Discuss the differences between Bulbophyllum and Cirrhopetalum. What is the current status of Cirrhopetalum?

Cirrhopetalum was treated as a separate genus from Bulbophyllum from the 1840s through the 1980s. Although precise details varied by publication, the general ‘lay’ agreement was that Cirrhopetalums had angled pseudobulbs, flowers on the inflorescence in the form of a pseudoumbel (almost an umbel, Google ‘carrot flowers’) with the flowers spread in a semicircle. The petals were often curved, hence the name Cirrho meaning curl or tendril.

In the early 1990’s various taxonomists challenged the pre-existing definitions. Beginning with Seidenfaden and Wood in 1992 the first major change was made with Cirrhopetalum being dismissed as a genus with all of its nearly one hundred and fifty species subsumed into genus Bulbophyllum. This did not last long, however, as in 1994 Garay’s work reinstated the genus Cirrhopetalum based on the (argued) observation that it could be defined unmistakably through the single characteristic of how the lateral sepals form at the base of the column foot.

While the last definition is arguably in force today, the author is not detailing it because he can find no clear standard for it and examples of confusion and uncertainty abound:

- attributions of redefined Cirrhopetalum member species range as few as a dozen to fifty or so.

- the author can not find a single reinforcing or supportive scientific reference to Garay’s work.

- the Kew registry proves of little use as the database includes synonyms, nor does the AOS web site

- the AOS Orchidist’s Glossary remains completely ambiguous, retaining Cirrhopetalum as a genus but acknowledging that many taxonomists do not. Most tellingly, the glossary refers not to Garay’s taxonomy but the pre-Seidenfaden descriptions as follows.

“Cirrhopetalum (seer-oh-PET-al-um) A primarily Asiatic genus consisting of numerous species, considered by many taxonomists to be part of a broadly defined Bulbophyllum, usually characterized by flowers in umbels and hence their common name "daisy orchids." See Bulbophyllum.”

- last but not least, the most recent taxonomical study (Hosseini et al, 2016) including both morphological analysis and DNA sequence supports the Seidenfaden decision that Cirrhopetalum *can not* be uniquely distinguished from Bulbophyllum. Perhaps more interestingly, in the absence of the DNA sequencing, the morphological analysis presented by Hosseini appears to this author supportive of the original, expansive Cirrhopetalum definition rather than that narrowly proposed by Garay.

In summary, there is currently no technical agreement on the definition of Cirrhopetalum as either an independent genus or section of genus Bulbophyllum. The official designation may currently be predicated on a single taxonomical publication relying entirely on flower morphology that received little support from other taxonomists at the time (*except perhaps in conceptually reinstating the genus*) and even less with ongoing research.

References:

1 Seidenfaden, G. and Wood, J.J., 1992, The Orchids of Peninsular Malaysia and Singapore, Olsen & Olsen, Fredenswborg.

2 Garay, L. A. et al. 1994. The genus Cirrhopetalum and the genera of the Bulbophyllum alliance. Nordic J. Bot. 14:609-646.

3 Hosseini, S.H. and Dadkhah, K. 2016 Intergeneric Classification of Genus Bulbophyllum from Peninsular Malaysia based on Combined Morphological and RBCL Sequence Data. Pak. J. Bot 48(4):1619-1627.