A Decade of Schismatoglottis Species
Peter Boyce & Wong Sin Yeng

Despite the considerable popularity of Alocasia and Colocasia, the list of horticulturally important aroid species is overwhelmingly comprised of aroids from the American tropics: Anthurium, Philodendron, Dieffenbachia, Spathiphyllum, Monstera and Caladium being pre-eminent. Paradoxically, aside from Alocasia, species from the old-world tropics that command horticultural attention, and even there an attention not or hardly addressed by the wholesale commercial trade, tend to be those grown primarily for the inflorescence: notably Amorphophallus, Arisaema and Typhonium although this in no way implies that the foliage of these magnificent Asians is not noteworthy.

However, this heavy Neotropical bias is not for want of exceptionally attractive and mostly easy to grow foliage plants in the Asian tropics. One such genus is Schismatoglottis,

Figure 1: Schismatoglottis pseudohatchii in habitat with the adult leaf lamina banding clearly visible over the fish-bone markings.

Figure 2: Cultivated plant of Schismatoglottis pseudohatchii showing the numerous leaves that develop in cultivated plants.
Despite the considerable popularity of Alocasia and Colocasia, the list of horticulturally important aroid species is overwhelmingly comprised of aroids from the American tropics: Anthurium, Philodendron, Dieffenbachia, Spathiphyllum, Monstera and Caladium being pre-eminent. Paradoxically, aside from Alocasia, species from the old-world tropics that command horticultural attention, and even there an attention not or hardly addressed by the wholesale commercial trade, tend to be those grown primarily for the inflorescence: notably Amorphophallus, Arisaema and Typhonium although this in no way implies that the foliage of these magnificent Aroids is not noteworthy.

However, this heavy Neotropical bias is not for want of exceptionally attractive and mostly easy to grow foliage plants in the Asian tropics. One such genus is Schismatoglottis, a predominantly old world tropics genus of more than 150 species of terrestrial herbaceous mesophytes (plants adapted to constant levels of soil and atmospheric moisture), less often rheophytes (adapted to the flood zones of tropical forest streams), very rarely helophytes (swamp plants in full sun), with a primary distribution centred on Borneo.

As might be imagined, any aroid genus with well in excess of one hundred species contains at least some of horticultural merit. Schismatoglottis certainly does not disappoint, and although at the present time rather few are in cultivation outside of specialist research collections, botanic gardens and a few enthusiasts, there are many species that would grace any collection where they are more readily available.

Schismatoglottis is presently the focus of a study aimed at resolving issues about its internal relationships. However, the last revision, that of Hay & Yuzammi (2000), set some informal parameters (termed ‘Groups’) and these are followed here with the addition of species complexes to provide fine-line delimitation of species complexes.

**Asperata Group**
The Asperata Group comprises species with a clumping habit and petioles that are often conspicuously and colourfully ornamented with warts, hairs, scales or bristles. Leaves are simple or with cordate bases and are usually softly succulent. Very colourfull leaf markings combined with striking petiole make for handsome plants.

**Asperata complex**
The asperata complex contains many handsome species. Of note are Schismatoglottis pseudohatchii (Figs. 1 – 3) with glossy olive-green leaves with a striking silver fish-bone pattern overlain with silver banding. In juvenile plants (in this instance tissue cultured plants ca. 6 weeks from the flask) the leaf markings comprise just the fish-bone markings (Fig. 3) but as plants age the banding becomes conspicuous. Mature plants in cultivation are multi-foliare and exceptionally handsome (Fig. 2). In the same group is the aptly-named S. mira (Figs. 4 – 6) with extraordinary shankskin-textured emerald green leaves with a conspicuous cream median-band (Fig. 5). As with S. pseudohatchii, S. mira is in tissue culture and flats of the young plants are outstandingly attractive (Fig. 6).

**Barbata complex**
The *barbata* complex differs from the asperata complex primarily in having the petioles and one or both surfaces of the leaf

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**Figure 3:** Young ex vitro plants of *Schismatoglottis pseudohatchii* with the leaf markings beginning to develop; the fish-bone veining is the first to appear.

**Figure 4:** The outstandingly attractive *Schismatoglottis mira* in habitat.

**Figure 5:** Detail of the shankskin texture of the leaf lamina in *Schismatoglottis mira*.
species most often seen in cultivation is S. ciliata (Figs. 7 – 9) a species widespread in Borneo with often conspicuously variegated leaf laminae held erect on conspicuously white-bristly petioles (Fig. 9). In the wild S. ciliata is frequently found growing in deep peat deposits in heavy shade with the erect growth habit functioning as a litter-trap (Fig. 8) with numerous roots entering the accumulated humus around the petioles bases. Schismatoglottis ferruginea (Figs. 10 – 11) is similar but with the petiole and leaf lamina hairs much softer in texture.

Perhaps the most remarkable species in the barbata complex is S. pyrhias (Figs. 12 – 14), a species from limestone in remote areas of central Sarawak. The deep green glossy leaves are carried on plum-purple petioles covered in dense white bristles (Fig. 13), while the backs of the leaf laminae are jade-green with all veins thickly covered with cherry-red bristles (Fig. 14). Although very rare in cultivation, these plants have proven to be very easy, albeit slow, to maintain in cultivation.

