

Additions to the Rapateaceae

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Abstract

New taxa in the Rapateaceae are described herein: Spathantheae, Cephalostemoneae, *Stegolepis piresii*, *Kunhardtia radiata*, *Rapatea rugulosa*, *Rapatea ulei* var. *latifolia*, and *Rapatea ulei* var. *latifolia* forma *multicapitata*.

Preparatory to presentation of a monograph of the essentially neotropical monocotyledonous family Rapateaceae, there are herein offered the validation of the tribes Spathantheae and Cephalostemoneae, which will be elaborated upon in the monograph, and the prepublication of additional species representing the genera *Stegolepis*, *Kunhardtia*, and *Rapatea*, respectively.

Spathantheae Maguire, trib. nov.

Bractea cephalaris solitaria, spathacea, elongata, spicis lateraliter adnatis; granis pollinis ellipticis, bisuicatis; ovariis imperfecte 3-locularibus; loculo solitario maturo; seminibus oblongis, striatis, exappendiculatis. *Spathanthus* Desvaux.

Cephalostemoneae Maguire, trib. nov.

Bractee cephalares duae; antheris exappendiculatis; granis pollinis zonisulcatis; ovario 3-carpellato, quoque uniovulato; seminibus appendiculatis vel exappendiculatis; foliis gramineis. *Cephalostemon* Robert Schomburk, *Duckea* Maguire.

Stegolepis piresii Maguire, sp. nov.

Sectio *Pauciflora*, subsectio *Pauciflora* referenda, *Stegolepis pulchellae* et *S. membranaceae* affinis.

Herbae perennes ad 60 cm altae; vaginis anguste lanceolatis, membranaceis vel subin-

duratis, marginibus prominenter scarioso-marginatis, auriculis inconspicuis, scariosis, ca 3-4 mm longis; laminis 1.5-2.0 cm latis, ad 50 cm longis, anguste acuminatis, firme papyraceis, prominenter venatis; pedunculis axillaribus, apparenter 5-8, ca 1.5 mm diam, valde nervosis; floribus 1-2; spiculis ca 2 cm longis, sepalis inclusis, bracteolis 16-18, gradatis, lanceolatis, ad 8 mm longis, subacutis, enerviis, induratis; sepalis ca 18 mm longis, limbis anguste lanceolatis, induratis, enerviis; petalis apparenter latibovatis.

TYPE — Planta de 1 m, flor amarela, 1000 m alt, Serra Aracá, Território Amazonas, Brasil, 2 Nov. 1975, João Murça Pires, 15.039 (60) (holotype NY, isotype MG).

Stegolepis piresii is assigned to the subsection *Pauciflora* of the section *Pauciflora*, *Stegolepis*, Rapateaceae. Its closest relatives appear to be *Stegolepis pulchella* and *S. membranacea* of Amazonian Venezuela.

The leaf sheaths of *Stegolepis membranacea* are conspicuously broad, to 5 cm wide; those of *S. pulchella* are indurated and provided with conspicuous white-scarious margins and prominent auricles; those of *S. membranacea* are subindurated or submembranous, and are provided with narrowly scarious margins and rounded, non-scarious auricles. The leaf blades of *S. piresii* are 1/2 to 2/3 the width of those of the two close relatives.

All members of the genus occur over Roraima Formation sandstone or conglomerate.

Kunhardtia radiata Maguire and Steyermark, sp. nov.

Herbae perennes terrestres; foliis 7-14 dm longis; vaginis valde distichis equitantibusque in uno plano dispositis, valde coriaceis, con-duplicatis, eligulatis; laminis 5-12 dm longis, 4-6 cm latis; pedunculo axillari, solitario, apice

(*) — The New York Botanical Garden, USA.

