ON A NEW CHIONACHNE FROM QUEENSLAND

by

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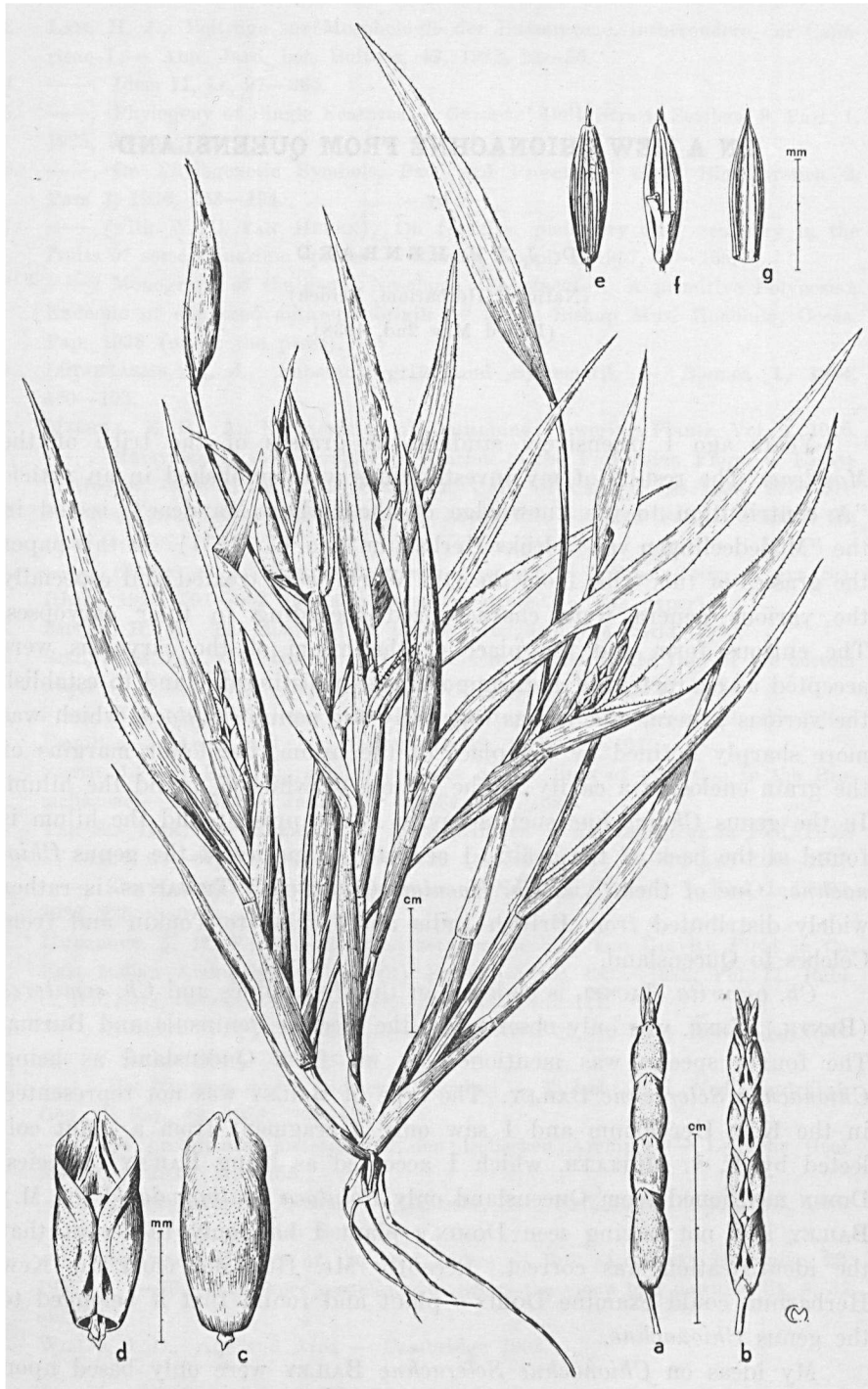
Years ago I intensively studied the grasses of the tribe of the *Maydeae*. The results of my investigations were published in an article "A contribution to the knowledge of the Indian Maydeae", issued in the "Mededeelingen van 's Rijks Herbarium" no. 67 (1931). In this paper the grasses of this tribe from the Old World were treated and especially the various genera were characterized according to their caryopses. The curious form and the place of the hilum of the caryopsis were accepted as characters of high importance to distinguish and to establish the various genera, and it was especially the genus *Polytoca*, which was more sharply defined by the place of the hilum, the lower margins of the grain enclosing a cavity at the bottom of which is found the hilum. In the genus *Chionachne* such a cavity is not present and the hilum is found at the back of the grain. I accepted 4 species of the genus *Chionachne*. One of them, viz. *Ch. Koenigii* (SPRENGEL) THWAITES, is rather widely distributed from British India and Ceylon to Tonkin and from Celebes to Queensland.

