

- Committee completed goals for 2024 were:
 - Finalized and submitted paper summarizing the common name review completed, accepted, and accessible here DOI:<u>10.1017/wsc.2024.35</u>
 Reinhardt Piskáčková T, Gage KL, Law EP, Schwartz-Lazaro LM, Campbell JM, Taliga C. How are weeds named? A committee review of the WSSA composite list of names. *Weed Science*. 2024;72(5):433-443.
 - O Completed review of scientific names- Of the entire WSSA list, only 113 plant scientific names differed between USDA database and WSSA list. Decision of the committee is that the most up to date name should be used, regardless of the match with USDA. Six names listed below the report are suggested to be updated on our WSSA list. Explanation of the process and decision is elaborated in the next section.
- Current state of the committee's projects or activities?
 - Full list has been reviewed for common and scientific names. Now our strategy will be to maintain the updates for scientific names as we see taxonomic updates, continue to work with USDA to provide relevant information to their database, and review status of plants that are on the list.

• Summary Committee Discussions and Decisions

- O Currently, USDA Plants database is the naming authority instructed for authors publishing in the WSSA journals. The P23 committee was tasked to harmonize our existing Composite List of Weeds with this USDA database beginning in 2020. Last year we finalized the updates to the common names, conserving our own names in most cases and only updating the spelling of some. Commentary on this process is now available in the paper which the committee published in Weed Science this year, mentioned above.
- The reviewed WSSA common names which differed from PLANTS were all sent to the USDA in March 2024 to be added as searchable, alternative common names in their database. As of January 2025, we are still waiting for those names to be added.
- In the modern age of internet databases where expert taxonomists are maintaining comprehensive lists of species in many locations, it may seem redundant for the volunteers of WSSA to maintain a small list of a few thousand plants. Outsourcing our list to USDA may have seemed like a logical choice given that we are a discipline arising from agriculture and primarily based in the United States; however, over the course of this review, the members of our committee have come to realize
 - 1) the WSSA list of common names is a list with imbued meaning to the members of our discipline and the regional farmers and homeowners who recognize them as such. Discussions with representatives of the USDA did not encourage us to standardize common names with theirs, but to add our names to their database for better searchability among the public. (and to keep our own names as much as possible)
 - 2) A list of less than 3000 species handled by a small committee is a strength of the list to react quickly to taxonomic updates where-ever they are posted. As our committee came to understand the process for updating taxonomy on these large databases, USDA Plants included, it was clear that there was not a single comprehensive database which could reliably have the most up to date name on every plant, although all of the best databases will cite the date which each name was most recently reviewed.
- In our discussion of the scientific names we looked at USDA's procedure for reviewing names. We learned that USDA taxonomists tend to follow the same procedure as the Flora of North America (FNA), but that they will look at many primary sources for their final decision. We also looked at other databases such as Plants of the World Online (POWO), World Flora Online (WFO), the International Plant Names Index, (IPNI) and the Taxonomic Name Resolution Service (TNRS). Testing with a list of our most familiar weed names, we found that TNRS tended to use sources of WFO and POWO and the IPNI just linked to the opinions of POWO and WFO. In most cases POWO and WFO were similar and FNA and USDA were sometimes different. Each database is always in some state of review and update, so no single database can be the most up to date name on every plant. As an example, the FNA has been updating their volumes of names for more than 20 years, some of the reviewed volumes contain names that could already have a new taxonomic opinion. Especially, a new genetic understanding of a plant which may affect the naming of several related species can be published quickly, but the update to each database may take considerable time depending on the backload of other species to review.
- O Therefore, it was decided that where WSSA scientific names did not currently match with the USDA name, we would review the accepted name for that species in at least two other databases: Flora of North America (which USDA Plants tends to follow, but not always and based on their own schedule of updating names), and Kew Garden's Plants of the World Online. Both databases provide good notes on the sources they used for the current accepted names.

O Beginning with the 113 scientific names which were not a match between WSSA and USDA, 27 names were found to be 'in line' for updates by USDA and decided no action was needed now. 57 names were up to date with FNA and POWO and also decided that no action was needed now. 23 names matched the POWO but not FNA or USDA. These names were further reviewed on each site to check the date on the last decision. 6 scientific names on the WSSA list were different from all databases and were determined that they should be updated immediately. These names are listed at the end of this report.

• Any new information posted on the WSSA website?

