

Names in *Habenaria* for species currently in the African orchid genera *Centrostigma*, *Platycoryne* and *Roeperocharis* (Habenariinae, Orchidoideae)

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Abstract

Molecular phylogenetic research has shown that the African genera *Centrostigma*, *Platycoryne* and *Roeperocharis* are all embedded in *Habenaria*. Here, I list all names in *Habenaria* for species previously in the above three genera and provide ten new names and ten new combinations.

Key words: African orchids, *Bonatea*, orchid nomenclature, orchid phylogenetics, Orchidaceae

Introduction

There has been no doubt that the African genera *Bonatea* Willdenow (1805: 43), *Centrostigma* Schlechter (1915: 522), *Platycoryne* Reichenbach (1855: 212) and *Roeperocharis* Reichenbach (1881: 104) are all closely related to *Habenaria* Willdenow (1805: 44). Indeed, except for *Roeperocharis*, members of these genera have been included in *Habenaria* by various authors, and thus many have a combination in *Habenaria*. The question under discussion has been how closely related to *Habenaria* they really are.

Centrostigma is a small genus of three species distributed over tropical and southern Africa south of the Equator (POWO 2025). They inhabit dambos and swampy grasslands. The name refers to the central position of the stigma in the flower. The genus differs from *Habenaria* in the structure of the stigmatic processes, which are bilobed with the upper part sterile and horn like and the lower part fertile and clavate (Pridgeon *et al.* 2001).

Platycoryne currently consists of about 20 species. The genus is widespread in tropical Africa and Madagascar (POWO 2025). The name refers to the broad, thickened rostellum. They also prefer wet places such as dambos, wet grasslands and wet shallow soil pockets on rock outcrops. Most species have a short, dense head of flowers, which are often bright orange. Although there are no unique apomorphic features to distinguish this genus from *Habenaria*, *Platycoryne* species share short, thickened stigmatic lobes with the anther overtopped by the midlobe of the rostellum, which is usually placed well in front of it. (Pridgeon *et al.* 2001).

Roeperocharis consists of five species. They are distributed over montane Africa (POWO 2025). The genus is named for the German botanist Johannes August Christian Roeper. They grow in grasslands up to 2750 m. *Roeperocharis* species have a remarkable gynostemium with prominent column arms (Pridgeon *et al.* 2001).

Kraenzlin (1901) considered species in *Bonatea*, *Centrostigma* and *Platycoryne* as part of *Habenaria*, but kept *Roeperocharis* separate. Summerhayes (1956, 1958, 1968) kept all of them as separate genera, and his opinion has been followed in almost all recent treatments of African orchidoid orchids (e.g., la Croix & Cribb 1995). Kurzweil & Weber (1992) studied the floral morphology and ontogeny of southern African Habenariinae in detail and concluded that “the generic separation of *Bonatea*, *Platycoryne* and *Centrostigma* does not appear justified”. In their opinion “*Bonatea*, *Platycoryne* and *Centrostigma* [...] appear to represent merely specialized forms of *Habenaria*, for which a section seems to be the adequate rank”. However, they found *Roeperocharis* sufficiently distinct to warrant generic status. Despite their conclusions, Kurzweil & Weber (1992) did not propose nomenclatural changes.

More recently, using molecular evidence, Ngugi *et al.* (2020) showed that *Bonatea*, *Centrostigma*, *Platycoryne* and *Roeperocharis* are all deeply nested in *Habenaria*. Consequently, to keep an evolutionary meaningful classification,

inclusion of these four genera in *Habenaria* is justified, and while research on generic boundaries and subgeneric classification of *Habenaria* is ongoing, we can, for the time being, refer to them as clades of *Habenaria*.

There is, thus, a need to make all the names of species previously treated in *Bonatea*, *Centrostigma*, *Platycoryne* and *Roeperocharis* available in *Habenaria*. Taxa in *Bonatea* have been transferred previously (Bytebier 2025). Here we deal with *Centrostigma*, *Platycoryne* and *Roeperocharis*. Although some species already have a combination in *Habenaria*, ten do not, and new combinations are provided here. Furthermore, since over 2000 epithets have already been coined in *Habenaria*, ten taxa require new names. For the sake of completeness, I list the name in *Habenaria* of all currently recognized species (sensu POWO, 2025) of the three genera.

Taxonomic treatment

Habenaria Willdenow (1805: 44)

Bonatea Willdenow (1805: 43)

Centrostigma Schlechter (1915: 522)

Platycoryne Reichenbach (1855: 212)

Roeperocharis Reichenbach (1881: 104)

Note: *Habenaria* currently has about 40 additional generic synonyms.

Habenaria accedens Bytebier, *nom. nov.*

Replaced synonym: *Platycoryne alinae* Szlachetko in Szlachetko & Olszewski (1998: 202)

Note: not *Habenaria alinae* Szlachetko in Szlachetko & Olszewski (1998: 116)

Etymology: the name refers to its resemblance to *H. magnicornuta* (*Platycoryne macroceras* Summerh.).

Habenaria alcicornis (Kraenzlin in Reichenbach 1892: 105) Bytebier, *comb. nov.*

Basionym: *Roeperocharis alcicornis* Kraenzl.

Habenaria ambigua Kraenzlin (1900: 175)

Homotypic synonym: *Platycoryne ambigua* (Kraenzl.) Summerhayes (1934: t. 3239)

Habenaria bennettiana (Reichenbach 1881: 104) Bytebier, *comb. nov.*

Basionym: *Roeperocharis bennettiana* Rchb.f.

Habenaria brevidentata Bytebier, *nom. nov.*

Replaced synonym: *Platycoryne mediocris* Summerhayes (1958: 72)

Note: not *Habenaria mediocris* Dressler (1999: 96)

Etymology: the name refers to the tooth-like side lobes of the lip.

