

Taxa Examined	2n	Herbarium Vouchers (deposited at SPF)
<i>D. ascendens</i> A.Saint-Hilaire	40	São Paulo. São Bernardo do Campo: ao lado da rodovia dos Imigrantes, 12/Nov/1992, <i>Rivadavia</i> 153.
<i>D. brevifolia</i> Pursh	20	Paraná. São Luís do Purunã: estrada Curitiba - Ponta Grossa (BR 376), 21/Apr./1995, <i>Rivadavia et al.</i> 393.
<i>D. camporupestris</i> F.Rivadavia	40	Minas Gerais. Jaboticatubas: Serra do Cipó, Fazenda da Serra do Cipó, 6/Jul./1995, <i>Rivadavia</i> 447.
<i>D. chrysolepis</i> Taubert	40	Minas Gerais. Santana do Riacho: Serra do Cipó, bifurcação da estr. Conceição do Mato Dentro-Morro do Pilar, 5/Jun./1994, <i>Rivadavia</i> 288.
<i>D. cayennensis</i> Sagot ex Diels	20	Mato Grosso. Chapada dos Guimarães: nascente ao lado do cór. da Mata Fria, 23/Feb./1994, <i>Rivadavia & Cardoso</i> 255.
<i>D. cayennensis</i> Sagot ex Diels	20	Mato Grosso. Chapada dos Guimarães: descendo a encosta do Mirante, 30/Apr./1995, <i>Rivadavia & Cardoso</i> 425.
<i>D. communis</i> A.Saint-Hilaire	20	Mato Grosso. Chapada dos Guimarães: nascente brejosa do cór. Mata Fria, 23/Feb./1994, <i>Rivadavia & Cardoso</i> 257.
<i>D. communis</i> A.Saint-Hilaire	20	Minas Gerais. Grão Mogol: Morro do Jambeiro, 3/Jun./1994, <i>Rivadavia</i> 284.
<i>D. communis</i> A.Saint-Hilaire	20	São Paulo. Cotia: após Vargem Grande, estrada p/ Ibiúna, 13/Feb./1996, <i>Rivadavia et al.</i> 512.
<i>D. grantsau</i> F.Rivadavia	40	Minas Gerais. Grão Mogol: Morro do Jambeiro, 8/Sep./1994, <i>Rivadavia</i> 299.
<i>D. grantsau</i> F.Rivadavia	40	Minas Gerais. Botumirim: Serra da Canastra, 21/Dec./1994, <i>Rivadavia</i> 339.
<i>D. grantsau</i> F.Rivadavia × <i>D. tomentosa</i> A.Saint-Hilaire	40	Minas Gerais. Grão Mogol: Morro do Jambeiro, 3/Jun./1994, <i>Rivadavia</i> 286.
<i>D. graminifolia</i> A.Saint-Hilaire	40	Minas Gerais. Grão Mogol: Trilha da Tropa, 7/Sep./1994, <i>Rivadavia</i> 295.
<i>D. graminifolia</i> A.Saint-Hilaire	40	Minas Gerais. Diamantina: metade do caminho para Biri-Biri, 7/Jul./1995, <i>Rivadavia et al.</i> 453.
<i>D. graomogolensis</i> T.Silva	40	Minas Gerais. Grão Mogol: Morro do Jambeiro, 8/Sep./1994, <i>Rivadavia</i> 297.
<i>D. hirtella</i> A.Saint-Hilaire var. <i>hirtella</i>	20	Minas Gerais. Jaboticatubas: trilha p/ o mirante do canyon, 6/Jul./1995, <i>Rivadavia</i> 445.
<i>D. hirtella</i> A.Saint-Hilaire var. <i>lutescens</i> A.Saint-Hilaire	20	Mato Grosso. Chapada dos Guimarães: arredores da cachoeira Véu de Noiva, 30/Apr./1995, <i>Rivadavia & Cardoso</i> 424.
<i>D. tomentosa</i> A.Saint-Hilaire	40	Minas Gerais. Jaboticatubas: Serra do Cipó, morro entre sede do IBAMA e estátua do Juquinha, 4/Jul./1995, <i>Rivadavia</i> 439.
<i>D. tomentosa</i> A.Saint-Hilaire	40	Minas Gerais. Jaboticatubas: Serra do Cipó, Fazenda da Serra do Cipó, 6/Jul./1995, <i>Rivadavia</i> 449.
<i>D. tomentosa</i> A.Saint-Hilaire	40	Minas Gerais. Grão Mogol: Morro do Jambeiro, nascente brejosa, 8/Sep./1994, <i>Rivadavia</i> 298.
<i>D. sessilifolia</i> A.Saint-Hilaire	20	Mato Grosso. Chapada dos Guimarães: Salgadeira, 15/Feb./1992, <i>Cardoso s/n.</i>
<i>D. tentaculata</i> F.Rivadavia	40	Minas Gerais. Jaboticatubas: trilha p/o mirante do canyon da Bocaína, 23/Feb./1996, <i>Rivadavia & Mullins</i> 541.
<i>D. villosa</i> A.Saint-Hilaire	40	Minas Gerais. Lima Duarte: Parque Estadual Florestal de Ibitipoca, Morro da Lombada, 30/Oct./1995, <i>Rivadavia & Padovese</i> 507.
<i>D. viridis</i> F.Rivadavia	20	São Paulo. Paranaípiacaba: c.2km antes da cidade, 21/Apr./1995, <i>Rivadavia & Cardoso</i> 393.

