Tabla 1. Números cromosómicos registrados para las especies de *Aristida*.

Especie	*n*	2*n*	Localidad
A. adscensionis L.		22	Puebla: Zapotitlán, *Sánchez-Ken et al. 96*
A. curvifolia Fourn.		22	Puebla: Tehuacán, *Sánchez-Ken et al. 330*
		44	Puebla: Tehuacán, *Sánchez-Ken y Tenorio 469*
A. divaricata Humb. & Bonpl ex Willd.		22	Oaxaca: Nochixtlán, *Sánchez-Ken et al. 204*
A. glauca (Nees) Walp.	22		Puebla: Caltepec, *Sánchez-Ken et al. 260*
		44	Puebla: Tehuacán, *Sánchez-Ken et al. 329*
A. laxa Cav.		44	Oaxaca: Huajuapan, *Sánchez-Ken et al. 104*
		44	Puebla: Zapotitlán, *Sánchez-Ken et al. 327*
A. schiedeana Trin. & Rupr.		44	Puebla: Caltepec, *Salinas & Tenorio 5871*
		22	Oaxaca: Coixtlahuaca, *Sánchez-Ken & Tenorio 448*
A. tehuacanensis Sánchez-Ken & Dávila	11		Puebla: Tehuacán, *Sánchez-Ken et al. 331*
		22	Puebla: Tehuacán, *Sánchez-Ken & Tenorio 469*
A. ternipes Cav.		22	Chihuahua, *Blanco 1242*
		22	Jalisco, *Santana 396*
		22	Yucatán, *Medina 91*

Por primera vez se obtuvieron los números cromosómicos para *Aristida curvifolia* y la nueva especie *A. tehuacanensis* (Dávila & Sánchez-Ken, 1994); además se determinaron nuevos registros para *A. adscensionis, A. divaricata, A. glauca, A. laxa, A. schiedeana* y *A. ternipes.*

Para *Aristida curvifolia* se registraron números cromosómicos tanto diploides como tetraploides (2*n* = 22 y 44). Estos números se presentan en *A. glauca, A. laxa* y *A. schiedeana* Gould (1966), Reeder (1971, 1977, 1984), Davidse & Pohl (1972).

Como complemento de los números haploides (*n*) encontrados por Beetle et al. (1983), se presentan los números diploides (2*n*) correspondientes, tanto de *Aristida curvifolia* como de *A. glauca,* las cuales pertenecen al complejo *Purpurea* (Lamson-Scribner, 1901; DeLisle, 1969, 1973; Holmgren & Holmgren, 1977; Allred, 1984).

Con respecto a *Aristida ternipes,* el registro obtenido fue 2*n* = 22 el cual concuerda con lo obtenido por Tateoka (1962) y Beetle et al. (1983). Sin embargo, Gould (1958) obtuvo el registro hap-

Tabla 2. Números cromosómicos registrados para las especies de *Aristida* obtenidos por diversos autores.

Especie	*n*	2*n*	Referencia
A. adscensionis L.		22	Gould, 1966; Gould & Soderstrom, 1970; Davidse & Pohl, 1972; Reeder, 1977; Sánchez-Ken, 1991
	11		Gould, 1960; DeLisle, 1969; Beetle et al., 1983
A. curvifolia Fourn.		22, 44	Sánchez-Ken, 1991
A. divaricata Humb. & Bonpl. ex Willd.	11		Gould, 1958; Beetle et al., 1983; Sánchez-Ken, 1991
		22	Sánchez-Ken, 1991
A. glauca (Nees) Walp.		22	Gould, 1966; Reeder, 1977; Sánchez-Ken, 1991
		44	Reeder, 1977; Sánchez-Ken, 1991
	11, 22		DeLisle, 1969; Beetle et al., 1983
A. laxa Cav.	22		Davidse & Pohl, 1972
		44	Sánchez-Ken, 1991
A. schiedeana Trin. & Rupr.		22	Reeder, 1971, 1984; Sánchez-Ken, 1991
		44	Sánchez-Ken, 1991
A. tehuacanensis Sánchez-Ken & Dávila	11	22	Sánchez-Ken, 1991
A. ternipes Cav.		22	Beetle et al., 1983; Sánchez-Ken, 1991
	22		Gould, 1958

loide $n = 22$, para la misma especie, lo cual indica probablemente una serie poliploide en esta especie. Por otro lado al realizar la revisión de ejemplares, se encontró que el número cromosómico registrado por Tateoka (1962) para *A. ternipes*, en realidad pertenece a *A. floridana*, que es una especie muy cercana a *A. ternipes*.

