

***RHYNCHOSPORA NIVEA* (CYPERACEAE) AND *SAURURUS CERNUUS* (SAURURACEAE): NEW TO MEXICO**

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ABSTRACT

Rhynchospora nivea and *Saururus cernuus* are reported as new to Mexico. Both species were collected on the Río Bravo del Norte in Coahuila, while *Saururus* is additionally reported from Volcán Jorulla, Michoacán. The entire distribution of each species is also discussed.

RESUMEN

Se cita *Rhynchospora nivea* y *Saururus cernuus* como nueva a México. Ambas especies se han recogidos en el Río Bravo del Norte en Coahuila, mientras que *Saururus* también se cita del Volcán Jorulla, Michoacán. Se discute la distribución entera de cada especie también.

KEY WORDS: Cyperaceae, *Rhynchospora*, Saururaceae, *Saururus*, Mexico, Coahuila, Michoacán, Texas.

The following species are described as being new to the flora of Mexico. All specimens from Coahuila and Val Verde Co., Texas occurred on the shoreline of the Río Bravo del Norte (Rio Grande), which forms the border between Mexico and the United States at that point.

Rhynchospora nivea Boeckl. (Cyperaceae), Snowy White-top Sedge, is considered by Thomas (1984) and Kral (2002) as endemic to Texas and Oklahoma, United States. Mention of the occurrence of the species in Arkansas by Britton (1880), Correll & Johnston (1970), and NCRS USDA (2007) may be based upon a specimen (*Leavenworth s.n.*, NY) that is labeled as being from Arkansas. The collector, Melines C. Leavenworth, a U.S. Army surgeon, never visited Arkansas (see McKelvey 1956), but was twice posted to what is now Oklahoma. It is likely that the specimen originated from near, but not within, what is now Bryan Co., Oklahoma and was collected in 1836 during Leavenworth's second posting to the state. Turner et al. (2003) mapped the species as occurring in 22 counties of mainly central Texas, with the distribution extending southwest to Val Verde Co. The species occurs in seeps, edges of streams and similar wet areas, all on limestone.

The specimen, collected at the Coahuila site, described below, occurred in silt and gravels naturally deposited in a limestone seep. This site is about 10 km from the nearest occurrence of the species in Val Verde Co., Texas. Associated plants included *Justicia americana*, *Eleocharis cellulosa*, *E. montevidensis*, *Saururus cernuus*, *Fuirena simplex*, *Eupatorium serotinum*, *Pluchea camphorata*, *Cladium mariscus*, *Juncus acuminatus*, *Ludwigia peploides*, and *Bacopa monnieri*.

SPECIMEN EXAMINED: MÉXICO. COAHUILA. Muni. de Acuña. Bank of the Río Bravo del Norte, 13.7 km NW of the International Bridge in Ciudad Acuña, 7.1 km S of Mex. Hwy 2; 29° 25' 50.02" N, 101° 02' 44.47" W, ca. 300 m., 17 Jul 2007, *Singhurst 14756* (BAYLU, IEB, TEX).

Saururus cernuus L. (Saururaceae), Lizard's-tail, considered endemic to Canada and the United States, is distributed from Ontario and Quebec south to Rhode Island and Connecticut, west to Michigan and southward to Florida and Texas (Buddell & Thieret, 1997). In Texas, *Saururus* is generally restricted to the Pineywoods and Post Oak Savannah vegetational areas of the eastern part of the state. The species is known to occur naturally as far south and west as Ottine in Gonzales Co., which is near the southwest limit of the Post Oak Savannah. Reports from Tarrant and Travis counties, both west of the Post Oak

Savannah, are based upon cultivated populations or plants recently escaped from a cultivated population (see Diggs et al., 1999 and Turner et al., 2003). The Coahuila and Val Verde Co. records are approximately 375 km west of the Gonzales Co. location.

There were approximately 350 plants at the Coahuila station and about 250 plants growing at the nearby Texas location, which is directly across the river. At both locations, *Saururus* occurred along the banks of the Río Bravo del Norte where water from seeps flowed into the river from fairly low limestone bluff contacts. This produced, at the site of inflow, sediment rich spongy to mucky mud flats intermixed with silt and gravel. Associated plants included *Bacopa monnieri*, *Cladium mariscus*, *Eleocharis cellulosa*, *E. montevidensis*, *Eupatorium serotinum*, *Fuirena simplex*, *Juncus acuminatus*, *Justicia americana*, *Ludwigia peploides*, *Panicum virgatum*, *Paspalum urvillei*, *Pluchea camphorata*, and *Rhynchospora nivea*.

Another population of *Saururus* was observed, but not collected, in August, 2005 on the Mexican side of the river approximately 13 miles downstream from the present Coahuila station.

Saururus appears to be another of the more eastern aquatic plants that have been reported in the south central portion of Texas and adjacent Coahuila. The rivers of the lower Edwards Plateau area of Texas, especially the Nueces and the Río Bravo del Norte itself, serve as wetland corridors for westward movement of these aquatic plants. Other species with a similar distribution are *Mikania scandens*, *Hibiscus moscheutos*, *Eleocharis cellulosa*, *Hydrocotyle ramunculoides*, *Cyperus strigosus*, *Myriophyllum heterophyllum*, and *Ludwigia octovalvis*.

The Michoacán collection of *Saururus* is an interesting and rather unusual record. The specimen, *Eggler 208*, was determined by C. V. Morton (US) in 1954. His annotation included the comment "first collection from Mexico." The collection site is 1150 km south of the Coahuila/Texas border records reported here. Although elevation is not specified on the label, the volcano base is about 800 m in elevation while the summit is near 1190 m. This is the highest elevation that this species has been found, which is considerably greater than the 500 m

cited by Buddell & Thieret (1997). Even more curious is that the species must be considered to be a fairly recent arrival at the location. Volcán Jorulla was formed in 1759 (Eggler 1959). Eggler conducted a study on the invasion of volcanic deposits by plants in which he cites the families of plants represented at Jorullo. Unfortunately, Saururaceae was not mentioned. No additional collections of *Saururus* are known from this site.

SPECIMENS EXAMINED: MÉXICO. COAHUILA. Mun. de Acuña. Bank of the Río Bravo del Norte, 13.7 km NW of the International Bridge in Ciudad Acuña, 7.1 km S of Mex. Hwy 2, 29° 25' 50.02" N, 101° 02' 44.47" W, ca. 300 m, 17 Jul 2007, *Singhurst 14754* (BAYLU + elsewhere); **MICHOACÁN. Mun. La Huacana.** Volcán Jorullo, 1951, *Eggler 208* (US). **UNITED STATES. TEXAS. Gonzales Co.** *Fraxinus* bog, Ottine, 22 May 1927, *Bogusch 1898* (TEX); Ash bog, Ottine, 5 May 1928, *Bogusch 3229* (TEX); **Travis Co.** Pond on U. of T. campus, Austin, 24 May 1944, *Tharp 44160* (TEX); **Val Verde Co.** 4.6 miles S of Lake Amistad National Recreational Area, 320 meters N of where Eightmile Creek feeds into the Rio Grande, east side of river, ca. 300 m, 17 Jul 2007, *Singhurst 14755* (BAYLU, TEX).

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