

The grass genus *Diplachne* has a nearly global distribution in temperate and tropical areas. Herbarium, field, greenhouse and molecular studies were integrated to recognize two species, which included DNA sequencing of 21 accessions with numerous other genera of Chloridoideae. The evidently rare *Diplachne gigantea* is an emergent species known from only a few locations in Africa, including the Okavango Delta in Botswana, and earlier collections from Zambia and Tanzania. The widespread species *Diplachne fusca* includes four subspecies, one endemic to Australia (*D. f.* subsp. *muelleri*), one widespread and highly polymorphic across the Old World (*D. f.* subsp. *fusca*), and two native to the New World (*D. f.* subsp. *fascicularis* and *D. f.* subsp. *uninervia*). Members of *D. fusca* tend to occur in seasonally saturated, often disturbed soils. The only taxon with invasive tendencies is *D. f.* subsp. *uninervia*. Many populations of *D. f.* subsp. *fusca* have a high tolerance for saline soils. Some populations of *D. f.* subsp. *fusca* also have nitrogen-fixing bacteria, which when coupled with high levels of salinity tolerance and palatability to livestock, make the subspecies of interest for potential use in the reclamation of saline soils. We review the taxonomic history of the genus and provide summaries of its extensive synonymy. Lectotypes are designated for numerous taxa. The detailed descriptions for each taxon are based on specimens examined from 80 herbaria over thirty years and from fieldwork of the authors on four continents.



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MONOGRAPH OF *DIPLACHNE* (POACEAE, CHLORIDOIDEAE, CYNODONTEAE)

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Diplachne fusca muelleri P.M. Peterson & N. Snow

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