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Notes on Cyperaceae I. (Pycreus pumilus and Pycreus hyalinus.)
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of the corolla and its indumentum is more like that of our plant and of *S. suaveolens* than of *S. chelonoides*, DC.

1050. **Premna calycina,** *Haines* [Verbenaceae–Viticeae] : species adhuc cum *P. barbata*, Wall., conjuncta, sed inter alia calyce magno venoso anthesi nec alte 4-lobato nec lobis angustis, etiam floribus majoribus, foliis glabrioribus magis dentatis differt.

Arbor parva, inermis, usque ad 10 m. alta, cortice pallido. *Folia* elliptico-oblonga, lanceolata vel ovata, rarius obovata, acuminata, plus minusve serrata vel dentata, 8–20 cm. longa, 4–11 cm. lata, glabra vel in nervis subtus puberula, basi rotundata, obtusa vel breviter cuneata, nervis lateralibus 4–6, quorum 1–2 prope basin, petiolis 1·5–4 cm. longis glabris, vel supra leviter pubescentibus. *Panicula* parva, terminalis, minute pubescens, corymbosa, 3–6 cm. diametro, bracteis minimis caducis. *Calyx* inflato-campanulatus, anthesi sub-bilabiatus, 2 mm. longus, parce glandulosus, labio superiore nunc perspicue 2-lobato lobis imbricatis rotundatis nunc subintegro, labio inferiore obscure 3-lobato; calyx fructifer 2·5 mm. longus latusque, insigniter venosus, alte 2-labiatus vel inaequaliter 2–5-lobatus. *Corolla* alba, 5–6 mm. longa, tubo 3 mm. longo, lobis 4 late-oblongis rotundatis, fauce villosa. *Stamina* exserta. *Stylus* minute 2-fidus. *Drupa* globosa, 3 mm. diametro, putamine verrucoso.

India. Bengal, Bihar and Orissa, and the Central Provinces, frequent.

Whereas *P. barbata*, Wall., is chiefly a species of the lower Himalaya and adjacent moister regions, *P. calycina* extends into the Peninsula. The typical *Premna barbata* (Wall. No. 1768) from Nepal has pubescent entire or very slightly toothed leaves though Clarke in Flora of British India iv, 579 appears to regard as typical the form with more toothed leaves and to class the sub-entire leaved form as a variety "anodon." The calyx of *P. barbata* is very little enlarged in fruit and the latter is often pyriform. Brandis (Forest Trees, p. 511) states under *P. barbata* "calyx lobes enlarged and ribbed in fruit." This remark no doubt is applied to his specimens from Singbhum and the Central Provinces which are *P. calycina* mihi.

XIX.—NOTES ON CYPERACEAE. I.

(*Pycreus pumilus* and *Pycreus hyalinus*.)

W. B. Turrill.

An unfortunate question of nomenclature has arisen in connection with the writer's revision of North Indian *Cyperaceae* for Mr. J. F. Duthie's "Flora of the Upper Gangetic Plain," and it seems advisable to clear the matter up in a separate paper.

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Following C. B. Clarke in Hooker's "Flora of British India" and elsewhere the genera *Pycreus* and *Cyperus* are being kept distinct for the present as a matter of convenience, although it is realized that *Pycreus* is polyphyletic, its species having been derived from various sections of the genus *Cyperus*, by reduction of the trigonous nut and 3-fid style to a laterally compressed biconvex nut and 2-fid style. Similarly the genus *Juncellus* is composed of species derived from several different sections of *Cyperus* by reduction to a dorsally compressed nut and 2-fid style. It is therefore acknowledged that these genera are, in one sense, artificial. On the other hand they are convenient, definitely delimited and therefore easily determined. If they are not accepted the species belonging to them have all to be reduced to the already unwieldly genus *Cyperus*, or a fresh generic classification of the *Cyperaceae* has to be evolved. It is probable that this last suggestion will eventually yield a working classification in accord with phylogenetic principles but for the present it is impracticable. It is to be further noted that a reduction of *Pycreus* and *Juncellus* to *Cyperus* logically implies other reductions. *Mariscus* must be sunk in *Kyllinga*, or both genera in *Cyperus*. *Courtoisia* and *Torulinium* also become involved and the final result is the reduction of all the genera of the tribe *Eucypereae* to the one genus *Cyperus*. Lastly, it appears to the writer to be no improvement to reduce some or all of the above mentioned genera to *Cyperus* and to keep them as "Sections" within this genus. This course is followed, for example, by Pax in Engler and Prantl "Die Natürlichen Pflanzenfamilien" ii. 2., and implied by the arrangement of species in Britton, "Sedges of Jamaica" and Cooke "Flora of Bombay."

