

## NEW GRASSES FROM SURINAME

by

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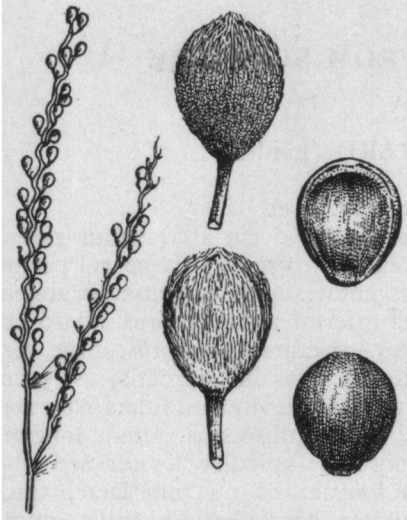
### ***Paspalum montanum* HENR. nov. spec.**

Perennis, caespitosa, stricte erecta, ad 60 cm alta; culmi glabri, plurinodes, nodis adpresse pubescentibus; vaginae arctae vel parum hiantes, hirsutae vel villosopubescentes, ligula scariosa, brunnea; laminae lineares, ad 1 cm latae vel inferiores angustiores, ad 20 cm longae, acuminatae, nervo crasso praeditae; inflorescentia terminalis, paniculata, e racemis paucis, in axillis barbatis, 4—5 cm longis formata; rhachis partialis subplana, leviter undulata, spiculae binatae, inaequaliter pedicellatae, altera sessilis, altera longiter pedicellata, pedicelli glabri, subangulati; spiculae leviter sed distincte obovatae, strigosae, 2 mm longae, ad 1.4 mm latae, apice obtusae, vix vel leviter tantum acutatae, nervis haud visibilibus, gluma inferior deest, gluma superior et lemma sterilis aequilongae, lemma fertilis 1.7 mm longa, badia vel brunnea, suborbicularis, distincte striato-punctata, haud nitida.

Suriname: Lucie R., on granitic plate, KM 15.5, B.W. n. 7108 (= Stahel n. 388), 14-5-1926, Type in Herb. U.

A densely caespitose perennial, provided at the base with hirsute cataphylls. Culms erect, together with the panicles, up to 60 cm high, sheathed all over, striate, glabrous, nodes adpressedly hairy; sheaths tight or but little slipping from the stems, mostly much longer than the internodes, densely hirsute to more or less woolly-pubescent, especially upwards and along the margins, ligules papery, brownish; blades more or less velvety-pubescent on both surfaces, flat, the uppermost ones up to 1 cm broad, the lower ones narrower, lanceolate, narrowed towards the base, gradually narrowed upwards, finely acuminate or shortly pointed, up to 20 cm long, with a prominent thick white midrib and about 5 secondary aequidistant nerves on each side of the midnerve, the margins scarcely thickened and somewhat wavy. Inflorescences terminal only, panicle consisting of a common triquetrous axis with about 5 erect or ascending, 4—5 cm long racemes, axils with a prominent tuft of hairs, racemes solitary, remote, shortly peduncled, rhachis flattered and slightly

wavy, spikelets binate, not very crowded, one nearly sessile, the other one pedicelled, pedicel about as long as the spikelet, slightly



*Paspalum montanum* Henr. From type specimen. Inflor. nat. size, spikelets  $\times 10$ .

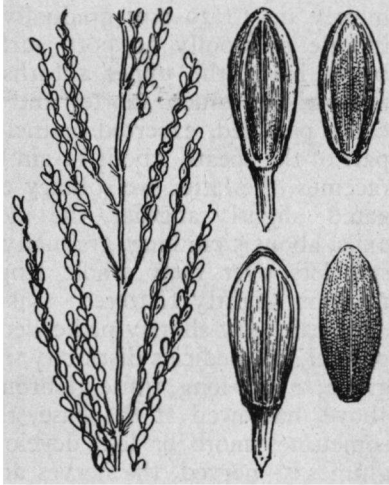
triquetrous, glabrous; spikelets small, obovate, obtuse at the summit, scarcely pointed, densely hairy on both surfaces, the hairs strigose, covering the whole surface of the scales, so that the nervation is quite invisible, lower glume totally wanting, upper glume and sterile lemma equal in length, in transmitted light about 5-nerved, fertile lemmas dark brownish or yellowish-brown, finely striate-punctate or reticulate, 1.7 mm long, slightly narrowed at the base, nearly orbiculate, not shining.

The technical characters of this species indicate that it is somewhat allied to *Paspalum mutabile* CHASE from Mexico, which has however pale, stramineous, very minutely roughened fruits only and the glumes and sterile lemmas are minutely pubescent or obscurely pubescent.