Gamoandra complex
The gamoandra complex is interesting in that aside from S. gamoandra itself almost all of the species are new to science.
Figure 10: Schismatoglottis ferruginea in Sabah.

Schismatoglottis gamoandra (Figs. 15 – 19) is a rosette-forming dwarf species from central Sarawak with thin stiff leaves held flat on the ground on short petioles (Fig. 15). The leaf texture is like thin aluminium sheeting while the lamina colours continue the metallic theme in being pewter-grey with, in some clones, the middle of the leaf burnished into a dull silver band (Fig. 16). The whole leaf is made further striking by the raised chessboard venation (Fig. 17). For such a diminutive species the inflorescences are large and held almost erect in the middle of the leaves (Fig. 18). As can be seen from Fig. 19, the generic name Schismatoglottis is derived from the Greek schisma, schismatos (separating) and glotta (tongue) and refers to the variously deciduous spathe limb that is a feature of S. gamoandra and most other species. Schismatoglottis gamoandra is also in tissue culture (Fig. 20).

Figure 11: Schismatoglottis ferruginea in close-up to show the much finer and softer 'hairs' as compared with S. ciliata.

Figure 12: Schismatoglottis pyrrhias in cultivation.

Figure 13: Schismatoglottis pyrrhias detail to show the plum-coloured petioles with the white 'hairs'.

Figure 14: Schismatoglottis pyrrhias leaf lamina, rear view, to show red 'hairs'.

Figure 15: Schismatoglottis gamoandra in habitat with the leaves pressed close to the ground, a diagnostic feature.

Figure 16: Schismatoglottis gamoandra in one of the variegated forms.
Multiflora Group
The Multiflora Group is readily recognized by the petioles with the greater proportion of the petiolar sheath free-ligular. Leaf laminae are simple and usually plain green in a variety of shades from deep olive to vibrant emerald but this is made up for by the often striking venation patterns, especially on the leaf underside.

Erecta complex
*Schismatoglottis erecta* (Figs. 21 – 24) and its all allies are distinctive by the slender, erect stems and long, willowy deep green leaves. They comprise one of a few small distinct alliances of *Schismatoglottis* that exhibit a climbing habit, the stems rooting onto nearby vertical surfaces. Inflorescences in *S. erecta* are nodding and intriguingly

**Figure 17:** *Schismatoglottis gamoandra* leaf venation detail to show the chess-board-like raised veins.

**Figure 18:** *Schismatoglottis gamoandra* inflorescence at female anthesis, with the spathe limb gaping slightly.

**Figure 19:** *Schismatoglottis gamoandra* inflorescence at male anthesis, the spathe limb already more-or-less shed.

**Figure 20:** Young *ex vitro* plants of *Schismatoglottis gamoandra*; already the leaf markings and distinctive venation are well-developed.

**Figure 21:** *Schismatoglottis erecta* in bud.

**Figure 22:** *Schismatoglottis erecta* showing the climbing habit.

**Figure 23:** *Schismatoglottis erecta* inflorescence at late female anthesis.

**Figure 24:** *Schismatoglottis erecta* inflorescence at male anthesis, the spathe limb has began to break away from the lower spathe and the pollen has been released in strings.
Figure 25: Schismatoglottis corneri in habitat in Sarawak. This is a small plant.

Figures 26–30: Schismatoglottis motleyana in various leaf forms.
shaped, and a pleasing combination of pale browns, green and deep mahogany and are produced in some numbers on mature plants. In common with many other species in the Multiflora Group, pollen is released in strings rather in the manner of toothpaste being squeezed from the tube.

**Corneri Group**
The Corneri Group comprises a single species, *S. corneri* (Fig. 25), that is the largest in the genus, with Alocasia-like succulent grey-green leaves that can reach over 3 m tall and produces clusters of large inflorescences resembling in shape and size white and jade walking sticks. For a long time *S. corneri* was considered to be endemic to Sabah and the Indonesian Anambas Islands but has recently been found in Sarawak, where this photograph was taken.

**Calyptrata Group**
Species closely allied to *S. calyptrata* have shoots with numerous lateral buds on the rhizome and are colony-forming plants in the wild. Large colonies tend to be colonial and form extensive carpets of uniform leaves (Fig. 31).

*Schismatoglottis motleyana* (Figs. 26 – 31) is a variable species, with a wonderful range of leaf markings. It has great potential as a landscaping groundcover plant and also makes a striking specimen in a large container.

The widespread (one of only three *Schismatoglottis* species co-present in West Malaysia and Borneo) but never abundant *S. longifolia* (Figs. 32 – 35) often has the strap-like leaves with a silver median band (Fig. 32), or with the petiole strikingly contrasting in colour to the lamina (Fig. 33), has the spathe limb barely opening and then persistent after anthesis before gradually degrading and falling while still clasping the spent parts of the spadix. The clustered, nodding inflorescences and cup-like infructescences are diagnostic for this species.

**References**

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