

## Malaxidinae index nominum – *Kornasia* SZLACH. and *Lisowskia* SZLACH. (Orchidaceae)

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### Zusammenfassung

Für *Kornasia* SZLACH. and *Lisowskia* SZLACH. (Orchidaceae) wird eine Liste der publizierten Namen und ihrer Synonyme präsentiert. Diese gibt auch die Typusbelege und die aktuelle Position der Taxa. Eine neue Kombination in *Lisowskia* wird publiziert.

### Abstract

A list of published taxa is given for *Kornasia* SZLACH. and *Lisowskia* SZLACH. including complete citations and types. One new combination within *Lisowskia* is included..

**Key-words:** Orchidaceae, Malaxidinae, *Kornasia*, *Leptorkis*, *Liparis*, *Lisowskia*, *Malaxis*, *Microstylis* taxonomy.

### Introduction

There is a specific set of characters for both *Lisowskia* and *Kornasia*, also clearly differentiating each of them from other representatives of the subtribe Malaxidinae. Representatives of both genera are terrestrial plants, growing between elevations from 500 to 2200 m in tropical Africa, c. between 20° N and S. Additionally, one species of *Lisowskia* grows in Madagascar as well.

### Results and Discussion

SZLACHETKO (1995) separated the genera *Lisowskia* and *Kornasia* from the polymorphic genus *Malaxis* SOL. ex Sw. He included 3 species in *Kornasia* and 5 species in *Lisowskia*. Except of superficial similarities of habits and small size of plants, the representatives of *Kornasia* and *Lisowskia* in many morphological and anatomical aspects are distinctly inconsistent with the type species of *Malaxis* – *M. spicata* SOL. ex Sw.

SZLACHETKO described *Kornasia* as plants generally similar in habit to another African genus, *Orestias* RIDLEY (MARGOŃSKA & SZLACHETKO 2006). *Kornasia* are plants with leaves convolute and plicate, mostly positioned at middle part of stem, and widely spreading. Their inflorescences are 10-30-flowered, umbellate or in form of abbreviated spikes (*K. schliebenii*). The flowers are resupinate, with widely spread tepals. The lip is in general outline always pear-like, without distinct basal auricles, with 2 pubescent stri-

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pes near base, thickened along the basal margins, minutely and irregularly dentate at distal edge, with the middle apical tip positioned within gentle indentation. The central part of *Kornasia* lip, just along the main veins, is ornamented by one to few appendages, uniquely in size and shape (except *K. schliebenii*).

SZLACHETKO (1995) emphasised the distinguished character of *Kornasia* gynostemium: column slightly elongated and arcuately curved, slender; staminodes elongate, nearly falcate; rostellum thin, lamellar, obscurely 3-lobed – lateral lobes gently concaved, the middle one longer and less folded; anther nearly erect, gently dorsiventrally flattened, with filament incorporated into rather obscure, entire dorsal clinandrium, connective narrow but thick, forming a roof over anther chambers (opening ventrally); pollinia 4, in pairs, uniquely in size, the outer one with viscidia (SZLACHETKO & MARGOŃSKA 2002).

SZLACHETKO (1995) described *Lisowskia* as also habitually similar to *Orestias* RIDLEY. *Lisowskia* leaves are also convolute and plicate, situated at middle part of stem or lower and widely spreading. The inflorescences are always with elongate spikes, few to 40-flowered. Flowers are rather small, resupinate, widely spread. The lip is characteristic: horizontally or vertically elliptic, with two distinct basal, fleshy auricles, at central part or just near base with single or double pubescent thickenings. The middle part of lip, below of basal thickening, is often equipped by group of uniquely in size and shape appendages.

