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Gramineae of Iraq

N. L. BOR

RÉSUMÉ

L'auteur discute brièvement la nomenclature et la taxonomie de quelques espèces de Graminées d'Iraq. Il met en évidence le fait que le type du véritable *Phleum alpinum* L., qui coïncide exactement avec le *Ph. commutatum* Gaudin, se trouve dans l'herbier de Linné, à Londres.

SUMMARY

The author discusses briefly the nomenclature and status of some species of *Gramineae* found in Iraq. Attention is drawn to the fact that the type specimen of true *Phleum alpinum* L., which coincides exactly with *Ph. commutatum* Gaudin, is in the Linnean herbarium in London.

ZUSAMMENFASSUNG

Verfasser bespricht kurz die Nomenklatur und systematische Stellung einiger irakischen Grasarten. Er weist darauf hin, dass der Typus des echten *Phleum alpinum* L., das genau dasselbe ist wie *Ph. commutatum* Gaudin, im Linné-Herbar in London liegt.

The publication of a paper on the grasses of Iraq in this journal by Chrtek & Hadač (1969) within a few months of the appearance of vol. 9, Flora of Iraq (*Gramineae*) occasioned some surprise, since it was well known to at least one of the authors (Hadač) that an account of the grasses of this area was being prepared at Kew. The records of Hadač would have materially added to the value of the published account, particularly if there happened to be new records or species. It is a pity that these records could not have been included.

Apart from this several points of general taxonomic interest which conflict with views of the writer (Bor 1968) emerge from a consideration of this paper and will be discussed as briefly as possible.

Arrhenatherum P. Beauv.

“Bor does not consider *A. bulbosum* (Willd.) Presl to be a distinct species.” This is true. No one, one ventures to suggest, who has read Jenkin’s paper (1931), nor Pfitzenmeyer’s (1962), would be courageous enough to give specific rank to the bulbous races of *A. elatius*. The statement that the glumes of the non-bulbous plants are narrower than those with a bulbous base was intriguing since, if correct, could demonstrate that *Arrhenatherum bulbosum* is a good and valid species. As no measurements are given in the paper under discussion, the writer of this paper was constrained to make some measurements. Twenty gatherings of bulbous and twenty of non-bulbous plants from widely separated areas were selected and the width of the glumes from a spikelet of each was measured. The results are shown in table 1. They demonstrate, alas, that the statement that the glumes of non-bulbous plants are narrower cannot be upheld. Fig. 1, in which glume-width is plotted against glume-length, merely emphasises this conclusion.

	<i>lower glumes</i>					<i>upper glumes</i>						
mm	1	1.25	1.5	1.75	2	2.5	2.75	3	3.25	3.5	3.75	4
A	5	9	3	1	2	2	5	11	2	—	—	—
B	7	4	8	—	1	—	2	15	—	1	1	1

Table 1. — Breadth of glumes (in mm) in 20 samples of non-bulbous (A) and 20 samples of bulbous (B) *Arrhenatherum elatius*.

As far as *A. palaestinum* is concerned, awn length alone is not to be relied upon. The dogmatic statement that the glumes are \pm acute in *A. palaestinum* and \pm acuminate *A. kotschyi* is not correct. In the latter the lower glume varies from acute to acuminate or is even shortly awned.

Brizochloa Jirásek & Chrtek

The publication of this new generic name is well known to the writer. It seems to him, however, that it is premature to separate a monotypic genus from its European relatives without at the same time taking into account the very large number of species of *Briza* described from South America.

Pentatherum Nab.

The writer cannot agree that *Pentatherum* can be said to be a transitional form between the genera *Agrostis* and *Calamagrostis*. It has the glumes and lemmas of *Agrostis*, a genus in which the lemmas may be hairy or hairless, awned or awnless. For a rational delimitation of the genera *Agrostis*, *Calamagrostis* and *Deyeuxia*, Philipson (1937) and Vickery (1940) may be seen.