- The updated list of common names, as approved at the annual meeting in 2023, was uploaded to the new version of the website.
- We did add text to the Composite List of Weeds page that states "Please note: Not all plants included on the list are weedy in all environments and **common crop plants and tree species are also included** in the list."
- The committee recognizes that calling this the "Composite List of Weeds" is misleading, especially to outsiders. This was further emphasized when members of the committee were contacted by researchers who wanted to use the list as a list of plants that are weedy 'somewhere' and pointed out that the list has already been used this way.
 - Van Etten ML, Conner JK, Chang SM, Baucom RS. Not all weeds are created equal: A database approach uncovers differences in the sexual system of native and introduced weeds. Ecol Evol. 2017 Mar 18;7(8):2636-2642. doi: 10.1002/ece3.2820. PMID: 28428854; PMCID: PMC5395434
- O We cannot say that this is true of every plant on the list since we know that we have crop plants. The earliest versions of the list were not called as a list of 'weeds' and even early on in the history of the list, it was separated into herbaceous, aquatic, and woody plants. The distinction between different sections of the list seems to have fallen away when the list was digitized and the name "Composite List of Weeds" was only a shorthand that was immortalized in the website over time. We would like to rename the list to try to avoid this confusion. Perhaps "List of Plants" or "WSSA Plant Names Reference" would be more appropriate.
- True to the original intent of the list, we do not think that names need to necessarily be taken off of the list, but based on conversations with USDA, its possible that we should consider adding a distinction to plants that are endangered or important for conservation. A list of such plants that we have come across when reviewing has already been started, but we are not ready to implement such a distinction across the entire list on the website right now.
- It should be noted that currently, when searching the website for 'weed list', the page for Composite List of Weeds does not come up at all. The top three searches are for job positions and the second two are for the excel file of our list, under two names. (See screenshot below suggested names table)

Summary of plans for next year (changes in goals, key initiatives, plan of action, etc.):

In effort to maintain this list for our members and authors as a most up to date naming source, we should continue to look for names that need to be changed or even added to the list. It would also be good to include the information on the possible conservation status of plants which are not universally weedy, or other possible disclaimers for use.

Recommendations for Board or Membership action (funds¹ or other requests):

- Accept the list we put forth to update the scientific names.
- Approve a change to the name of the list as promoted on the website. Possible 'Composite List of Plant Names'
- Suggestion to Publications to use the scientific names according to our WSSA list rather than USDA plants, as our international communication and rules for authors should be most up to date for the species we work with (at most, a couple thousand) and not necessarily reliant on the tedious review of millions of plants which can take decades to update.

WSSA funds requested if any?

O none

¹If requesting funds, please fill out the WSSA Project Proposal Form and submit at the same time as the WSSA Committee Report.

WSSAcommonNa me2023*	WSSAfullsciname	USDAComName	USDA Scientific Name with Authority	Plants of the World Accepted	Flora of North America	Suggested Change
lesser celandine	Ficaria verna Huds.	fig buttercup	Ranunculus ficaria L.	Ranunculus ficaria L.	Ranunculus ficaria Linnaeus	Ranunculus ficaria Linnaeus
three toothed cinquefoil	Potentilla tridentata Aiton	shrubby fivefingers	Sibbaldiopsis tridentata (Aiton) Rydb.	Sibbaldiopsis tridentata (Aiton) Rydb.	Sibbaldiopsis tridentata (Aiton) Rydb.	Sibbaldiopsis tridentata (Aiton) Rydb.
largefruit dodder	Cuscuta umbrosa Beyr. ex Hook.	scaldweed	Cuscuta gronovii Willd. ex Schult.	Cuscuta gronovii var. <i>curta</i> Engelm.	Cuscuta gronovii Willd. ex Schult.	Cuscuta gronovii Willd. ex Schult.
bush cinquefoil	Dasiphora floribunda (Pursh) Raf.	shrubby cinquefoil	Dasiphora fruticosa (L.) Rydb.	Dasiphora fruticosa var. fructicosa (L.) Rydb.	Dasiphora fruticosa (L.) Rydb.	Dasiphora fruticosa (L.) Rydb.
white-flowered spiderwort	Tradescantia albiflora Kunth	small-leaf spiderwort	Tradescantia fluminensis Vell.	Tradescantia fluminensis Vell.	Tradescantia fluminensis Vell.	Tradescantia fluminensis Vell.
yellow-rattle	Rhinanthus crista- galli L.	little yellow rattle	Rhinanthus minor L. ssp. minor	Rhinanthus minor ssp minor L.	Rhinanthus minor L. ssp. minor	Rhinanthus minor L. ssp. minor

List of plants suggested to update the WSSA to match USDA, POWO, and FNA.

*common names are not changing as of this review

Search Results for: weed list

Posted: February 11, 2025

Assistant/Associate Professor - Extension Weed and Brush Specialist

This position includes responsibilities in Extension, research, and service. The successful candidate will develop and deliver extension and outreach programs addressing critical issues and challenges related to New Mexico's rangelands,

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Posted: February 7, 2025

Assistant/Associate Professor - Extension Weed and Brush Specialist

This position includes responsibilities in Extension, research, and service. The successful candidate will develop and deliver extension and outreach programs addressing critical issues and challenges related to New Mexico's rangelands,

... more

Posted: October 23, 2024

Assistant Professor, Extension Weed Specialist: Soybean and Small Grains

The Department of Crop and Soil Sciences is seeking an Extension Weed Specialist at the level of tenure track Assistant Professor. The incumbent will be an integral,

... more

Posted: August 14, 2024 WSSA_Composite List of Weeds_2023

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