Very distinctive features for the genus are found in the morphology of generative structures: column of gynostemium erect, longer than anther; staminodes broadly falcate; rostellum erect, usually truncate, sometimes triangular to almost 3-lobed; anther almost incumbent, motile, transversally elliptic, clinandrium apical and prominent, entire to irregularly denticulate on margins, locules opening ventrally, connective narrow, thin; pollinia 4, in pairs, distinctly uniquely in size and shape, the outer one with viscidia (SZLACHETKO & MARGOŃSKA 2002).

The names in the index are given as:

***bold Italic*** – current name,

*Italic* – published name;

≡ homotypic taxon (based on the same type-specimens),

= heterotypic taxon (based on different type-collections); following – the citation is given, where the taxon was put into this synonymy first time.

Illegitimate and misunderstood names ("sensu") are given in normal letters. Herbaria are given with their abbreviations in Index Herbariorum.

### ***Lisowskia* index nominalis**

***Lisowskia*** SZLACH., Fragm. Flor. Geobot., Suppl. 3: 121 (1995)

Type species: ***Lisowskia katangensis*** (SUMMERH.) SZLACH.

= *Malaxis* SOL. ex SW. sect. *Katochilos* SCHLTR., Ann. Mus. Col. Marseille, ser. 3., 1: 164 (1913), pro parte.

***Lisowskia katangensis*** (SUMMERH.) SZLACH., Fragm. Flor. Suppl. 3: 121 (1995)

≡ *Malaxis katangensis* SUMMERH., Bot. Mus. Leafl. Harvard. Univ. 14: 221 (1951).

Type: Zaire, Katanga Distr., near Elisabethville, North Farm, 09.12.1923., C. W. von Hirschberg 152 [holotype: K-000242172!, isotypes: BR!, K! icone].

***Lisowskia katangensis*** (SUMMERH.) SZLACH. var. ***pygmaea*** (SUMMERH.) MARG., **comb.n.**  
 ≡ *Malaxis pygmaea* SUMMERH., Bot. Mus. Leafl. Harvard. Univ. 14: 223 (1951).  
 ≡ *Malaxis katangensis* SUMMERH. var. *pygmaea* (SUMMERH.) P.J. CRIBB, Kew Bull. 32 (4): 739 (1978).

Type: Zimbabwe, Mwinilunga Distr., just N of Mwinilunga, 26.01.1938., Milne-Redhead 4359 [holotype: K-000242171!, isotype: BR0000008814302!, PRE].

Note: The varietal status of *pygmaea* SUMMERH. proposed by CRIBB (1978) is agreed. Therefore, the new combination is necessary.

***Lisowskia physuroides*** (SCHLTR.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 121 (1995)  
 ≡ *Microstylis physuroides* SCHLTR., Ann. Mus. Col. Marseille, ser. 3., 1: 164 (1913)  
 ≡ *Malaxis physuroides* (SCHLTR.) SUMMERH., Kew Bull. 1953: 578 (1954).

Type: Madagascar, Sambirano, Manongarivo, 400 m, 04.1909., Perrier de la Bathie 89 [holotype: P!, isotype B+].

***Lisowskia prorepens*** (KRAENZL.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 122 (1995)  
 ≡ *Microstylis prorepens* KRAENZL., Bot. Jahrb. Syst. 17: 48 (1893)  
 ≡ *Malaxis prorepens* (KRAENZL.) SUMMERH., Bull. Misc. Inform. Kew 1934: 208 (1934).

Type: Sierra Leone, Regent near Freetown, 06.1888., Preuss s.n. [holotype: B+, lectotype (SZLACHETKO, in SZLACHETKO & OLSZEWSKI 2001: 371.): K! icone].

= *Microstylis katochilos* SCHLTR., Bot. Jahrb. Syst. 38: 5 (1905) – P.J. CRIBB 1978: 740.  
 ≡ *Malaxis katochilos* (SCHLTR.) SUMMERH., Kew Bull. 6 (1951): 465 (1952).

Type: Tanzania, Morogoro, Uluguru Mts, NW Bebelwald, 1888 m, 12.12.1933., Schlieben 3100 [holotype: B!, isotype: BM-00088103!, G!, K! photo, K! icone].

