

foliosus than an *Acanthospermum*." I have not been able to verify his statement that some of the material from Gardner-near-Hood Island (*A. brachyceratum*) has "some of the leaves deeply cut, as do the specimens from Chatham Island."

In this species the slender stem is so woody that I was inclined to consider it frutescent, until a specimen was found among the unmounted material collected by Stewart which showed clearly that the plant was an annual.

In conclusion, it may be well to mention that the data for the specimens collected by Mr. Stewart on the 1905-06 Galapagos Expedition of the California Academy are in an unfortunate state of confusion. The 33 unmounted sheets of *A. leptolobum*, for example, are not accompanied by data, but they are so clearly identical in every feature with his no. 700 as represented in the Gray Herbarium and the herbarium of the California Academy of Sciences that I have no hesitation in considering them a portion of the same collection.

BOTANY.—*A perennial species of teosinte*.¹ A. S. HITCHCOCK,
Bureau of Plant Industry.

In a recent article² entitled *Teosinte in Mexico*, Mr. G. N. Collins reviews our knowledge concerning teosinte in Mexico. Up to the present all the forms of teosinte have been referred to one species, *Euchlaena mexicana* Schrad. There are two forms of this, both annual, one from Durango, where it was collected by Dr. Edward Palmer, and one grown in Florida, the origin of which is uncertain. The latter form has been grown in France and may have come originally from Guatemala. At present the only known localities for the annual teosinte in the wild state are Durango and the State of Mexico near Chalco, where it was recently collected by Collins. The origin of the specimens described by European botanists is unknown.

The botanical history of the annual species is as follows:

Euchlaena mexicana Schrad. Ind. Sem. Hort. Goettingen. 1832; reprinted in *Linnaea* 8: Litt. 25. 1833. I have not seen the original publication, an ephemeral seed list, but fortunately the reprint is accessible. Schrader describes the genus and species together, "*Euchlaena mexicana* Schrad. Nov. Gen. e Graminearum Olyrearum tribu," and so on. He describes the staminate spikelets as 1-flowered instead of 2-flowered and the genus is placed with the *Olyra* group. As to locality he says, "Mexico, Dr. Mühlenfordt." Nothing further concerning the history of this is known.

Reana giovanninii Brign. Ind. Sem. Hort. Mutin. 1849. The publication cited is also an ephemeral seed list which I saw at the Botanical Garden of

¹ Received March 20, 1922.

² Journ. Hered. 12: 339. 1922.

Padua, Italy. Because of the rarity of the original publication the description is here reproduced.

Reana
Genus Novum
(Gramineae)
(Zeinae)

Flores monoici. *Masculi* terminales paniculati: spica biflora, flora altero sessili, altero pedicellato: staminibus sex. *Feminei* axillares, spicati, erecti, sessiles in axi flexuoso: bracteis imbricatis ad medium usque involuti: stylis longissimis, exertis, pendulis: parte spicae superiore, abortiva, exserta, erecta. *Cariopsis* curvo-trigona axe arcte adhaerens.

Reana Giovanninii foliis amplexicaulibus, canaliculatis, angustis, integerrimis, longissimis.

Habitat in Mexico-Annua-Attulit ex loco natali D. Doct. Melchior Giovannini, Regiensis.

The description is quoted soon after in two botanical periodicals (*Ann. Sci. Nat. III. Bot. 12: 365. 1849; Flora n. ser. 8: 400. 1850*).

Reana luxurians Dureiu, Bull. Soc. Acclim. II, 9: 581. 1872. The author in speaking before the society mentions a grass called Teosinte which he thinks is probably the name of a country. The seed probably came from Guatemala. He speaks well of it as a forage plant and ventures to call it *Reana luxurians*. The name is not technically published here as there is no description.

