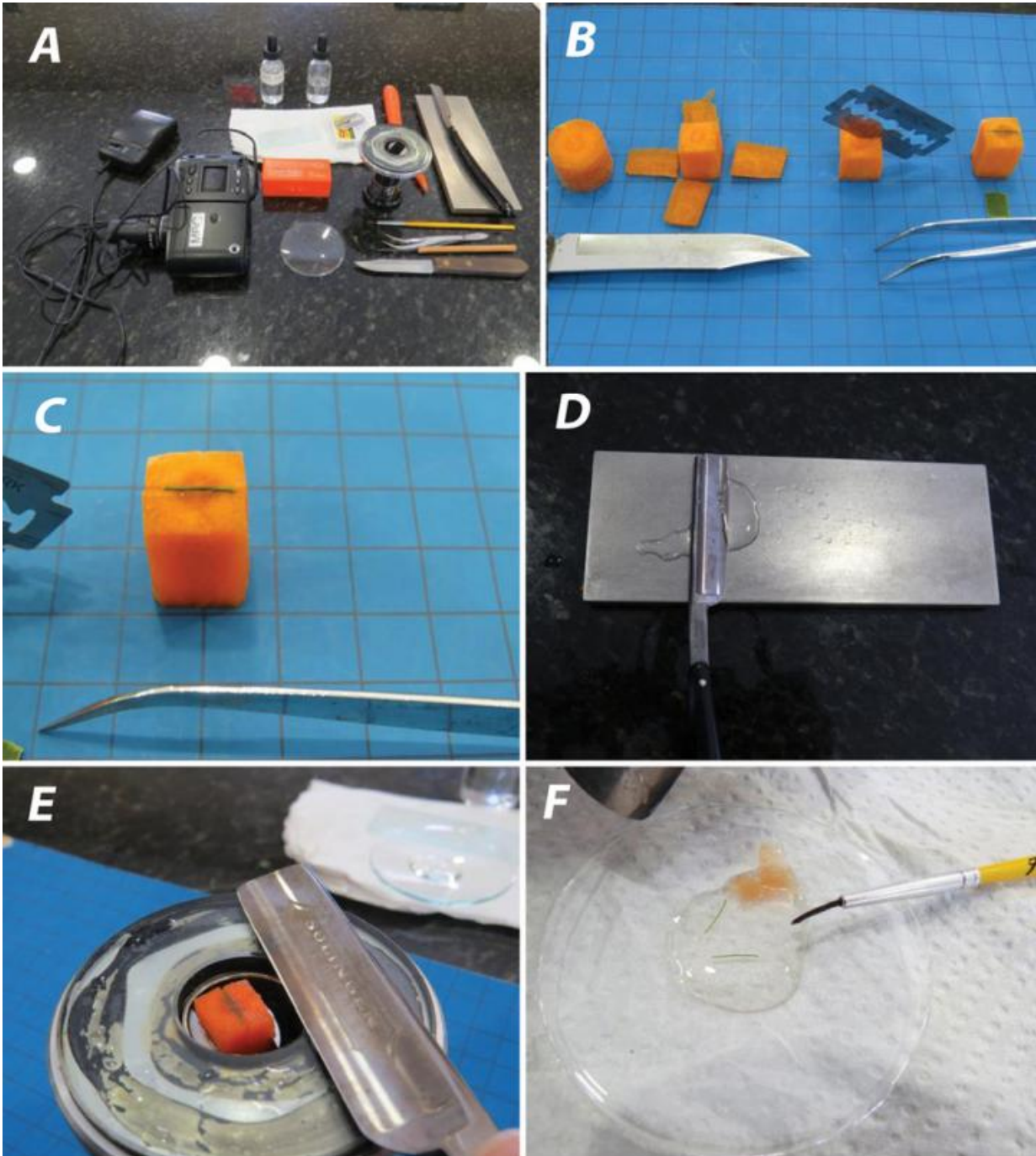


First few millimeters of the leaf margin identify palm species in a new key to *Syagrus*

June 15 2017



Step-by-step illustration of the technique used by Dr Noblick. Credit: Larry R. Noblick

An incredible amount of information is contained in the very first few millimeters of the leaflet margin of species in the Neotropical palm genus *Syagrus*.

