

Wiehler 1972a

Chromosome numbers in some American Gesneriaceae.

Baileya 18[1971]: 118-120.

REFNO: 1784

KEYWORDS:

Alloplectus, Besleria, Chromosome numbers, Drymonia, Gloxinia, Heppiella, Kohleria, Nautilocalyx, Nematanthus, Paliavana

Chromosome Numbers in Some American Gesneriaceae

Hans Wiehler*

The chromosome counts listed here were made with Aceto-Orcein from sporocytes of plants collected in the wild (with one exception) and then cultivated in the greenhouse of the Bailey Hortorium, Cornell University, Ithaca, New York, and in the greenhouse of the University of Miami, Coral Gables, Florida. This is the first report of chromosome numbers for the species or varieties tabulated below, except for the following two: Alloplectus Nummularia and Drymonia serrulata. The chromosome count for Alloplectus Nummularia needed to be verified for taxonomic reasons; it had been recorded previously under Hypocyrtia Nummularia by Rogers (1954, p. 16; $n = 9$). A chromosome number of $n = 9$ for Drymonia serrulata was published by Ratter (1963, p. 222) for material collected in Peru (H. E. Moore 8501, Cornell Accession number G-481). This somewhat variable species has a wide range of distribution, from Mexico to Bolivia and the Guianas to central Brazil; additional chromosome counts were considered to be useful. The collection of Heppiella viscida from Venezuela has proved to be tetraploid, but the collection of H. ampla from Ecuador is diploid. Polyploidy appears to be a rare phenomenon among the American Gesneriaceae (= subfamily Gesnerioideae). Only 18 cases of tetraploids are known among the about 193 species (in 37 genera) for which chromosome numbers have been previously published, in this group of about 1500 species in about 56 genera. The published data also indicate that the chromosome numbers for the various genera of the American Gesneriaceae appear to be constant. (New generic delimitations will be proposed for Achimenes, $n = 11, 12$, and Kohleria, $n = 11, 13$; Wiehler, unpublished papers).

All species determinations were made by the author, who wishes to express his gratitude for the availability of the Cornell collection of Gesneriaceae. Voucher specimens of the material examined have been deposited in the herbarium of the Bailey Hortorium, Cornell University, or in the Buswell Herbarium of the University of Miami.

*Department of Biology, University of Miami, Coral Gables, Florida 33124.

Table I. Chromosome numbers in some American Gesneriaceae

<u>Taxon</u>	<u>n</u>	<u>Collection data</u>	<u>Accession number*</u>	<u>Voucher specimens**</u>
Alloplectus cristatus (L.) Martius var. brevicalyx Morton	9	M. P. McMahon 308, Dominica	W-1140	BUS
Alloplectus hispidus (H. B. K.) Martius	9	H. Wiehler 71135, Ecuador	W-1158	BUS
Alloplectus Nummularia (Hanstein) Wiehler	9	from horticultural source (Costa Rica?)	G-1040	BH, BUS
Alloplectus tetragonus (Oersted) Hanstein	9	R. L. Dressler s. n., Panama	G-957	BH, BUS
Alloplectus Teuscheri (Raymond) Wiehler	9	H. Teuscher s. n., Ecuador	G-533	BH, BUS
Alloplectus zamorensis Linden & André	9	M. B. Foster s. n., Colombia	G-244	BH, BUS
Besleria disgrega Morton	16	H. Teuscher s. n., Venezuela	G-1065	BH
Drymonia alloplectoides Hanstein	9	C. K. Horich s. n., Costa Rica	G-365	BH, BUS
	9	H. Wiehler & R. L. Dressler 71198, Panama	W-1160	BUS
	9	H. Wiehler & R. L. Dressler 71252, Panama	W-1161	BUS
Drymonia macrantha (Donnell Smith) Wiehler	9	H. Butcher s. n., Panama	G-824	BH, BUS
Drymonia serrulata (Jacquin) Martius	9	H. Wiehler 71109, Ecuador	W-1159	BUS
	9	H. Butcher s. n., Panama	G-747	BH, BUS
Drymonia strigosa (Oersted) Wiehler	9	D. L. Denham s. n., Mexico	G-1202	BH, BUS
Gloxinia gymnostoma Grisebach	13	T. Meyer s. n., Argentina	G-1038	BH, BUS
Gloxinia nematanthodes (O. Kuntze) Wiehler	13	C. Gomez s. n., Argentina	G-1324	BH, BUS
Heppiella ampla Hanstein	13	H. Wiehler 7133, Ecuador	G-1162	BUS

*G = Accession number at the greenhouse of the Bailey Hortorium. Plant materials with these accession numbers are presently also grown at the greenhouse of the University of Miami.

