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Research Article

New Ranks and New Combinations in Selected Families and Genera

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Abstract

Recent advancements in molecular phylogenetics have significantly reshaped infrageneric classifications across vascular plant genera, yet nomenclature within these ranks remains understudied. This article addresses critical gaps in the taxonomy of selected plant families by introducing nomenclatural novelties aligned with modern systematic frameworks. The study is structured into three interrelated sections. First, updated infrageneric classifications are proposed for six genera, i. e., *Calanthe*, *Docynia*, *Epimedium*, *Eriolobus*, *Galanthus*, and *Nymphaea*, integrating morphological and molecular evidence to resolve longstanding taxonomic ambiguities. For instance, formerly segregated genera *Cephalantheropsis*, *Gastrorchis*, and *Phaius* is herein newly treated as subgenera under the broadly circumscribed *Calanthe*, and *Paraphaius* is treated as a synonym of *Calanthe* subgen. *Hecabe*; while *Docynia* is retained as distinct from *Malus* due to its unique ecological and evolutionary adaptations. The second section validates 373 new nothoranks across 58 genera from 29 families of pteridophytes and spermatophytes: Amaranthaceae, Amaryllidaceae, Anemiaceae, Asparagaceae, Asphodelaceae, Asteraceae, Athyriaceae, Berberidaceae, Cistaceae, Crassulaceae, Dryopteridaceae, Heliconiaceae, Hydrangeaceae, Hypericaceae, Iridaceae, Lamiaceae, Lentibulariaceae, Marattiaceae, Musaceae, Nymphaeaceae, Orchidaceae, Papaveraceae, Plantaginaceae, Plumbaginaceae, Ranunculaceae, Rosaceae, Saxifragaceae, Verbenaceae and Violaceae. These include novel nothosections, nothosubsections, nothoseries, and nothosubgenera to accommodate hybrids previously lacking suitable placement. The third section establishes three new nothogenera and 28 new combinations across nine families, namely Apocynaceae, Athyriaceae, Convolvulaceae, Lamiaceae, Orchidaceae, Poaceae, Rosaceae, Saxifragaceae and Thelypteridaceae, resolving taxonomic inconsistencies arising from recent phylogenetic insights.

Keywords

Infrageneric Classification, New Combination, Nothogenus, Nothorank

1. Introduction

At familial and infrafamilial level, the taxonomic framework is rather steady with combination of more extensive and integrate morphological and molecular studies, while most infrageneric classification are either reexamined or re-circumscribed in two decades phylogenetically. Contrast to the creation and publishment of new nothogenera and nothospecies, the attention on infrageneric hybrid names is still not enough in most families of vascular plants. From 1973-2021, there are 256 published infrafamilial nothoranks (24 nothosubgenera, 185 nothosections, 20 nothosubsections

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and 23 nothoseries) for 44 (notho) genera from 22 families, plus two nothosubtribes in Cactaceae. [1] The current article aims to: (1) present updated infrageneric classificatory scheme for several genera with evidences from recent advances regarding their taxonomy; (2) integrate appropriate required infrageneric nothoranks to accommodate certain named nothospecies that are umcommonly provided in extant families and genera, according to the most recent or reasonable infrageneric classification for the involved genera; (3) mandate new nothogenera and combinations to meet recent taxonomic changes.

2. Sources and Methods

2.1. Literature Survey and Classification

A dataset of recorded hybrid names up to 1 May 2025 was compiled from online databases as the original material of current work. [1-3] Protologues are checked in an effort to ensure accuracy of the hybrid formula of involved taxa, but as there are too many to cite, all of them can be found online. At the family level, the modern classification systems - APG IV for flowering plants, and PPG I for ferns - are adopted. Infrageneric taxonomic framework and species concepts adopted here following particular phylogenetic studies and monographic works, are otherwise explained. Revised infrageneric classification proposed for selected genera herein are represent of current knowledge and understanding utilizing morphology and monophyletics. Further details are provided to make precise notes.

2.2. Nomenclature

Shenzhen Code of *ICN* [4] has been followed in making necessary nomenclatural decisions. Unless more recent information is available, author attributions of scientific plant names cited follows IPNI [1], albeit in the notation required by the journal. In addition to their use in direct citations of text(s), in accordance with the notation used by *ICN* ([4]: 205, 'Index to scientific names'), double quotation marks [" "] are placed around designations or orthographic varieties to indicate that they are not 'names' in the sense of *ICN* ([4]: Art. 6.3).

2.3. Formatting

Unless more recent information is available, author attribution and original publication of nothospecific names are in the notation of IPNI. [1] Herbarium codes follow Thiers. [5] In the following treatments, all names are arranged in alphabetical order to ease the use of the checklist. To achieve precise writing, only selected references are provided for crucial taxonomic information, a brief note is provided when necessary to make clarifications.

3. Nomenclatural Treatment

3.1. Updated Infrageneric Classification for Six Genera

Amaryllidaceae

Galanthus L. [2, 16, 21]

Remark: The morphology-based infrageneric classification of *Galanthus* is not fully consistent with phylogenetic findings. Based on phylogenetic results [16], *Galanthus* can be divided into seven series, which are corresponding to its seven well-supported clades: ser. *Latifolii* Kem.-Nath. (*Platyphyllus* clade), ser. *Trojanenses* Z. H. Feng (*Trojanus* clade), ser. *Ikarienses* Z. H. Feng (*Ikariae* clade), ser. *Elwesiani* Kem.-Nath. ex A. P. Khokhr. (*Elwesii* clade), ser. *Galanthus* (*Nivalis* clade), ser. *Woronowii* Kem.-Nath. (*Woronowii* clade) and ser. *Alpini* Z. H. Feng (*Alpinus* clade).

Galanthus ser. *Latifolii* Kem.-Nath. (1947).

Galanthus ser. *Trojanenses* Z. H. Feng, ser. nov. Type: *Galanthus trojanus* A. P. Davis & Özhatay.

Diagnosis: Bulbs ± ovoid or spherical; vernation applanate; leaves linear, sometimes slightly oblanceolate, medium to dark green; inner perianth segments with an apical notch, and a single green mark at the apex, or sometimes with two eye-like marks at the base. Monotypic.

Galanthus ser. *Ikarienses* Z. H. Feng, ser. nov. Type: *Galanthus ikariae* Baker.

Diagnosis: Bulbs ± ovoid or spherical; vernation supervoloute; leaves broad-linear to narrowly oblanceolate, light to medium green; inner perianth segments with an apical notch, and a single bold green mark (circa half the size of the segment) at the apex. Monotypic.

Galanthus ser. *Elwesiani* Kem.-Nath. ex A. P. Khokhr. (1966).

Galanthus ser. *Galanthus*.

Galanthus ser. *Woronowii* Kem.-Nath. (1947).

Galanthus ser. *Alpini* Z. H. Feng, ser. nov. Type: *Galanthus alpinus* Sosnowsky.

Diagnosis: Bulbs ± ovoid or spherical; vernation supervolute or applanate (only *G. angustifolius*); leaves linear (*G. angustifolius*, *G. koenenianus*) to narrowly oblanceolate, glaucous or greenglaucescent (*G. transcaucasicus*); inner perianth segments with an apical notch, and a single green mark at the apex, sometimes with a faint yellowish or green mark at the base (only *G. koenenianus*). Four species: *G. alpinus*, *G. angustifolius*, *G. koenenianus* and *G. transcaucasicus*.

Berberidaceae

Epimedium L. [2, 13, 14]

Remark: The serial classification of *Epimedium* sect. *Diphyllon* is controversial by different authors using floral spur, number of cauline leaf, rhizome or geographical distribution. [13] According to the subsequent molecular findings, Chinese sect. *Diphyllon* was divided into five well-supported clades related to flower morphology except that five species

were either isolated or formed a general polytomy. [14]

Epimedium subgen. *Rhizophyllum* (Fisch. & C. A. Mey.) Stearn (2002).

Epimedium subgen. *Epimedium*

Epimedium sect. *Diphyllon* (Kom.) Stearn (2002).

Epimedium ser. *Calcar* (S. Z. He) Z. H. Feng, stat. nov. — Basionym: *Epimedium* sect. *Calcar* S. Z. He, Genus Epimedium China: 28. 2014.

Epimedium ser. *Davidianae* Stearn (2002).

Epimedium ser. *Diphyllon* Kom. (1908).

Epimedium ser. *Dolichocera* Stearn (1938).

Epimedium ser. *Fargesii* Z. H. Feng, ser. nov. Type: *Epimedium fargesii* Franch.

Diagnosis: Flowers small but slightly larger than those of *Epimedium* ser. *Diphyllon*, stamens conspicuously protruded, 8-10 mm long. Four species: *E. dewuense*, *E. dolichostemon*, *E. fargesii* and *E. qingchengshanense*.

Epimedium ser. *Leptorrhizi* Z. H. Feng, ser. nov. Type: *Epimedium leptorrhizum* Stearn.

Diagnosis: Rhizome long-creeping, 1-2 mm thick, with internodes sometimes as much as 20 cm long. Petioles furnished with spreading reddish hairs; lateral leaflet often pruinose abaxially. Monotypic.

Epimedium ser. *Stellulati* Z. H. Feng, ser. nov. Type: *Epimedium stellulatum* Stearn.

Diagnosis: Inflorescence compound, loose, circa 15-20 cm long, pedicels with numerous glandular hairs. Flowers small, Petals much shorter than inner sepals, with blunt nectariferous spur. Monotypic.

Epimedium sect. *Epimedium*

Epimedium sect. *Macroceras* C. Morren & Decne. (1834).

Epimedium sect. *Polyphyllon* (Kom.) Stearn (2002).

NYMPHAEACEAE

Nymphaea L. [2, 17, 18]

Remark: Tradionally, *Nymphaea* is divided into five subgenera based on morphological traits, such as filament appearance, sterile appendage and carpel walls free or fused. [17] Jacobs, in 2007, added a new subgenus *Confluentes*, characterized by flowers with a distinct gap between petals and stamens, leaf margins toothed and seeds rather large. According to the subsequent molecular findings [18], it is warrant to reduce *Confluentes* as a section within subgen. *Anecphya* s. lat.

Nymphaea subgen. *Anecphya* (Casp.) Conard (1905).

Nymphaea sect. *Confluentes* (S. W. L. Jacobs) Bing Liu ex Zi Jun Li & Z. H. Feng, stat. nov. — Basionym: *Nymphaea* subgen. *Confluentes* S. W. L. Jacobs, Fl. Australia 2: 458. 2007.

Nymphaea sect. *Anecphya* (Casp.) Bing Liu ex Zi Jun Li & Z. H. Feng, stat. nov. — Basionym: *Nymphaea* subsect. *Anecphya* Casp., Ann. Mus. Bot. Lugduno-Batavi 2: 247. 1866.

Nymphaea subgen. *Brachyceras* (Casp.) Conard (1905).

Nymphaea subgen. *Nymphaea*

Nymphaea sect. *Xanthantha* (Casp.) Wiersema (1996).

Nymphaea sect. *Nymphaea*

Nymphaea subgen. *Lotos* (DC.) Conard (1905).

Nymphaea subgen. *Hydrocallis* (Planch.) Conard (1905).

Orchidaceae

Calanthe R. Br. [2, 6-11]

Remark: In *Calanthe*, seven major subclades are found by molecular phylogenetic analyses covering the major infrageneric groups in *Calanthe* and *Phaius* plus representative species of allied genera. Among which, subclade (6) was elevated to generic level as *Paraphaius*. [6, 7] However, Chase et al. [8] sought a broader delimitation of *Calanthe* to include the species of *Cephalantheropsis*, *Gastrorchis* and *Phaius* because "segregate new genera from both *Phaius* and *Calanthe* … results in generic concepts for which there are no reasonable morphological differences", and since *Calanthe* is conserved against *Phaius* [9-11], a broad sense of *Calanthe* is here adopted with an updated infrageneric classification.

Calanthe subgen. *Calanthe*

Calanthe sect. *Aceratochilus* Schltr. (1912).

Calanthe sect. *Alpinocalanthe* J. W. Zhai, Z. J. Liu & F. W. Xing (2014).

Calanthe sect. *Ghiesbreghtia* (A. Rich. & Galeotti) Schltr. (1912).

Calanthe sect. *Monophylla* D. A. Clayton & P. J. Cribb (2013).

Calanthe sect. *Puberula* J. W. Zhai, Z. J. Liu & F. W. Xing (2014).

Calanthe sect. *Tricarinata* J. W. Zhai, Z. J. Liu & F. W. Xing (2014).

Calanthe sect. *Verna* Kakadzu (1994).

Calanthe subgen. *Cephalantheropsis* (Guillaumin) Z. H. Feng, comb. & stat. nov. — Basionym: *Cephalantheropsis* Guillaumin, Bull. Mus. Natl. Hist. Nat., sér. 2, 32: 188. 1960.

Calanthe subgen. *Gastrorchis* (Schltr.) Z. H. Feng, comb. & stat. nov. — Basionym: *Gastrorchis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 33: 167. 1924.

Calanthe subgen. *Hecabe* (Raf.) Z. H. Feng, comb. & stat. nov. — Basionym: *Hecabe* Raf., Fl. Tellur. 4: 44. 1838. — Synonym: *Paraphaius* J. W. Zhai & F. W. Xing, Molec. Phylogen. Evol. 77: 221. 2014.

Calanthe subgen. *Phaius* (Lour.) Z. H. Feng, comb. & stat. nov. — Basionym: *Phaius* Lour., Fl. Cochinch. 2: 517, 529. 1790.

Calanthe subgen. *Preptanthe* (Rchb. f.) Schltr. (1912).

Calanthe subgen. *Styloglossum* Kakadzu (1994).

ROSACEAE

Docynia Decne. [2, 12]

Remark: The *Docynia-Docyniopsis* clade has a conflicting phylogenetic position in the nuclear and plastid trees, indicating that the evolutionary relationships are not clear-cut. Liu et al. [12] argued that "narrow generic concepts may be impractical for use", however, this does not necessarily justify lumping because taxonomic circumscription should consider the broader implications for conservation, ecology, and evolution, simply lumping *Docynia* into *Malus* based on ob-

viously unconvincing evidence may benifit the nomenclature but disrupt the understanding of the unique evolutionary adaptations and ecological roles of *Docynia*. *Docynia* is here kept as an independent genus, and is divided into two sections based on morpho-phylogenetic evidences: sect. *Docynia* encompasses *D. delavayi*, *D. indica* and *D. longiunguis*, and sect. *Paradocynia* contains only *D. doumeri*.

Docynia sect. *Docynia*

Docynia sect. *Paradocynia* Su Liu ex Z. H. Feng, sect. nov. Type: *Docynia doumeri* (Bois) C. K. Schneid.

Diagnosis: Lamina oblong to ovate, base rounded or cuneate, apex acute or acuminate, pubescent when young then glabrescent, or glabrous; styles 5, pubescent at base; pome ca 2.5–5.5 cm in diameter, subglobose, yellow to red. Monotypic.

