



When I was going to school in horticulture, the classification of species was based on morphological, visual, characteristics. Botanists would study the flowers noting the specifics shapes, features and sizes of the various bits as well as the whole, to determine species. Iris all share a characteristic structure and parts, though their sizes and shapes may vary widely. Not pictured here are ovary and tubes connecting them into a whole. These were all used to define one species from another. The small 'beard', at the 'top' of the 'fall' shown above, was one such feature. Many Iris species are 'beardless'. These visual features were used to divide some genera into smaller more manageable groups, hence, the 'californicae'. Will this holdup?

These days there is much tumult within the ranks of many genera with numerous name changes and a good deal of shuffling as genera are split up with species shifted into different genera and sometimes placed into different families...all the while the plants haven't changed a bit! This is because taxonomists have been moving away from the old morphological methods used to determine species, to a genetic analysis, in which the work is carried out in labs, utilizing much more 'critical' methods. Species are now being placed into groups, or 'clades', based on this analysis. It is the genetics which provides a clearer line to a plant's evolution and development. Morphology, which is absolutely essential to field identification, can be misleading when making links between species. To some degree plants are 'shaped' by their environments and the assumptions we make based upon that, may be wrong. For gardeners, this brings confusion.