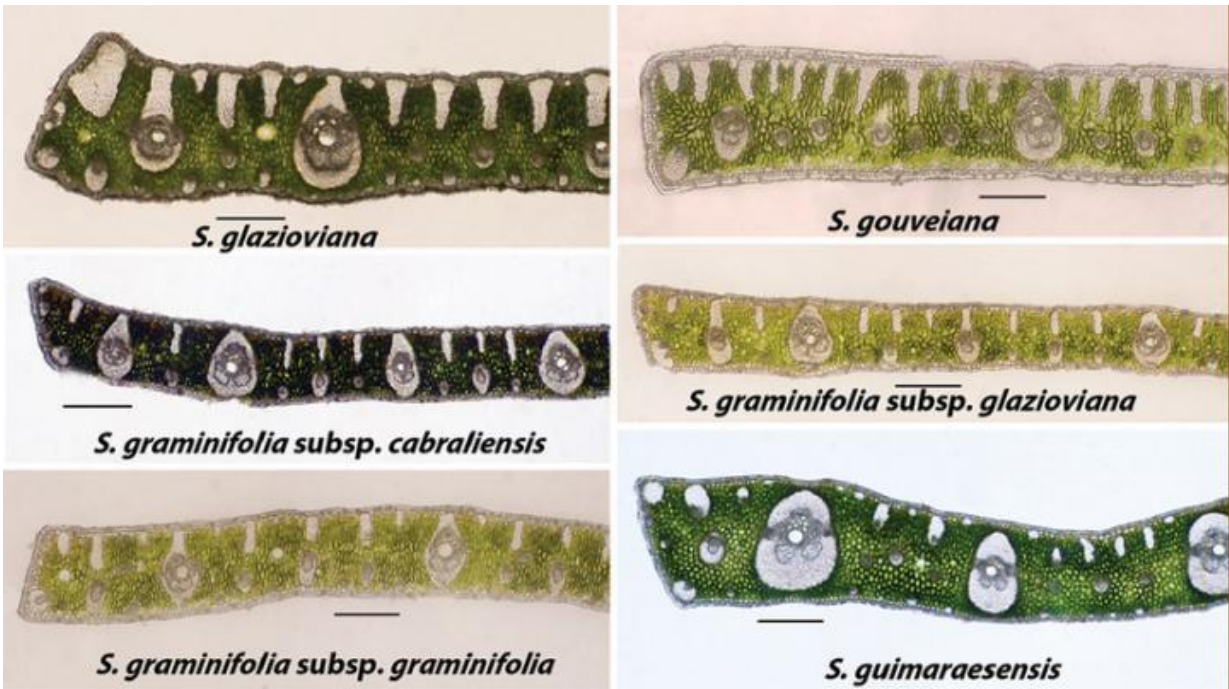
In fact, this tiny leaf slice carries enough information to identify the [species](#) to which it belongs. In a new key to the Neotropical [palm genus](#) *Syagrus*, published in the open access journal *PhytoKeys*, scientists demonstrate how this technique could be useful in species identification when other morphological characters fail to give definite answers.

The manuscript not only demonstrates the benefits of using leaflet anatomy, but also teaches how to use simple leaflet-slicing or sectioning techniques that plant scientists can apply to their own species identification research.

Leaf-slicing techniques are not new to botany and there is a number of ways to hand section leaflet margins, which neither require expensive hardware or use of chemicals and dyes, making the method accessible in almost all settings.

In fact, what Dr. Larry R. Noblick from the Montgomery Botanical Center, Florida, USA, proposes in his paper is a technique using a small straight razor and a piece of carrot to obtain the palm leaflet slices used in his research.

"One can easily and quickly access a lot of information from simple cross-sections that is helpful not only to identify species but to even show crude relationships within a group. We demonstrate the [technique](#) for palms from the *Syagrus* genus, but we strongly believe it may be found useful in other plant groups as well," explains the author.



Collection of microscope images of marginal leaflet transections used in the new Key. Credit: Larry R. Noblick

More information: Larry R. Noblick. Key to *Syagrus* identification using leaflet margin anatomy: Supplement to ?A revision of *Syagrus* (Arecaceae)?, *PhytoKeys* (2017). [DOI: 10.3897/phytokeys.81.12909](https://doi.org/10.3897/phytokeys.81.12909)

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