W = Accession number at the greenhouse of the University of Miami.

**BH = Herbarium of the Bailey Hortorium, Cornell University.

BUS = Buswell Herbarium, University of Miami.

with Acetone
dried (with one
of the Bailey
in the green-
house. This is
for varieties
of Nummu-
for Alloplec-
asons; it had
by Rogers
for Drymonia
for material
ssion number
range of dis-
entral Brazil;
useful. The
proved to be
lor is diploid.
he American
ses of tetra-
7 genera) for
ished, in this
ublished data
rious genera
(New generic
11, 12, and

, who wishes
ell collection
ramined have
ium, Cornell
ity of Miami.

lorida 33124.

<u>Taxon</u>	<u>n</u>	<u>Collection data</u>	<u>Accession number</u>	<u>Voucher specimen</u>
Heppiella viscida (Lindley & Paxton) Fritsch	26	G. S. Bunting 3333, Venezuela	G-1300	BH, BUS
Kohleria hirsuta (H. B. K.) Regel	13	H. Teuscher s. n., Trinidad	G-1059	BH, BUS
Kohleria peruviana Fritsch	13	R. E. Lee 6809, Peru	G-1208	BH, BUS
Nautilocalyx panamensis (Seemann) Seemann	9	T. McDougall 603, Mexico	G-1095	BH, BUS
Nematanthus hirtellus (Schott) Wiehler	8	D. Sucre & P. Braga s. n., Brazil	G-1092	BH, BUS
Paliavana prasinata (Ker-Gawler) Fritsch Benth.	13	H. Blossfeld s. n., Brazil	G-732	BH
Paliavana tenuiflora Mansfeld	13	R. G. Wilson W65-12, Brazil	G-996	BH, BUS

Literature Cited

- Ratter, J. A. 1963. Some chromosome numbers in the Gesneriaceae. Notes from the Royal Botanic Garden, Edinburgh 24(3):221-229.
- Rogers, O. M. 1954. Some chromosome counts in the Gesneriaceae. Baileya 2(1):14-18.

ABBREVIATIONS USED IN BAILEYA

n Voucher specimen

BH, BUS

BH, BUS

BH, BUS

BH, BUS

BH, BUS

BH

BH, BUS

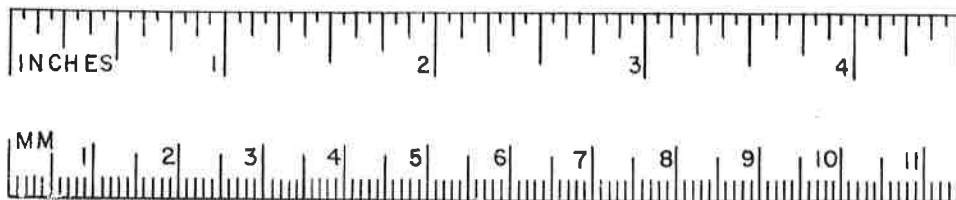
ann.	annual	dm.	decimeter	lf.	leaf
bien.	biennial	fl.	flower	lft.	leaflet
br.	branch	fls.	flowers	lvs.	leaves
brt.	branchlet	flt.	floret	mm.	millimeter
caps.	capsule	fr.	fruit	per.	perennial
cl.	clone	ft.	foot	segm.	segment
cm.	centimeter	hort.	horticultural	st.	stem
cv.	cultivar	in.	inch	sts.	stems
diam.	diameter	infl.	inflorescence	var.	variety

METRIC - ENGLISH EQUIVALENTS (approximate)

6 mm. - 1/4 in.	10 cm. - 4 in.	10 mm. - 1 cm.
12 mm. - 1/2 in.	1 dm. - 4 in.	10 cm. - 1 dm.
25 mm. - 1 in.	3 dm. - 1 ft.	10 dm. - 1 meter
2.5 cm. - 1 in.	10 dm. - 1 yd.	
5 cm. - 2 in.	1 m. - 39 in.	

eriaceae. Notes

iaceae. Bailey



Baileya

A Quarterly Journal of Horticultural Taxonomy

Vol. 18

Autumn 1971

No. 3

- An Annotated List of Books
on Poisonous Plants.....Peter A. Hyypio 85
- Another Tetraploid Species
in Anthurium [Araceae].... L.S.Gill & C.C.Chinnappa 93
- Book Review 95
- Cultivars of Bergenia [Saxifragaceae]
in the British Isles.....Peter F. Yeo 96
- * Two New Species of Gesneria [Gesneriaceae]
from Jamaica and Haiti..... Laurence E. Skog 113
- * Chromosome Numbers
in Some American Gesneriaceae.....Hans Wiehler 118