Habenaria brevirostris (Summerhayes 1958: 68) Bytebier, *comb. nov.*

Basionym: *Platycoryne brevirostris* Summerh.

Habenaria buchananiana Kraenzlin (1894: 247)

Homotypic synonym: *Platycoryne buchananiana* (Kraenzl.) Rolfe in Thiselton-Dyer (1898: 257).

Habenaria guingangae Reichenbach (1865: 179)

Homotypic synonym: *Platycoryne guingangae* (Rechb.f.) Rolfe in Thiselton-Dyer (1898: 258)

Habenaria inflata Bytebier, *nom. nov.*

Replaced synonym: *Centrostigma clavatum* Summerhayes (1956: 221)

Note: Not *Habenaria clavata* Reichenbach (1865: 180)

Etymology: the name refers to the inflated spur.

Habenaria isoetifolia (Cribb 1977: 141) Bytebier, *comb. nov.*

Basionym: *Platycoryne isoetifolia* P.J.Cribb

Habenaria liberipetala Bytebier, *nom. nov.*

Replaced synonym: *Platycoryne affinis* Summerhayes (1958: 61)

Note: not *Habenaria affinis* Don (1825: 25)

Etymology: the name refers to petals free from the sepals.

Habenaria liberipetala var. *ecalcarata* (Fiebeck 2001: 146) Bytebier, *comb. nov.*

Basionym: *Platycoryne affinis* Summerh. var. *ecalcarata* Fiebeck

Habenaria magnicornuta Bytebier, *nom. nov.*

Replaced synonym: *Platycoryne macroceras* Summerhayes (1958: 66)

Note: not *Habenaria macroceras* Sprengel (1826: 692)

Etymology: the name refers to the horn-like rostellum.

Habenaria maleveziana (Geerinck in Delepierre & Lebel 2001: 6) Delepierre & Lebel (2002: 1)

Basionym: *Roeperocharis maleveziana* Geerinck

Habenaria mauamakubwa Bytebier, *nom. nov.*

Replaced synonym: *Platycoryne grandiflora* Summerhayes (1958: 65)

Note: not *Habenaria grandiflora* (Bigelow 1824: 321) Beck (1833: 349)

Etymology: the name refers to big flowers in Kiswahili: *maua makubwa*.

Note:—Geerinck considered this to be *Platycoryne latipetala* (Summerh.) var. *grandiflora* (Summerh.) Geerinck (1982: 345). However, I follow Summerhayes and keep this at species rank.

Habenaria megalorrhyncha (Summerhayes 1933: 250) Bytebier, *comb. nov.*

Basionym: *Platycoryne megalorrhyncha* Summerh.

Habenaria multinervis Bytebier, *nom. nov.*

Replaced synonym: *Platycoryne latipetala* Summerhayes (1958: 64)

Note: not *Habenaria latipetala* Schlechter (1918: 194)

Etymology: the name refers to the fact that the perianth parts are several-nerved with numerous cross veins between the nerves.

Habenaria occultans Welwitsch in Reichenbach (1865: 178)

Homotypic synonym: *Centrostigma occultans* (Welw. in Rchb.f.) Schlechter (1915: 523)

Habenaria ochyrana (Szlachetko, Mytnik-Ejsmont, Rutkowski, Jerchewicz & Baranow 2010: 132) Bytebier, *comb. nov.*

Basionym: *Platycoryne ochyrana* Szlach., Mytnik, Rutk., Jerch. & Baranow

Habenaria paludosa Lindley (1862: 139)

Homotypic synonym: *Platycoryne paludosa* (Lindl.) Rolfe in Thiselton-Dyer (1898: 256)

Habenaria pervillei (Reichenbach 1855: 212) Kraenzlin (1892: 209)

Basionym: *Platycoryne pervillei* Rchb.f.

Habenaria protearum Reichenbach (1878: 57)

Homotypic synonym: *Platycoryne protearum* (Rchb.f.) Rolfe in Thiselton-Dyer (1898: 258)

Habenaria protearum var. ***recurvirostrum*** (Williamson 1980: 60) Bytebier, *comb. nov.*

Basionym: *Platycoryne protearum* var. *recurvirostrum* G.Will.

Habenaria papillistigma Bytebier, *nom. nov.*

Replaced synonym: *Centrostigma papillosum* Summerhayes (1956: 219)

Note: not *Habenaria papillosa* Ridley (1885: 504)

Etymology: the name refers to the papillose stigma.

Habenaria stanislaviana Bytebier, *nom. nov.*

Replaced synonym: *Platycoryne lisowskiana* Szlachetko & Kras (2008: 103)

Note: not *Habenaria lisowskiana* Geerinck (1982: 144)

Etymology: the name honours the Polish botanist, Stanislaw Lisowski (1924–2002).

Habenaria trilobata (Summerhayes 1958: 67) Bytebier, *comb. nov.*

Basionym: *Platycoryne trilobata* Summerh.

Habenaria urbanii Bytebier, *nom. nov.*

Replaced synonym: *Roeperocharis urbaniana* Kraenzlin in Reichenbach (1892: 104)

Note: not *Habenaria urbaniana* Cogniaux (1893: 45)

Etymology: the name is in honour of the German botanist Ignatz Urban (1848–1931).

Habenaria vitellina Bytebier, *nom. nov.*

Homotypic synonym: *Platycoryne crocea* Rolfe in Thiselton-Dyer (1898:257)

Note: not *Habenaria crocea* Rafinesque (1832: 119)

Etymology: the name refers to the orange flowers.

Habenaria wentzeliana (Kraenzlin in Engler 1901: 283) Bytebier, *comb. nov.*

Basionym: *Roeperocharis wentzeliana* Kraenzl.

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