valde dilatato et compresso; inflorescentia globosa interdum aliquantum depresso-globosa, 7-9 cm diam; bracteis subtendentibus late ovato-acuminatis, ca 3 cm longis, 2.5 cm latis, ad maturitatem reflexis; spiculis vulgo 60-75, sessilibus, radiati-porrectatis, 3.0-4.5 cm longis; bracteolis 16-20, apiculatis, valde gradatis, imbricatis, purpureo-rhodanthis; bracteolis exterioribus ovato-lanceolatis, 5-6 mm longis, 3-nervatis ad apicem, bracteolis superioribus lanceolatis, ca 20 mm longis, inconspicue 3-5-nervatis ad apicem; sepalis 3, liberis, anguste lanceolatis, enerviis, valde induratis; petalis ad basim in tubo membranaceo connatis, sursum liberis, segmentis anguste lanceolatis, 3-4 mm latis, conspicue exsertis, porrectatis; antheris muriculatis, linearibus, admodum 15 mm longis; granis pollinis ca 46 X 33 X 33 μm , monosulcatis, sporodermate foveolato; ovario triloculari, loculis pluriovulatis; seminibus subpyramidalibus, striatis, ca 3 mm diam.

TYPE — Plant 1.5-2.0 m tall, leaves deep green above, silvery-white below, bracts subtending head silvery green within, glaucous green without, sepals and corolla coral red, floral bracts buff, increasingly more broad in age, anthers 2-celled, ovary pluriovulate; on large igneous outcrop bordering forest, 35 km S of Puerto Ayacucho at the "Tobogán", 85 m alt, Territorio Amazonas, Venezuela, 4 May 1977, *J. A. Steyermark & Otto Huber 113851* (holotype NY, isotype VEN).

DISTRIBUTION — Known only by two collections from a limited locality in Orinoco Amazonas, growing on thin, granite-derived soils. VENEZUELA. Territorio Amazonas: herb to 3 m high, flowers red, common on "bush islands" and margins of laja, Caño Fluta, 200 m alt, 50 km SE of Puerto Ayacucho, 4 Mar 1951, *Maguire, Cowan, Wurdack & Baumgartner 31834* (NY); *Steyermark & Huber 113851*, as cited above.

Kunhardtia radiata is closely similar to *K. rhodantha*, being distinguished from the latter by the more nearly spherical, less depressed heads, the much narrower petals, and altitudinal and ecologic restriction.

This is the second species of the rapatea-ceous genus *Kunhardtia* assigned to the Schoenocephalieae of the subfamily Saxofridericioideae.

Rapatea rugulosa Maguire, sp. nov.

Sectio *Elongata* assignata; *Rapatea membranacea* affinis.

Herbae perennes ad 90 cm altae; vaginis anguste lanceolatis, submembranaceis, marginibus anguste scariosis, ca 12-14 cm longis; petiolis vulgo 8-10 cm longis, 3-4 mm latis; laminis anguste lanceolatis, vulgo 3.5 cm latis, 60-80 cm longis, longiacuminatis, conspicue transverse venatis et rugulosis; pedunculis 15-30 cm longis, ca 4 mm diam; capitulis elongatis, 5-8 cm longis, bracteis involucralibus lanceolatis, ca 20 cm longis, anguste acuminatis, axibus capitulis adnatis; receptaculo paleaceo, paleis scariosis, anguste lanceolatis; pedicellis 1-2 mm longis, bracteolis 7-8, non gradatis, 12-15 mm longis, scarioso-membranaceis, anguste lanceolatis, 7-nervatis, pungentiacuminatis; sepalis in tubo ca 10-12 mm longo connatis, laminis subinduratis, lanceolatis, ca 5-6 mm longis; petalis longilinguibus; antheris ca 5 mm longis, 4-locularibus, seminibus non visis.

TYPE — Corolla yellow, beside river, Igarapé Lages, Manaus-Caracarai Road, Km 130, Amazonas, Brazil, 9 May 1974, *G. T. Prance, B. W. Nelson, O. P. Monteiro, J. F. Lima 21055* (holotype, INPA; isotype, NY).

There are two additional collections known to me, viz: Herb with 130 cm long leaves, perianth yellow, inflorescence and base of plant with abundant clear gelatinous material; area with sandstone rocks along river, scrub to low forest, Km 130, Manaus-Caracarai Road, Amazonas, Brazil 13 Nov. 1973, *Berg et al P19538*; (INPA, NY, U, US) Herb 1 m alt, flowers yellow, banks of Igarapé Lages, Km 130, Manaus-Caracarai Highway, Amazonas, Brazil, 13 Feb 1974, *Steward et al P20264A*. (INPA, NY).

