

Linnaeus, and Some Background on Plant Names

by R. J. Ferry

In the early 1700's, Caroli Linnaei formulated his classification system. It wasn't based on evolutionary relationships because he firmly believed that species were "as created by God on the day of Creation." Further, he came to believe (equally firmly) that as God had created all these life forms, he (modest man) had been ordained to name all of them! Thus it was a simple matter to collect a sample of each life form and then compare subsequent ones with it in order to confirm the identity of later items encountered. Linnaeus's early work was with plants. In fact, the medical doctors of the day were essentially what we term "herbalists;" individuals who collected plants with an eye to curing human ills, and even to the present day, many of our modern medicines have their origins in this or that plant, or - in fact - are plant-derived. Malaria, for example, was found to be prevented or slowed (although not necessarily cured) by a tea from the bark of the Cinchona tree, with the curative agent in the bark being what we identify as quinine. The oil from the castor bean is poisonous, and taken in small doses acts as a harsh laxative. Many a modern adult, particularly ones raised on a farm, retains vivid memories of taking a "Spring cleaning" dose!

Not all the medical knowledge of the 1700's through the 1900's had any serious scientific basis. Ginseng roots were (and in some sectors still are!) particularly prized depending on their shape. A root shaped like a hand was deemed good for ailments of the hand. If shaped like the bend of a knee, then it was prescribed for a knee ailment, and so forth. This was an offshoot of the "Doctrine of Signatures," the idea being that God's "signature," gave the plant a particular shape as a sign of a particular human use. Similar ideas arose in other cultures over the centuries, and many a present-day human devoutly swears by Aztec-derived Curandero "cures," or looks with almost pious reverence at this or that "cure" of the Ancient Chinese. Somehow it never seems to occur to such individuals that the life expectancy among the Aztecs was not much older than the early forties, or that most of the "Ancient Chinese"

lived about the same length of time. Even into the late 1800's, anesthesia was unknown, and it was a standard medical practice to "blood let" a sick individual to help rid the body of "noxious humors." In fact, it was due, in part, to the employment of this particular medical "cure" that the first president of the United States died in 1799. He was "helped along" by the blood-letting of well-meaning members of the medical profession!

O.K., so we know the early medical doctors were mainly plant-prescribing people. By the way, individuals used to go to the barber's shop to have tonsils removed and other "minor surgical procedures done. This is why we still refer to a barbershop as a "tonorial parlor!" In the 1700's humanity was still pretty much in the "dark ages!" In fact, Linnaeus collected several plants, pressed them, and then packed up his papers and presented them to the faculty of the Harderwyk University in Holland. This done, he visited around the town for a few days and then picked up his degree as a medical doctor! It was that simple! Once degreed as an MD, he was hired by George Clifford, a wealthy merchant banker, to classify and describe all the plants in the garden and herbarium at Clifford's estate, the Hartekamp, near Haarlem. Returning to Sweden, he practiced as a doctor, specializing in gonorrhoea. In 1741, he was offered a professorship at Upsala and devoted himself to his *Species Plantarum*, which was built on the *Genera Plantarum* he had published in Leiden in 1737. His initial drafts of *Species Plantarum* gave rise to the two volumes of that title, published in 1763 and 1764.

Given all the foregoing background, we now proceed to Volume II of *Species Plantarum*, page 1330, which begins with Classis XX Gynandria, Diandria Orchis, and enumerates several species we recognize as orchids. From page 1330 into page 1353 we see *Orchis*, *Satyrium*, *Ophrys*, *Serapias*, *Limodorum*, *Arethusa*, *Cyrtopodium*, and *Epidendrum*. Linnaeus basically divided the orchids into the terrestrials, and the group that "grew on branches (*dendros*); *Epidendrum*. Having been tormented with this brief history, we are brought to several species described under *Epidendrum* by Linnaeus, a few of which are *Epidendrum scandens* (Vanilla), *E. coccinium*, *E. caudatum* (habitat in

America), *E. cuculatum*, *E. nodosum*, *E. cochleatum*. There were others mentioned, but a few will suffice. All, however, were described with two names: their "Classis" name (we've since inserted the term *genus* to be paired with *species*), and the specific name (epithet) of the species.

Over time, as botanists have learned more, names have been changed to reflect the increase in plant knowledge, more names have been added, and - as needed - more genera have been added as well. In this issue we will look at the names of a few of our present-day species and, armed with a little knowledge of history, we will try to make sense of what we are seeing, why we called it by this or that name in the past, and why we refer to it differently today. All is not "fixed and immutable" as Linnaeus thought and the future will see changes! As we learn more, some names will change to reflect the increase in our knowledge, and we need to think of orchids as not only an enjoyable *cultural* activity, but *as a study*; an ongoing intellectual pursuit.

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