Guide for Contributors

Version 9
Updated 17 October 2016

The Flora of Oregon, upon completion, will comprise three volumes detailing approximately 4600 taxa at the level of species and below. This flora will accommodate the diverse backgrounds of its intended users; it should be accessible to students, biological consultants, instructors, and both amateur and professional botanists.

Taxa to include in treatment

All contributors will be provided with a current checklist of taxa for the group being treated. Checklists have been compiled by contributors and reflect their understanding of the group based on annotated herbarium specimens or documentation provided in reputable published sources, such as taxonomic monographs. The Checklist is currently comprised of:

- All extant native taxa;
- Native taxa thought to have gone extinct in Oregon in historical times;
- Intraspecific hybrids that are frequent or self-maintaining;
- Naturalized, exotic, cultivated, or weedy taxa;
- Infrequently collected exotic taxa (e.g., ballast plants);
- Unnamed taxa in process of being described.

Treatments should include full descriptions and dichotomous keys to each taxon with the exception of infrequently collected exotic taxa. Taxa such as ballast plants, waifs, and single or rarely collected exotics should be mentioned in the genus discussion paragraphs in order to inform readers of their existence; however, full descriptions are not required.

Any changes a contributor makes to the Checklist, as a result of a treatment preparation (i.e. changes in synonymy) should be submitted to the Oregon Flora Project with the completed treatment. For further information on the Checklist see: http://www.oregonflora.org/checklist.php
General philosophy of treatments

The primary goal of *The Flora of Oregon* is to provide a guide for the identification of plants of this state by both professional and amateur botanists. Keys and descriptions should emphasize readily determined features most frequently present. **Treatments should be synoptic not monographic.** Additionally, treatments should be diagnostic, descriptive, and succinct.

Cryptic taxa

Contributors should exercise caution in formally recognizing cryptic taxa and reserve recognized status for taxa that are biologically meaningful. Taxa that do not differ in any readily determined morphological characteristics but that do differ consistently in geography and/or ecology may be separated (on the basis of such differences) in the keys; **those that differ only in molecular, chemical, cytological, physiological, or other non-morphological data should not be so separated.** The latter can, however, at the discretion of the contributor, be mentioned in the discussion paragraphs following descriptions of other taxa.

Hybrids

Treatments should not include rarely occurring hybrids and those that are functionally sterile, interspecific hybrid swarms, introgressant (i.e., extensively backcrossed) populations, or populations formed in hybrid zones between subspecies or varieties of a particular species (i.e., intra-specific hybrids). **Mention of occasional or interesting hybridizations should be included in the discussion paragraphs following both parental taxa.**

Unnamed taxa

Some Oregon taxa are widely known to botanists in Oregon but have not yet been formally described. Among these are rare taxa with unpublished names (*nomina nuda*) that have been cited in various rare plant lists, popular guides, and rare plant status reports. Some undescribed taxa may not generally be known to the botanical community but are known to contributors. If contributors are aware of undescribed taxa, please include them in the manuscript, with or without a proposed epithet. However, to be included in the Flora, a **taxon must be validly published or submitted for publication at the time the Flora goes to press.**

Infraspecific taxa

**Quadrinomials will not be included in the Flora.** For some genera, the infraspecific rank may have to be listed at the varietal level under some species and at the subspecific level under others or rarely both due to inconsistencies in taxonomic treatments in standard literature for the genus. Contributors are encouraged to rectify these inconsistencies.
Instructions for treatments

Treatments should follow the sequence of:

Family (if included in treatment)
- Family name
- Common name
- Morphologic description (see minimum characters for descriptions below)
- Distribution (and habitat if appropriate)
- Number of genera worldwide
- Number of genera with full descriptions in the Flora (omit if all genera have full descriptions in the Flora)
- Discussion paragraph
- Key to genera

Genera (in alphabetical order)
- Genus name
- Common name
- Morphologic description (see minimum characters for descriptions below)
- Distribution (and habitat if appropriate)
- Number of species worldwide
- Number of species with full descriptions in the Flora (omit if all species have full descriptions in the Flora)
- Discussion paragraph
- Key to species

In the key to species, include only infraspecific taxa that occur in Oregon.

