

SYSTEMATICS

**A PHYLOGENETIC ANALYSIS OF THE GENUS *PLEUROTHALLIS*,
WITH EMPHASIS ON *PLEUROTHALLIS* SUBSECTION *MACROPHYLLAE-
FASCICULATAE*, USING NUCLEAR ITS AND CHLOROPLAST DNA
SEQUENCING**

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Several revisions of the genus *Pleurothallis* have been proposed. Luer has proposed that *Pleurothallis* species in subgenus *Scopula* be segregated into the genera *Colombiana* and *Ancipitia*. Szlachetko and Margonska (2001) proposed the genus *Zosterophyllanthos* for *Pleurothallis* subsection *Macrophyllae-Fasciculatae*. As an alternative, Luer (2005) proposed the genus *Acronia* by uniting *Pleurothallis* subsection *Macrophyllae-Fasciculatae* with subsections *Acroniae* and *Amphygiae*. The molecular phylogenetic studies by Pridgeon and Chase (2001), however, suggested that these taxonomic revisions might not be justified. We report here a more detailed phylogenetic analysis of the

genus *Pleurothallis*, with emphasis on subsection *Macrophyllae-Fasciculatae*, with data primarily from nuclear ITS sequencing, supplemented with preliminary data from plastid DNA (*rpoB2*, *rpoC1*, and *ycf1*) sequencing. Some initial, tentative conclusions can be drawn. In the strict consensus maximum-parsimony tree of ITS data, many of the clades collapse, leaving a polytomy with a single, highly supported node that tentatively could be used to delimit the genus *Pleurothallis*. Such a tree would argue for an expanded concept of the genus *Pleurothallis*, in which the groups *Ancipitia*, *Colombiana*, and *Acronia/Zosterophyllanthos*, if shown to be monophyletic, are relegated to subgenera.