

THE ENDEMIC ORCHID GENERA OF THE ANTILLES

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In the Antillean Archipelago there are more than 600 species of orchids in about 120 genera. Of them about 90 species belong to 14 endemic genera. The Antillean genera are purely a Greater Antilles phenomenon. Only three species extend into Florida and three into the Lesser Antilles (Table1).

The epidendroid phylade (van den Bergh *et al.* 2000) shows the three alliances that concern us here, the *Neocogniauxia–Dilomilis* clade, the *Domingoa* clade and the *Broughtonia* clade. As predicted by Dressler in 1981, the paper shows quite convincingly both the relationship of the *Neocogniauxia–Dilomilis* clade to the Pleurothallids and its relationship to the progenitors of the Laeliinae. Except for *Dilomilis montana*, the members of this group are rare and highly endangered. The position of the monospecific genus *Tomzanonia* Nir remains unresolved. Since at present there are apparently no closely related species

on the mainland, these may be considered palaeo-endemics.

In the *Domingoa–Nageliella–Homalopetalum* clade, the van den Bergh & al. paper fully confirms Dressler's (1964) transfer of the Mexican *Ponera–Scaphyglottis–Hartwegia kienastii* to *Domingoa*, which until then consisted of *Domingoa nodosa* and *Domingoa haematochila* from Hispaniola and Mona, thus reducing the number of purely Antillanean genera.

The *Broughtonia* clade, consisting of the genera *Basiphyllaea*, *Tetramicra*, *Quisqueya*, *Psychilis* and *Broughtonia*, was also predicted by Dressler (1981). At the time there was one *Tetramicra* with pseudobulbs, while recently the epiphytic *Tetramicra malpighiarum* was described (Hernández & Díaz 2000). At least two new species of *Tetramicra* remain to be published. *Laeliopsis* and *Cattleyopsis* have already been previously included in *Broughtonia* (e.g. Díaz 1996, Nir 2000).

Molecular data on *Basiphyllaea* have not yet been published. Since the publication of Orchidaceae Antillanae (Nir 2000), two additional species were described (Díaz *et al.* 2001, Ackerman 2001) and two more transferred from *Bletia*.

The publication of the paper by Carlswald *et al.* (2002) fully justifies the reunification of the genera *Polyrrhyza* and *Polyradicion* with *Dendrophylax* as proposed by Nir (2000), while several species need to be transferred from *Campylocentrum* to *Dendrophylax*, most notably the monospecific genus *Harrisella*. The paper also demonstrated the non-conspecificity of the Caribbean *Campylocentrum jamaicense* with the mainland *Campylocentrum micranthum*. The New World Angraecinae now comprise two genera as proposed by Nir (2000), forming a neotropical clade, sister to the Old World Angraecinae.

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| <i>Antillanorchis</i> | 1 | |
| <i>Basiphyllaea</i> | 3 | F |
| <i>Braasiella</i> | 1 | |
| <i>Broughtonia</i> | 6 | |
| <i>Dendrophylax</i> | 8 | F |
| <i>Dilomilis</i> | 5 | |
| <i>Domingoa</i> | 2 | |
| <i>Fuertesilla</i> | 1 | |
| <i>Neocogniauxia</i> | 2 | |
| <i>Psychilis</i> | 15 | L.A. |
| <i>Quisqueya</i> | 4 | |
| <i>Tetramicra</i> | 13 | L.A. |
| <i>Tomzanonia</i> | 1 | |
| <i>Tolumnia</i> | 23 | F, L.A. |

Table 1. The Antillanean Orchid Genera. Number of species in each genus (One species each: F = Florida, L.A. = Lesser Antilles). Modified from Nir, Orchidaceae Antillanae, 2000.

The monophyly of the entirely Caribbean *Tolumnia* clade was shown by Williams *et al.* (2001). A cladogram by Williams and Whitten (2001) fully justifies the incorporation of the segregates *Hispaniella*, *Jamaicella*, *Olgasis* (Nir 1994), *Gudrunia* (Nir 2000), and *Braasiella* (Ackerman 2001) into *Tolumnia* Braem.

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