Note: SCHLECHTER originally on the type-sheets called the taxon "*katochilus*", but in the description he used another spelling of the name - *katochilos* - and this form is accepted.

***Lisowskia welwitschii*** (RCHB.f.) MARG., Richardiana 6(2): 50 (2007)

≡ *Liparis welwitschii* RCHB.f., Flora 48: 184 (1865)

≡ *Leptorkis welwitschii* (RCHB.f.) KUNTZE, Rev. Gen. 2: 673 (1891).

Type: Angola, district de Golungo, 8-10° S, 300-750 m, 07.1855, Welwitsch 660 (Holotype: W-Rchb.Orch. 39776!, Isotypes: G!, K-000242146!, W-Rchb.Orch. 8607!, W-Rchb.Orch. 2002-14555!-icone).

= *Liparis weberbaueriana* KRAENZL., Orchis 2: 128. 1908. – MARGOŃSKA. 2007: 50.

≡ *Malaxis weberbaueriana* (KRAENZL.) SUMMERH., Bull. Misc. Inform. Kew 1934: 208 (1934)

≡ *Lisowskia weberbaueriana* (KRAENZL.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 122 (1995).

Type: Cameroun, 1906, Weberbauer 42 [holotype: B+, lectotype (SZLACHETKO, in SZLACHETKO & OLSZEWSKI, 2001: 366.): K-000106616!].

Note: By mistake SZLACHETKO (1995) cited the non-existent *Microstylis weberbaueriana* as the basionym instead of *Liparis weberbaueriana*. There is no doubt that the taxa *Liparis weberbaueriana* KRAENZL. (K) and *Liparis welwitschii* RCHB.f. (W, K) must be treated as conspecific.

= *Microstylis stolzii* SCHLTR., Bot. Jahrb. Syst. 53: 559 (1915) – P.J. CRIBB 1978: 740.

≡ *Malaxis stolzii* (SCHLTR.) SUMMERH., Kew Bull. 2: 126 (1948).

Type: Nyassa Highland, Kyimbila Distr., N of Lake Nyasa, Bomalakitana, 900 m, 03.04.1911., Stolz 670a [holotype: B+, lectotype (MARGOŃSKA. 2007: 51.): BM-000088109!, isotype: BM-000088111!, K!].

*Lisowskia welwitschii* (RCHB.f.) MARG. var. *melanotoessa* (SUMMERH.) MARG., Richardiana 6: 51 (2007).

≡ *Malaxis melanotoessa* SUMMERH., Bull. Misc. Inform. Kew 1934: 209 (1934).

≡ *Lisowskia melanotoessa* (SUMMERH.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 121 (1995).

Type: Liberia, Gola Forest, about 17 miles S of Ba, 27.05.1910., Bunting s.n. [holotype: BM-000088105!, K!-icone].

Note: Apart from features such as its small size, slightly longer lip and somewhat shorter gynostemium column, there are no significant characters for keeping the taxon as a separate species, but the mentioned above characteristics are enough for varietal status within *L. welwitschii*.

### ***Kornasia index nominalis***

*Kornasia* SZLACH., Fragm. Flor. Geobot., Suppl. 3: 121 (1995).

Type species: *Kornasia maclaudii* (FINET) SZLACH.

= *Malaxis* SOL. ex SW. sect. *Katochilos* SCHLTR., Ann. Mus. Col. Marseille, ser. 3., 1: 164 (1913) pro parte.

*Kornasia chevalieri* (SUMMERH.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 121 (1995)

≡ *Malaxis chevalieri* SUMMERH., Bull. Misc. Inform. Kew. 1934: 208 (1934)

≡ *Liparis sassandrae* A.CHEV., Expl. Bot. Afr. Occ. Franc. 1 613 (1920, nomen), A.CHEV. & SUMMERH., in HUTCHINSON & DALZIEL, Fl. W. Trop. Afr. 2 423 (1936).