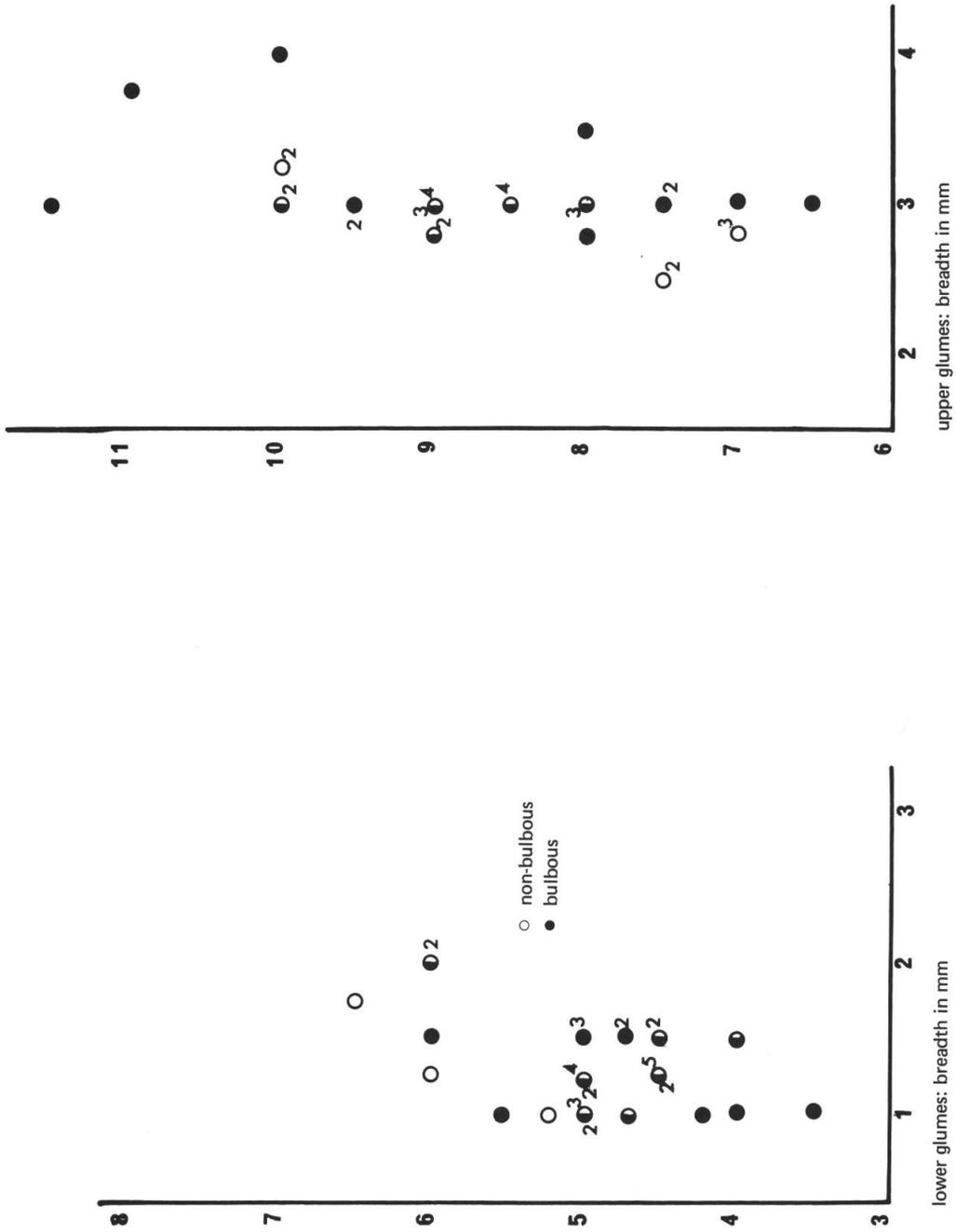


Fig. 1. - Glume-width plotted against glume-length in 40 samples of *Arrhenatherum elatius* (20 bulbous, 20 non-bulbous). The numbers refer to specimens with coinciding measurements.

Phleum alpinum L.

The majority of taxonomists, if not all, would agree that if there is a specimen of a Linnean species in the Linnean Herbarium, written up as such by Linnaeus himself, then that specimen should be taken as the type of the species. There is a specimen in the Linnean Herbarium collected in Lapland with the name *Phleum alpinum* inscribed in the handwriting of Linnaeus. This, no doubt, was the basis for the inclusion of *Phleum alpinum* in the "Flore lapponica" and "Flore suecica", both of which were published before 1753. The awns of the type specimen are glabrous and scabrid.

Several conclusions can be drawn from this statement:

- The Iraqi species is *Phleum alpinum* L.
- *Phleum commutatum* Gaudin (1808: 4) is identical with the former since its description fits the type exactly.
- *Phleum alpinum* L. has a wide distribution, being reported from the mountainous regions of the Old and New Worlds.
- *Phleum alpinum* sensu Gaudin (non L.) differs morphologically from true *Ph. alpinum* L. in its hairy awns and moreover is a diploid ($2n = 14$) while true *Ph. alpinum* L. is a tetraploid ($2n = 28$). This may be regarded as a valid argument for giving *Ph. alpinum* sensu Gaudin (non L.) a new name or reviving an older specific name, if one exists, should the taxon be regarded as specifically distinct.

Phleum bertolonii Bornm.

It is good to know that this species actually exists in Iraq. This possibility was foreseen (Bor 1968): the species is to be found in the key to *Phleum* — there is also a description — and the differences between it and *Ph. pratense* are also given in the book. These facts are not mentioned in the paper under discussion, possibly through an oversight.

Stipa capensis Thunb. (*S. retorta* Cav.)

"A comparison of plants from Africa and SW Asia clearly shows them to be distinct." Trinius & Ruprecht (1842: 63-66) didn't think so, although they listed both (the latter as *S. tortilis*). They considered the latter to be closely similar to *S. capensis* and perhaps only a variety of it. The differences they give are hardly specific: "The South African plants have shorter awns and lemmas". No measurements are given for this statement. Actually the awns and lemmas of plants from both areas vary within the same limits, 60-100 mm for awns, 5-7 mm for lemmas. Trinius & Ruprecht give 2.5-3 inches as the length of the awn in *S. capensis* (one specimen only) and ± 3 inches for *S. tortilis* (many specimens).

The reason for accepting *S. capensis* Thunb. is that the European and Middle East plant, formerly known as *S. tortilis* Desf. and *S. retorta* Cav., was introduced

into, and is an established alien in South Africa. Thunberg simply happened to publish his specific name earlier than the other authors. Hubbard's observations (1962) in this connection are very relevant.

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