Species (in alphabetical order)
- Species name
- Species authority
- Common name
- Morphologic description (see minimum characters for descriptions below)
- Habitat (exclude if two or more infraspecific taxa will be treated)
- Range (exclude if two or more infraspecific taxa will be treated)
- Status indicator for nativity (omit if including infraspecific key)
- Number of infraspecific taxa
- Number of infraspecific taxa with full description in the Flora (omit if all infraspecific taxa have full description in the Flora)
- Discussion paragraph
- Key to infraspecific taxa

If the species being treated is comprised of infraspecific taxa and only one subspecies or variety occurs in Oregon, treat the infraspecific taxon as a “species.” for purposes of the description and within the generic key to species. Separate species and infraspecific descriptions and keys are not necessary.
Infraspecific taxa (in alphabetical order)

- Name
- Authority
- Common name
- Morphologic description
- Habitat
- Range
- Status indicator
- Discussion paragraph

The morphologic descriptions of infraspecific taxa can be abbreviated and need only include those characters specific to the subspecies or variety.

Authorities

Authorities should be listed for species, subspecies, and varieties only. Full authority names should be used (not abbreviated). Authorities are given for both species and infraspecific taxa (unless it is an autonym) in the accompanying Checklist provided to contributors. Authors not included in the Checklist or Authors of Plant Names should be spelled out fully as they appear in the original publication or other sources.

Common names

Common names for most taxa are included in the Checklist. These names have been gathered from various sources and may be accepted or rejected by contributors. Contributors may change, or create common names if they do not exist.

Number of species or infraspecific taxa

The total number of species should be separated from the number treated in the Flora by a semicolon. The number listed as treated in the Flora should equal the number of taxa with full descriptions. Do not include taxa that are merely mentioned in the discussion paragraphs (i.e. waifs, taxa that may be found in the future).
Taxon Morphologic Description

Overview

If a character is uniform for all members in a higher rank (e.g., family), it is not necessary to repeat them in the members of the lower rank (e.g., genus). For example: if the character, persistence (perennial, in this case), is used in the genus description of Abies, it is unnecessary to repeat the persistence within the description of each Abies species.

The following are characters most often used in descriptions, in the order that they should be presented, although it is up to the treatment author to determine which of these characters to include. Major structures are bolded in the list below and also in the treatments; Sub-parts are listed after/below major structure to which they belong and should not be bolded, but are separated by semicolons. Each sub-part is generally a discrete organ (like stamens, roots, bark, stipules) or a unique aspect of a major structure.

Plants/Growth form persistence, habit; roots and other underground parts. Stems general; trunks; bark; wood; branches, shoots; twigs. Buds general. Leaves arrangement; architecture; leaf blade shape, length, width, bases, margins, tips, surface; petioles; stipules. Scape persistence, quantity, habit, pith description, shape in cross section, length, width. Inflorescences position; type; peduncle; branches; bracts; flower types; pedicel (if applicable). Flowers sex distribution pattern (e.g., apomictic); receptacle and hypanthia; perianth (tepals) or calyx number, shape, length, width, color, other characteristics; corolla (petals) number, shape, length, width, color, other characteristics; corona; glands and/or discs; androecia (at flowering); ovary position, number of ovaries (or carpels if united), number of styles, number of stigmas, type of stigma, placentation, position of ovules; gynoecia (at flowering). Fruits type; aggregation of or division within fruit; shape, length, width, color, texture, external structures; accessory structures; multiple fruit structure. Seeds number, shape, length, width, color, texture, external structures, internal anatomy; germination, abortion; endosperm. 2n= #.

All character descriptions (including those within family and genus descriptions) should be specific to Oregon. For example: if a species is 1–3 meters in height within its entire range (Washington to California), yet its range in height is 1.5–2.5 meters within Oregon, use the latter range in the description.

Contributors should keep morphological descriptions succinct (ideally fewer than 1000 characters including spaces; however, it is understood that longer descriptions may be required for some taxa).