The genus *Pycreus* was established by Beauvois in Fl. Owar. ii., p. 48. (1807) and the species *Pycreus polystachyos* is well figured at tab. 86. and being the only species mentioned by name is to be considered the type of the genus. To the genus *Pycreus* Nees in 1835 (in Linnaea ix, p. 283) transferred without comment a number of species previously placed in *Cyperus* and amongst these was *Cyperus pumilus*. This name was first used by Linnaeus (Linn. Amoen. Acad. iv. p. 302, 1759 and Sp. Pl. ed. 2. p. 69, 1762) to designate a small Indian species. The description and a reference to a figure of Plukenet's (Pluk. alm. 179. t. 191. f. 8.) leave no doubt as to the plant intended. The Linnean Herbarium contains one sheet written up in Linnaeus's hand-writing "*Cyperus pumilus*." On this sheet one original specimen, pasted down, is the plant represented by Plukenet (l. c.) and the plant generally accepted as *C. pumilus*, Linn. A second fragment added later with a pencil note "Hort. Fothergill 1778 Fairbairn J.E.S." is *Cyperus flavescens*, L. What Linnaeus intended by *Cyperus pumilus* is therefore clear and *pumilus* is the earliest specific name for the species, which, according to the Vienna Rules, must on transference to *Pycreus* become known as *Pycreus pumilus*. Nees, in 1835, as mentioned

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above, made this combination but although he then quoted no specimens or synonyms his previous reference in Wight, Contributions to the Botany of India (1834), p. 74, shows that the plant which he understood as *Cyperus pumilus* was not the species of Linnaeus but a species for which the combination *Pycreus hyalinus* (Vahl), Turrill, has to be made. In other words the transference was associated with specimens belonging to another species. This being so it seems advisable, logical and in accordance with established rules to remake the combination *Pycreus pumilus* as *Pycreus pumilus*, Turrill, non Nees, intending thereby the true *Cyperus pumilus*, L. non Nees. C. B. Clarke in the Flora of British India and numerous other works on the *Cyperaceae* has accepted the combination *Pycreus pumilus*, Nees (non *Cyperus pumilus* L.), not for our plant but for a species whose history we have yet to trace.

In 1789 Retzius (Obs. v. p. 13.) described *Cyperus nitens*, a species which was accepted by Vahl (Enum. Plant. ii. p. 329.). Exactly what plant was intended is doubtful but probably *Pycreus pumilus*, Turrill (*Cyperus pumilus*, L.), was meant, certainly this interpretation has been the one generally accepted by specialists. Nees in 1843 (Nov. Act. Acad. C.L.C. Nat. Cur. xix., Suppl. l, 53) transferring *Cyperus nitens*, Retz to *Pycreus*, gives a description which certainly applies to *Pycreus pumilus*, Turrill, non Nees. This name *Pycreus nitens*, Nees, is the one used by C. B. Clarke in the majority of his works. The same species was described by Nees and Meyen as *Cyperus pulvinatus*, in Wight, Contributions to the Botany of India, 1834, p. 74, and this was transferred to *Pycreus* by Nees in Linnaea ix. 1834, p. 283. Hence in *Kew Bull. Addit. Ser.* viii. p. 94. the name *Pycreus pulvinatus*, Nees, is accepted by Clarke.

In 1806 Vahl (Enum. Plant. ii. p. 329), published under the name of *Cyperus hyalinus*, a quite distinct species which has been frequently confused, as by Nees, with *Pycreus pumilus*, Turrill, (*Cyperus pumilus*, L.). This is apparently the earliest trivial for the species recorded in C. B. Clarke's works as *Pycreus pumilus*, Nees, and a new combination—*Pycreus hyalinus*, Turrill, has to be made in accord with the Vienna Rules, since the plant is undoubtedly a *Pycreus*, as the genus is accepted here.

It will be well finally to sum up the chief synonymy involved in the unfortunate confusion which is unravelled above:

Pycreus pumilus, *Turrill*, non Nees. *Cyperus pumilus*, L., Amoen. Acad. iv. (1788) p. 302, et Sp. Pl. ed. 2. p. 69 et herb. propr. *Cyperus nitens*, Retz., Obs. v. (1789) p. 13? *Cyperus pulvinatus*, Nees et Meyen in Wight Contrib. (1834), p. 74. *Pycreus pulvinatus*, Nees, in Linnaea ix. (1834), p. 283. *Pycreus nitens*, Nees, l. c., and C. B. Clarke in Fl. Brit. India vi. p. 591.

Pycreus hyalinus, *Turrill*. *Cyperus hyalinus*, Vahl, Enum. ii. (1806) p. 329. *Cyperus pumilus*, Nees in Wight Contrib. (1834). p. 74 excl. syn., non Linn. *Pycreus pumilus*, Nees, in Linnaea ix. (1834) p. 283, and C. B. Clarke in Fl. Brit. India vi. p. 591.

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