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***FICUS TOMENTELLA* (MORACEAE), THE HOST OF *PEGOSCAPUS LOPESI* (HYMENOPTERA, AGAONIDAE)**

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Abstract –*Pegoscapus lopesi* (Mangabeira Filho) was described from an unidentified Brazilian *Ficus* species. Later, the host *Ficus* was identified as *Ficus* aff. *trigonata* L. from Panama. Comparing the illustrations of the host plant presented in the original description and investigating the available information about this study at the Jardim Botânico do Rio de Janeiro we concluded that *F. tomentella* Miq. is actually the host of *P. lopesi*.

Key words: fig wasp, host plant, mutualism, nomenclature, taxonomy.

Resumo –*Ficus tomentella* (Moraceae), o hospedeiro de *Pegoscapus lopesi* (Hymenoptera, Agaonidae). *Pegoscapus lopesi* (Mangabeira Filho) foi descrito no Brasil sem a identificação de sua espécie hospedeira de *Ficus*. Posteriormente, a espécie hospedeira de *Ficus* foi identificada no Panamá como *Ficus* aff. *trigonata*. Comparando as ilustrações da planta hospedeira apresentadas na descrição original e investigando as informações disponíveis no Jardim Botânico do Rio de Janeiro, sobre este estudo, concluímos que *F. tomentella* Miq. é a espécie hospedeira de *P. lopesi*.

Palavras-chave: mutualismo, nomenclatura, planta hospedeira, taxonomia, vespas de figo.

Fig trees and their associated animals attract attention from both ecologists and evolutionary biologists. This attention stems from their unusual pollination mode and general biology of the plants that place fig trees as a model for the study of co-evolution between plants and animals, community structure, sex ratio evolution and sexual selection. The value of *Ficus* as a model system results from a combination of the biological attributes of the trees with the ability to perform replicated and comparative

studies, thanks to the several hundred species available in the genus (Compton & al., 1996).

Systematic work on both *Ficus* and its associated insects is of fundamental importance to ecological and evolutionary studies. The *Ficus* taxa of the Asian-Australian and African regions have been revised in such a way that check-lists and treatments for floras could be prepared with consistent naming and acceptable delimitations of the taxa. But, for the Neotropics, the identity of the taxa involved is still problematical (Berg, 1989). Even in relation to fig wasps, systematics of Neotropical species is controversial. The classification of some fig wasp species is uncertain and the determination of host plants is unclear (Wiebes, 1995).

In Brazil, fig wasps are poorly known and the majority of the host *Ficus* species is unidentified (see Wiebes, 1995). Thus, any effort in recovering the host relationship information is very important. In this way, we used the information available in Mangabeira Filho (1937) to associate the pollinating fig wasp *Pegoscapus lopesi* (Mangabeira Filho) to *Ficus tomentella* Miq.

Mangabeira Filho (1937) described *Pegoscapus lopesi* from an unidentified *Ficus* species. Later, the host *Ficus* was identified as *Ficus* aff. *trigonata* L. from Panama (Wiebes, 1995). However, Mangabeira Filho included very clear illustrations by Geraldo Kuhlmann, which resemble *F. tomentella* leaves and syconia (see Neves, 1987 for comparison). Many years after the publication of Mangabeira Filho (1937), G. Kuhlmann showed to the second author of this article the tree from which Mangabeira Filho had collected the pollinating insects. This tree is undoubtedly determined *F. tomentella* and it still grows at the Jardim Botânico do Rio de Janeiro.

L. J. Neves (personal communication) sent to J. T. Wiebes specimens of pollinating fig wasps collected from a big tree of *Ficus tomentella* growing at the Hortus of Museu Nacional, Quinta da Boa Vista, Rio de Janeiro, which were described as *P. tomentellae* Wiebes (Wiebes, 1983).

This survey allows us to conclude that *F. tomentella* is actually the host of *P. lopesi* described without host specific identification. But, being conservative, we do not conclude that *P. lopesi* is synonym of *P. tomentellae* described from *F. tomentella*. Morphological (Compton, 1990; Michaloud & al., 1996) and molecular (Molbo & al., 2003) data demonstrate that the occurrence of more than one pollinating species per *Ficus* species is more common than thought. Although Wiebes (1995) puts *P. lopesi* and *P. tomentellae* in the same group, according to morphological similarities, the final taxonomical position depends on the comparison of the type species. Unfortunately, the voucher material of Mangabeira Filho seems to be lost, but more efforts are being done to find it.

Another insight from the finding reported above is that Brazilian *F. tomentella* and Panamanian *F. aff. trigonata* may be the same taxon, according to pollinator resemblance. Other *Ficus* species (*F. trigonata* L. from Panama and *F. velutina* Willd. from Costa Rica) might be also the same taxon of *F. tomentella*, since their described pollinators are included in the same group of *P. lopesi*. Thus, morphology of these host plants deserves a deeper re-evaluation.

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NOTA

GRAZIELA MACIEL BARROSO (1912-2003)

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Dona Graziela, como muitas pessoas a chamavam, nasceu em 11 de abril de 1912, em Mato Grosso do Sul, e faleceu no Rio de Janeiro, em 5 de maio de 2003. Foi sepultada no cemitério São João Batista e sugerido pelo seu primeiro estagiário, de 43 anos atrás, este epitáfio:

Aqui seu corpo descansa
a alma Deus a levou
mas permanece a lembrança
nas plantas que descreveu
nos alunos que formou.

Por ocasião da Missa por sua alma, em 12 de maio de 2003, o celebrante, Reverendíssimo Padre Josafá Carlos de Siqueira, realçou a importância de D. Graziela na botânica brasileira com o texto adiante. O Padre Josafá, um dos últimos estagiários da D. Graziela, é doutor em Botânica, professor na Pontifícia Universidade Católica do Rio de Janeiro, especialista de Amaranthaceae e coordenador do Núcleo Interdisciplinar de Meio Ambiente.