Eriolobus (DC.) M. Roem. [2, 12, 15]

Remark: Although Liu et al. [12] argued that the transferring of *Docynia* to the genus *Eriolobus* is untenable, they, unfortunately, did not take the similar choice as another line of evidence to keep *Eriolobus* apart from *Malus* s. s. According to Wang et al. [15] and their previous research, *Malus* is dyphyletic, the North American crab apples clade being distant to the type clade, proving that it is an irrational choice to oversimply lumping *Eriolobus* into *Malus*. *Eriolobus* is here recognized as independent genus and is divided into three sections based on morpho-phylogenetic evidences, sect. *Eriolobus* includes only the type species *E. trilobatus*, sect. *Chloromeles* contains *E. angustifolius*, *E. coronarius* and *E. ioensis*, while sect. *Florentinae* solely embraces *E. florentinus*.

Eriolobus sect. *Chloromeles* (Decne.) Su Liu ex Z. H. Feng, comb. & stat. nov. — Basionym: *Malus* subgen. *Chloromeles* Decne., Nouv. Arch. Mus. Hist. Nat. Paris 10: 155. 1874. Type: *Eriolobus angustifolius* (Aiton) Su Liu ex Z. H. Feng.

Eriolobus sect. *Eriolobus*

Eriolobus sect. *Florentinae* (Rehder) Su Liu ex Z. H. Feng, comb. & stat. nov. — Basionym: *Malus* subsect. *Florentinae* Rehder, J. Arnold Arbor. 2: 48. 1920. Type: *Eriolobus florentinus* (Zuccagni) Stapf.

3.2. New Nothoranks of Pteridophytes and Spermatophytes

Amaranthaceae

Amaranthus L. [2, 19, 20]

Amaranthus nothosect. *Blorion* Z. H. Feng, nothosect. nov. = *Amaranthus* sect. *Blitopsis* Dumort. × *Amaranthus* sect. *Pentamorion* (Beck) Mosyakin & K. R. Robertson.

Amaranthus nothosect. *Pentidium* Z. H. Feng, nothosect. nov. = *Amaranthus* sect. *Pentamorion* (Beck) Mosyakin & K. R. Robertson × *Amaranthus* sect. *Pyxidium* Moq.

Amaranthus nothosect. *Pyxopsis* Z. H. Feng, nothosect. nov. = *Amaranthus* sect. *Blitopsis* Dumort. × *Amaranthus* sect. *Pyxidium* Moq.

Amaranthus nothosubgen. *Amarida* Z. H. Feng, nothosubgen. nov. = *Amaranthus* subgen. *Amaranthus* × *Amaranthus* subgen. *Acnida* (L.) Aellen ex K. R. Robertson.

Amaranthus nothosubsect. *Hybramaranthus* Z. H. Feng, nothosubsect. nov. = *Amaranthus* subsect. *Amaranthus* × *Amaranthus* subsect. *Hybrida* Mosyakin & K. R. Robertson.

Amaranthus nothosubsect. *Hynida* Z. H. Feng, nothosubsect. nov. = *Amaranthus* sect. *Acnida* (L.) Mosyakin & K. R. Robertson × *Amaranthus* subsect. *Hybrida* Mosyakin & K. R. Robertson.

Amaryllidaceae

Galanthus L. [2, 16, 21]

Galanthus nothoser. *Woropini* Z. H. Feng, nothoser. nov. = *Galanthus* ser. *Alpini* Z. H. Feng × *Galanthus* ser. *Woronowii* Kem.-Nath.

Anemiaceae

Anemia Sw. [2, 22]

Anemia nothosect. *Anemutae* Z. H. Feng, nothosect. nov. = *Anemia* sect. *Anemia* × *Anemia* sect. *Hirsutae* Prantl.

Anemia nothosect. *Aninae* Z. H. Feng, nothosect. nov. = *Anemia* sect. *Anemia* × *Anemia* sect. *Collinae* Prantl.

Anemia nothosect. *Cosutae* Z. H. Feng, nothosect. nov. = *Anemia* sect. *Collinae* Prantl. × *Anemia* sect. *Hirsutae* Prantl.

Anemia nothosect. *Tomemia* Z. H. Feng, nothosect. nov. = *Anemia* sect. *Anemia* × *Anemia* sect. *Tomentosae* Prantl.

Asparagaceae

Agave L. [2, 23]

Agave nothosect. *Deslorae* Z. H. Feng, nothosect. nov. = *Agave* sect. *Deserticolae* (Trel.) R. H. Webb & G. D. Starr × *Agave* sect. *Parviflorae* Hochstätter.

Agave nothosect. *Hetemoratae* Z. H. Feng, nothosect. nov. = *Agave* sect. *Heteracanthae* Salm-Dyck × *Agave* sect. *Marmoratae* (A. Berger) Thiede & Gideon F. Sm.

Agave nothosect. *Heticracanthae* Z. H. Feng, nothosect. nov. = *Agave* sect. *Heteracanthae* Salm-Dyck × *Agave* sect. *Micracanthae* Salm-Dyck.

Agave nothosect. *Hibacanthae* Z. H. Feng, nothosect. nov. = *Agave* sect. *Heteracanthae* Salm-Dyck × *Agave* sect. *Hibernicae* Hochstätter.

Agave nothosect. *Littanthae* Z. H. Feng, nothosect. nov. = *Agave* sect. *Littaea* (Tagl.) Benth. × *Agave* sect. *Micracanthae* Salm-Dyck.

Agave nothosect. *Micragave* Z. H. Feng, nothosect. nov. = *Agave* sect. *Agave* × *Agave* sect. *Micracanthae* Salm-Dyck.

Agave nothosect. *Parranthae* Z. H. Feng, nothosect. nov. = *Agave* sect. *Heteracanthae* Salm-Dyck × *Agave* sect. *Parryanae* Hochstätter.

Agave nothosect. *Parvipalae* Z. H. Feng, nothosect. nov. = *Agave* sect. *Ditepalae* Hochstätter × *Agave* sect. *Parviflorae* Hochstätter.

Agave nothoser. *Bravanthes* (Cif. & Giacom.) Z. H. Feng, comb. & stat. nov. = *Agave* ser. *Bravoa* (Lex.) Thiede & Gideon F. Sm. × *Agave* ser. *Polianthes* (L.) Thiede & Gideon F. Sm. — Basionym: × *Bravanthes* Cif. & Giacom., Nomencl. Fl. Ital. Pt. 1: 134. 1950.

Agave nothosubgen. *Agavaea* Z. H. Feng, nothosubgen. nov. = *Agave* subgen. *Agave* × *Agave* subgen. *Littaea* (Tagl.) Baker.

Asphodelaceae

Hemerocallis L. [2, 24]

Hemerocallis nothosect. *Hemerulvae* Z. H. Feng & H. N. Sun, nothosect. nov. = *Hemerocallis* sect. *Fulvae* Nakai × *Hemerocallis* sect. *Hemerocallis*.

Asteraceae

Arctium L. [2, 25]

Arctium nothosect. *Pecarctium* Z. H. Feng, nothosect. nov. = *Arctium* sect. *Pectinata* (C. Winkl.) S. López, Romasch., Susanna & N. Garcia × *Arctium* sect. *Pseudarctium* (Juz.) Duist.

Artemisia L. [2, 26]

Artemisia nothosubgen. *Artinthium* Z. H. Feng, nothosubgen. nov. = *Artemisia* subgen. *Absinthium* (Mill.) Less. × *Artemisia* subgen. *Artemisia*.

Artemisia nothosubgen. *Dracunthium* Z. H. Feng, nothosubgen. nov. = *Artemisia* subgen. *Absinthium* (Mill.) Less. × *Artemisia* subgen. *Dracunculus* (Besser) Rydb.

Artemisia nothosubgen. *Ponculus* Z. H. Feng, nothosubgen. nov. = *Artemisia* subgen. *Dracunculus* (Besser) Rydb. × *Artemisia* subgen. *Ponticae* B. H. Jiao ex T. G. Gao.

Artemisia nothosubgen. *Sesinthium* Z. H. Feng, nothosubgen. nov. = *Artemisia* subgen. *Absinthium* (Mill.) Less. × *Artemisia* subgen. *Seriphidium* Besser ex Less.

Baccharis L. [2, 27]

Baccharis nothosect. *Pedifoliae* Z. H. Feng, nothosect. nov. = *Baccharis* sect. *Cuneifoliae* DC. × *Baccharis* sect. *Pedicellatae* Heering.

Cousinia Cass. [2, 28-31]

Cousinia nothosect. *Alpiopsis* Z. H. Feng, nothosect. nov. = *Cousinia* sect. *Alpinae* Bunge × *Cousinia* sect. *Jurineopsis* (Juz.) Tscherneva.

Cousinia nothosect. *Coronopsis* Z. H. Feng, nothosect. nov. = *Cousinia* sect. *Coronophora* (Juz.) Rech. f. × *Cousinia* sect. *Jurineopsis* (Juz.) Tscherneva.

Cousinia nothosect. *Cynarocaules* Z. H. Feng, nothosect. nov. = *Cousinia* sect. *Cynaroideae* Bunge × *Cousinia* sect. *Leiocaules* Bunge.

Cousinia nothosect. *Cynaroferae* Z. H. Feng, nothosect. nov. = *Cousinia* sect. *Cynaroideae* Bunge × *Cousinia* sect. *Pugioniferae* Bunge.

Cousinia nothosect. *Pulchecarpae* Z. H. Feng, nothosect. nov. = *Cousinia* sect. *Microcarpae* Bunge × *Cousinia* sect. *Pulchellae* Rech. f.

Cousinia nothosect. *Pulchepinae* Z. H. Feng, nothosect. nov. = *Cousinia* sect. *Alpinae* Bunge × *Cousinia* sect. *Pulchellae* Rech. f.

Cousinia nothosect. *Serracousinia* Z. H. Feng, nothosect. nov. = *Cousinia* sect. *Eriocousinia* Tscherneva × *Cousinia* sect. *Serratuloides* Bunge.

Cousinia nothosect. *Sphaeroides* Z. H. Feng, nothosect. nov. = *Cousinia* sect. *Serratuloides* Bunge × *Cousinia* sect. *Sphaerocephalae* Bunge.

Liatris Gaertn. ex Schreb. [2, 32]

Liatris nothosect. *Gramago* Z. H. Feng, nothosect. nov. = *Liatris* sect. *Graminifolium* G. L. Nesom × *Liatris* sect. *Suprago* (Gaertn.) DC.

Liatris nothosect. *Liafolium* Z. H. Feng, nothosect. nov. = *Liatris* sect. *Graminifolium* G. L. Nesom × *Liatris* sect. *Liatris*.

Liatris nothosect. *Liprago* Z. H. Feng, nothosect. nov. = *Liatris* sect. *Liatris* × *Liatris* sect. *Suprago* G. L. Nesom.

Liatris nothosect. *Lirago* Z. H. Feng, nothosect. nov. = *Liatris* sect. *Liatris* × *Liatris* sect. *Vorago* G. L. Nesom.

Liatris nothoser. *Elerago* Z. H. Feng, nothoser. nov. = *Liatris* ser. *Elegantes* (Alexander) Gaiser ex G. L. Nesom × *Liatris* sect. *Vorago* G. L. Nesom.

Liatris nothoser. *Liprago* (Z. H. Feng) Z. H. Feng, stat. nov. = *Liatris* ser. *Liatris* × *Liatris* sect. *Suprago* G. L. Nesom. — Basionym: *Liatris* nothosect. *Liprago* Z. H. Feng, this publication.

Liatris nothoser. *Lirago* (Z. H. Feng) Z. H. Feng, stat. nov. = *Liatris* ser. *Liatris* × *Liatris* sect. *Vorago* G. L. Nesom. — Basionym: *Liatris* nothosect. *Lirago* Z. H. Feng, this publication.

Liatris nothoser. *Punosae* Z. H. Feng, nothoser. nov. = *Liatris* ser. *Punctatae* (Alexander) Gaiser ex Fernald × *Liatris* ser. *Scariosae* (Alexander) Gaiser ex Fernald.

Liatris nothoser. *Scrago* Z. H. Feng, nothoser. nov. = *Liatris* ser. *Scariosae* (Alexander) Gaiser ex Fernald × *Liatris* sect. *Suprago* (Gaertn.) DC.

Athyriaceae

Athyrium Roth [33]

Athyrium nothosect. *Bistichoides* Z. H. Feng, nothosect. nov. = *Athyrium* sect. *Biserrulata* (Ching & Y. T. Hsieh) R. Wei & X. C. Zhang × *Athyrium* sect. *Polystichoides* Ching & Y. T. Hsieh.

Athyrium nothosect. *Otoniana* Z. H. Feng, nothosect. nov. = *Athyrium* sect. *Mackinnoniana* (Ching & Y. T. Hsieh) Z. R. Wang × *Athyrium* sect. *Otophora* Z. R. Wang.

Athyrium nothosect. *Otoscentia* Z. H. Feng, nothosect. nov. = *Athyrium* sect. *Otophora* Z. R. Wang × *Athyrium* sect. *Yokoscentia* (Z. R. Wang) R. Wei & X. C. Zhang.

Athyrium nothosect. *Polyphora* Z. H. Feng, nothosect. nov. = *Athyrium* sect. *Otophora* Z. R. Wang × *Athyrium* sect. *Polystichoides* Ching & Y. T. Hsieh.

Athyrium nothosect. *Yokoniana* Z. H. Feng, nothosect. nov. = *Athyrium* sect. *Mackinnoniana* (Ching & Y. T. Hsieh) Z. R. Wang × *Athyrium* sect. *Yokoscentia* (Z. R. Wang) R. Wei & X. C. Zhang.

Deparia Medik. [34]

Deparia nothosect. *Lunoathyrium* Z. H. Feng, nothosect. nov. = *Deparia* sect. *Dryoathyrium* (Ching) M. Kato × *Deparia* sect. *Lunathyrium* (Koidz.) M. Kato.

Deparia nothosubsect. *Depopsis* Z. H. Feng, nothosubsect. nov. = *Deparia* subsect. *Athyriopsis* (Ching) L. Y. Kuo, M. Kato & W. L. Chiou × *Deparia* subsect. *Deparia*.

Deparia nothosubsect. *Lunathyriopsis* Z. H. Feng, nothosubsect. nov. = *Deparia* subsect. *Athyriopsis* (Ching) L. Y. Kuo, M. Kato & W. L. Chiou × *Deparia* sect. *Lunathyrium* (Koidz.) M. Kato.

Diplazium Sw. [35]

Diplazium nothosect. *Anisostegia* Z. H. Feng, nothosect. nov. = *Diplazium* sect. *Anisogonium* (C. Presl) Alderw. × *Diplazium* sect. *Dolichostegia* (W. M. Chu & Z. R. He) R. Wei.

Diplazium nothosect. *Anisotodia* Z. H. Feng, nothosect. nov. = *Diplazium* sect. *Allantodia* (R. Br.) R. Wei × *Diplazium* sect. *Anisogonium* (C. Presl) Alderw.

Diplazium nothosect. *Dolichomatum* Z. H. Feng, nothosect. nov. = *Diplazium* sect. *Dolichostegia* (W. M. Chu & Z. R. He) R. Wei × *Diplazium* sect. *Longirhizomatum* (W. M. Chu & Z. R. He) R. Wei.

Diplazium nothosect. *Sibistegia* Z. H. Feng, nothosect. nov. = *Diplazium* subgen. *Sibirica* R. Wei & X. C. Zhang × *Diplazium* sect. *Dolichostegia* (W. M. Chu & Z. R. He) R. Wei.

Diplazium nothosubgen. *Sibipteris* Z. H. Feng, nothosubgen. nov. = *Diplazium* subgen. *Callipteris* (Bory) R. Wei & X. C. Zhang × *Diplazium* subgen. *Sibirica* R. Wei & X. C. Zhang.

