

ON A NEW SPECIES OF PASPALUM
FROM THE ISLAND OF BONAIRE

by

Dr J. TH. HENRAED

(Rijksherbarium, Leiden)

(Issued April 15th, 1943).

Among the plants collected in the West-Indies by I. Boldingh during the years 1909 and 1910 there was a grass determined as *Paspalum hemisphericum* Poir., a name changed into *glabrum*. These determinations are incorrect because *Paspalum hemisphericum* Poiret is the same as the well-known *Paspalum paniculatum* L. and also quite different from Poiret's *Paspalum glabrum*, which, according to Mrs. A. Chase's investigations, is the *Paspalum laxum* of Lamarck.

Among Boldingh's plants there is a good specimen from the island of Bonaire, which, studied with Chase's work on the North-American species of *Paspalum*, could not be identified. In Chase's work also the species of Central-America and the West-Indian Islands are taken up, moreover the latter are also treated in Hitchcock's posthumous work on the grasses of that region.

To find relationships with one of the known species, we have at first to note some principal general characters of our new species. It is a perennial species with a not flabellate inflorescence, the racemes are solitary or many, but not conjugate at the summit of the culms, the rachis is not winged and the spikelets are paired with a wanting first glume, but the second one is present. There are no truly axillary racemes.

We note further that the inflorescence consists of more than one raceme and that the outer scales of the spikelets are not crumpled. The plant is strictly caespitose and quite erect without decumbent base, the spikelets although slightly pubescent are not conspicuously ciliolate and the so-called fruit is light brown, but not shining. The plant is not very robust and less than 1 m high with relatively slender culms. Characteristic are the form and the outline of the spikelets, which are about 2½ mm long, elliptic to oval and somewhat abruptly narrowed upwards, the upper part triangular.

These characters, together with the very elongate and narrow, not more than 2 mm broad blades, would place the species in the group of the "*Alterniflora*", as this group is accepted by Chase. To only one of the species of this group the new species is more allied. If we try to find other relationships it becomes evident that our species which is



striking by its firm, folded, more or less involute-margined blades, a species growing in hard tufts, is most allied to a species from Cuba, the *Paspalum rocanum* Leon, which has the same habit but differs in the form of the glabrous spikelets. As to the chief characters of our species we can say that it is more allied to species which have a more southern distribution and it is, in my opinion, rather certain that *Paspalum rocanum* Leon does not belong to the "*Alterniflora*" as was proposed by Chase, who observed already that *Paspalum rocanum* was placed in the "*Alterniflora*" for convenience. This view I can wholly support. Our new species, together with the Cuban *P. rocanum* belongs to the South-American group of the "*Flaccida*" from Brazil and is especially allied to *Paspalum flaccidum* Nees and as to its habit also to *Paspalum filifolium* Nees. Comparing our species with these two ones, we note immediately the long filiform blades and the dense caespitose growth. Both Brazilian species differ, however, from the West-Indian one. *Paspalum flaccidum* has larger glabrous spikelets and a shorter second glume so that the fertile lemma is distinctly exposed, in our species the second glume is the longest one and pointed a little beyond the fruit. *Paspalum filifolium* Nees, although agreeing in habit, has two conjugate racemes at the summit of the culms and belongs to the South-American group of the "*Linearia*".

As to all the important characters treated here in extenso, we are satisfied that the plant we were studying is a distinct new species from Bonaire that it belongs to the group of the "*Flaccida*" and that it is somewhat allied to *Paspalum rocanum* Leon, which ought to be replaced in the same group of the "*Flaccida*", the group of the "*Alterniflora*" now being only represented by two species which are very characteristic on account of the form of their solitary spikelets and their geographical distribution, being only found in Cuba and Haiti. Both species of the group of the "*Alterniflora*" I could compare and also the *P. rocanum* from Cuba. This important material for comparison was formerly received from my late friend Hitchcock. We have now only to compare the data given by Hitchcock in his posthumous work: "Manual of the grasses of the West Indies". The genus *Paspalum* is treated there quite in the same way as is done by Chase in her monographical study and the long key gives us all the necessary characters for a quick identification. Following this key we arrive without difficulties at the relationship of *Paspalum rocanum*, *Paspalum Bakeri* Hack. and *Paspalum pleostachyum* Doell. The two latter ones belong to the group of the "*Caespitosa*". I could compare them, both have perfectly glabrous spikelets. We thus arrive with Hitchcock's work at quite the same conclusions.

The new species, which is figured here (p. 325) at slightly less than $\frac{1}{2}$ natural size, the spikelets 10 times magnified, so as to compare them with figures in Chase's work, also magnified 10 times, is named here:

Paspalum bonairense Henr., nov. spec.

Dense caespitosa, culmi stricte erecti cum panicula paululum exserta, 50 cm vel paulo plus alti, a basi squamis aphyllis induti, subcompressi, laeves, nodis glabris nigricantibus; vaginae internodiis longiores inferne carinatae superne rotundatae valde hiantes, summae arctae glabrae, marginibus hyalinis praeditae, ligula fusca longe auriculatim producta, auri-

culae longe fimbriatae; laminae anguste lineares, convolutae sensim longe setaceo-acuminatae, vi expansae circ. 2 mm latae, 30 cm vel plus longae; inflorescentia paulo exserta, a basi vagina ultima circumdata, e racemis circ. 4 composita; racemi singuli, subremoti, rhachis triangularis, marginibus scabris, spiculae $2\frac{1}{2}$ mm longae binae altera longe, altera breviter pedicellata, pedicellis scabro-puberulis, angulatis; spiculae ellipticae vel ovaes, a basi sensim, superne distincte acuminatae, gluma prima deest, gluma secunda spiculam aequans, convexa, 3-nervis, nervo medio producto, nervis lateralibus evanescentibus, acuta, pilis sparsis pilosa, gluma III (lemma sterilis) nervo mediano indistincto praedita, plana, glabra, superne aequaliter rotundata, apice obtiusecula, spicula paulo brevior; gluma III (lemma fertilis) elliptico-ovalis, longitudinaliter punctato-striata.

Insula Bonaire, Plantae Indiae occid. ab *I. Boldingh* anno 1909—1910 collect. N^o 7370. *Typus* speciei in Herb. Utrecht (No. 12305).