Contributors are asked to use a minimum of technical language in descriptions (using common English equivalents in place of Latin or Latinized terminology.) However, contributors may, and are encouraged to, use Latin terms in cases where such technical distinctions are necessary.
Numbers, symbols, and abbreviations

Use the following conventions for numbers, symbols, and abbreviations:

- Numerals should be used in descriptions (e.g., 2 stamens, 3-sided). Numbers in discussion should be written out up through twelve (e.g. two traits, twelve species, 50 cm)
- Use metric measurements at the appropriate scale (e.g., 1–3 mm rather than 0.1–0.3 cm.) Unless impractical, use the same unit of measure for the same structure for all species within a genus (i.e., if height is given in cm in one species, give it in cm for all species in the genus.).
- Give fractions from smaller to larger.
- Omit the following decimal place for whole numbers: 2.5–3 mm not 2.5–3.0 mm.
- Fractions should be single characters whenever possible (e.g., ¼ not 1/4).
- Separate range numbers with a single en dash ‘–’ (ASCII code 0150; hold down the Alt button as you type 0150) and no spaces. The en dash is slightly longer than a regular hyphen (-).
- Note extreme limits of measurements or counts in parentheses: leaves (1)2–4 mm; petals 4(5).
- Number ranges should not have hyphens or dashes within parentheses nor spaces between parenthesis and main range [e.g., (1)2–5(6) not (1-) 2–5 (-6)].
- Whenever possible, use numerical ranges and not adjectives: “flowers 100–150” or “flowers approximately 150” not “flowers numerous;” “plants 70–90 cm” not “plants tall.”
- Size ranges should be given as [length] × [width] (e.g., 2–4 × 1–2 mm or 3.5 cm × 2.1 mm) without the words “long” and “wide” (e.g. 2–4 mm long by 1–2 mm wide). If length and width are given in the same units, it is only necessary to spell out the unit after the width.
- Size comparisons should be in percentages rather than fractions or decimals (e.g., 50–75% larger).
- Use a multiplication symbol ‘×’ (ASCII code 0215; hold down the Alt button as you type 0215) and not the letter ‘x’.
- With the exception of units of measurement (e.g., mm, cm, ssp., var.) do not abbreviate any words.
- Subspecies should be abbreviated as ssp. in names rather than subsp.
- Do not use any symbols (e.g., >, =, ±). Instead, use the appropriate words (e.g., greater than, equal to, approximately.)
- Lists should use serial commas. Do not use the word “and” preceding the last entry (e.g., red, white, blue).
Range and habitat

Family, genus, and non-terminal species

- Range is very broadly described.
- Habitat description on a large scale may be added to the range description (e.g., forest, desert, montane and coastal habitats in North America)
- Continents, countries, and political regions should be listed in alphabetical order. North and South America are considered to start with "N" and "S", respectively, and East Asia and North Africa would be alphabetized by "E" and "N", respectively. However, continents and regions with descriptors, such as northern Africa, western United States, and southern Europe should be considered to start with "A", "U", and "E", respectively.

SAMPLE
Temperate regions worldwide. Approximately 25 genera; 6 genera treated in Flora.

East Asia, eastern Europe, North Africa, North America, South America. 3 species; 1 species treated in Flora.

Terminal species and infraspecies

- Ensure the following sections are present: habitat, elevation, range (Oregon ecoregions, adjacent states, other parts of the U.S., other parts of the world), and origin, using the following guidelines.
  1. Habitat first followed by a period. Multiple habitats are separated by a comma throughout the list; do not use the word “and” to separate the last two items.
  2. Presence in states adjacent to Oregon (CA, NV, ID, WA) in alphabetical order followed by a semicolon.
  3. Cardinal direction of range to non-adjacent US states, Canadian provinces and/or North American countries south of the United States, using standard abbreviations for US states (see table) and in clockwise order: north, northeast, east, southeast, south, southwest.
  4. Other continents (no abbreviations) alphabetized and followed by a period.
  5. Origin, capitalized (possibilities are ‘Native’, ‘Exotic’, ‘Native and exotic’) followed by a period.

- If a species contains more than one infraspecific taxon, the species description for the habitat paragraph should appear in the format of a typical family/genus description as the species is, in this case, not the terminal taxon.

- Range and habitat should be described in easily understood terms, using plural forms (e.g., Northern temperate regions, Mediterranean regions in the Northern Hemisphere.).