Berberidaceae

Epimedium L. [2, 13, 14]

Epimedium nothosect. *Rhizepimedium* (Z. H. Feng) Z. H. Feng, stat. nov. = *Epimedium* sect. *Epimedium* × *Epimedium* subgen. *Rhizophyllum* (Fisch. & C. A. Mey.) Stearn. — Basionym: *Epimedium* nothosubgen. *Rhizepimedium* Z. H. Feng, this publication.

Epimedium nothosect. *Rhizoceras* Z. H. Feng, nothosect. nov. = *Epimedium* sect. *Macroceras* C. Morren & Decne. × *Epimedium* subgen. *Rhizophyllum* (Fisch. & C. A. Mey.) Stearn.

Epimedium nothosect. *Macrepimedium* Z. H. Feng, nothosect. nov. = *Epimedium* sect. *Epimedium* × *Epimedium* sect. *Macroceras* C. Morren & Decne.

Epimedium nothoser. *Dolidianae* Z. H. Feng, nothoser. nov. = *Epimedium* ser. *Dolichocera* Stearn × *Epimedium* ser. *Davidianae* Stearn.

Epimedium nothosubgen. *Rhizepimedium* Z. H. Feng, nothosubgen. nov. = *Epimedium* subgen. *Epimedium* × *Epimedium* subgen. *Rhizophyllum* (Fisch. & C. A. Mey.) Stearn.

Cistaceae

Helianthemum Mill. [36]

Helianthemum nothosect. *Lavanthemum* Z. H. Feng, nothosect. nov. = *Helianthemum* sect. *Helianthemum* × *Helianthemum* sect. *Lavandulaceum* G. López.

Helianthemum nothosect. *Pseudanthemum* Z. H. Feng, nothosect. nov. = *Helianthemum* sect. *Helianthemum* × *Helianthemum* sect. *Pseudocistus* Dunal.

Helianthemum nothosubgen. *Erionthemum* Z. H. Feng, nothosubgen. nov. = *Helianthemum* subgen. *Eriocarpum* (Dunal) Martín-Hernanz, Velayos, Albaladejo & Aparicio × *Helianthemum* subgen. *Helianthemum*.

Helianthemum nothosubgen. *Plecanthemum* Z. H. Feng, nothosubgen. nov. = *Helianthemum* subgen. *Helianthemum* × *Helianthemum* subgen. *Plectolobum* Willk.

Crassulaceae

Aichryson Webb & Berthel. [2, 37]

Aichryson nothosect. *Aichrobia* Z. H. Feng, nothosect. nov. = *Aichryson* sect. *Aichryson* × *Aichryson* sect. *Macrobia* Webb & Berthel.

Kalanchoe Adans. [2, 38-47]

Kalanchoe nothoser. *Frutisores* Z. H. Feng, nothoser. nov. = *Kalanchoe* ser. *Fruticosa* Gideon F. Sm. × *Kalanchoe* ser. *Invasores* Gideon F. Sm.

Kalanchoe nothoser. *Herilana* Z. H. Feng, nothoser. nov. = *Kalanchoe* ser. *Herbacea* Gideon F. Sm. × *Kalanchoe* ser. *Vilana* Gideon F. Sm.

Kalanchoe nothoser. *Hersores* Z. H. Feng, nothoser. nov. = *Kalanchoe* ser. *Herbacea* Gideon F. Sm. × *Kalanchoe* ser. *Invasores* Gideon F. Sm.

Kalanchoe nothoser. *Invalana* Z. H. Feng, nothoser. nov. = *Kalanchoe* ser. *Invasores* Gideon F. Sm. × *Kalanchoe* ser. *Vilana* Gideon F. Sm.

Petrosedum Grulich [2, 48, 49]

Remark: Afferni assigned the genotype *Petrosedum rupestre* to *Petrosedum* ser. *Reflexa*, according to Art. 22.1 of *ICN* [4], the type serie must be named as *Petrosedum* ser. *Petrosedum*.

Petrosedum nothoser. *Petrorecta* Z. H. Feng, nothoser. nov. = *Petrosedum* ser. *Petrosedum* × *Petrosedum* ser. *Recta* Afferni.

Petrosedum nothoser. *Petudorecta* Z. H. Feng, nothoser. nov. = *Petrosedum* ser. *Petrosedum* × *Petrosedum* ser. *Pseudorecta* Afferni.

Petrosedum nothoser. *Reseudorecta* Z. H. Feng, nothoser. nov. = *Petrosedum* ser. *Pseudorecta* Afferni × *Petrosedum* ser. *Recta* Afferni.

Dryopteridaceae

Dryopteris Adans. [50-54]

Dryopteris nothosect. *Aedium* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Aemulae* Fraser-Jenk. × *Dryopteris* subgen. *Lophodium* (Newman) Tzvelev.

Dryopteris nothosect. *Aemotae* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Aemulae* Fraser-Jenk. × *Dryopteris* sect. *Remotae* Fraser-Jenk.

Dryopteris nothosect. *Aepteris* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Aemulae* Fraser-Jenk. × *Dryopteris* sect. *Dryopteris*.

Dryopteris nothosect. *Aevariae* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Aemulae* Fraser-Jenk. × *Dryopteris* sect. *Erythrovariae* H. Ito.

Dryopteris nothosect. *Drillodium* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Dryopteris* × *Dryopteris* sect. *Fibrillosae* Ching × *Dryopteris* subgen. *Lophodium* (Newman) Tzvelev.

Dryopteris nothosect. *Dryllidae* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Dryopteris* × *Dryopteris* sect. *Pallidae* Fraser-Jenk.

Dryopteris nothosect. *Dryollosae* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Dryopteris* × *Dryopteris* sect. *Fibrillosae* Ching.

Dryopteris nothosect. *Dryphodium* (Z. H. Feng) Z. H. Feng, stat. nov. = *Dryopteris* sect. *Dryopteris* × *Dryopteris* subgen. *Lophodium* (Newman) Tzvelev. — Basionym: *Dryopteris* nothosubgen. *Dryphodium* Z. H. Feng, this publication.

Dryopteris nothosect. *Erypallidae* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Erythrovariae* H. Ito × *Dryopteris* sect. *Pallidae* Fraser-Jenk.

Dryopteris nothosect. *Erypandae* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Erythrovariae* H. Ito × *Dryopteris* sect. *Pandae* Fraser-Jenk.

Dryopteris nothosect. *Fidae* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Fibrillosae* Ching × *Dryopteris* sect. *Pallidae* Fraser-Jenk.

Dryopteris nothosect. *Fiphodium* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Fibrillosae* Ching × *Dryopteris* subgen. *Lophodium* (Newman) Tzvelev.

Dryopteris nothosect. *Hiropteris* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Hirtipedes* Fraser-Jenk. × *Dryopteris* subgen. *Pycnopteris* (Moore) Ching.

Dryopteris nothosect. *Hirtidae* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Hirtipedes* Fraser-Jenk. × *Dryopteris* sect. *Pallidae* Fraser-Jenk.

Dryopteris nothosect. *Hirtodon* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Diclisodon* (T. Moore) C. Chr. × *Dryopteris* sect. *Hirtipedes* Fraser-Jenk.

Dryopteris nothosect. *Hirtosae* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Fibrillosae* Ching × *Dryopteris* sect. *Hirtipedes* Fraser-Jenk.

Dryopteris nothosect. *Lolidae* Z. H. Feng, nothosect. nov. = *Dryopteris* subgen. *Lophodium* (Newman) Tzvelev × *Dryopteris* sect. *Pallidae* Fraser-Jenk.

Dryopteris nothosect. *Lophatae* Z. H. Feng, nothosect. nov. = *Dryopteris* subgen. *Lophodium* (Newman) Tzvelev × *Dryopteris* sect. *Marginatae* Fraser-Jenk.

Dryopteris nothosect. *Margisodon* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Diclisodon* (T. Moore) C. Chr. × *Dryopteris* sect. *Marginatae* Fraser-Jenk.

Dryopteris nothosect. *Pallindae* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Pallidae* Fraser-Jenk. × *Dryopteris* sect. *Pandae* Fraser-Jenk.

Dryopteris nothosect. *Palopteris* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Pallidae* Fraser-Jenk. × *Dryopteris* subgen. *Pycnopteris* (Moore) Ching.

Dryopteris nothosect. *Panphodium* Z. H. Feng, nothosect. nov. = *Dryopteris* subgen. *Lophodium* (Newman) Tzvelev × *Dryopteris* sect. *Pandae* Fraser-Jenk.

Dryopteris nothosect. *Panpteris* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Dryopteris* × *Dryopteris* sect. *Pandae* Fraser-Jenk.

Dryopteris nothosect. *Remolosae* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Fibrillosae* Ching × *Dryopteris* sect. *Remotae* Fraser-Jenk.

Dryopteris nothosect. *Remophodium* Z. H. Feng, nothosect. nov. = *Dryopteris* subgen. *Lophodium* (Newman) Tzvelev × *Dryopteris* sect. *Remotae* Fraser-Jenk.

Dryopteris nothosect. *Remopteris* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Dryopteris* × *Dryopteris* sect. *Remotae* Fraser-Jenk.

Dryopteris nothosect. *Shiopsis* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Dryopsis* (Holttum & P. J. Edwards) Li Bing Zhang × *Dryopteris* sect. *Shiehia* L. Y. Kuo & Y. H. Chang.

Dryopteris nothosect. *Vavariae* Z. H. Feng, nothosect. nov. = *Dryopteris* sect. *Erythrovariae* H. Ito × *Dryopteris* sect. *Variae* Fraser-Jenk.

Dryopteris nothosubgen. *Dryphodium* Z. H. Feng, nothosubgen. nov. = *Dryopteris* subgen. *Dryopteris* × *Dryopteris* subgen. *Lophodium* (Newman) Tzvelev.

Dryopteris nothosubgen. *Erythteris* Z. H. Feng, nothosubgen. nov. = *Dryopteris* subgen. *Dryopteris* × *Dryopteris* subgen. *Erythrovariae* (H. Ito) Fraser-Jenk.

Dryopteris nothosubgen. *Lophema* Z. H. Feng, nothosubgen. nov. = *Dryopteris* subgen. *Lophodium* (Newman) Tzvelev × *Dryopteris* subgen. *Nothoperanema* Tagawa.

Dryopteris nothosubgen. *Notheris* Z. H. Feng, nothosubgen. nov. = *Dryopteris* subgen. *Dryopteris* × *Dryopteris* subgen. *Nothoperanema* Tagawa.

Dryopteris nothosubgen. *Nothovariae* Z. H. Feng, nothosubgen. nov. = *Dryopteris* subgen. *Erythrovariae* (H. Ito) Fraser-Jenk. × *Dryopteris* subgen. *Nothoperanema* Tagawa.

Dryopteris nothosubgen. *Pycyopteris* Z. H. Feng, nothosubgen. nov. = *Dryopteris* subgen. *Dryopteris* × *Dryopteris* subgen. *Pycnopteris* (Moore) Ching.

Heliconiaceae

Heliconia L. [55]

Heliconia nothosect. *Epiconia* Z. H. Feng, nothosect. nov. = *Heliconia* sect. *Episcopales* L. Anderss. × *Heliconia* sect. *Heliconia*.

Heliconia nothosect. *Epistrobus* Z. H. Feng, nothosect. nov. = *Heliconia* sect. *Episcopales* L. Anderss. × *Heliconia* sect. *Taeniostrobus* Kuntze.

Heliconia nothosubgen. *Helitrobus* Z. H. Feng, nothosubgen. nov. = *Heliconia* subgen. *Heliconia* × *Heliconia* subgen. *Taeniostrobus* (Kuntze) Griggs.

Hydrangeaceae

Hydrangea Gronov. [56, 57]

Hydrangea nothosect. *Dichophyllae* Z. H. Feng, nothosect. nov. = *Hydrangea* sect. *Dichroa* (Lour.) Y. De Smet & Samain × *Hydrangea* sect. *Macrophyllae* (E. M. McClint.) Y. De Smet & Samain.

Hydrangea nothosect. *Hirtophyllae* Z. H. Feng, nothosect. nov. = *Hydrangea* sect. *Hirtae* Y. De Smet & Samain × *Hydrangea sect. Macrophyllae* (E. M. McClint.) Y. De Smet &

Samain.

Hydrangea nothosect. *Kawirtae* Z. H. Feng, nothosect. nov. = *Hydrangea* sect. *Hirtae* Y. De Smet & Samain × *Hydrangea* sect. *Kawagoeanae* X. D. Yang & S. X. Yu.

Hypericaceae

Hypericum L. [2, 58]

Hypericum nothosect. *Drosoricum* Z. H. Feng, nothosect. nov. = *Hypericum* sect. *Drosocarpium* Spach × *Hypericum* sect. *Hypericum*.

Hypericum nothoser. *Drosoricum* (Z. H. Feng) Z. H. Feng, stat. nov. = *Hypericum* sect. *Drosocarpium* Spach × *Hypericum* ser. *Hypericum*. — Basionym: *Hypericum* nothosect. *Drosoricum* Z. H. Feng, this publication.

Hypericum nothosubsect. *Aethiosepalum* Z. H. Feng, nothosubsect. nov. = *Hypericum* subsect. *Adenosepalum* N. Robson × *Hypericum* subsect. *Aethiopica* N. Robson.

Hypericum nothosubsect. *Drosoricum* (Z. H. Feng) Z. H. Feng, stat. nov. = *Hypericum* sect. *Drosocarpium* Spach × *Hypericum* subsect. *Hypericum*. — Basionym: *Hypericum* nothosect. *Drosoricum* Z. H. Feng, this publication.

Iridaceae

Gladiolus L. [2, 59]

Gladiolus nothosect. *Homifolii* Z. H. Feng, nothosect. nov. = *Gladiolus* sect. *Homoglossum* (Salisb.) Goldblatt & J. C. Manning × *Gladiolus* sect. *Linearifolii* (M. P. de Vos) Goldblatt & J. C. Manning.

Gladiolus nothoser. *Trearifolii* Z. H. Feng, nothoser. nov. = *Gladiolus* ser. *Linearifolii* Goldblatt & J. C. Manning × *Gladiolus* ser. *Tristes* Goldblatt & J. C. Manning.

Lamiaceae

Lavandula L. [60-63]

Lavandula nothosect. *Laventatae* Z. H. Feng, nothosect. nov. = *Lavandula* sect. *Dentatae* Suárez-Cerv. & Seoane-Camba × *Lavandula* sect. *Lavandula*.

Origanum L. [2, 64]

Origanum nothosect. *Amilamentum* Z. H. Feng, nothosect. nov. = *Origanum* sect. *Amaracus* (Gled.) Vogel × *Origanum* sect. *Brevifilamentum* Ietsw.

Origanum nothosect. *Amolicon* Z. H. Feng, nothosect. nov. = *Origanum* sect. *Amaracus* (Gled.) Vogel × *Origanum* sect. *Anatolicon* Ietsw.

Origanum nothosect. *Anatorana* Z. H. Feng, nothosect. nov. = *Origanum* sect. *Anatolicon* Ietsw. × *Origanum* sect. *Majorana* (Mill.) Benth.

Origanum nothosect. *Anatoriganum* Z. H. Feng, nothosect. nov. = *Origanum* sect. *Anatolicon* Ietsw. × *Origanum* sect. *Origanum*.