Table 2: List of the *Drosera* L. (Droseraceae) taxa collected in Brazil, their chromosome numbers, and voucher specimens. All plants were collected and cultivated by the author at the Botany Department of the University of São Paulo and the herbarium vouchers are deposited at SPF.

Taxa Examined	2n	Place of Origin
<i>D. aliciae</i> Hamet	40	South Africa, Cape Province
<i>D. capensis</i> L.	40	South Africa, Cape Province
<i>D. cistiflora</i> L. — purple flowers	60	South Africa, Cape Province
<i>D. filiformis</i> Raf. var. <i>tracyi</i> (Macf.) Diels	20	Southeastern USA
<i>D. intermedia</i> Hayne	20	Mt.Roraima, Venezuela
<i>D. roraimae</i> (Klotzsch ex Diels) Maguire & Laudon	20	Mt.Roraima, Venezuela
<i>D. spatulata</i> Labill. — pink flowers	30	Beerwah, Queensland, Australia

Table 3: List of the *Drosera* L. (Droseraceae) taxa obtained as seeds or from vegetative propagation, their chromosome numbers, and their place of origin. All plants were cultivated by the author at the Botany Department of the University of São Paulo.

The difference in chromosome length observed between the diploid and tetraploid taxa suggests that the polyploidization event may be ancient and therefore any obvious signs of hybrid origin, such as bimodal karyotypes, may already have been erased. Bimodal karyotypes (when two sets of chromosomes are clearly visible due to differences in size) have been used as evidence of recent hybridogenetic origin through amphiploidy (hybridization followed by duplication of the whole genome, allowing sterile crosses to become fertile) for *D. anglica* and *D. tokaiensis* (Komiya & Shibata) T.Nakamura & Ueda, with the probable crosses being *D. rotundifolia* with *D. linearis* Goldie for the former (Kondo & Segawa, 1988; Wood, 1955) and *D. rotundifolia* with a tetraploid *D. spatulata* Labill. for the latter (T.Nakamura & Ueda, 1991).

Drosera adelae is included by Schlauer (1996) in sect. *Prolifera* together with *D. prolifera* C.T.White and *D. schizandra* Diels, all of which are native to Northeastern Australia (Diels, 1906; Schlauer, 1987) and have been reported to have $2n=30$ (Kondo, 1976; Kondo & Lavarack, 1984; Kondo & Olivier, 1979). Yet $2n=28$ has also been reported for a cultivated cytotype of *D. adelae* (Kondo, 1976). The two chromosome numbers recorded for *D. adelae* may represent different forms of this taxon known to cultivation, such as the red and the salmon-pink flower forms.

Drosera indica is the sole member of sect. *Arachnopus* (Schlauer, 1996) and is native to the tropics and subtropics of Africa, Asia, and Australia (Diels, 1906; Schlauer, 1987). The chromosome number of $2n=28$ has been recorded more than once for this species (Kondo & Lavarack, 1984; Peng *et al.*, 1986; Venkatasubban, 1950), although if one considers how morphologically variable and geographically widespread *D. indica* is, it is not unlikely that populations with different chromosome numbers exist, possibly even $2n=30$.

Centromeres were not observed in any of the taxa in this study and are probably diffused along the entire length of the chromosomes, as has been suggested by Sheikh *et al.* (1995).

Conclusions

Previously published chromosome numbers are here confirmed for some taxa and several new counts are reported, including a few tetraploid South American taxa and the first triploid *Drosera spatulata*.

Chromosome numbers for Droseraceae are remarkably consistent with phylogeny inferred from recent molecular data (Rivadavia *et al.*, 2003). The phylogenetic tree inferred from the DNA sequences of chloroplast *rbcl* gene show the pygmy sundews of subgen. *Bryastrum* as a sister group to subgen. *Lasiocephala*, and curiously both have relatively low chromosome numbers, varying from $2n=6$ to 28 in the former and $2n=12-24$ in the latter. The tuberous sundews of subgen. *Ergaleium* are shown to form a sister clade to subgen. *Phycopsis*, and the chromosome numbers known for both are relatively high, varying from 14-40 in the former and 32-64 in the latter. Basal to these four subgenera is *D. glanduligera* Lehm. Which surprisingly has an intermediate chromosome number of $2n=22$.

On another branch of this phylogenetic tree one finds African sundews towards the apex, including species from subgen. *Drosera* sect. *Drosera*, sect. *Oosperma* and sect. *Ptycnostygma*, suggesting these sections are not monophyletic. Chromosome numbers in this branch include $2n=20, 40, 60,$ and $80,$ as well as the doubtful $2n=32$. Sister to this group are the tetraploid Brazilian taxa of sub-