In our new species the fruits are dark brown, distinctly reticulate-striate and the indumentum of the spikelets is quite different, consisting of strigose appressed hairs which cover the surface of the scales very regularly and this strigose pubescence is so dense that the nervation of the scales is not at all visible and to control only by observation in transmitted light. *Paspalum mutabile* was placed by CHASE in the group of the "livida", which is scarcely a natural one and *Paspalum mutabile* is probably not a member of this group. *Paspalum montanum*, however, is better to place in the group of the "paniculata" on account of the small, nearly hemispheric spikelets, which are about 2 mm long. In this group the new species is more allied, as to its technical characters, to *Paspalum lentiginosum* PRESL, *Paspalum yucatanum* CHASE and *Paspalum paniculatum* L. These three species have however pale stramineous fruits. As to the spikelets there is some more agreement with *Paspalum lentiginosum* PRESL but the 3 species mentioned here have a quite different pubescence of the spikelets.

***Paspalum albidulum* HENR. nov. spec.**

Perennis, caespitosa. Culmi stricte erecti, cum paniculis ad 1 m. alti, simplices, circa 3-nodes, teretes, basi squamulati, squamulis hirsutis, nodi annulati, nigri, adpresse puberuli; folia basilaria, vaginae internodiis breviores, valde striatae, hirsutae, pilis basi tuberculatis, patentibus obsitae, ligula abbreviata, ciliolata, laminae planae vel in sicco marginibus involutis, circa 3 mm latae, valde elongatae, ad 20 cm vel plus longae, sensim angustatae, acutae, superne convolutae, supra et subtus dense lanuginoso-hirsutae, pilis elongatis, recte patentibus, basi tuberculatis praeditae; internodia valde elongata, vaginae superiores glabrescentes, laminae summae valde abbreviatae; inflorescentia paniculata, exserta vel a basi inclusa, circa 12 cm longa e racemis 15 vel plus formata, axis universalis subangulata, rami singuli vel interdum hinc inde bini, in axillis distincte barbati, ad 5 cm longi, superne sensim decrescentes, aequaliter spiculati, rhachis undulata, triqueter, marginata; spiculae binae vel subsolitariae, inaequaliter pedicellatae, altera breviter, altera longiter pedicellata, pedicellis triquetris, spiculae pallidae, albidulae vel virescentes, 2 mm longae, leviter obovato-oblongae, glaberrimae, gluma inferior deest vel interdum hinc inde evoluta, gluma superior 5-nervis, nervis superne anastomosantibus, spiculam paululum brevior, lemma sterilis plana, circa 3-nervis, nervo medio distincto, nervis lateralibus submarginalibus, margo incrassato, interstitia depressa, lemma fertilis ovato-oblonga, straminea, glaberrima, sed distincte reticulato-striolata.



*Paspalum albidulum* Henr. From type specimen. Inflorescence magnit. nat., spikelets  $\times 10$ .

**Suriname:** Upper Sipaliwini R., Camp B, Rombouts n. 395 G, 20-1-1936, Type in herb. U. and herb. L.

Strictly erect perennial plant, up to 1 m high, inclusive of the panicle; culms simple about 3-noded, obtected at the base by leafless hirsute sheaths, nodes black, adpressed-hairy, sheaths much shorter than the very long internodes, striate, densely hirsute by tubercle-based, spreading, long hairs; ligules short, ciliolate; leaves

