

genera, represented by 454 species; and the numbers for North Mexico are fifty-seven and 184 respectively. The most considerable American extension of these genera and species is into South America, where no fewer than eighty-five of the genera are represented by the same or other species; and 185 of the Mexican and Central-American species actually extend into South America. In point of numbers the West Indies come next. The northward extensions are much lower than might have been expected for this order of plants; this is specially emphasized in the species. Fifty of the Mexican genera are found in western North America, as defined for the purposes of this work, and sixty-two of the species enter the same region, though very many of them do not range beyond Texas, New Mexico, and Arizona. But, what is more surprising, only quite a small number of grasses are common to California and Mexico. It is true that the Monocotyledonous orders generally have more species common to Mexico and eastern North America than to Mexico and western; yet it is not so markedly exhibited by any other large order as by the grasses. Fournier, indeed, could enumerate only three grasses common to California and Mexico, namely, *Panicum fimbriatum*, *Tripsacum dactyloides*, and *Sporobolus virginicus**; but we are able to add to the list†. We find the following species common to the two countries:—*Cenchrus tribuloides*, *Phalaris arundinacea*, *Stipa eminens*, *S. viridula*, *Sporobolus cryptandrus*, *Epicampes rigens*, *Agrostis scabra*, *A. varians*, *A. verticillata*, *Bouteloua aristoides*, *B. oligostachya*, *B. polystachys*, *Monanthochloe littoralis*, *Bromus ciliatus*, *Hordeum jubatum*, and *Elymus sitanion*.

Forty-eight genera and sixty-four species are common to Mexico and eastern North America; but figures alone do not adequately express the degree of extension. It will be perceived that the numbers are nearly the same as the western; but a much larger proportion of the species are common and widely spread, and, one might say, characteristic of the whole eastern side of the northern continent. Fournier directs attention to this fact in the work cited. According to his material, thirty-three of the Mexican grasses were common to Texas, and sixty-five to the Eastern States.

It is also noteworthy that the only member of the Andropogoneæ hitherto found in California is *Ischaenum leersioides*, Munro, a native of Southern China, colonized near San Francisco; yet they are not uncommon in the Atlantic States.

The endemic genera are *Euchlæna*, *Schaffnera*, *Bauchea*, *Jouvea*, *Opizia*, and *Calamochloa*. *Euchlæna* is a remarkable and interesting grass, most nearly allied to the maize (*Zea*), having the sexes similarly separated, and very long exserted styles. Several of the endemic grasses of the Texano-Mexican region are remarkable for the complete separation of the sexes, either monœciously or diœciously‡. To this category belong *Jouvea*, *Opizia*, *Buchloe*, and *Scleropogon* (see Plate 101), the last-named inhabiting Mexico and New Mexico and recurring in Mendoza.

* Mexicanarum Plantarum Enumeratio, Glumaceæ, Introd. p. xv.

† Watson's Botany of California.

‡ Fournier, "Sur les Graminées mexicaines à sexes séparés," Bull. Soc. Bot. Belg. xv. 1876, pp. 459–476.