- Habitats for species and infraspecific taxa will in most cases be more specific than those described for families and genera (e.g., bogs, serpentine soils, remnant prairies.).

- For extremely widespread taxa, contributors may forego listing a cardinal direction to other US states and simply substitute “Throughout North America (or a combination of US, Canada, and Mexico).”
Example: Throughout Oregon; Throughout US and Canada; Asia, Europe.

SAMPLE

Rocky soils on hills and slopes. ID, NV, WA; north to AK, east to ND, southeast to TX and Mexico. Native.

United States is abbreviated as US, but all other countries and Canadian provinces are written out.

Standard USPS two letter abbreviations for all US states should be used:

<table>
<thead>
<tr>
<th>State</th>
<th>Abbreviation</th>
<th>State</th>
<th>Abbreviation</th>
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</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>AL</td>
<td>Missouri</td>
<td>MO</td>
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<tr>
<td>Alaska</td>
<td>AK</td>
<td>Montana</td>
<td>MT</td>
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<td>Arizona</td>
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<td>Nebraska</td>
<td>NE</td>
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<td>Arkansas</td>
<td>AR</td>
<td>Nevada</td>
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<td>California</td>
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<td>Colorado</td>
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<td>New Jersey</td>
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<td>Connecticut</td>
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<td>New Mexico</td>
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<tr>
<td>Delaware</td>
<td>DE</td>
<td>New York</td>
<td>NY</td>
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<td>District of Columbia</td>
<td>DC</td>
<td>North Carolina</td>
<td>NC</td>
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<td>Florida</td>
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<td>North Dakota</td>
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<td>Hawaii</td>
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<td>Illinois</td>
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<td>Rhode Island</td>
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<td>Indiana</td>
<td>IN</td>
<td>South Carolina</td>
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<td>Iowa</td>
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<td>South Dakota</td>
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<td>Kentucky</td>
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<td>Texas</td>
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<td>Louisiana</td>
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<td>Utah</td>
<td>UT</td>
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<td>Maine</td>
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<td>Vermont</td>
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<td>Maryland</td>
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<td>Massachusetts</td>
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<td>Minnesota</td>
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<td>Wisconsin</td>
<td>WI</td>
</tr>
<tr>
<td>Mississippi</td>
<td>MS</td>
<td>Wyoming</td>
<td>WY</td>
</tr>
</tbody>
</table>
Discussion

A discussion paragraph after the habitat/distribution paragraph is optional. The purpose of these paragraphs is to provide the reader with additional information not mentioned in the description. Discussion paragraphs should be in complete sentences, flow in an organized fashion, and be easy to read and pertinent for this kind of document and reading audience. Discussion paragraphs may contain, but are not limited to, topics such as:

- Taxonomic issues
- If the taxon is known to hybridize with related taxa
- Morphologically similar taxa (noting key differences)
- The significance of the Latin name
- Economic uses
- Facts concerning the introduction and future range extension of the taxon (exotics)
- Other facts readers might enjoy

Discussion paragraph formatting

- All botanical names should be spelled out if they begin a sentence or if there might be confusion with another name. If they are not at the beginning, the genus should be abbreviated unless there might be confusion with another genus. When referring to just a variety or subspecies, the word should be spelled out, e.g., "Intergradation occurs between variety suksdorfii and variety occidentalis."
- Small numerals (up through twelve) should be spelled out in discussion (but be numerals in the descriptions). Use hyphens, not en dashes, with adjectives when needed: e.g., “three-parted style”; "two- to three-sided stems".
- Chromosome counts should not be bolded, and only the "n" is italicized, e.g., "2n=22".