Ch. biaurita HACKEL is endemic in the Philippines and *Ch. semiteres* (BENTH.) HENR. was only observed in the Deccan Peninsula and Burma. The fourth species was mentioned by me from Queensland as being *Chionachne Sclerachne* BAILEY. The type of BAILEY was not represented in the Kew Herbarium and I saw only a fragment from a plant collected by F. v. MUELLER, which I accepted as being BAILEY's species. DOMIN mentioned from Queensland only *Polytoca cyathopoda* (F. v. M.) BAILEY and not having seen DOMIN's plant I had only to accept that the identification was correct. Recently Mr. HUBBARD from the Kew Herbarium could examine DOMIN's plant and found that it belonged to the genus *Chionachne*.

My ideas on *Chionachne Sclerachne* BAILEY were only based upon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the single plant, mentioned in my paper. Now the species *Chionachne Sclerachne* was originally described from material collected by Gulliver at Lloyd Bay, and the type specimen is in the Brisbane Herbarium; it consists of a few small pieces of culm and some cleistogamous spikelets. Hubbard, who inspected this type, says about it that the material proved insufficient to give Bailey a clear idea of the species, a species he later transferred to the genus *Polytoca*. *Chionachne* is, however, readily distinguished by the unisexual spikelets of quite a different structure. Hubbard further observed that still later Bailey referred complete plants of his species collected by Bick on Badu Island to *Panicum marginatum* var. *strictum* Benth., failing to connect them with his *Chionachne Sclerachne*. Bick's specimens have chasmogamous and cleistogamous spikelets, the latter agree with those of Gulliver's plant, the type of Bailey.

The identity of Bailey's *Chionachne Sclerachne* now being established, it is evident that Bailey's species is no longer a member of the tribe of the *Maydeae* but belongs to the *Paniceae*. Hubbard accepts it as belonging to a distinct genus, the genus *Cleistochloa*, described by him in Hooker's Icones Plantarum, Vol. III (Fifth series) Tab. 3209. This genus *Cleistochloa* contains two species. One is *Chionachne Sclerachne* Bailey, which of course now has to bear the name of *Cleistochloa Sclerachne* (Bailey) Hubbard. The other species was described by Domin as *Panicum subjunceum* in the year 1915, a name which cannot be accepted on account of Ekman's *Panicum subjunceum* from South America, a distinct species of *Panicum*. Hubbard applies to the species of Domin the name of *Cleistochloa subjuncea* (Dom.) Hubbard which is not correct, according to our rules of nomenclature, because *Panicum subjunceum* Ekman antedates Domin's name.

I therefore propose to rename *Cleistochloa subjuncea* of Hubbard, giving it the name of **Cleistochloa Hubbardiana** Henrard, nom. nov. It is a pity that well-established names ought to be rejected on reasons given above. We have the same as to the well-known *Pennisetum dichotomum* (Forsk.) Delile, based upon *Panicum dichotomum* Forskal. (1775). There is, however, a *Panicum dichotomum* L. (1753). Hence Delile's combination it not tenable. *Panicum divisum* Gmelin (1791)

Chionachne Hubbardiana Henr. Whole plant; a, inflorescence dorsal side; b, the same, ventral side; c, female fruit-case dorsally seen; d, the same ventral side; e, male spikelet from the back; f, the same, ventral side with the rhachis; g, upper glume.

is the next name for this species which becomes thus **Pennisetum divisum** (GMELIN) HENR., nov. comb.

HUBBARD observed in his paper on *Cleistochloa* that I identified with *Chionachne Sclerachne* BAILEY a specimen collected at Sturts Creek in North-West Australia by MUELLER, but that now this plant of MUELLER represents a new species of *Chionachne*.

A short description was given by me in my paper on p. 15 which description only applies to the fruit-cases of the plant collected by MUELLER. Only a few other notes were given on p. 17. The fruit-cases of the new *Chionachne* were figured on Plate IV, fig. 3. Of course it would have been sufficient to give a new name to the plant, basing this name on the formerly given short description and the plate, but I preferred to give a detailed description of the new species. Correspondence with Mr C. E. HUBBARD gave me valuable information on this subject, because recently there was received more material and I have had the privilege to study it. I am much indebted to Mr HUBBARD for his notes and to the director of the Kew Herbarium for the loan of the specimens.