Type: Cote d'Ivoire, Sassandra River, near Touan, 05.1909, A. Chevalier 21786 [holotype: P!, isotype: K-00042072!].

*Kornasia maclaudii* (FINET) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 121 (1995)

≡ *Microstylis maclaudii* FINET, Bull. Soc. Bot. France 54: 533 (1907)

≡ *Malaxis maclaudii* (FINET) BULL. Misc. Inform. Kew. 1934: 208 (1934).

Type: Guinee francaise, Songoya, Kuisam, 05.07.1898., Maclaud 81 [holotype: P!].

= *Malaxis hirschbergii* SUMMERH., Bot. Mus. Leafl. Harvard. Univ. 14: 225 (1951) – P.J. CRIBB 1978: 738.

Type: Congo, Katanga, Kerisnanga River near Elisabethville, in wet, dark places, at river edge under trees, 30.11.1923., Hirschberg 111 [holotype: K-0000242174!, isotype: K!].

*Kornasia schliebenii* (MANSF.) SZLACH., Fragm. Flor. Geobot., Suppl. 3: 121 (1995)

≡ *Microstylis schliebenii* MANSF., Not. Bot. Gart. Berlin 11: 808 (1933)

≡ *Malaxis schliebenii* (MANSF.) SUMMERH., Kew Bull. 6: 465. 1951 (1952).

Type: Tanzania, Ulanga District, Bezirk Mahenge, umgebung der Station Mahenge, 01.03.1932., *Schlieben 1848* [holotype: B+, lectotype: K-000242173!, isotypes: BM-000088108!, BR!, EA, G!, HBG!, MO-03312429!, P!].

**Index of referable names:*****Kornasia******Kornasia chevalieri******Kornasia maclaudii******Kornasia schliebenii******Lisowskia******Lisowskia katangensis******Lisowskia physuroides******Lisowskia prorepens******Lisowskia welwitschii******Lisowskia welwitschii* var. *melanotoessa******Liparis weberbaueriana* = *Lisowskia welwitschii******Liparis welwitschii* ≡ *Lisowskia welwitschii******Leptorkis welwitschii* ≡ *Lisowskia welwitschii******Lisowskia melanotoessa* ≡ *Lisowskia welwitschii* var. *melanotoessa******Lisowskia weberbaueriana* ≡ *Lisowskia welwitschii******Liparis sassandrae* A.CHEV. ≡ ***Kornasia chevalieri********Liparis sassandrae* A.CHEV. & SUMMERH. ≡ ***Kornasia chevalieri********Malaxis chevalieri* ≡ ***Kornasia chevalieri********Malaxis hirschbergii* = ***Kornasia maclaudii********Malaxis katangensis* ≡ *Lisowskia katangensis******Malaxis katangensis* var. *pygmaea* ≡ *Lisowskia katangensis* var. *pygmaea******Malaxis katochilos* = *Lisowskia prorepens******Malaxis maclaudii* ≡ ***Kornasia maclaudii********Malaxis melanotoessa* ≡ *Lisowskia welwitschii* var. *melanotoessa******Malaxis physuroides* ≡ *Lisowskia physuroides******Malaxis prorepens* ≡ *Lisowskia prorepens******Malaxis pygmaea* = *Lisowskia katangensis******Malaxis schliebenii* ≡ ***Kornasia schliebenii********Malaxis stolzii* = *Lisowskia welwitschii******Malaxis weberbaueriana* = *Lisowskia welwitschii******Microstylis katochilos* = *Lisowskia prorepens******Microstylis maclaudii* ≡ ***Kornasia maclaudii********Microstylis physuroides* ≡ *Lisowskia physuroides******Microstylis prorepens* ≡ *Lisowskia prorepens******Microstylis schliebenii* ≡ ***Kornasia schliebenii********Microstylis stolzii* = *Lisowskia welwitschii*****Acknowledgments**

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