

IDENTIFYING HYDNOPHYTUMS:

THE CONFUSION BETWEEN H. FORMICARUM AND H. MOSELEYANUM

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The taxonomy and nomenclature of the genus *Hydnophytum* have not been revised since the early 1900s so there has been plenty of time for naming errors to creep in and get propagated along with the plants.

One persistent mistake is labeling plants of *Hydnophytum moseleyanum* as *H. formicarum*. When I say *H. moseleyanum* I am referring to a complex of 6 or 7 closely related species that all look very similar to *H. moseleyanum*. The related species include: *loranthifolium*, *papuanum*, *crassifolium*, *longistylum* and *philippinense*. It is likely that they will get lumped together in the revision of the genus that is currently being prepared in Europe.

Hydnophytum formicarum is a widespread species and shows considerable variation in some traits, including plant size and the nature of the caudex.

Here is a photo of mature plants of three different forms of *H. formicarum*. The largest is the "Horne form" named for the man who brought it into the US from Thailand. The smallest (and it stays the smallest) is a form commonly grown in Europe. Notice that no ant entry holes are visible in any of the caudexes. This is one of the main identifiers of *H. formicarum*.

(Update, September, 2008: Since publishing this article two years ago I have received several emails and photos of *Hydnophytum formicarum* plants being grown outside the US that do have ant entry holes above the soil line and high on the caudex. Even with these exceptions in ant entry hole placement, correct identification is still possible using the combination of all the features mentioned in this article: the leaves, leaf veins, flowers and shape of the young plants.)



In my experience here is how to tell mature plants of *Hydnophytum formicarum* and *moseleyanum* apart:

	H. formicarum	H. moseleyanum
Leaves	Leathery with 6 to 12 pairs of veins	Marginally succulent with 3 or 4 pairs of veins. Leaves lime-green and a different shape than H. formicarum.
Caudex	Brownish often rough Usually some low ridges radiating out like the spokes on a wheel. Ridges get obscure as the caudex gets bigger.	Silver/tan, tan or green (occ. brown) fairly smooth to rough Does not have radiating ridges
Ant entry holes	On the bottom of the caudex or at the soil line. (Update Sept. 2008 - Some exceptions to this where holes are also higher up on the caudex.)	On the bottom, at the soil line & on the lower half of caudex. Even on upper half of the caudex on older plants.
Flowers	Flowers are 3 to 4 mm long.	Flowers are 4 to 5 mm long.

This photograph is a typical plant of *H. moseleyanum*. Notice the two ant entry holes and there are several more at soil level and on the back side of the caudex.



There is considerable variation in the form the caudex takes in *H. moseleyanum* plants and cultural conditions influence it greatly. As hard as it may be to believe, these three plants, with brown, tan and green caudexes of very different shapes, are all descendants of a single accession at the Atlanta Botanical Garden (ABG 90-1070). Is it any wonder that the naming of ant plants is mixed up!! All three plants have multiple ant entry holes on the caudex sides and tops.



Another way to tell *Hydrophytum formicarum* and *moseleyanum* plants apart is with leaf shape and leaf veins. The three leaves on the left are from the three *H. formicarum*s in the first photo above. The three leaves on the right are typical *H. moseleyanum* leaves. This photo is of the lower leaf surfaces. Notice the differences in leaf shapes and the veins. On older *H.*

moseleyanum leaves, like these, the veins are almost impossible to see on the lower surface of the leaves.



This photo is a close-up view (upper leaf surface) of *Hydnophytum formicarum* on the left and *H. moseleyanum* on the right to get a better comparison of the veins.



Young plants are easier to tell apart because of the obvious ridges on the caudex on many (but not all) forms of *H. formicarum*. *Hydnophytum moseleyanum* types never have ridges on young plants.

The two plants on the left are *Hydnophytum formicarum*s and the two pots on the right are *Hydnophytum moseleyanum*s.



Notice also that the caudex on young *Hydnophytum formicarum* plants tends to be quite flat whereas the caudex on *Hydnophytum moseleyanum* plants gets taller right from the start.