Origanum nothosect. *Brevicorolla* Z. H. Feng, nothosect. nov. = *Origanum* sect. *Brevifilamentum* Ietsw. × *Origanum* sect. *Prolaticorolla* Ietsw.

Origanum nothosect. *Brevifilicon* Z. H. Feng, nothosect. nov. = *Origanum* sect. *Anatolicon* Ietsw. × *Origanum* sect. *Brevifilamentum* Ietsw.

Origanum nothosect. *Eloticorolla* Z. H. Feng, nothosect. nov. = *Origanum* sect. *Elongatispica* Ietsw. × *Origanum* sect. *Prolaticorolla* Ietsw.

Origanum nothosect. *Longicorolla* Z. H. Feng, nothosect. nov. = *Origanum* sect. *Longitubus* Ietsw. × *Origanum* sect. *Prolaticorolla* Ietsw.

Origanum nothosect. *Origalyx* Z. H. Feng, nothosect. nov. = *Origanum* sect. *Chilocalyx* (Briq.) Ietsw. × *Origanum* sect. *Origanum*.

Origanum nothosect. *Origanomajorana* (Domin) Z. H. Feng, comb. & stat. nov. = *Origanum* sect. *Majorana* (Mill.) Benth. × *Origanum* sect. *Origanum*. — Basionym: × *Origanomajorana* Domin, Preslia 13-15: 197. 1935.

Origanum nothosect. *Orimentum* Z. H. Feng, nothosect. nov. = *Origanum* sect. *Brevifilamentum* Ietsw. × *Origanum* sect. *Origanum*.

Origanum nothosect. *Oriracus* Z. H. Feng, nothosect. nov. = *Origanum* sect. *Amaracus* (Gled.) Vogel × *Origanum* sect. *Origanum*.

Origanum nothosect. *Protolicon* Z. H. Feng, nothosect. nov. = *Origanum* sect. *Anatolicon* Ietsw. × *Origanum* sect. *Prolaticorolla* Ietsw.

Teucrium L. [2, 65]

Teucrium nothosect. *Chamaepolium* Z. H. Feng, nothosect. nov. = *Teucrium* sect. *Chamaedrys* (Mill.) Schreb. × *Teucrium* sect. *Polium* (Mill.) Schreb.

Teucrium nothosect. *Monpolium* Z. H. Feng, nothosect. nov. = *Teucrium* sect. *Montana* Lázaro Ibiza × *Teucrium* sect. *Polium* (Mill.) Schreb.

Teucrium nothosect. *Stachyodonia* Z. H. Feng, nothosect. nov. = *Teucrium* sect. *Scorodonia* (Hill) Schreb. × *Teucrium* sect. *Stachyobotrys* Benth.

Teucrium nothosubsect. *Canchamaedrys* Z. H. Feng, nothosubsect. nov. = *Teucrium* subsect. *Cana* Melnikov × *Teucrium* subsect. *Chamaedrys* (Mill.) Kästner.

Teucrium nothosubsect. *Chamaepolium* (Z. H. Feng) Z. H. Feng, stat. nov. = *Teucrium* subsect. *Chamaedrys* (Mill.) Kästner × *Teucrium* subsect. *Polium* (Mill.) Kästner. — Basionym: *Teucrium* nothosect. *Chamaepolium* Z. H. Feng, this publication.

Teucrium nothosubsect. *Monfolia* Z. H. Feng, nothosubsect. nov. = *Teucrium* sect. *Montana* Lázaro Ibiza × *Teucrium* subsect. *Rotundifolia* M. E. Cohen.

Teucrium nothosubsect. *Montolium* Z. H. Feng, nothosubsect. nov. = *Teucrium* sect. *Montana* Lázaro Ibiza × *Teucrium* subsect. *Polium* (Mill.) Kästner.

Teucrium nothosubsect. *Polifolia* Z. H. Feng, nothosubsect. nov. = *Teucrium* subsect. *Polium* (Mill.) Kästner × *Teucrium* subsect. *Rotundifolia* M. E. Cohen.

Teucrium nothosubsect. *Pomilum* Z. H. Feng, nothosubsect. nov. = *Teucrium* subsect. *Polium* (Mill.) Kästner × *Teucrium* subsect. *Pumilum* Rivas Mart.

Teucrium nothosubsect. *Popilosa* Z. H. Feng, nothosubsect. nov. = *Teucrium* subsect. *Polium* (Mill.) Kästner × *Teucrium* subsect. *Simplicipilosa* S. Puech.

Teucrium nothosubsect. *Pupilosa* Z. H. Feng, nothosubsect. nov. = *Teucrium* subsect. *Pumilum* Rivas Mart. × *Teu-*

crium subsect. *Simplicipilosa* S. Puech.

Teucrium nothosubsect. *Rotundipilosa* Z. H. Feng, nothosubsect. nov. = *Teucrium* subsect. *Rotundifolia* M. E. Cohen × *Teucrium* subsect. *Simplicipilosa* S. Puech.

Lentibulariaceae

Pinguicula L. [2, 66, 67]

Pinguicula nothosect. *Micula* Z. H. Feng, nothosect. nov. = *Pinguicula* sect. *Micranthus* Casper × *Pinguicula* sect. *Pinguicula*.

Pinguicula nothosubgen. *Pinoceras* Z. H. Feng, nothosubgen. nov. = *Pinguicula* subgen. *Pinguicula* × *Pinguicula* subgen. *Temnoceras* Barnhart.

Marattiaceae

Danaea Sm. [2, 68, 69]

Danaea nothosubgen. *Dalodanaea* Z. H. Feng, nothosubgen. nov. = *Danaea* subgen. *Danaea* × *Danaea* subgen. *Holodanaea* C. Presl.

Danaea nothosubgen. *Darodanaea* Z. H. Feng, nothosubgen. nov. = *Danaea* subgen. *Arthrodanaea* C. Presl × *Danaea* subgen. *Danaea*.

Musaceae

Musa L. [70]

Musa nothosect. *Mulimusa* Z. H. Feng, nothosect. nov. = *Musa* sect. *Australimusa* Cheesman × *Musa* sect. *Musa*.

Nymphaeaceae

Nymphaea L. [2, 17, 18]

Nymphaea nothosect. *Nymtha* Zi Jun Li & Z. H. Feng, nothosect. nov. = *Nymphaea* sect. *Nymphaea* × *Nymphaea* sect. *Xanthantha* (Casp.) Wiersema.

Nymphaea nothosubgen. *Aneceras* Zi Jun Li & Z. H. Feng, nothosubgen. nov. = *Nymphaea* subgen. *Anecphya* (Casp.) Conard × *Nymphaea* subgen. *Brachyceras* (Casp.) Conard. (Figure 1)

Nymphaea nothosubgen. *Anelotos* Zi Jun Li & Z. H. Feng, nothosubgen. nov. = *Nymphaea* subgen. *Anecphya* (Casp.) Conard × *Nymphaea* subgen. *Lotos* (DC.) Conard. (Figure 1)

Nymphaea nothosubgen. *Brachynymphaea* Zi Jun Li & Z. H. Feng, nothosubgen. nov. = *Nymphaea* subgen. *Brachyceras* (Casp.) Conard × *Nymphaea* subgen. *Nymphaea*. (Figure 1)

Orchidaceae

Anacamptis Rich. [71, 72]

Anacamptis nothosect. *Anacranthus* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Anacamptis* × *Anacamptis* sect. *Andranthus* (Schltr.) F. M. Vázquez. — Synonym: × *Anacampaludorchis* P. Delforge, Naturalistes Belges 90(Orchid. 22): 30. 2009.

Anacamptis nothosect. *Andorianthus* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Andranthus* (Schltr.) F. M. Vázquez × *Anacamptis* sect. *Morianthus* (Schltr.) Kuropatkin & Efimov.

Anacamptis nothosect. *Andraenanthus* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Andranthus* (Schltr.) F. M. Vázquez × *Anacamptis* sect. *Phalaenanthus* (Schltr.) Kuropatkin & Efimov.

Anacamptis nothosect. *Andriopanthus* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Andranthus* (Schltr.) F. M. Vázquez × *Anacamptis* sect. *Coriophorae* (Parl.) P. Quentin × *Anacamptis* sect. *Morianthus* (Schltr.) Kuropatkin & Efimov.

Anacamptis nothosect. *Andriophorae* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Andranthus* (Schltr.) F. M. Vázquez × *Anacamptis* sect. *Coriophorae* (Parl.) P. Quentin. — Synonym: × *Anteriopaludorchis* P. Delforge, Naturalistes Belges 90(Orchid. 22): 30. 2009.

Anacamptis nothosect. *Andryae* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Andranthus* (Schltr.) F. M. Vázquez × *Anacamptis* sect. *Boryae* H. Kretzschmar, Eccarius & H. Dietr.

Anacamptis nothosect. *Anlaenanthus* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Anacamptis* × *Anacamptis* sect. *Phalaenanthus* (Schltr.) Kuropatkin & Efimov. — Synonym: × *Anacampteulenia* P. Delforge, Naturalistes Belges 90(Orchid. 22): 30. 2009.

Anacamptis nothosect. *Anorianthus* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Anacamptis* × *Anacamptis* sect. *Morianthus* (Schltr.) Kuropatkin & Efimov. — Synonym: × *Anacampterorchis* P. Delforge, Naturalistes Belges 90(Orchid. 22): 30. 2009.

Anacamptis nothosect. *Anoriophorae* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Anacamptis* × *Anacamptis* sect. *Coriophorae* (Parl.) P. Quentin. — Synonym: × *Anteriocamptis* P. Delforge, Naturalistes Belges 90(Orchid. 22): 30. 2009.

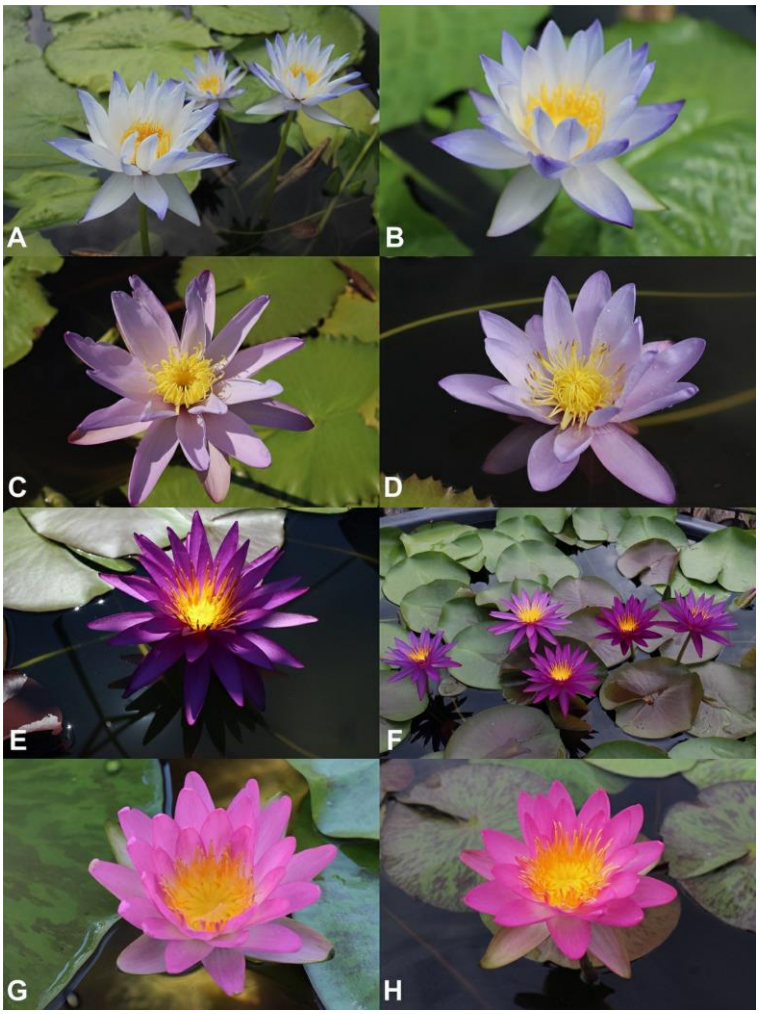

Figure 1. *Representative cultivars from three Nymphaea nothosubgenera: A-B. Nymphaea 'New Poem of the Nile' (Nymphaea nothosubgen. Aneceras), C-D. Nymphaea 'Tiwa Watree' (Nymphaea nothosubgen. Anelotos), E-F. Nymphaea 'Detective Erika', G-H. Nymphaea 'Siam Pink 1' (Nymphaea nothosubgen. Brachynymphaea). All photos by Zi Jun Li.*

Anacamptis nothosect. *Boraenanthus* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Boryae* H. Kretzschmar, Eccarius & H. Dietr. × *Anacamptis* sect. *Phalaenanthus* (Schltr.) Kuropatkin & Efimov.

Anacamptis nothosect. *Borianthus* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Boryae* H. Kretzschmar, Eccarius & H. Dietr. × *Anacamptis* sect. *Morianthus* (Schltr.) Kuropatkin & Efimov.

Anacamptis nothosect. *Borophorae* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Boryae* H. Kretzschmar, Eccarius & H. Dietr. × *Anacamptis* sect. *Coriophorae* (Parl.) P. Quentin.

Anacamptis nothosect. *Colaenanthus* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Coriophorae* (Parl.) P. Quentin × *Anacamptis* sect. *Phalaenanthus* (Schltr.) Kuropatkin & Efimov. — Synonym: × *Anteriomeulenia* P. Delforge, Naturalistes Belges 90(Orchid. 22): 30. 2009.

Anacamptis nothosect. *Corianthus* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Coriophorae* (Parl.) P. Quentin × *Anacamptis* sect. *Morianthus* (Schltr.) Kuropatkin & Efimov. — Synonym: × *Anterioherorchis* P. Delforge, Naturalistes Belges 90(Orchid. 22): 30. 2009.

Anacamptis nothosect. *Moraccatae* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Morianthus* (Schltr.) Kuropatkin & Efimov × *Anacamptis* sect. *Saccatae* (Rchb. f.) P. Quentin.

Anacamptis nothosect. *Moraenanthus* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Morianthus* (Schltr.) Kuropatkin & Efimov × *Anacamptis* sect. *Phalaenanthus* (Schltr.) Kuropatkin & Efimov.

Anacamptis nothosect. *Phalaccatae* Z. H. Feng, nothosect. nov. = *Anacamptis* sect. *Phalaenanthus* (Schltr.) Kuropatkin & Efimov × *Anacamptis* sect. *Saccatae* (Rchb. f.) P. Quentin.

Calanthe R. Br. [2, 6-11]

Calanthe nothosect. *Triverna* Z. H. Feng, nothosect. nov. = *Calanthe* sect. *Tricarinata* J. W. Zhai, Z. J. Liu & F. W. Xing × *Calanthe* sect. *Verna* Kakadzu.

Calanthe nothosubgen. *Gastrocalanthe* (A. D. Hawkes) Z. H. Feng, comb. & stat. nov. = *Calanthe* subgen. *Calanthe* × *Calanthe* subgen. *Gastrorchis* (Schltr.) Z. H. Feng. — Basionym: × *Gastrocalanthe* A. D. Hawkes, Orchid J. 1: 245. 1952.

