

A bit about scientific names

Danaus plexippus

- * normally underline or use italics for scientific names, but more importantly scientific name must offset from surrounding text thus in an italicized abstract scientific names would be placed in normal or regular font/style
- * capitalize genus (genera) and all categories above the genus level
 - generally not necessary for common usage:
Ex: Hominidae or hominid
- * genera and family group names are considered plural:
Ex: Asteraceae **are** economically important plants
- * species names are singular:
Ex: *Bison bison* **is** a large even-toed, ungulate

A bit about scientific names

- * use lower case for species and subspecies: exception plant patronyms (and matronyms)
 - patronym is a epithet based on someone's name

- * author and year of publication optional (or journal dependent)

Ex. *Danaus plexippus* (L., 1758)

- many journals require author at least at first mention in a paper
- author and year important in taxonomic papers

Original descriptions

- * All scientific names are tied to an *original description*
- * Need: name, author, year to find these
 - important for groups that have not been monographed
- * tracking down this literature can be a slow process

Common Abbreviations

sp. - species

spp. - species (plural)

ssp. - subspecies

f. (and sf) - form and subform

var. – variety (equivalent to subspecies in botany, sometimes...)

Pronunciation

- * Pronunciation of Biological Latin (Peter Ommundsen):
<http://capewest.ca/pron.html>
- * Pronunciation of Classical Latin : <http://www.orbilat.com/Languages/Latin/Grammar/Latin-Pronunciation-Syllable-Accent.html>
- * Latin Pronunciation Demystified (Michael A. Covington):
[http:// www.ai.uga.edu/mc/latinpro.pdf](http://www.ai.uga.edu/mc/latinpro.pdf)

New Combinations

- * *Danaus plexippus* was described in *Papilio* (a swallowtail genus)
 - *Papilio plexippus* L. (original combination or basionym)
subsequently transferred to genus *Danaus*
 - *Danaus plexippus* (L.)

- * Conventions for names:

Enallagma geminatum Kellicott, 1895

Enallagma hageni (Walsh, 1863)

Enallagma speciosa [Hubner, 1820]

New Combinations

In botany (and parasitology) the name of the revisor (and year) of the accepted combination is also added

Ex. Small Yellow Ladyslipper (orchid)

Cyripedium calceolus L. var. *parviflorum* (Salisb.) Fern.

- Linnaeus described *calceolus* in *Cyripedium* (no parentheses)
- *parviflorum* was described by Salisbury (but not as a variety of *C. calceolus*)
- Fernald moved *parviflorum* to a variety of *C. calceolus*
- publication dates could be included as well

Homonyms

- * two or more identical (but independently) proposed names for the same or different taxa.
 - applies only within a code
 - there are five codes for biological names:
 - Ex. International Code of Botanical Nomenclature
 - Ex. International Code of Zoological Nomenclature
 - codes are independent
 - many generic names used by both botanists and zoologists
 - Ex Pieris*
 - = Asian-American ericad and white butterfly in your gardens
- * efforts on the horizon to develop registries for new names, so that there might be a unique name for all taxa

Synonyms

- * Many species have >1 **available** or (**validly published** or **legitimate**) names but only one is **valid or correct**
- * Identifying **valid/correct** Latin name (and higher category) is usually a three step process:
 - 1) sort everything into appropriate genus
 - 2) determine which names are synonymous at the species level
 - 3) identify the oldest of these and establish it as the **valid/correct** name and place others “in synonymy”
- * Following a revision names often get shuffled into new combinations, i.e., new *Genus species* combinations created