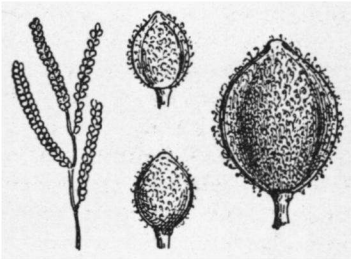
for the greater part basal, with flat blades becoming involute in drying or the margins only involute, about 3 mm broad, very long, mostly up to 20 cm, gradually narrowed to an acute apex, very hirsute or woolly on both surfaces by long, spreading, tubercle-based hairs, the upper sheaths becoming glabrous or nearly so, their blades much shorter and sometimes very reduced; inflorescence paniced, exserted or included at the base by the uppermost part of the sheath, about 12 cm long, consisting of about 15 or more racemes, the latter are solitary or partly binate; common axis elongated, slightly angular, the racemes prominently bearded at the axils, about 5 cm long, gradually becoming shorter upwards, bearing spikelets over their whole length, rhachis undulate, triquetrous, margins slightly flattered; spikelets binate or subsolitary, one of each pair very shortly pedicelled, the other one with a much longer pedicel, the pedicels distinctly triquetrous; spikelets pale or whitish-green, 2 mm long, quite glabrous, slightly obovate-oblong, broadest above, narrowed at the base, the first glume mostly wanting but sometimes more or less developed on occasional spikelets; upper glumes 5-nerved, the nerves anastomosing upwards below the tip, the obtuse glume slightly but distinctly shorter than the spikelet; lower lemma flat but very characteristically depressed at the middle, with a very strong midnerve and two lateral ones, the latter forming a raised thick margin, fertile lemma as long as the spikelet, ovate-oblong, glabrous, stramineous, slightly but distinctly reticulately veined. The elliptic-obovate glabrous spikelets with their pale colour are characteristic for the species. Going over CHASE'S work on *Paspalum* to find its nearest allies we are inclined to place our new species in the group of the "caespitosa", having species with elliptic spikelets. The only species in this group with glabrous spikelets are *Paspalum Bakeri* HACK. and *Paspalum pleostachyum* DOELL, whereas *Paspalum acutifolium* LEON has spikelets which are obscurely pubescent only near the margins or sometimes also quite glabrous. The latter species has moreover the same slightly depressed lemma with raised borders as in *Paspalum albidulum* but the form of the spikelets is different. *Paspalum Bakeri* has but few (2—4) racemes and the spikelets are elliptic only, not obovate. *Paspalum pleostachyum* is probably more allied having commonly more racemes (up to 15) although larger spikelets (2.2—2.5 mm long) and its spikelets, although elliptic-obovate and pale-stramineous, are acute and not obtuse and rounded at the summit as in *Paspalum albidulum*, the latter has moreover a 5-nerved upper glume. In the group of the "caespitosa" the upper glume is 3-nerved, or the marginal nerves are doubled, whereas in our new species there are

5 equidistant nerves. I could compare *Paspalum pleostachyum* DOELL from Grenada (coll. BROADWAY). This species is according to Mrs. A. CHASE also found in Brazil, but her figures on p. 137 of the work on *Paspalum* are very different from the ones given by me for *Paspalum albidulum*. Other groups to memorate are that of the "*corcovadensia*" but the large flat blades of the species in this group, exclude our species. The arrangement of the various species of *Paspalum* into natural groups or sections, is greatly hampered by the fact that the South American species are not yet treated by Mrs. CHASE, although she intended to present a revision of the South American species of *Paspalum* separately.

***Paspalum orbiculatum* POIR. var. *lanuginosum* HENR. nov. var.**

Habitus ut in typo sed spiculae dense lanuginoso-pubescentes, pilis capitatis.

Among the grasses of Surinam, there occurs a well-known species from the group of the "*orbiculata*", so as this is treated in CHASE'S admirable work on the North American species of *Paspalum*, published in the Contributions from the U.S. National Herbarium, 1929. Vol. XXVIII. This work deals not only with the continental North American species but also with the tropical species and those from the West Indies as far as Panama. We know that many species are common to North and South America and Mrs.



*Paspalum orbiculatum* Poir. var. *lanuginosum*. Henr. From type specimen. Infl. nat. size, spikelets  $\times 10 \times 20$ .

CHASE has therefore studied the South American species as well. The South American species are particularly abundant in Brazil and it is to be expected that the regions of Surinam near the boundary of Brazil may yield many novelties especially on the high campos and savannas. *Paspalum orbiculatum* POIRET has in the typical form perfectly glabrous spikelets. There occur however also specimens with a more or less very characteristic pubescence of the spikelets. Such specimens did not escape to the attention of the accurate writer of the monograph of *Paspalum*, but they were not mentioned with a varietal name. Years ago I found such specimens with hairy spikelets too and found the indumentum of the spikelets so characteristic that I accepted this form as a distinct variety under the name given above. Having seen this variety also from Surinam,

I publish it here for the Flora of Surinam. The variety occurs here and there and is known to me from the following localities:

**B r a z i l** : Without precise locality, Burchell s.n. (Catalogus Geographicus Plantarum Brasiliae Tropicae No. 8864), Type in herb. L. sub No. 908, 98-423.

**P a r a g u a y** : Banks of Rio Paraguay, near Assomption, Balansa s.n., 3-1-1875, in herb. L.; Forest of Yaguaron, in a dry swamp, Balansa n. 103, Febr. 1877, in herb. L.

**S u r i n a m e** : Coppename R., Raleigh falls, between rocks, Pulle It. sec. n. 347, 25-8-1920, in herb. U.

The pubescence of the spikelets is always characteristic although in some specimens denser or more irregular. CHASE mentions specimens from Guatamala, Panama, French Guyana, Brazil and Paraguay.