Calanthe nothosubgen. *Gastrophaius* (A. D. Hawkes) Z. H. Feng, comb. & stat. nov. = *Calanthe* subgen. *Gastrorchis* (Schltr.) Z. H. Feng × *Calanthe* subgen. *Phaius* (Lour.) Z. H. Feng. — Basionym: × *Gastrophaius* A. D. Hawkes, Orchid J. 1: 245. 1952.

Calanthe nothosubgen. *Phaiocalanthe* (Rolfe) Z. H. Feng, comb. & stat. nov. = *Calanthe* subgen. *Calanthe* × *Calanthe* subgen. *Phaius* (Lour.) Z. H. Feng. — Basionym: × *Phaiocalanthe* Rolfe, J. Linn. Soc., Bot. 24: 168. 1887.

Calanthe nothosubgen. *Phaiopreptanthe* (Kerch.) Z. H. Feng, comb. & stat. nov. = *Calanthe* subgen. *Phaius* (Lour.) Z. H. Feng × *Calanthe* subgen. *Preptanthe* (Rchb. f.) Schltr. — Basionym: × *Phaiopreptanthe* Kerch., Le Liv. Orch.: 485. 1894.

Calanthe nothosubgen. *Preptacalanthe* (J. M. H. Shaw) Z. H. Feng, comb. & stat. nov. = *Calanthe* subgen. *Calanthe* × *Calanthe* subgen. *Preptanthe* (Rchb. f.) Schltr. — Basionym: × *Preptacalanthe* J. M. H. Shaw, Orchid Rev. Suppl., 121(1301): 14. 2013.

Cypripedium L. [73-78]

Cypripedium nothosect. *Cypetala* Z. H. Feng, nothosect. nov. = *Cypripedium* sect. *Cypripedium* × *Cypripedium* sect. *Obtusipetala* (Pfitzer) P. J. Cribb.

Cypripedium nothosubsect. *Cypantha* Z. H. Feng, nothosubsect. nov. = *Cypripedium* subsect. *Cypripedium* × *Cypripedium* subsect. *Macrantha* (Kraenzl.) P. J. Cribb.

Cypripedium nothosubsect. *Obtupedium* Z. H. Feng, nothosubsect. nov. = *Cypripedium* subsect. *Cypripedium* × *Cypripedium* sect. *Obtusipetala* (Pfitzer) P. J. Cribb.

Dactylorhiza Neck. ex Nevski [2, 79]

Dactylorhiza nothosect. *Anculatae* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Angustifoliae* (Verm.) Smoljan. × *Dactylorhiza* sect. *Maculatae* (Parl.) Smoljan.

Dactylorhiza nothosect. *Angorhiza* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Angustifoliae* (Verm.) Smoljan. × *Dactylorhiza* sect. *Dactylorhiza*.

Dactylorhiza nothosect. *Aristoglossum* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Aristatae* Aver. × *Dactylorhiza* sect. *Coeloglossum* (Hartm.) Efimov.

Dactylorhiza nothosect. *Coelofoliae* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Angustifoliae* (Verm.) Smoljan. × *Dactylorhiza* sect. *Coeloglossum* (Hartm.) Efimov.

Dactylorhiza nothosect. *Coelolatae* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Coeloglossum* (Hartm.) Efimov × *Dactylorhiza* sect. *Maculatae* (Parl.) Smoljan.

Dactylorhiza nothosect. *Dactycinae* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Dactylorhiza* × *Dactylorhiza* sect. *Sambucinae* (Parl.) Smoljan.

Dactylorhiza nothosect. *Dactyloglossum* (P. F. Hunt & Summerh.) Z. H. Feng, comb. & stat. nov. = *Dactylorhiza* sect. *Coeloglossum* (Hartm.) Efimov × *Dactylorhiza* sect. *Dactylorhiza*. — Basionym: × *Dactyloglossum* P. F. Hunt & Summerh., Watsonia 6: 132. 1965.

Dactylorhiza nothosect. *Daculacinae* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Dactylorhiza* × *Dactylorhiza* sect. *Maculatae* (Parl.) Smoljan. × *Dactylorhiza* sect. *Sambucinae* (Parl.) Smoljan.

Dactylorhiza nothosect. *Ibefoliae* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Angustifoliae* (Verm.) Smoljan. × *Dactylorhiza* sect. *Iberanthus* (Schltr.) Smoljan.

Dactylorhiza nothosect. *Iberatae* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Iberanthus* (Schltr.) Smoljan. × *Dactylorhiza* sect. *Maculatae* (Parl.) Smoljan.

Dactylorhiza nothosect. *Iberorhiza* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Dactylorhiza* × *Dactylorhiza* sect. *Iberanthus* (Schltr.) Smoljan.

Dactylorhiza nothosect. *Macoglossum* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Coeloglossum* (Hartm.) Efimov × *Dactylorhiza* sect. *Maculatae* (Parl.) Smoljan.

Dactylorhiza nothosect. *Macucinae* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Maculatae* (Parl.) Smoljan. × *Dactylorhiza* sect. *Sambucinae* (Parl.) Smoljan.

Dactylorhiza nothosect. *Macufoliae* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Angustifoliae* (Verm.) Smoljan. × *Dactylorhiza* sect. *Maculatae* (Parl.) Smoljan.

Dactylorhiza nothosect. *Macurhiza* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Dactylorhiza* × *Dactylorhiza* sect. *Maculatae* (Parl.) Smoljan.

Dactylorhiza nothosect. *Macustirhiza* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Angustifoliae* (Verm.) Smoljan. × *Dactylorhiza* sect. *Dactylorhiza* × *Dactylorhiza* sect. *Maculatae* (Parl.) Smoljan.

Dactylorhiza nothosect. *Samboglossum* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Coeloglossum* (Hartm.) Efimov × *Dactylorhiza* sect. *Sambucinae* (Parl.) Smoljan.

Dactylorhiza nothosect. *Samtifoliae* Z. H. Feng, nothosect. nov. = *Dactylorhiza* sect. *Angustifoliae* (Verm.) Smoljan. × *Dactylorhiza* sect. *Sambucinae* (Parl.) Smoljan.

Gymnadenia R. Br. [80-82]

Gymnadenia nothosect. *Balcatiana* Z. H. Feng, nothosect. nov. = *Gymnadenia* sect. *Balcanica* Eccarius × *Gymnadenia* sect. *Praegnatiana* Eccarius.

Gymnadenia nothosect. *Botenia* Z. H. Feng, nothosect. nov. = *Gymnadenia* sect. *Botanicana* Eccarius × *Gymnadenia* sect. *Gymnadenia*.

Gymnadenia nothosect. *Gygnatiana* Z. H. Feng, nothosect. nov. = *Gymnadenia* sect. *Gymnadenia* × *Gymnadenia* sect. *Praegnatiana* Eccarius.

Gymnadenia nothosect. *Gymneiniana* Z. H. Feng, nothosect. nov. = *Gymnadenia* sect. *Gymnadenia* × *Gymnadenia* sect. *Wettsteiniana* Eccarius.

Gymnadenia nothosect. *Gymnigratiana* Z. H. Feng, nothosect. nov. = *Gymnadenia* sect. *Gymnadenia* × *Gymnadenia* sect. *Nigritella* (Rich.) O. Gerbaud & P. Quentin × *Gymnadenia* sect. *Praegnatiana* Eccarius.

Gymnadenia nothosect. *Gymnigritella* (E. G. Camus) Z. H. Feng, comb. & stat. nov. = *Gymnadenia* sect. *Gymnadenia* × *Gymnadenia* sect. *Nigritella* (Rich.) O. Gerbaud & P. Quentin. — Basionym: × *Gymnigritella* E. G. Camus, J. Bot. (Morot) 6: 484. 1892.

Gymnadenia nothosect. *Nigratiana* Z. H. Feng, nothosect. nov. = *Gymnadenia* sect. *Nigritella* (Rich.) O. Gerbaud & P. Quentin × *Gymnadenia* sect. *Praegnatiana* Eccarius.

Gymnadenia nothosect. *Praegeiniana* Z. H. Feng, nothosect. nov. = *Gymnadenia* sect. *Praegnatiana* Eccarius × *Gymnadenia* sect. *Wettsteiniana* Eccarius.

Himantoglossum Spreng. [83]

Himantoglossum nothosubgen. *Comptoglossum* (Karatzas) Z. H. Feng, comb. & stat. nov. = *Himantoglossum* subgen. *Comperia* (K. Koch) R. M. Bateman, Molnar & Sramkó × *Himantoglossum* subgen. *Himantoglossum*. — Basionym: × *Comptoglossum* Karatzas, J. Eur. Orch. 36(4): 954. 2004.

Himantoglossum nothosect. *Comprinum* Z. H. Feng, nothosect. nov. = *Himantoglossum* subgen. *Comperia* (K. Koch) R. M. Bateman, Molnar & Sramkó × *Himantoglossum* sect. *Caprinum* R. M. Bateman, Molnar & Sramkó.

Ophrys L. [2, 84, 85]

Ophrys nothosect. *Apidiniferae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Apiferae* P. Quentin × *Ophrys* sect. *Tenthrediniferae* P. Quentin.

Ophrys nothosect. *Apiflorae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Apiferae* P. Quentin × *Ophrys* sect. *Fuciflorae* Rchb. f.

Ophrys nothosect. *Apiliflorae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Apiferae* P. Quentin × *Ophrys* sect. *Bombyliflorae* Rchb. f.

Ophrys nothosect. *Apimuelleri* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Apiferae* P. Quentin × *Ophrys* sect. *Bornmuelleri* Hennecke.

Ophrys nothosect. *Apiniferae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Apiferae* P. Quentin × *Ophrys* sect. *Araniferae* Rchb. f.

Ophrys nothosect. *Apiraniflorae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Apiferae* P. Quentin × *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Fuciflorae* Rchb. f.

Ophrys nothosect. *Apiraniophrys* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Apiferae* P. Quentin × *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Ophrys*.

Ophrys nothosect. *Apispeculum* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Apiferae* P. Quentin × *Ophrys* sect. *Speculum* Hennecke.

Ophrys nothosect. *Apophrys* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Apiferae* P. Quentin × *Ophrys* sect. *Ophrys*.

Ophrys nothosect. *Aracidophrys* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Fuciflorae* Rchb. f. × *Ophrys* sect. *Pseudophrys* Godfery.

Ophrys nothosect. *Araneudophrys* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Pseudophrys* Godfery.

Ophrys nothosect. *Araniciflerae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Fuciflorae* Rchb. f. × *Ophrys* sect. *Tenthrediniferae* P. Quentin.

Ophrys nothosect. *Aranispeculum* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Speculum* Hennecke.

Ophrys nothosect. *Aranomiflorae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Bombyliflorae* Rchb. f. × *Ophrys* sect. *Fuciflorae* Rchb. f.

Ophrys nothosect. *Aranophrys* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Ophrys*.

Ophrys nothosect. *Aranyliflorae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Bombyliflorae* Rchb. f.

Ophrys nothosect. *Arelleri* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Bornmuelleri* Hennecke.

Ophrys nothosect. *Ariflorae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Fuciflorae* Rchb. f.

Ophrys nothosect. *Arumbilicatae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Umbilicatae* P. Quentin.

Ophrys nothosect. *Bombeculum* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Bombyliflorae* Rchb. f. × *Ophrys* sect. *Speculum* Hennecke.

Ophrys nothosect. *Bomdophrys* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Bombyliflorae* Rchb. f. × *Ophrys* sect. *Pseudophrys* Godfery.

Ophrys nothosect. *Bomelleri* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Bombyliflorae* Rchb. f. × *Ophrys* sect. *Bornmuelleri* Hennecke.

Ophrys nothosect. *Bominiferae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Bombyliflorae* Rchb. f. × *Ophrys* sect. *Tenthrediniferae* P. Quentin.

Ophrys nothosect. *Boriflorae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Bornmuelleri* Hennecke × *Ophrys* sect. *Fuciflorae* Rchb. f.

Ophrys nothosect. *Bornicatae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Bornmuelleri* Hennecke × *Ophrys* sect. *Umbilicatae* P. Quentin.

Ophrys nothosect. *Faniophrys* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Fuciflorae* Rchb. f. × *Ophrys* sect. *Ophrys*.

Ophrys nothosect. *Fuceudophrys* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Fuciflorae* Rchb. f. × *Ophrys* sect. *Pseudophrys* Godfery.

Ophrys nothosect. *Fuciculum* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Fuciflorae* Rchb. f. × *Ophrys* sect. *Speculum* Hennecke.

Ophrys nothosect. *Fuciliflorae* (Z. H. Feng) Z. H. Feng, stat. nov. = *Ophrys* sect. *Bombyliflorae* Rchb. f. × *Ophrys* sect. *Fuciflorae* Rchb. f. — Basionym: *Ophrys* nothosubgen. *Fuciliflorae* Z. H. Feng, this publication.

Ophrys nothosect. *Fuciniferae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Fuciflorae* Rchb. f. × *Ophrys* sect. *Tenthrediniferae* P. Quentin.

Ophrys nothosect. *Fucophrys* (Z. H. Feng) Z. H. Feng, stat. nov. = *Ophrys* sect. *Fuciflorae* Rchb. f. × *Ophrys* sect. *Ophrys*. — Basionym: *Ophrys* nothosubgen. *Fucophrys* Z. H. Feng, this publication.

Ophrys nothosect. *Pseudiniferae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Pseudophrys* Godfery × *Ophrys* sect. *Tenthrediniferae* P. Quentin.

Ophrys nothosect. *Pseudolleri* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Bornmuelleri* Hennecke × *Ophrys* sect. *Pseudophrys* Godfery.

Ophrys nothosect. *Pseudospeculum* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Pseudophrys* Godfery × *Ophrys* sect. *Speculum* Hennecke.

Ophrys nothosect. *Speniferae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Speculum* Hennecke × *Ophrys* sect. *Tenthrediniferae* P. Quentin.

Ophrys nothosect. *Spicatae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Speculum* Hennecke × *Ophrys* sect. *Umbilicatae* P. Quentin.

Ophrys nothosect. *Tencatae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Tenthrediniferae* P. Quentin × *Ophrys* sect. *Umbilicatae* P. Quentin.

Ophrys nothosect. *Tenthraniferae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Araniferae* Rchb. f. × *Ophrys* sect. *Tenthrediniferae* P. Quentin.

Ophrys nothosect. *Umbiferae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Fuciflorae* Rchb. f. × *Ophrys* sect. *Umbilicatae* P. Quentin.

Ophrys nothosect. *Umbiliflorae* Z. H. Feng, nothosect. nov. = *Ophrys* sect. *Bombyliflorae* Rchb. f. × *Ophrys* sect. *Umbilicatae* P. Quentin.

Ophrys nothosubgen. *Fuciliflorae* Z. H. Feng, nothosubgen. nov. = *Ophrys* subgen. *Bombyliflorae* Hennecke × *Ophrys* subgen. *Fuciflorae* Hennecke & S. Munzinger.

Ophrys nothosubgen. *Fucophrys* Z. H. Feng, nothosubgen. nov. = *Ophrys* subgen. *Fuciflorae* Hennecke & S. Munzinger × *Ophrys* subgen. *Ophrys*.

Orchis L. [2, 71, 72, 86]

Orchis nothosect. *Anthroculae* Z. H. Feng, nothosect. nov. = *Orchis* sect. *Anthropophorae* H. Kretzschmar, Eccarius & H. Dietr. × *Orchis* sect. *Masculae* Lindl.