Before I am giving an extensive description of the new species I will memorate that Mr HUBBARD himself did not collect the species during his travels in Queensland, but he studied the new species in the Kew Herbarium, in the Herbarium of DOMIN (Prague) and in the Brisbane Herbarium. He allowed me to publish the notes on its distribution. Furthermore he found that DOMIN's *Polytoca cyathopoda* BAILEY was not a *Polytoca* but belonged to our new species.

The distribution of all the specimens hitherto known is given at the end of my description.

Chionachne Hubbardiana HENRARD nov. spec. — Annua, erecta, jam a basi et superne e nodis fere omnibus ramosa. Culmi angulosi, valde sulcati vel subcompresso-carinati, angulis scabris, inferne sublaevi, praesertim superne tuberculis mammillosis characteristicis, pilis hyalinis instructis, praediti. Nodi adpresse sed longiter pilosi. Vaginae compressae, firmae, multinervosae, carinatae vel subrotundatae, inter nervos tuberculis praeditae; laminae subtus carinatae, ad 1 cm. latae, glaucae, multinervosae, marginibus cartilagineis spinosissimis praeditae, sensim acuminatae, subpungentes, apice leviter involutae, ad 20 cm vel plus longae, vulgo breviores, a basi distincte cordatae, lateraliter auriculatae, ligula albo-scariosa vel lacerata, vix 2 mm longa, glaberrima, apice subciliata. Rami e nodis fere omnibus floriferi, pedunculi elegantes pro maxime parte ut inflorescentia a folio ultimo circumdati; penduculus leviter striatus, subtilissime scaberulus, apice cupulatus et

ibi cum inflorescentia articulatim connatus. Prophyllum multinervosum, venis anastomosantibus, hyalinum, marginibus latis puberulis haud incrassatis. Inflorescentia articulata, inferne articulis foemineis vulgo 5—6 formata, superne masculina. Rhachis elegans, articulata, fragilissima, internodia in maturitatem circa 5 mm longa, pars visibilis applanata a basi gluma ossea connata, sed et inferne et superne bene visibilis; spiculae biflorae, flos superior valde reducta vel interdum fere nulla, gluma inferior floris inferioris valde aucta et indurata, vulgo 9 mm longa, 4 mm lata, apice distincte emarginata vel bifida, basi constricta, superne flabellatim expansa, marginibus rotundatis sese tegentibus, toto superficie granulato-rugosa, obsolete multinervosa, superne sub apice viridi-binervosa nervis secundariis obsoletis praedita; gluma superior totaliter inclusa, superne rostrato-acuminata, dorso subplana vel nervo mediano carinata, glabra, subnitens, lateraliter rotundata, involuta, multinervosa, nervis anastomosantibus, gluma tertia et quarta ut in secunda sed magis hyalina; flos superior valde reducta; fructus ephippiformis, 3 mm longa, 2.5 mm lata, leviter apiculata, hilum areolatum, brunneo-nigrescens, longitudinaliter lineolatum, bene visibile. Inflorescentia masculina spiciformis, vulgo e spiculis 3—4 angustis, 7 mm longis composita, spiculae biflorae, gluma inferior viridi-albescens, circa 11-nervia, nervis superne anastomosantibus, superne acuminata sed leviter subemarginata, subcarinata, superne compressa, minutissime ciliolata, gluma secunda ut gl. I. sed magis hyalina, glumae fertiles et paleae hyalinae, paucinerviae; stamina 3, antherae in statu sicco 2 mm longae, flos superior masculina etiam staminibus 3 praedita, glumae omniae hyalinae.

Queensland: endemic.

Localities: Clare Valley, Richmond: F. L. Berney 40, locally known as "Wild Sorghum" (Hb. Kew!, Hb. Brisbane) — Julia Creek, May 1914: A. Gibson (Hb. Kew) — Leichhardt River, flooded tracts, 3 ft. high (Hb. Brisb.) — Logan Downs, Clermont, March 1927: G. A. Fairbairn (Hb. Brisb.) — Hughenden, apud montem Mount Walker, March 1910: Domin (Hb. propr.) — Rolling Downs, in locis graminosis, March 1910: Domin (Hb. propr.).

Sturts Creek: F. von Mueller, *type*! (Hb. Kew); H. Gregory (Hb. Kew!).

Darling Downs, cultivated in experimental plots on property of Dr E. Hirschfeld, Inglewood, 20. 1. 1934: C. T. White 9745 (Hb. Kew!).