Keys

- All characters used in diagnostic keys should also be described at least once in the genus, species, and/or infraspecific descriptions.
- The list of characters in parallel leads should match (e.g., 1. Big, red, hairy and 1' Small, blue, glabrous).
- Keys to species should yield only species rank taxa; additionally, infrataxa are yielded if only one infrataxon exists in Oregon (see the Maianthemum key below—the only subtaxon of M. racemosum in Oregon is M. racemosum ssp. amplexicaule). If there is more than one Oregon subtaxon in a species, then the species key should yield the species. The subtaxa are in a key that is located after the description for that species.
- Keys are named with a fully spelled out subject (e.g., Key to Achnatherum nelsonii subspecies:).
- All but the unique part of the name at the end of a lead should be abbreviated (e.g., in the key to Achnatherum nelsonii subspecies, it should say A. n. ssp. dorei).
• The first lead in a couplet should have a period, the second lead a straight apostrophe (e.g., 1. and 1'), followed by a tab not spaces.
• Lines that do not lead to a taxon name should end in a period. Lines that end in a taxon should not have a period before the dots.

SAMPLE

Key to *Maianthemum* species:

1. Inflorescences paniculate, 40–500-flowered; tepals 1–2 mm; pedicels 0.5–1.5mm

.............................................................. *M. racemosum* ssp. *amplexicaule*

1’ Inflorescences racemose, 22–40-flowered; tepals 1.5–15 mm; pedicels 2–20 mm.

2. Leaves cordate, petiolate; tepals 4, 1.5–3 mm long; 1–4 flowers per node.......................... *M. dilatatum*

2’ Leaves elliptic-lanceolate, clasping; tepals 6, 2–6 mm long; 1 flower per node.............. *M. stellatum*

Literature cited

Following each complete genus (or in larger groups, subgenus) treatment, cite all references.

• Cite references in strict alphabetical order by first author’s surname. References by a single author precede multi-authored works by same senior author, regardless of date. Of those multi-authored works, 1) references with two authors precede all other multi-authored works and are listed in alphabetical order, and 2) references with three or more authors are listed in alphabetical order of authors, regardless of the number of authors involved.
• List works by the same author(s) chronologically, beginning with earliest date of publication.
• Write out all authors’ names, even if the first author is the same for succeeding citations. “In press” citations must have been accepted for publication and the name of the journal or publisher included.
• Insert a period and space after the initials of an author’s name but no spaces between double initials.
• Do not put a space between the volume number and the page number(s).
• Write out journal titles in full in regular not italics font. Do not use abbreviations.
• Publisher location should come after name.

Examples of citations:


**Data contributors are not responsible to obtain**

A substantial amount of information has already been acquired in preparation for publication of the Checklist and the Oregon Plant Atlas. As a result, the following fields will be automatically generated for each taxon from existing databases during final preparation of the Flora. **Contributors are therefore not responsible for acquiring or preparing these data:**

- Elevation range
- Synonyms
- Rarity status (state and/or federal listings)
- Invasiveness (acquired from state and federal toxic weed lists)
- Range maps

Contributors, however, are encouraged to note any further information or opinions they have concerning these fields as a result of their expertise or research within the plant group. Please mention any comments in an e-mail to the Oregon Flora Project, or include them with the draft manuscript.

**Illustrations**

*The Flora of Oregon* will contain one illustration for every three to four taxa. In addition, each genus, regardless of number, will have at least one illustration. Contributors may submit a list of taxa they feel should be illustrated, but taxa chosen may also reflect availability of previously completed illustrations. Those taxa should be exemplary examples of the plant group as well as taxa of notably unusual morphology.

**Final submissions to the Oregon Flora Project**

Please submit all final manuscripts to the Oregon Flora Project in a Word document to:

[meyersst@science.oregonstate.edu](mailto:meyersst@science.oregonstate.edu)

Written correspondence may be mailed to:
Stephen Meyers
Oregon Flora Project
Oregon State University
Department of Botany and Plant Pathology
2082 Cordley Hall
Corvallis, OR 97331

You may also contact us at our office number: 541-737-4338.

Upon receipt, the manuscript will be reviewed by staff at the Oregon Flora Project. Any major or significant changes made within the manuscript will be forwarded, for final approval, to the contributor.
Attach to treatments:

Attach to the final copy of the treatment a list of any changes to the nomenclature provided in the Checklist, a list of any potential errors found in the Oregon Plant Atlas (which have not previously been reported by the contributor), a list of recommended illustrations, references mentioned in manuscript(s) and any other comments.

Thank you for your consideration and efforts to make the Flora of Oregon a professional and outstanding botanical reference.