Orchis nothosect. *Anthrolicae* Z. H. Feng, nothosect. nov. = *Orchis* sect. *Anthropophorae* H. Kretzschmar, Eccarius & H. Dietr. × *Orchis* sect. *Italicae* H. Kretzschmar, Eccarius & H. Dietr.

Orchis nothosect. *Anthrorchis* Z. H. Feng, nothosect. nov. = *Orchis* sect. *Anthropophorae* H. Kretzschmar, Eccarius & H. Dietr. × *Orchis* sect. *Orchis*.

Orchis nothosect. *Italorchis* Z. H. Feng, nothosect. nov. = *Orchis* sect. *Italicae* H. Kretzschmar, Eccarius & H. Dietr. × *Orchis* sect. *Orchis*.

Orchis nothosect. *Mascalcare* Z. H. Feng, nothosect. nov. = *Orchis* sect. *Masculae* Lindl. × *Orchis* sect. *Robustocalcare* Hautz.

Orchis nothosect. *Masciales* Z. H. Feng, nothosect. nov. = *Orchis* sect. *Masculae* Lindl. × *Orchis* sect. *Provinciales* Parl.

Orchis nothosect. *Mascillae* Z. H. Feng, nothosect. nov. = *Orchis* sect. *Masculae* Lindl. × *Orchis* sect. *Pusillae* Parl.

Orchis nothosect. *Mascorchis* (Z. H. Feng) Z. H. Feng, stat. nov. = *Orchis* sect. *Masculae* Lindl. × *Orchis* sect. *Orchis*. — Basionym: *Orchis* nothosubgen. *Mascorchis* Z. H. Feng, this publication.

Orchis nothosect. *Provalcare* Z. H. Feng, nothosect. nov. = *Orchis* sect. *Provinciales* Parl. × *Orchis* sect. *Robustocalcare* Hautz.

Orchis nothosect. *Provillae* Z. H. Feng, nothosect. nov. = *Orchis* sect. *Provinciales* Parl. × *Orchis* sect. *Pusillae* Parl.

Orchis nothosect. *Pusilcare* Z. H. Feng, nothosect. nov. = *Orchis* sect. *Pusillae* Parl. × *Orchis* sect. *Robustocalcare* Hautz.

Orchis nothosubgen. *Mascorchis* Z. H. Feng, nothosubgen. nov. = *Orchis* subgen. *Masculae* H. Kretzschmar, Eccarius & H. Dietr. × *Orchis* subgen. *Orchis*.

Paphiopedilum Pfitzer [87-91]

Paphiopedilum nothosect. *Coryobata* Z. H. Feng, nothosect. nov. = *Paphiopedilum* sect. *Barbata* Kraenzl. × *Paphiopedilum* sect. *Coryopedilum* Pfitzer.

Paphiopedilum nothosect. *Paphiobata* Z. H. Feng, nothosect. nov. = *Paphiopedilum* sect. *Barbata* Kraenzl. × *Paphiopedilum* sect. *Paphiopedilum*.

Paphiopedilum nothosect. *Paphipetalum* Z. H. Feng, nothosect. nov. = *Paphiopedilum* sect. *Paphiopedilum* × *Paphiopedilum* sect. *Pardalopetalum* Hallier f. & Pfitzer.

Paphiopedilum nothosect. *Pardadilum* Z. H. Feng, nothosect. nov. = *Paphiopedilum* sect. *Coryopedilum* Pfitzer × *Paphiopedilum* sect. *Pardalopetalum* Hallier f. & Pfitzer.

Phragmipedium Rolfe [92-95]

Phragmipedium nothosect. *Himantofolia* Z. H. Feng, nothosect. nov. = *Phragmipedium* sect. *Himantopetalum* (Hallier f.) Garay × *Phragmipedium* sect. *Lorifolia* (Kraenzl.) Garay.

Phragmipedium nothosect. *Loripedium* Z. H. Feng, nothosect. nov. = *Phragmipedium* sect. *Lorifolia* (Kraenzl.) Garay × *Phragmipedium* sect. *Phragmipedium*.

Phragmipedium nothosect. *Loripetalum* Z. H. Feng, nothosect. nov. = *Phragmipedium* sect. *Lorifolia* (Kraenzl.) Garay × *Phragmipedium* sect. *Platypetalum* Pfitzer.

Vanda R. Br. [96-99]

Vanda nothosect. *Deltollaria* Z. H. Feng, nothosect. nov. = *Vanda* sect. *Deltoglossa* Christenson × *Vanda* sect. *Lamellaria* Lindl.

Vanda nothosect. *Longivanda* Z. H. Feng, nothosect. nov. = *Vanda* sect. *Longicalcarata* Christenson × *Vanda* sect. *Vanda*.

Vanda nothosect. *Testacarata* Z. H. Feng, nothosect. nov. = *Vanda* sect. *Longicalcarata* Christenson × *Vanda* sect. *Testaceae* L. M. Gardiner.

Papaveraceae

Corydalis DC. [100]

Corydalis nothosect. *Corydacava* Z. H. Feng, nothosect. nov. = *Corydalis* sect. *Corydalis* × *Corydalis* sect. *Radixcava* Irmisch.

Meconopsis Vig. [101, 102]

Meconopsis nothosect. *Granopsis* Z. H. Feng, nothosect. nov. = *Meconopsis* sect. *Grandes* Fedde × *Meconopsis* sect. *Meconopsis*.

Papaver L. [103]

Papaver nothosect. *Meconantha* Z. H. Feng, nothosect. nov. = *Papaver* sect. *Macrantha* Elkan × *Papaver* sect. *Meconidium* Spach.

Papaver nothosect. *Papadium* Z. H. Feng, nothosect. nov. = *Papaver* sect. *Papaver* × *Papaver* sect. *Rhoeadium* Spach.

Plantaginaceae

Antirrhinum L. [104, 105]

Antirrhinum nothosect. *Streptorrhinum* Z. H. Feng, nothosect. nov. = *Antirrhinum* sect. *Antirrhinum* × *Antirrhinum* sect. *Streptosepalum* (Rothm.) Fern. Casas.

Plantago L. [2, 106]

Plantago nothosect. *Lamprotago* Z. H. Feng, nothosect. nov. = *Plantago* sect. *Lamprosantha* Decne. × *Plantago* sect. *Plantago*.

Plantago nothosect. *Lanceisantha* Z. H. Feng, nothosect. nov. = *Plantago* sect. *Lamprosantha* Decne. × *Plantago* sect. *Lanceifolia* Barnéoud.

Plantago nothosubgen. *Psyllago* Z. H. Feng, nothosubgen. nov. = *Plantago* subgen. *Plantago* × *Plantago* subgen. *Psyllium* (Juss.) Harms & Reiche.

Plumbaginaceae

Limonium Mill. [107, 108]

Limonium nothosect. *Ironium* Z. H. Feng, nothosect. nov. = *Limonium* sect. *Iranolimon* M. Malekm., Akhani & Borsch × *Limonium* sect. *Limonium*.

Ranunculaceae

Helleborus L. [109-112]

Helleborus nothosect. *Chenoborus* Z. H. Feng, nothosect. nov. = *Helleborus* sect. *Chenopus* Schiffn. × *Helleborus* sect. *Helleborus*.

Helleborus nothosect. *Dicastrum* Z. H. Feng, nothosect. nov. = *Helleborus* sect. *Dicarpon* Ulbr. × *Helleborus* sect. *Helleborastrum* Spach.

Helleborus nothosect. *Grirus* Z. H. Feng, nothosect. nov. = *Helleborus* sect. *Griphopus* Spach × *Helleborus* sect. *Helleborus*.

Helleborus nothosect. *Hellarpon* Z. H. Feng, nothosect. nov. = *Helleborus* sect. *Dicarpon* Ulbr. × *Helleborus* sect. *Helleborus*.

Helleborus nothosect. *Hellastrum* (Z. H. Feng) Z. H. Feng, stat. nov. = *Helleborus* sect. *Helleborastrum* Spach × *Helleborus* sect. *Helleborus*. — Basionym: *Helleborus* nothosubgen. *Hellastrum* Z. H. Feng, this publication.

Helleborus nothosect. *Hellecarpus* Z. H. Feng, nothosect. nov. = *Helleborus* sect. *Helleborus* × *Helleborus* sect. *Syncarpus* Schiffn.

Helleborus nothosubgen. *Hellastrum* Z. H. Feng, nothosubgen. nov. = *Helleborus* subgen. *Helleborastrum* (Spach) K. Werner & F. Ebel × *Helleborus* subgen. *Helleborus*.

Pulsatilla Mill. [2, 113]

Pulsatilla nothosect. *Preotilla* (Z. H. Feng) Z. H. Feng, stat. nov. = *Pulsatilla* sect. *Preonanthus* (DC.) Spach. × *Pulsatilla* sect. *Pulsatilla*. — Basionym: *Pulsatilla* nothosubgen. *Preotilla* Z. H. Feng, this publication.

Pulsatilla nothosect. *Semipulsatilla* Z. H. Feng, nothosect. nov. = *Pulsatilla* sect. *Pulsatilla* × *Pulsatilla* sect. *Semicampanaria* Zämelis & Paegle.

Pulsatilla nothoser. *Patanthus* Z. H. Feng, nothoser. nov. = *Pulsatilla* ser. *Patentes* (Aichele & Schweg.) Juz. ex Tamura × *Pulsatilla* sect. *Preonanthus* (DC.) Spach.

Pulsatilla nothoser. *Patensatilla* Z. H. Feng, nothoser. nov. = *Pulsatilla* ser. *Patentes* (Aichele & Schweg.) Juz. ex Tamura × *Pulsatilla* ser. *Pulsatilla*.

Pulsatilla nothoser. *Patenses* Z. H. Feng, nothoser. nov. = *Pulsatilla* ser. *Patentes* (Aichele & Schweg.) Juz. ex Tamura × *Pulsatilla* ser. *Pratenses* (Aichele & Schweg.) Juz. ex Tamura.

Pulsatilla nothoser. *Prananthus* Z. H. Feng, nothoser. nov. = *Pulsatilla* ser. *Pratenses* (Aichele & Schweg.) Juz. ex Tamura × *Pulsatilla* sect. *Preonanthus* (DC.) Spach.

Pulsatilla nothoser. *Pratensatilla* Z. H. Feng, nothoser. nov. = *Pulsatilla* ser. *Pratenses* (Aichele & Schweg.) Juz. ex Tamura × *Pulsatilla* ser. *Pulsatilla*.

Pulsatilla nothoser. *Preotilla* (Z. H. Feng) Z. H. Feng, stat. nov. = *Pulsatilla* sect. *Preonanthus* (DC.) Spach. × *Pulsatilla* ser. *Pulsatilla*. — Basionym: *Pulsatilla* nothosubgen. *Preotilla* Z. H. Feng, this publication.

Pulsatilla nothosubgen. *Preotilla* Z. H. Feng, nothosubgen. nov. = *Pulsatilla* subgen. *Preonanthus* (DC.) Juz. × *Pulsatilla* subgen. *Pulsatilla*.

Rosaceae

Cliffortia L. [114]

Cliffortia nothosect. *Acetae* Z. H. Feng, nothosect. nov. = *Cliffortia* sect. *Acerosae* C. Whitehouse × *Cliffortia* sect. *Costatae* Weim.

Cliffortia nothosect. *Multifiviae* Z. H. Feng, nothosect. nov. = *Cliffortia* sect. *Multifidae* C. Whitehouse × *Cliffortia* sect. *Multinerviae* DC.

Cliffortia nothosect. *Multoides* Z. H. Feng, nothosect. nov. = *Cliffortia* sect. *Multinerviae* DC. × *Cliffortia* sect. *Ruboides* C. Whitehouse.

Cliffortia nothosect. *Rufidae* Z. H. Feng, nothosect. nov. = *Cliffortia* sect. *Multifidae* C. Whitehouse × *Cliffortia* sect. *Ruboides* C. Whitehouse.

Cotoneaster Medik. [2, 115]

Cotoneaster nothosect. *Chaenaster* (Z. H. Feng) Z. H. Feng, stat. nov. = *Cotoneaster* sect. *Chaenopetalum* Koehne × *Cotoneaster* sect. *Cotoneaster*. — Basionym: *Cotoneaster* nothosubgen. *Chaenaster* Z. H. Feng, this publication.

Cotoneaster nothosect. *Chaenoflori* Z. H. Feng, nothosect. nov. = *Cotoneaster* sect. *Chaenopetalum* Koehne × *Cotoneaster* sect. *Densiflori* T. T. Yu.

Cotoneaster nothoser. *Frinosi* Z. H. Feng, nothoser. nov. = *Cotoneaster* ser. *Frigidi* T. T. Yu × *Cotoneaster* ser. *Pannosi* Flinck & B. Hylmö.

Cotoneaster nothoser. *Concantes* Z. H. Feng, nothoser.

nov. = *Cotoneaster* ser. *Conspicui* G. Klotz × *Cotoneaster* ser. *Radicantes* G. Klotz.

Cotoneaster nothoser. *Frifolii* Z. H. Feng, nothoser. nov. = *Cotoneaster* ser. *Frigidi* T. T. Yu × *Cotoneaster* ser. *Salicifolii* T. T. Yu.

Cotoneaster nothoser. *Racemaster* Z. H. Feng, nothoser. nov. = *Cotoneaster* ser. *Cotoneaster* × *Cotoneaster* ser. *Racemiflori* (Pojark.) G. Klotz.

Cotoneaster nothoser. *Tomentaster* Z. H. Feng, nothoser. nov. = *Cotoneaster* ser. *Cotoneaster* × *Cotoneaster* ser. *Tomentosi* J. Fryer & B. Hylmö.

Cotoneaster nothosubgen. *Chaenaster* Z. H. Feng, nothosubgen. nov. = *Cotoneaster* subgen. *Chaenopetalum* (Koehne) G. Klotz × *Cotoneaster* subgen. *Cotoneaster*.

Crataegus L. [2, 116-123]

Crataegus nothosect. *Brespilus* (Z. H. Feng) Z. H. Feng, stat. nov. = *Crataegus* sect. *Brevispinae* (Beadle) C. K. Schneid. × *Crataegus* sect. *Mespilus* (L.) T. A. Dickinson & E. Y. Y. Lo. — Basionym: *Crataegus* nothosubgen. *Brespilus* Z. H. Feng, this publication.

Crataegus nothosect. *Coccanthae* Z. H. Feng, nothosect. nov. = *Crataegus* sect. *Coccineae* Loudon × *Crataegus* sect. *Macracanthae* Loudon.

Crataegus nothoser. *Anofoliae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Anomalae* (Sarg. ex Eggl.) Rehder × *Crataegus* ser. *Tenuifoliae* (Sarg. ex Eggl.) Rehder.

Crataegus nothoser. *Anosae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Anomalae* (Sarg. ex Eggl.) Rehder × *Crataegus* ser. *Pruinosae* Sarg. ex Rehder.

Crataegus nothoser. *Anothae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Anomalae* (Sarg. ex Eggl.) Rehder × *Crataegus* ser. *Macracanthae* (Loudon) Rehder.

Crataegus nothoser. *Apolles* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Apiifoliae* (Loudon) Rehder × *Crataegus* ser. *Molles* (Sarg. ex C. K. Schneider) Rehder.