Euchlaena bourgaei Fourn. Bull. Soc. Bot. Belg. 15: 468. 1876. In this article Fournier reviews the synonymy and describes the genus more fully than his predecessors. He describes three species, *E. mexicana*, *E. bourgaei*, and *E. giovanninii*, the second being new. He distinguishes the last species on description only, saying that he has seen no specimen with leaves as described. His new species is described as being 2 feet tall, annual, and the staminate inflorescence as consisting of a single terminal spike. The locality is given as "In collibus prope Chiquihuite (Bourg. absque numero), octobri." He gives the locality for his specimen of *E. mexicana* as "In arena fluvii exsiccati prope mare Pacificum, San Agostin, octobri (Liebm. n. 548)."

Euchlaena luxurians Dur. & Aschers. Sitz.-Ber. Ges. Nat. Freunde Berlin (session of Dec. 19, 1876); Bull. Soc. Linn. Paris 1: 107 (session of Jan. 8, 1877). These two articles appeared about the same time and covered about the same ground. In a preceding article (*Ueber Euchlaena mexicana* Schrad. Verh. Bot. Ver. Brandenburg 17: 76. March 3, 1876) Ascherson discusses the relation of *Euchlaena* to *Tripsacum*. He states here that the plants of *E. mexicana* were cultivated in the Berlin garden a few years and then disappeared. In the herbarium was a specimen from the garden and one deposited by Nees. Ascherson states further that there is no specimen in the herbarium at Göttingen to interpret Schrader's description. In the Trinius Herbarium at the Academy of Sciences, Petrograd, the present writer saw a fragment of "*Euchlaena mexicana* Schrad. e Hort. Goett."

In the first two articles mentioned Ascherson discusses at some length the history of the genus *Euchlaena*. He is familiar with *E. mexicana* as grown at the Berlin botanic garden. Previously the genus had been placed

near *Olyra* but he thinks it stands near *Zea* (Indian corn), in fact, that it resembles closely a stunted plant of maize. He points out that the staminate spikelets are 2-flowered instead of 1-flowered as described by Schrader; describes fully the female or pistillate spikelets and discusses the relation to *Tripsacum* and *Zea*, stating that *Euchlaena* is a *Zea* in which the female inflorescence is nearly as in *Tripsacum*; and quotes Grisbach (Veg. Erde 1: 542) as doubting the American origin of corn because of its affinity with certain Asiatic genera such as *Coix*, but Ascherson himself thinks *Zea* is much more closely related to *Tripsacum*, an American genus. Ascherson discusses *Reana luxurians* and takes occasion to transfer it to *Euchlaena*, of which genus he considers it a second species differing in its greater size. There are as many as 150 culms to one plant, these being as much as $2\frac{1}{2}$ meters tall. In the only staminate spikelet of *E. mexicana* he has seen the lemmas are shorter than the glumes while in *E. luxurians* they are as long as the glumes. The joints of the pistillate inflorescence are cylindrical and obliquely truncated at the ends instead of being triangular as in *E. mexicana*. This is the same difference distinguishing the Florida form of the cultivated teosinte from the Durango form as pointed out by Mr. Collins.

In 1910 I collected in Mexico, near Zapotlán, now called Ciudad Guzman, a perennial species of *Euchlaena*, and Mr. G. N. Collins collected it at the same place in October, 1921, while searching for teosintes in their native habitat. This species differs distinctly from all previously known forms of teosinte in the possession of rhizomes and is described below as new.