Otro número registrado fue el de *Aristida laxa* $2n = 44$, que corresponde al registro $n = 22$ encontrado por Davidse & Pohl (1972), demostrando una vez más, que esta especie probablemente presenta una serie poliploide intraespecífica.

Finalmente, los números cromosómicos encontrados para *Aristida adscensionis* y *A. divaricata* (Tabla 1) son similares a los registrados por los autores mencionados en la Tabla 2.

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CHROMOSOME COUNTS OF COMPOSITAE FROM ECUADOR AND VENEZUELA[1]

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Abstract

Forty-three chromosome counts of Compositae are reported from Ecuador and Venezuela. A first generic count is reported for *Stuckertiella* Beauverd ($n = 11–12$), and first counts also are reported for 15 species in *Ageratina* Spach, *Chromolaena* DC., *Coespeletia* Cuatrec., *Erigeron* L., *Espeletia* Mutis, *Gynoxys* Cass., *Hinterhubera* Sch. Bip., *Oritrophium* (HBK) Cuatrec., *Pentacalia* Cass., *Ruilopezia* Cuatrec., *Senecio* L., *Tanacetum* L., and *Vasquezia* Phil. Additional counts also are provided for 23 populations of previously counted taxa, two of which are new numbers. The taxonomic implications of certain of these counts are discussed.

During research expeditions to Ecuador and Venezuela in the past 15 years, we have collected numerous samples of Compositae. In addition to herbarium material, we have obtained floral buds for chromosomal studies. This paper gives the results of these studies, which are important for helping delimit taxa and reconstructing phylogeny in the family. These investigations extend previous chromosomal work by Keil & Stuessy (1975, 1977), Jansen & Stuessy (1980), and Jansen et al. (1984). This paper lists first counts for genera, species, and varieties, as well as confirmatory data for other taxa known from only one or a few reports. Discussion focuses on taxonomic and/or evolutionary implications.

Materials and Methods

The materials and methods involving conventional squash techniques for meiotic stages of nuclei in pollen parent cells are outlined in Keil & Stuessy (1975, 1977) and Jansen & Stuessy (1980). Either Snow's stain (Snow, 1963) or acetocarmine was used. Voucher specimens of Venezuelan collections are deposited at Instituto Botánico, Venezuela (VEN), and Ecuadorian collections are at Ohio State University (OS).

Results

The 42 new chromosome counts are listed in Table 1. First counts are reported for 1 genus and 17 species, and 23 additional counts are for previously reported taxa, 2 of which are new numbers. The new generic count is for *Stuckertiella* Beauverd. New species counts are in *Ageratina* Spach, *Chromolaena* DC., *Coespeletia* Cuatrec., *Erigeron* L., *Espeletia* Mutis, *Gynoxys* Cass., *Hinterhubera* Sch. Bip., *Oritrophium* (HBK) Cuatrec., *Pentacalia* Cass., *Ruilopezia* Cuatrec., *Senecio* L., *Tanacetum* L., and *Vasquezia* Phil.

Discussion

The discussion here is restricted to first or new counts and to significant comments, which is the approach used in previous papers (Keil & Stuessy, 1975, 1977; Jansen & Stuessy, 1980; Jansen et al., 1984). References for statements regarding ranges of chromosomal variation within genera or for frequently counted species will not be given; documentation for those counts comes from available chromosomal indices (Darlington & Wylie, 1955; Cave, 1958–65; Ornduff, 1967–69; Fedorov, 1969; Moore, 1970–77; Goldblatt, 1981–1988; Goldblatt & Johnson, 1990–1991).

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