Crataegus nothoser. *Coccifoliae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Coccineae* (Loudon) Rehder × *Crataegus* ser. *Tenuifoliae* (Sarg. ex Eggl.) Rehder.

Crataegus nothoser. *Crataegrae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Crataegus* × *Crataegus* ser. *Nigrae* (Loudon) Russanov.

Crataegus nothoser. *Crusanthae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Crus-galli* (Loudon) Rehder × *Crataegus* ser. *Macracanthae* (Loudon) Rehder.

Crataegus nothoser. *Incanthae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Intricatae* Sarg. ex Rehder × *Crataegus* ser. *Macracanthae* (Loudon) Rehder.

Crataegus nothoser. *Innosae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Intricatae* Sarg. ex Rehder × *Crataegus* ser. *Pruinosae* Sarg. ex Rehder.

Crataegus nothoser. *Macoliae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Macracanthae* (Loudon) Rehder × *Crataegus* ser. *Parvifoliae* (Loudon) Rehder.

Crataegus nothoser. *Manosae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Macracanthae* (Loudon) Rehder × *Crataegus* ser. *Pruinosae* Sarg. ex Rehder.

Crataegus nothoser. *Mollides* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Molles* (Sarg. ex C. K. Schneider) Rehder × *Crataegus* ser. *Virides* (Beadle ex C. K. Schneider) Rehder.

Crataegus nothoser. *Potigynae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Pentagynae* (C. K. Schneid.) Russanov × *Crataegus* ser. *Poticae* Pojark.

Crataegus nothoser. *Prudifoliae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Pruinosae* Sarg. ex Rehder × *Crataegus* ser. *Rotundifoliae* (Eggl. ex Eggl.) Rehder.

Crataegus nothoser. *Pugalli* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Crus-galli* (Loudon) Rehder × *Crataegus* ser. *Punctatae* (Loudon) Rehder.

Crataegus nothoser. *Puncosae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Pruinosae* Sarg. ex Rehder × *Crataegus* ser. *Punctatae* (Loudon) Rehder.

Crataegus nothoser. *Rocanthae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Rotundifoliae* (Eggl. ex Eggl.) Rehder × *Crataegus* ser. *Macracanthae* (Loudon) Rehder.

Crataegus nothoser. *Ronuifoliae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Rotundifoliae* (Eggl. ex Eggl.) Rehder × *Crataegus* ser. *Tenuifoliae* (Sarg.) Rehder.

Crataegus nothoser. *Tentae* Z. H. Feng, nothoser. nov. = *Crataegus* ser. *Punctatae* (Loudon) Rehder × *Crataegus* ser. *Tenuifoliae* (Sarg. ex Eggl.) Rehder.

Crataegus nothosubgen. *Ametaegus* Z. H. Feng, nothosubgen. nov. = *Crataegus* subgen. *Americanae* El Gazzar × *Crataegus* subgen. *Crataegus*.

Crataegus nothosubgen. *Brespilus* Z. H. Feng, nothosubgen. nov. = *Crataegus* subgen. *Brevispinae* (Beadle) Ufimov & T. A. Dickinson × *Crataegus* subgen. *Mespilus* (L.) Ufimov & T. A. Dickinson.

Crataegus nothosubgen. *Crataeguineae* (K. I. Chr.) Z. H. Feng, stat. nov. = *Crataegus* subgen. *Crataegus* × *Crataegus* subgen. *Sanguineae* Ufimov. — Basionym: *Crataegus* nothosect. *Crataeguineae* K. I. Chr., Syst. Bot. Monogr. 35: 161. 1992.

Prunus L. [2, 124]

Prunus nothosect. *Micropurus* Z. H. Feng, nothosect. nov. = *Prunus* sect. *Microcerasus* (Spach) C. K. Schneid. × *Prunus* sect. *Prunus*.

Prunus nothosect. *Prudalus* Z. H. Feng, nothosect. nov. = *Prunus* sect. *Amygdalus* (L.) Benth. & Hook. f. × *Prunus* sect. *Prunus*.

Prunus nothosect. *Pruniaca* Z. H. Feng, nothosect. nov. = *Prunus* sect. *Armeniaca* (Scop.) Koch × *Prunus* sect. *Prunus*.

Pyrus L. [121, 125]

Pyrus nothosubgen. *Pyshia* Z. H. Feng, nothosubgen. nov. = *Pyrus* subgen. *Pashia* (Koehne) B. B. Liu × *Pyrus* subgen. *Pyrus*.

Rubus L. [126, 127]

Rubus nothosubgen. *Bachobatus* Z. H. Feng, nothosubgen. nov. = *Rubus* subgen. *Batothamnus* (Focke) E. H. L. Krause × *Rubus* subgen. *Malachobatus* (Focke) Fritsch.

Rubus nothosubgen. *Bateobatus* Z. H. Feng, nothosubgen.

nov. = *Rubus* subgen. *Batothamnus* (Focke) E. H. L. Krause × *Rubus* subgen. *Idaeobatus* Focke.

Rubus nothosubgen. *Chalanobatus* Z. H. Feng, nothosubgen. nov. = *Rubus* subgen. *Chamaerubus* Kuntze × *Rubus* subgen. *Melanobatus* (Greene) House.

Rubus nothosubgen. *Cynobatus* Z. H. Feng, nothosubgen. nov. = *Rubus* subgen. *Cylactis* (Raf.) Focke × *Rubus* subgen. *Melanobatus* (Greene) House.

Rubus nothosubgen. *Idanobatus* Z. H. Feng, nothosubgen. nov. = *Rubus* subgen. *Idaeobatus* Focke × *Rubus* subgen. *Melanobatus* (Greene) House.

Rubus nothosubgen. *Linchobatus* Z. H. Feng, nothosubgen. nov. = *Rubus* subgen. *Lineati* (Focke) T. R. Huang & X. Y. Zhu × *Rubus* subgen. *Malachobatus* (Focke) Fritsch.

Rubus nothosubgen. *Malnobatus* Z. H. Feng, nothosubgen. nov. = *Rubus* subgen. *Malachobatus* (Focke) Fritsch × *Rubus* subgen. *Melanobatus* (Greene) House.

Rubus nothosubgen. *Rubobatus* Z. H. Feng, nothosubgen. nov. = *Rubus* subgen. *Melanobatus* (Greene) House × *Rubus* subgen. *Rubus*.

Saxifragaceae

Saxifraga L. [128]

Saxifraga nothosect. *Cotypera* Z. H. Feng, nothosect. nov. = *Saxifraga* sect. *Cotylea* Tausch × *Saxifraga* sect. *Gymnopera* D. Don.

Saxifraga nothosect. *Liguphyrion* Z. H. Feng, nothosect. nov. = *Saxifraga* sect. *Ligulatae* Haw. × *Saxifraga* sect. *Porphyrion* Tausch.

Saxifraga nothosect. *Ligusaxifraga* Z. H. Feng, nothosect. nov. = *Saxifraga* sect. *Ligulatae* Haw. × *Saxifraga* sect. *Saxifraga*.

Saxifraga nothosect. *Trachysaxifraga* Z. H. Feng, nothosect. nov. = *Saxifraga* sect. *Saxifraga* × *Saxifraga* sect. *Trachyphyllum* (Gaudin) W. D. J. Koch.

Saxifraga nothosubsect. *Androsaxifraga* Z. H. Feng, nothosubsect. nov. = *Saxifraga* subsect. *Androsaceae* (Engl. & Irmsch.) Tkach, Röser & M. H. Hoffm. × *Saxifraga* subsect. *Saxifraga*.

Saxifraga nothosubsect. *Androtylites* Z. H. Feng, nothosubsect. nov. = *Saxifraga* subsect. *Androsaceae* (Engl. & Irmsch.) Tkach, Röser & M. H. Hoffm. × *Saxifraga* subsect. *Tridactylites* (Haw.) Gornall.

Saxifraga nothosubsect. *Araxifraga* Z. H. Feng, nothosubsect. nov. = *Saxifraga* subsect. *Arachnoideae* (Engl. & Irmsch.) Tkach, Röser & M. H. Hoffm. × *Saxifraga* subsect. *Saxifraga*.

Saxifraga nothosubsect. *Kabrrosae* Z. H. Feng, nothosubsect. nov. = *Saxifraga* subsect. *Kabschia* Rouy & E. G. Camus × *Saxifraga* subsect. *Squarrosae* (Engl. & Irmsch.) Tkach, Röser & M. H. Hoffm.

Saxifraga nothosubsect. *Kabulatae* Z. H. Feng, nothosubsect. nov. = *Saxifraga* sect. *Ligulatae* Haw. × *Saxifraga* subsect. *Kabschia* Rouy & E. G. Camus.

Saxifraga nothosubsect. *Ligusaxifraga* (Z. H. Feng) Z. H. Feng, stat. nov. = *Saxifraga* sect. *Ligulatae* Haw. × *Saxifraga* subsect. *Saxifraga*. — Basionym: *Saxifraga* nothosect. *Ligusaxifraga* Z. H. Feng, this publication.

Saxifraga nothosubsect. *Murrosae* Z. H. Feng, nothosubsect. nov. = *Saxifraga* subsect. *Mutatae* (Engl. & Irmsch.) Gornall × *Saxifraga* subsect. *Squarrosae* (Engl. & Irmsch.) Tkach, Röser & M. H. Hoffm.

Saxifraga nothosubsect. *Mutalatae* Z. H. Feng, nothosubsect. nov. = *Saxifraga* sect. *Ligulatae* Haw. × *Saxifraga* subsect. *Mutatae* (Engl. & Irmsch.) Gornall.

Saxifraga nothosubsect. *Trachysaxifraga* (Z. H. Feng) Z. H. Feng, stat. nov. = *Saxifraga* subsect. *Saxifraga* × *Saxifraga* sect. *Trachyphyllum* (Gaudin) W. D. J. Koch. — Basionym: *Saxifraga* nothosect. *Trachysaxifraga* Z. H. Feng, this publication.

Saxifraga nothosubsect. *Trisaxifraga* Z. H. Feng, nothosubsect. nov. = *Saxifraga* subsect. *Saxifraga* × *Saxifraga* subsect. *Tridactylites* (Haw.) Gornall.

Verbenaceae

Verbena L. [129]

Verbena nothoser. *Bracelabrae* Z. H. Feng, nothoser. nov. = *Verbena* ser. *Bracteatae* G. L. Nesom × *Verbena* ser. *Candelabrae* G. L. Nesom.

Verbena nothoser. *Canbena* Z. H. Feng, nothoser. nov. = *Verbena* ser. *Candelabrae* G. L. Nesom × *Verbena* ser. *Verbena*.

Verbena nothoser. *Candachyae* Z. H. Feng, nothoser. nov. = *Verbena* ser. *Candelabrae* G. L. Nesom × *Verbena* ser. *Leptostachyae* Schauer.

Verbena nothoser. *Candelices* Z. H. Feng, nothoser. nov. = *Verbena* ser. *Candelabrae* G. L. Nesom × *Verbena* ser. *Simplices* G. L. Nesom.

Verbena nothoser. *Halabrae* Z. H. Feng, nothoser. nov. = *Verbena* ser. *Candelabrae* G. L. Nesom × *Verbena* ser. *Haleae* G. L. Nesom.

Verbena nothoser. *Leptacteatae* Z. H. Feng, nothoser. nov. = *Verbena* ser. *Bracteatae* G. L. Nesom × *Verbena* ser. *Leptostachyae* Schauer.

Verbena nothoser. *Leptices* Z. H. Feng, nothoser. nov. = *Verbena* ser. *Leptostachyae* Schauer × *Verbena* ser. *Simplices* G. L. Nesom.

Verbena nothoser. *Plibena* Z. H. Feng, nothoser. nov. = *Verbena* ser. *Plicatae* G. L. Nesom × *Verbena* ser. *Verbena*.

Verbena nothoser. *Plicteatae* Z. H. Feng, nothoser. nov. = *Verbena* ser. *Bracteatae* G. L. Nesom × *Verbena* ser. *Plicatae* G. L. Nesom.

Violaceae

Viola L. [130]

Viola nothosect. *Plagioviola* Z. H. Feng, nothosect. nov. = *Viola* sect. *Plagiostigma* Godr. × *Viola* sect. *Viola*.

Viola nothosubsect. *Brebracteatae* Z. H. Feng, nothosubsect. nov. = *Viola* subsect. *Bracteolatae* Kupffer × *Viola* subsect. *Ebracteatae* Kupffer.

Viola nothosubsect. *Rostellares* Z. H. Feng, nothosubsect. nov. = *Viola* subsect. *Patellares* (Boiss.) Rouy & Foucaud × *Viola* subsect. *Rostratae* (Kupffer) W. Becker.

Viola nothosubsect. *Rostiola* Z. H. Feng, nothosubsect. nov. = *Viola* subsect. *Rostratae* (Kupffer) W. Becker × *Viola* subsect. *Viola*.

3.3. New Nothogenera and Combinations of Pteridophytes and Spermatophytes

Apocynaceae

× *Orbelia plowesii* (P. V. Heath) Z. H. Feng, comb. nov. — Basionym: × *Gonostapelia plowesii* P. V. Heath, Calyx 1(1): 21. 1992.

Hybrid formula: *Orbea maculata* (N. E. Br.) L. C. Leach × *Stapelia kwebensis* N. E. Br.

Type: ZIMBABWE. Mutema Pan, s. d., *Plowes 3798* (holotype: PRE; possible isotype: SRGH).

× *Tromostapelia bella* (A. Berger) Z. H. Feng, comb. nov. — Basionym: *Stapelia* × *bella* A. Berger, Gard. Chron. ser. 3, 31: 137. 1902.

Hybrid formula: *Stapelia deflexa* Jacq. × *Tromotriche revoluta* (Masson) Haw.

Type: Provenance not given, 16 October 1901, *A. Berger s. n.* (holotype: K [barcode] K 000306220, digital image!).

Athyriaceae

Cornopteris bipinnata (K. Hori) Z. H. Feng, comb. nov. — Basionym: *Athyrium bipinnatum* K. Hori, PhytoKeys 148: 97. 2020.

Type: JAPAN. Shikoku: Kochi prefecture, Ochi town, Mt. Yokogura, 664 m, planted coniferous forest containing *Cryptomeria japonica* (Thunb. ex L. f.) D. Don, on soil, 29 June 2019, *K. Hori 3277* (holotype: MAK [barcode] MAK 466762; isotype: MBK).

Cornopteris × *decurrentiserrata* (K. Hori) Z. H. Feng, comb. nov. — Basionym: *Athyrium* × *decurrentiserratum* K. Hori, Fern Gaz. 21(6): 262. 2021.

Hybrid formula: *Cornopteris crenulatoserrulata* (Makino) Nakai × *Cornopteris decurrentialata* (Hook.) Nakai.

Type: JAPAN. Honshu: Tokyo-to, Ome city, Koshizawa, 396 m, planted coniferous forest containing *Cryptomeria japonica* (Thunb. ex L. f.) D. Don, on soil, 4 June 2018, *Hori 2981* (holotype: MAK [barcode] MAK 466750; isotype: MBK).

Cornopteris × *pseudobipinnata* (K. Hori) Z. H. Feng, comb. nov. — Basionym: *Athyrium* × *pseudobipinnatum* K. Hori, Fern Gaz. 21(6): 264. 2021.

