



## EDITORIAL NOTE

### **Nutritional value of banana inflorescences, study about transfer mechanisms of iron across the placenta, and new cytogenetic studies of *Lippia* (Verbenaceae) species from Brazil**

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The Musaceae comprise a clade of angiosperms that are typically found in tropic regions. Originally from Africa and Asia, this group of flowering plants has a worldwide distribution nowadays. The most important genus is *Musa*, popularly known as banana, and is cultivated in numerous countries (Kennedy 2009), albeit productivity can vary enormously (e.g., Moreira et al. 2010). It is still not quite clear how many species are referable to this genus, but some estimate that there are more than 70 species (Häkkinen and Väre 2008).

It has been noted that mainly the banana fruit is used for nutritional purposes and that inflorescences tend to be discarded. However, in rural areas of Brazil, such flowering structures of one species called *Musa acuminata* have been used as food resource for decades. Despite this fact, no studies of the actual nutritional values of banana inflorescences were made so far. Catharina Fingolo (Núcleo de Pesquisas de Produtos Naturais/ Universidade Federal do Rio de Janeiro, Brazil) and colleagues have analyzed the nutritional values of the inflorescences of *Musa acuminata*, also known as "gold banana" (Fingolo et al. 2012). The authors conclude that the dehydrated inflorescences contain high values of potassium and fiber and can therefore be considered as a significant nutritive complement. As a valuable consequence of their study, Fingolo and colleagues also observed some interesting anatomical structures in those inflorescences that have a taxonomic use to identify the studied taxon and might help to obtain a better characterization of the distinct species of this economically important genus.

Another interesting study published in the present volume of the AABC is presented by Claudia M. de Oliveira (Universidade de São Paulo, São Paulo, Brazil) and colleagues: the iron transportation across the placenta. It is widely known the importance of the placenta in mammals that is connected to the fetus by the umbilical cord, a region where several physiological activities occur (Oliveira et al. 2012). There has been a large interest regarding placental transport, particularly concerning iron due to its importance in oxygen transportation to the blood and soft tissues, among others (e.g., Linder et al. 2003). By providing a short review on this subject, Oliveira et al. (2012) suggested some new approaches for further understanding on how placental transfer occurs.

From the over 160 different species of *Lippia*, a tropical shrub of the group Verbenaceae that is particularly known due their essential oils, in some cases providing a peculiar fragrance, more than three quarters are

found in Brazil, particularly in terrains of high altitudes (Sousa et al. 2012). Despite the perception that the species of *Lippia* are an important source of chemical constituents that might be applicable in the pharmaceutical and cosmetic industry (e.g., Pascual et al. 2001), cytogenetic studies regarding this plant are still quite limited (Pierre et al. 2011). Saulo M. Sousa (Universidade Federal de Juiz de Fora, Minas Gerais, Brazil) and colleagues have provided karyological studies in 12 species of *Lippia* found in Brazil. They confirm that those species have a variable chromosome number and demonstrate that the asymmetry of the karyotypes observed in their study increases with the increasing chromosome numbers, which was apparently paramount in the evolutionary history of this genus.

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