Additions to the Rapateaceae

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 multica-pritata.

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 prepublishation of additional species representing the genera Stegolepis, Kunhardtia, and Rapatea, respectively.

Spathantheae Maguire, trib. nov.

Bractea cephalaris solitaria, spathacea, elongata, spicis lateralis adnatis; granis pollinis ellipticis, bisulcatis; ovarii imperfecte 3-locularibus; loculo solitario mature; seminibus oblongis, striatis, exappendiculatis. Spathanthus Desvaux.

Cephalostemoneae Maguire, trib. nov.

Bractae cephalares duae; antheris exappendiculatis; granis pollinis zonulisulcatis; ovarii 3-carpellato, quoque uniovulato; seminibus appendiculatis vel exappendiculatis; foliis gaminis. Cephalostemon Robert Schomburk, Duckea Maguire.

Stegolepis piresii Maguire, sp. nov.

Sectio Pauciflora, subssectio Pauciflora referenda, Stegolepis pulchellae et S. membranacea affinis.

Herbae perennes ad 60 cm altae; vaginis angustae lanceolati, membranaceae vel subimbricati, marginibus prominenter scarioso-marginitis, 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, appenter 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, enervis, induratis; sepalis ca 18 mm longis, limbis anguste lanceolatis, induratis, enervis; petalis appenter latiobovatis.

TYPE — Planta de 1 m, flor amarela, 1000 m alt, Serra Aracá, Territorio 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-scarios margins and prominent auricles; those of S. membranacea are subindurated or submembranous, and are provided with narrowly scarios margins and rounded, non-scarios 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 Roralma Formation sandstone or conglomerate.

Kunhardtia radiata Maguire and Steyermark, sp. nov.

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

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

ACTA AMAZONIA 9(2) : 267-269. 1979 — 267

Bassett Maguire (*)
valde dilatato et compresso; inflorescentia globoسا interdum aliquidum depresso-globo-sa, 7-9 cm diam; bracteis subtendentibus late
ovato-acuminatis, ca 3 cm longis, 2,5 cm latis, ad
maturitatem reflexis; spicula vulgo 60-75,
seissiliis, radiati-porrectatis, 3,0-4,5 cm
longis; bracteolis 16-20, apiculatis, valde
gradatis, imbricatis, purpureo-rhodanthis; ba-
cteolis exterioribus ovato-lanceolatis, 5-6 mm
longis, 3-nervatis ad apicem, bracteolis superis
lanceolatis, ca 20 mm longis, inconspicue
3-5-nervatis ad apicem; sepalis 3, liberis,
anguste lanceolatis, enservis, valde induratis;
petalis ad basin in tubo membranaceo con-
natis, sursum liberis, segmentis anguste
lanceolatis, 3-4 mm latis, conscipie exsertis,
porrectatis; antheris muraliculatis, linearibus,
admodum 15 mm longis; granis pollinis ca
46 X 33 X 33 μm, monosulcatis, sporodermate
foveolato; ovario triloculari, loculis pluri-
ovulatis; 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 col-
lections from a limited locality in Orinocan
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 altitu-
dinal and ecologic restriction.

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

Rapatea rugulosa Maguire, sp. nov.

Sectio Elongata assignata; Rapatea mem-
branaceae affinis.

Herbae perennis ad 90 cm altae; vaginis
anguste lanceolatis, submembranaceis, margi-
nibus anguste scariosis, ca 12-14 cm longis;
petiolis vulgo 8-10 cm longis, 3-4 mm latis;
aminis anguste lanceolatis, vulgo 3,5 cm latis,
60-80 cm longis, longicauista, 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 a-
cuminatis, axibus capitulis adnatis; recepta-
culo paleaceo, paleis scariosis, anguste lance-
olatit; pedicellis 1-2 mm longis, bracteolis
7-8, nongradatis, 12-15 mm longis, scarioso-
membranaceis, anguste lanceolatis, 7-nerva-
tis, pungentiacuminatis; sepals in tubo ca
10-12 mm longo connotatis, laminis subinduratis,
lanceolatis, ca 5-6 mm longis; petalis longi-
unquibus; antheris ca 5 mm longis, 4-locu-
laribus, seminibus non visis.

TYPE — Corolla yellow, beside river, Iga-
rápê Lages, Manaus-Caracaraí 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-Caracaraí Road,
Amazonas, Brazil 13 Nov. 1973, Berg et al
P19538; (INPA, NY, U, US) Herb 1 m alt,
flowers yellow, banks of Igarapê Lages, Km
130, Manaus-Caracaraí 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 Ro-
raima sandstone regions of the Pakaraima

268 —

Maguire
Plateau, differing chiefly in the shorter heads and narrower leaf blades which are borne on distinct petioloæ, the petioloæ 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 Sumpfen zwischen Flores und Taurumá, Manaus". A second collection of the well-marked species also is known to me, this obtained by Killip and Smith, "Nº 30183, dense forest... Manacás". The specimens of both collections are uniform and possibly represent a consistent, immediately regional form.

Two further collections now at hand, made by Prince and associates, Nos. 3827 and 11357, were obtained along the Manaus-Caracarai 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, *Prince et al.* 21656A and 21656B, from varzea forest at Km 60 along the Manaus-Caracarai Highway. These specimens of 21656A are to be immediately associated with two *Prince 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.

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 *Rapatea ulei* var. *latifolia* 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-Caracarai Road, Amazonas, Brazil, 5 Apr 1971, G. T. *Prince 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-Caracarai, Amazonas, Brazil, Km 12, 28 Dec. 1966, *Prince, 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-Caracarai Highway, Amazonas Brazil, 15 Aug 1974, *Prince, Pennington, et al.* 21656A (NY, US).

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

A var. *latifolia* affixa; inflorescentis multicapitatis.

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

Resumo

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

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