

## Using binomial nomenclature in writing: conventions & grammar

Binomial nomenclature, commonly called Latin or scientific names, is the way each living species is given a unique and universal identity. It is composed of two parts; the **genus** and the **specific epithet**. Combined this constitutes the **species name**. For example, red alder, *Alnus rubra*; *Alnus* is the genus and *rubra* is the specific epithet. There are many species in the genus *Alnus* but only one *Alnus rubra*. A species may be further described according to subspecies or variety. For example Ponderosa pine, *Pinus ponderosa* var. *ponderosa* or lodgepole pine, *Pinus contorta* subsp. *latifolia*. A **subspecies** is a morphologically distinct, often geographically separate population of a species. A **variety** is also a morphologically different population which may be associated with a geographic region or particular site conditions but less distinct than a subspecies.

Common names are problematic since many species have more than one common name and a common name can describe more than one species. When writing a scientific document it is the convention to use binomial nomenclature. The species name should always be used in conjunction with common names so that anyone reading the document can know exactly which species you are referencing. There are three common ways to do this:

1. red alder, *Alnus rubra*
2. red alder (*Alnus rubra*)
3. *Alnus rubra* (red alder, Oregon alder)

Regardless of the style chosen the rules are:

- ☞ Always italicize the species name, variety, and subspecies names
- ☞ Abbreviate variety to var. and subspecies to subsp. These are not italicized.
- ☞ If the species is undetermined but the genus known then use the abbreviation for species, spp. This is not italicized. For example *Vicia* spp.
- ☞ With common names only adjectives derived from proper nouns such as a person or place name are capitalized. For example, western red cedar, Sitka spruce, Douglas-fir, low Oregon-grape, Puget Sound gumweed, etc. Of course if you begin a sentence with a common name then the first letter of the first word is capitalized regardless. Cardinal directions are not capitalized e.g. western hemlock.
- ☞ Dashes between words are used in two circumstances (1) to link two descriptive adjectives e.g. red-flowering currant, small-fruited bulrush, big-leaf maple and (2) when the descriptor is 'false' e.g. Douglas-fir is not a 'true' fir, tall Oregon-grape is not a true 'grape', etc.
- ☞ In subsequent references to a species after the first reference it is common to abbreviate the genus, for example *A. rubra*, unless another

species is being referenced with the same first letter for the genus and the same specific epithet (there are many very common specific epithets like *vulgaris*, *occidentalis*, *sativum*, *arvense*, *macrophyllum*, *parviflorus*, etc.). In that case the genus would need to be specified.

- ☞ If there is more than one widely used common name then they should be listed once at the first reference for clarity. For example *Cornus sericea* (red-twig dogwood, red-osier dogwood)