***Euchlaena perennis* Hitchc., sp. nov.**

Plants perennial, producing strong scaly rhizomes; culms erect or somewhat geniculate at base, firm, glabrous, 1 to 2 meters tall; sheaths striate, the striae joined by numerous cross-veins, glabrous or some of them, especially the upper or those of the branches, somewhat hispid in the region of the collar and throat, the lower longer than the internodes, the upper shorter; ligule a short somewhat lacerate membrane, 1 to 2 mm. long; blades linear or linear-lanceolate, as much as 40 cm. long and 3 cm. wide, the upper shorter, somewhat cordate-clasping at base, acuminate, flat and rather thin, the white midnerve prominent beneath, glabrous, strongly scabrous or scabrous-ciliate on the margin, ciliate near the base; terminal inflorescence staminate, consisting of 2 to 5 approximate, ascending or spreading racemes 6 to 12 cm. long, the internodes between the lower ones about 1 cm.; spikelets in pairs, the pairs alternately to right and left on one side of a flat-triangular rachis, the rachis internodes 5 to 8 mm. long, scaberulous or ciliate on the angles; spikelets 2-flowered, 8 to 9 mm. long, elliptic or somewhat broader above, the middle one of the pair nearly sessile, the other on an angular scaberulous pedicel 3 to 4 mm. long, enlarged toward apex; first glume flat on the back, strongly inflexed at the margins, smooth except the scaberulous-ciliate keels, these somewhat winged above, slightly notched at apex. the midnerve rather faint, the strong lateral nerves at the inflexed margins, a second faint pair intermediate;

second glume a little shorter than the first, glabrous, convex on the back, loosely inflexed at the margins, thinner than the first, 5-nerved; lemmas and paleas all hyaline, the first lemma faintly 5-nerved, this and the 2-nerved palea about as long as the first glume; second lemma faintly 3-nerved, narrower and shorter than the palea, the latter nearly as long as the second lemma; pistillate inflorescences in the axils of the leaves, partly protruding from the sheaths, each wrapped in one or more sheathing bracts, consisting of a series of pistillate spikelets on an articulate axis, the spike being 3 to 6 cm. long and 4 to 5 mm. thick, in some cases bearing above a raceme of staminate spikelets as much as 10 cm. long; pistillate spikelets single, on opposite sides, sunken in cavities in the hardened joints of an obliquely articulate rachis; joints of the fruiting rachis trapezoidal, 6 to 8 mm. long, about 4 mm. thick the short side 2 to 3 mm. long; first glume indurate like the rachis joint, closing the cavity containing the remainder of the spikelet, apiculate, about as long as the joint, pilose in the sinus at base.

Type in the U. S. National Herbarium, no. 727077, collected in prairie along the railroad, about one mile south of the station, Zapotlán (Ciudad Guzman), Jalisco, Mexico, September 22, 1910, by A. S. Hitchcock (no. 7146). Also collected at the type locality October 28, 1921, by G. N. Collins and J. H. Kempton.

This species is distinguished by the rhizomes and scattered stems, the plants growing in colonies. The pistillate spikes appear to be usually single in the axils of the leaves.

ETHNOLOGY.—*Customs of the Chukchi natives of northeastern Siberia.*¹ H. U. SVERDRUP. (Communicated by Francis B. Silsbee.)

Captain Amundsen's Expedition left Norway in 1918 with the intention to follow the coast of Siberia eastward to the vicinity of Bering Strait, proceed thence towards the north, let the vessel, the "Maud," freeze in, and drift with the ice fields across the Polar Sea back to the Atlantic Ocean. The vessel was, however, forced by the ice conditions to winter three times in different places on the northern coast of Siberia, and was in 1921 compelled to go to Seattle for repairs.

In September, 1919, the Expedition was stopped by the ice at Ayon Island, about 700 miles west of Bering Strait. Natives of the Chukchi tribe, with herds of domesticated reindeer, were then living on the island, but they would leave the coast in a few weeks and move inland to the forests, where they are accustomed to spend the winters. This group of the Chukchi was apparently very primitive, and had very

¹ Abstract of an address delivered at a joint meeting of the Washington Academy of Science and the Anthropological Society, February 16, 1922; received for publication March 16, 1922. An extensive account, entitled "Blandt rentsjuktsjere og lamuter," has been published in ROALD AMUNDSEN'S *Nordostpassagen*. Gyldendalske boghandel. Christiania, 1921.



Hitchcock, A. S. 1922. "A perennial species of teosinte." *Journal of the Washington Academy of Sciences* 12, 205–208.

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