**Section Polychilos** (Breda) Rchb.f. 1864

DISCUSSION: This section is characterized by having a fleshy flattened rachis (terete in P mannii), non-fragrant flowers produced singly in succession over It )11g periods of time, petals conspicuously narrower than the sepals, a t senate callus, a slightly saccate lip base created by folding, the mid-lobe of the lip transversely anchorilbrin or lunate, the lip base continuous with the column foot, and a pair of fleshy knee-like projections at the base of the column. The flowers of this section do not exhibit post-pollination chlorophylly of the perianth. At the base of the lip is a glandular callus, usually surrounding a small depression, that is highly variable in morphology (see the discussion under P cornu-cervi) and therefore, as with glandular tissue in other orchids (for example, the Aerides odorata complex), not a useful taxonomic character. In its most extreme it terminates as an elongate, erect tongue that bends 180° backward along the back of the lip base. In the center of the lip is a flat, sheet-like callus that terminates in two narrow, elongate teeth, like the forked tongue of a snake. This callus plate may have lateral teeth as well, but these too are variable, and individual flowers may often have one lateral tooth on one side and no tooth or two lateral teeth on the other side. Finally, an erect, terminal, bilaterally flattened, tooth-like callus stands between the elongate teeth of the central plate. Some taxonomic weighting has been given the relative width of this structure, but in my experience the width of this callus is variable and appears to have little taxonomic utility. Of all the groups of species in Phalaenopsis, section Polychilos (with the exception of P. mannii) has proven the most difficult to resolve at the species level to my complete satisfaction. On casual inspection of the flowers, without some foreknowledge of what to look for, P cornu-cervi, P. borneensis, and P pantherina appear identical, and under a micro-scope, their floral characters present a mosaic pattern of variability. In particular, the width of the apical tooth, its length relative to the elongate teeth of the central plate-like callus, and the degree to which the lateral margins of the midlobe are entire versus irregularly denticulate—all display a wide range of variability. The only clear difference among the three is found in the width of the lip midlobe. Phalaenopsis cornu-cervi has a midlobe to 0.9 cm wide, while P. borneensis and P pan-therina have a midlobe to 1.2 cm wide. On the basis of several hundred clones examined for this revision these measurements appear to represent well-defined groups without any intermediates. Unfortunately, very little material, either in herbaria or in cultivation, bears any verifiable or detailed locality data, and thus no comments can be made about clinal variation, elevational isolation, or other distribution patterns that might explain the complex morphological variation seen in the flowers. Several unpublished horticultural names have been attached to populations of newly imported plants; but while these may each present distinctive facies, upon analysis of the flowers, no characters on which to base new species or subspecies are displayed. 2

References

1Jay Pfahl's IOSPE at[www.orchidspecies.com](http://www.orchidspecies.com)

2**Christenson, Eric A. 2001.** *Phalaenopsis- A Monograph.* Timber Press.

3**Cribb, CJ. 2014.** Epidendroidae. In: Pridgeon AM, Cribb PJ, Chase MW, Rasmussen F, eds. *Genera Orchidacearum,* *Vol. 6*. Oxford: Oxford University Press, 344-349.