Rapatea rugulosa is similar to and closely related to *R. membranacea* of the Guyana Roraima sandstone regions of the Pakaraima

Plateau, differing chiefly in the shorter heads and narrower leaf blades which are borne on distinct petioles, the petioles lacking in *R. membranacea*.

It is interesting that collectors' notes indicate the new species also grows on sandstone-derived soil. Prance (verbal communication) states that this sandstone locality is the site of considerable local endemism.

Rapatea ulei Pilger, Notisbl. 6: 119. 1914.

Rapatea ulei was collected by Ule "Nº 8822, in Sümpfen zwischen Flores und Taurumã, Manãos". A second collection of the well marked species also is known to me, this obtained by Killip and Smith, "Nº 30183, dense forest... Manacs". The specimens of both collections are uniform and possibly represent a consistent, immediately regional form.

Two further collections now at hand, made by Prance and associates, Nos. 3827 and 11357, were obtained along the Manaus-Caracari Road at kilometers 12 and 45, respectively. These represent again a uniform facies, but are distinguished from the Ule and Killip and Smith specimens by their leaves which are twice the width of the original, and, thus, are conspicuously different in facies from it. These latter plants are designated as *Rapatea ulei* var. *latifolia*.

But the structure of the species is further complicated by an additional collection, *Prance et al.* 21656A and 21656B, from varzea forest at Km 60 along the Manaus-Caracari Highway. These specimens of 21656A are to be immediately associated with two *Prance et al.* collections (3827 and 11357) referred to above, designated as var. *latifolia*. The specimens of 21656B are essentially identical in facies, and would appear to be a part of the population represented by 21656A, but are further characterized by massive multiple heads (a condition not observed before in *Rapatea*), in which the inflorescence is subtended by the normal two spathaceous rapateous bracts. The heads consist of 6-8 dense orbicular-ovate, multiflowered spikes some 2.5-3.0 cm long, all deriving from an extended receptacle.

Additions to...

Questions immediately arise which can be answered only by further field observations: Does 21656B represent a normal subpopulation, or does it represent a teratological expression within a normal population?

Obviously these questions cannot be answered with the evidence available. These extraordinary specimens must receive designation as forma *multicapitata*.

Rapatea ulei Pilger, var. *latifolia* Maguire, var. nov.

A var. *ulei* simili, sed laminis foliorum ca 15 cm latis.

TYPE — Terrestrial herb, flowers yellow, in wet sandy soil by stream, Km 45, Manaus-Caracari Road, Amazonas, Brazil, 5 Apr 1971, *G. T. Prance et al.* 11357 (holotype, INPA; isotype, NY).

ADDITIONAL SPECIMENS — Leaves to 80 cm tall, corolla yellow, flowers borne in mucilage; varzea forest, Igarapé Leão, road Manaus-Caracari, Amazonas, Brazil, Km 12, 28 Dec. 1966, *Prance, Pena & Ramos* 3827 (INPA, NY); leaves to 1.5 m long, corolla yellow, varzea forest, 3 km west of Reserva Experimental Station of INPA, Manaus-Caracari Highway, Amazonas Brazil, 15 Aug 1974, *Prance, Pennington, et al.* 21656A (NY, US).

Rapatea ulei Pilger, var. *latifolia* Maguire, forma *multicapitata* Maguire, forma nov.

A var. *latifolia* affixa; inflorescentiis multicapitatis.

TYPE — Leaves to 1.5 m long, corollas yellow; varzea forest 3 km W of Reserva Experimental Station of INPA, Km 60, Manaus-Caracari Road, Amazonas, Brazil, 15 Aug 1974, *G. T. Prance et al.* 21656B (INPA, NY, US).

Resumo

Novos taxa das Rapateaceae são aqui descritos: Spathantheae, Cephalostemoneae, *Stegolepis piresii*, *Kunhardtia radiata*, *Rapatea rugulosa* var. *latifolia* e *Rapatea ulei* var. *latifolia* forma *multicapitata*.

(Aceito para publicação em 9/5/79)