Hybrid formula: *Cornopteris bipinnata* (K. Hori) Z. H. Feng × *Cornopteris decurrentialata* (Hook.) Nakai.

Type: JAPAN. Kyushu: Fukuoka pref., Itoshima city, Shiraito, 515 m, planted coniferous forest containing *Cryptomeria japonica*, on soil, 23 June 2019, *Hori 3274* (holotype: MAK [barcode] MAK 466761; isotype: MBK).

Cornopteris × *subchristenseniana* (K. Hori) Z. H. Feng, comb. nov. — Basionym: *Athyrium* × *subchristensenianum* K. Hori, Fern Gaz. 21(6): 265. 2021.

Hybrid formula: *Cornopteris crenulatoserrulata* (Makino) Nakai × an unknown allotetraploid species.

Type: JAPAN. Honshu: Akita pref., Yurihonjo city, Hachinosawa, 180 m, planted coniferous forest containing *Cryptomeria japonica* (Thunb. ex L. f.) D. Don, on soil, 5 July 2019, *Hori 3281* (holotype: MAK [barcode] MAK 466765; isotype: MBK).

Convolvulaceae

Convolvulus × *turcicus* nothosubsp. *peshmenii* (Aykurt & Sümbül) Z. H. Feng, comb. & stat. nov. — Basionym: *Convolvulus* × *peshmenii* Aykurt & Sümbül, Nordic J. Bot. 29(4): 409. 2011.

Hybrid formula: *Convolvulus boissieri* subsp. *compactus* (Boiss.) Stace × *Convolvulus holosericeus* subsp. *macrocalycinus* Hausskn. & Bornm.

Type: TURKEY. southern Anatolia. Adana, Pozantı, 5-6 km from Pozantı to Adana, 945 m, 9 June 2007, *C. Aykurt & N. Kemaloğlu 1495* (holotype: AKDU).

Lamiaceae

Salvia × *hegelmaieri* nothosubsp. *accidentalis* (Sánchez-Gómez & R. Morales) Z. H. Feng, comb. & stat. nov. — Basionym: *Salvia* × *accidentalis* Sánchez-Gómez & R. Morales, Anales Jard. Bot. Madrid 57(2): 421. 2000.

Hybrid formula: *Salvia blancoana* subsp. *vellerea* (Cuatrec.) W. Lippert × *Salvia officinalis* subsp. *officinalis*.

Type: SPAIN. Murcia. Moratalla, La Alberquilla, 10 May 1993, *P. Sánchez Gómez s. n.* (holotype: MA [barcode] MA 593325).

Orchidaceae

Calanthe × *berryana* (Sander) Z. H. Feng, comb. nov. — Basionym: × *Phaiocalanthe berryana* Sander, Gard. Chron. ser. 3, 18: 655. 1895.

Hybrid formula: *Calanthe humblotii* (Rchb. f.) M. W. Chase, Christenh. & Schuit. × *Calanthe masuca* (D. Don) Lindl.

Type: Not designated.

Calanthe × *brandtiae* (Sander) Z. H. Feng, comb. nov. — Basionym: × *Phaiocalanthe brandtiae* Sander, Gard. Chron. ser. 3, 21: 115. 1897.

Hybrid formula: *Calanthe tankervilleae* (Banks) M. W. Chase, Christenh. & Schuit. × [*Calanthe* × *veitchii* Paxton & Lindl.].

Type: Not designated.

Calanthe × *inspirata* (Veitch) Z. H. Feng, comb. nov. — Basionym: × *Phaiocalanthe inspirata* Veitch, Gard. Chron. ser. 3, 22: 315. 1897.

Hybrid formula: *Calanthe masuca* (D. Don) Lindl. × *Calanthe tankervilleae* (Banks) M. W. Chase, Christenh. & Schuit.

Type: Not designated.

Poaceae

Anthoxanthum × *zinserlingii* (Tzvelev) Z. H. Feng, comb. nov. — Basionym: *Hierochloe* × *zinserlingii* Tzvelev, Novosti Sist. Vyssh. Rast. 10: 83. 1973.

Hybrid formula: *Anthoxanthum monticola* (Bigelow) Veldkamp × *Anthoxanthum nitens* (Weber) Y. Schouten & Veldkamp.

Type: RUSSIA. Ural. on the cliffs of Mount Sablja, 20 July 1926, *G. Zinserling 504* (holotype: LE [barcode] LE 01078250, digital image!).

× *Pseudelymus versicolor* (A. P. Khokhr.) Z. H. Feng, comb. nov. — Basionym: *Elymus* × *versicolor* A. P. Khokhr., Biol. Rast. Fl. Sev. Dal'n. Vostok.: 13. 1981.

Hybrid formula: *Elymus macrourus* (Turcz. ex Steud.) Tzvelev × *Pseudoroegneria gmelinii* (Trin. ex Schrad.) Sennikov.

Type: RUSSIA. Magadan Region. Srednekansky District, mountain Zamkovyi, mosses by the rock, 22 August 1979, *S. Ershova, P. Khokryakov, A. P. Khokryakov s. n.* (holotype: MHA [barcode] MHA 0359393, digital image!; isotypes: MAG [barcodes] MAG 0000235-MAG 0000241, digital images!; VLA [barcode] VLA 00001831).

Rosaceae

× *Arsorbus abscondita* (Kovanda) Z. H. Feng, comb. nov. — Basionym: *Sorbus* × *abscondita* Kovanda, Verh. Zool.-Bot. Ges. Österreich 133: 339. 1996.

Hybrid formula: *Aria danubialis* (Jáv.) Sennikov & Kurtto × *Sorbus aucuparia* L.

Type: CZECH REPUBLIC. Bohemia occid.-centr.: in angulo clivi Pochvalovská stráň dicti situ septentr.-orient. a pago Pochvalov (distr. Louny); solo calcifero-schistaceo, alt. 490 m, 25 May 1992, *M. Kovanda s. n.* (holotype: WU; isotypes: PR).

Eriolobus angustifolius (Aiton) Su Liu ex Z. H. Feng, comb. nov. — Basionym: *Pyrus angustifolia* Aiton, Hort. Kew. [W. Aiton] 2: 176. 1789.

Neotype (designated by Li et al. [131]: 71): USA. North Carolina, locality unknown, s. d., *Greene s. n.* (neotype: K [barcode] K 000758465, digital image!).

Eriolobus coronarius (L.) Su Liu ex Z. H. Feng, comb. nov. — Basionym: *Pyrus coronaria* L., Sp. Pl. [Linnaeus] 1: 480. 1753.

Type: Provenance not given. s. d., *Linnaeus s. n.*, Herb. Linn. No. 647.5 (holotype: LINN [barcode] LINN 647.5, digital image!).

Eriolobus ioensis (Alph. Wood) Su Liu ex Z. H. Feng, comb. & stat. nov. — Basionym: *Pyrus coronaria* var. *ioensis* Alph. Wood, Class-book Bot. (ed. 1861): 333. 1861.

Neotype (designated by Langenfeld [132]: 153): USA. Missouri, Daviess, near Pattonsburg, thickets, limestone uplands, 14 June 1924, *E. J. Palmer 25466* (neotype: S).

× *Eriomalus* Su Liu ex Z. H. Feng, nothogen. nov.

Hybrid formula: *Eriolobus* (DC.) M. Roem. × *Malus* Mill.

× *Eriomalus heterophylla* (Spach) Z. H. Feng, comb. nov. — Basionym: *Malus* × *heterophylla* Spach, Hist. Nat. Vég. (Spach) 2: 138. 1834, pro sp.

Hybrid formula: *Eriolobus coronarius* (L.) Su Liu ex Z. H. Feng × *Malus domestica* (Suckow) Borkh.

Type: Not designated.

× *Eriomalus soulardii* (L. H. Bailey) Su Liu ex Z. H. Feng, comb. nov. — Basionym: *Pyrus* × *soulardii* L. H. Bailey ('*soulardi*'), Amer. Garden 12: 472. 1891, pro sp.

Hybrid formula: *Eriolobus ioensis* (Alph. Wood) Su Liu ex Z. H. Feng × *Malus domestica* (Suckow) Borkh.

Type: Not designated.

× *Tormariosorbus liljeforsii* (T. C. G. Rich) Z. H. Feng, comb. nov. — Basionym: *Sorbus* × *liljeforsii* T. C. G. Rich, Nordic J. Bot. 25(5-6): 339. 2008.

Hybrid formula: *Sorbus aucuparia* L. × [× *Tormariosorbus intermedia* (Ehrh.) J. M. H. Shaw].

Type: SWEDEN. Västergötland: Finnerödja, Brinken, 10 July 1920, *J. A. O. Skårman s. n.* (holotype: UPS).

Saxifragaceae

Micranthes × *crawfordii* (E. S. Marshall) Z. H. Feng, comb. nov. — Basionym: *Saxifraga* × *crawfordii* E. S. Marshall, J. Bot. 47: 98. 1938.

Hybrid formula: *Micranthes nivalis* (L.) Small × *Micranthes stellaris* (L.) Galasso, Banfi & Soldano.

Type: Not designated.

Thelypteridaceae

× *Abacopterella jerdonii* (Ching) Z. H. Feng, comb. nov. — Basionym: *Cyclosorus jerdonii* Ching, Bull. Fan Mem. Inst. Biol. Bot. 8: 228. 1938.

Hybrid formula: *Abacopteris nudata* (Roxb.) S. E. Fawc. & A. R. Sm. × *Christella procera* (D. Don) Mazumdar.

Type: SIKKIM [INDIA]. *Jerdon s. n.* (holotype: K [barcode] K 000951517, digital image!; isotypes: B [barcodes] B 200041322, B 200041323, B 200041324, digital images!).

× *Chririx* Z. H. Feng, nothogen. nov.

Hybrid formula: *Christella* H. Lév. × *Grypothrix* (Holttum) S. E. Fawc. & A. R. Sm.

× *Chririx gogoii* (Fraser-Jenk.) Z. H. Feng, comb. nov. — Basionym: *Thelypteris* × *gogoii* Fraser-Jenk., New Sp. Syndr. Indian Pteridol.: 248. 1997.

Hybrid formula: *Christella procera* (D. Don) Mazumdar × *Grypothrix triphylla* (Sw.) S. E. Fawc. & A. R. Sm.

Type: INDIA. Assam, Jorhat District, Goiaghat, shortly north of Kosarihat village, 21 December 1995, *C. R Fraser-Jenkins 23846, FN 3001* (holotype: BM).

× *Chririx thwaitesii* (Hook.) Z. H. Feng, comb. nov. — Basionym: *Meniscium* × *thwaitesii* Hook., Fil. Exot. 2: t. 83. 1858.

Hybrid formula: *Christella parasitica* (L.) H. Lév. × *Grypothrix triphylla* (Sw.) S. E. Fawc. & A. R. Sm.

Type: SRI LANKA. s. d., *G. H. K. Thwaites 3145* (holotype: K [barcode] K 000951504, digital image!; isotypes: B [barcodes] B 200068843, B 200068848, BM [barcode] BM 001044868, GH [barcode] GH 00112616, K [barcode] K 000951505, digital image!, L [barcode] L 0061084, P [barcodes] P 00643850, P 00643851, UC [barcode] UC 267428).

× *Chrismatopteris varievenulosa* (Viane) Z. H. Feng, comb. nov. — Basionym: *Thelypteris* × *varievenulosa* Viane, Bull. Soc. Roy. Bot. Belgique 118(1): 49. 1985.

Hybrid formula: *Christella hispidula* (Decne.) Holttum × *Pneumatopteris afra* (Christ) Holttum.

Type: WEST AFRICA [IVORY COAST]. Mt. Tonkoui. Wet, shaded trackside at ca. 900 m alt., among *Cyathea cam-*

erooniana and *Thelypteris afra*, 29 July 1979, *R. Viane 1030* (holotype: GENT [barcode] GENT 0000090035227, digital image!; isotype: GENT [barcode] GENT 0000090035166, digital image!).

× *Christelliopsis nepalensis* (Fraser-Jenk.) Z. H. Feng, comb. nov. — Basionym: *Thelypteris* × *nepalensis* Fraser-Jenk., Taxon. Revis. Indian Subcontinental Pteridophytes: 188. 2008.

Hybrid formula: *Christella dentata* (Forssk.) Brownsey & Jermy × *Menisciopsis penangiana* (Hook.) S. E. Fawc. & A. R. Sm.

Type: NEPAL. Nawalparasi District, Lumbini Zone, c. 1 km northeast of Daunne near top of pass over Siwalik ridge, shortly south of Dumkibas, east of Butwal on road to Narayanghat, 28 November 2005, *C. R. Fraser-Jenkins 31892* (holotype: TAIF [barcode] TAIF 309339, digital image!).

× *Glaphyronisciopsis* Z. H. Feng, nothogen. nov.

Hybrid formula: *Glaphyropteridopsis* Ching × *Menisciopsis* (Holttum) S. E. Fawc. & A. R. Sm.

× *Glaphyronisciopsis occulta* (C. Hope) Z. H. Feng, comb. nov. — Basionym: *Nephrodium occultum* C. Hope, J. Bombay Nat. Hist. Soc. 12: 627, t. 13. 1899.

Hybrid formula: *Glaphyropteridopsis erubescens* (Wall. ex Hook.) Ching × *Menisciopsis penangiana* (Hook.) S. E. Fawc. & A. R. Sm.

Lectotype (designated by Singh and Rawat [133]: 40): INDIA. North-western India, Uttarakhand, 1890, *P. W. Mackinnon & V. A. Mackinnon s. n.* (lectotype: BM [barcode] BM 001044870, digital image!).

Grypothrix × *pseudoliukiuensis* (Seriz.) Z. H. Feng, comb. nov. — Basionym: *Thelypteris* × *pseudoliukiuensis* Seriz., J. Phytogeogr. Taxon. 29(1): 25. 1981.

Hybrid formula: *Grypothrix cuspidata* (Blume) S. E. Fawc. & A. R. Sm. × *Grypothrix triphylla* (Sw.) S. E. Fawc. & A. R. Sm.

Type: RYUKYU ISLAND. Mt. Komidake, alt. ca. 90 m, 9 August 1971, *S. Serizawa 14678* (holotype: AICH).

4. Conclusion

Accurate taxonomy is not merely an academic exercise but a vital tool for safeguarding biodiversity. By refining classifications and elucidating hybrid dynamics, the current work presents a robust update to the taxonomy and nomenclature of selected vascular plant genera, introducing critical nomenclatural novelties, including revised infrageneric classifications and new nothoranks. The updated classifications demonstrate the necessity of reconciling molecular data with morphological traits to resolve long-standing taxonomic ambiguities, and the validation of hybrid nothoranks addresses gaps in hybrid nomenclature, providing a structured approach to categorize interspecific and intergeneric hybrids. As phylogenetic data continue to accumulate, the taxonomic community must remain agile, embracing iterative revisions that reflect the living, evolving nature of the plant kingdom. Such efforts ensure that our scientific frameworks remain robust, relevant, and responsive to the dual challenges of biodiversity loss and environmental change.

Abbreviations

APG	Angiosperm Phylogeny Group
ICN	International Code of Nomenclature for Algae, Fungi, and Plants
IPNI	The International Plant Names Index
PPG	Pteridophyte Phylogeny Group

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Author Contributions

Zhen-Hao Feng is the sole author. The author read and approved the final manuscript.

Conflicts of Interest

The author declares no conflicts of interest.

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