

**Systematics of Palicoureeae (Rubiaceae): recent advances in Brazilian groups**

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*Palicoureeae* (Rubiaceae) has its centre of diversity in the neotropics and comprises about 1500 species. Two genera with great diversity considering the Brazilian Flora are *Palicourea* Aubl. and *Rudgea* Salisb. with ca 170 and 70 species, respectively. These numbers are still underestimated, especially because several species of *Psychotria* L. subgenus *Heteropsychotria* Steyerm. need to be transferred to *Palicourea*, and there are several undescribed species of *Rudgea*. Some of our recent studies focused on resolving some taxonomic gaps and phylogenetic questions with these genera. Considering *Palicourea*, phylogenetic analyses are being conducted with sections *Codonocalyx*, *Solenocalyx*, and *Suteria*, which include 15 species of Atlantic Forest. The monophyly of sections is being tested using molecular markers. Considering *Rudgea*, we are investigating its diversity in the Northeast region of Brazil, trying to answer how many species occur in the region and how climatic changes may affect its distribution. Besides, the domatia of *Rudgea* are also being investigated, since these structures have an important taxonomic value, but its description is not very clear in the literature. These studies are being conducted with field work, especially in eastern Brazil, exsiccatae analyses, mostly from Brazilian herbaria, and from images of digital herbaria. The phylogenetic analyses used *rps16*, *psbA-trnH*, *trnL-F*, and ITS markers, and were conducted using maximum likelihood and Bayesian inference. Regarding the phylogenetic inference of *Palicourea*, the preliminary results showed that *Codonocalyx*, *Solenocalyx*, and *Suteria* do not have molecular support to be sustained as monophyletic taxa. Regarding the diversity of *Rudgea*, there are at least 22 (~31% of the total) species in Northeast Brazil, with 18 occurring in the state of Bahia. However, there are 12 uncertain taxa still being analysed. Finally, a new proposal to classify the domatia of *Rudgea* is being carried out, to accommodate variation and intermediate types of domatia.

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