

# ICPS SEED BANK\*

\$.75 each

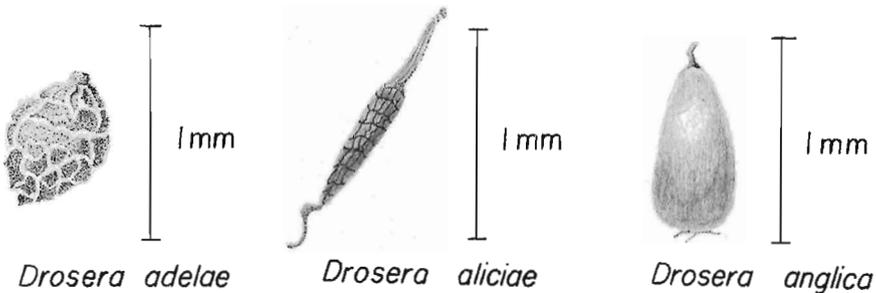
*Byblis gigantea* (6), *B. liniflora* (15), *Darlingtonia californica*, *Dionaea muscipula*, *Drosera adelae* (2), *D. aliciae*, *D. aliciae* (pale) (10), *D. auriculata*, *D. burkeana* (6), *D. burmannii* (4), *D. capensis*, *D. capensis* (narrow), *D. capillaris*, *D. communis* (3), *D. dielsiana* (9), *D. intermedia*, *D. lovellae* (6), *D. montana* (5), *D. peltata* (10), *D. pygmaea* (3), *D. regia* (2), *D. rotundifolia*, *D. spathulata*, *D. spath.* (Formosa) (15), *D. spath.* (Kansai), *D. spath.* (white) (6), *Nepenthes fusca* (4), *N. gracilis*, *N. khasiana*, *N. mirabilis*, *N. rafflesiana* (2), *Pinguicula alpina* (10), *P. caerulea* (9), *P. corsica* (10), *P. grandiflora* (4), *P. grandiflora pallida* (5), *P. grandiflora rosea* (5), *P. vulgaris* (10), *P. vulgaris bicolor* (5), *Sarracenia flava*, *S. leucophylla*, *S. purpurea purpurea*, *S. rubra wherryi* (14), *S. leuco* × *alata* (11), *S. rubra* × *leuco* (5), *S. rubra* × *oreo* (3), *Utricularia subulata* (2), *U. violacea* (2) (formerly listed as *U. lateriflora*?)

\*See *CPN*, March, 1983 for details on sending or ordering seed.

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## SEED STRUCTURE OF CARNIVOROUS PLANTS

(The text of Patrick Dwyer's report on the seed structure of carnivorous plants was printed in its entirety in the March, 1983 issue of *CPN*. Unfortunately, due to space limitations, many of the seed drawings and SEM photomicrographs could not be included until this issue. The drawings were done by Debbie Tolman and John Randall; the SEM's were sent by Tom Story.)



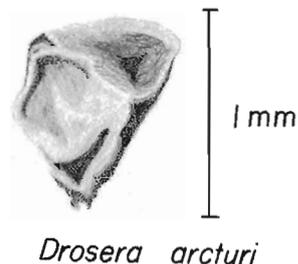
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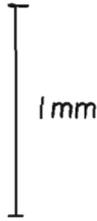
*Drosera adelae* F. Muell. (Australia) – pitted, three-angled, almost round, black (Erickson, 1968), length around 0.5 mm.

*Drosera aliciae* Hamet. (S. Africa) – elliptic to fusiform, attenuate at one or both ends, reticulate, length about 1 mm, black.

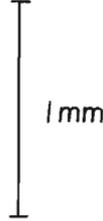
*Drosera anglica* Huds. (Europe, N. American Boreal, Japan) – sigmoid-fusiform, 1-1.5 mm, longitudinally striate-areolate, black (Wynne, 1944).

*Drosera arcturi* Hook. (Australia, New Zealand) – obovoid (Erickson, 1968), length around 0.8 mm, minutely pitted dark brown.

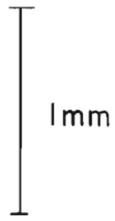




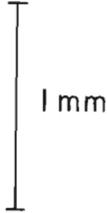
*Drosera auriculata*



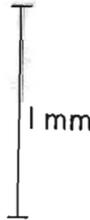
*Drosera brevifolia*



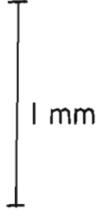
*Drosera burmanni*



*Drosera capensis*



*Drosera capillaris*



*Drosera erythrorhiza*

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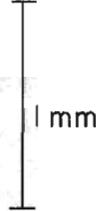
*Drosera auriculata* Backh. Ex. Planch. (Australia, New Zealand) – linear or ellipsoid extended slightly at each end (Erickson, 1968), length about 1.7 mm, brown.

*Drosera brevifolia* Pursh. (N. America) – obovate, oblong, caudate at base, 0.3-0.4 mm long, crateriform, pits in 10-12 rows, black (Wynne, 1944).

*Drosera burmanni* Vahl (Asia, Trop. Australia) – minute, minutely pitted, black (Erickson, 1968), length around 0.25 mm.

*Drosera capensis* L. (S. Africa) – fusiform, reticulate, acute at one end, length around 1 mm, black.

*Drosera capillaris* Poir. (N. & C. America, Colombia, Brazil, Guyana, Venezuela) – elliptic to oblong-ovate, asymmetric, 0.4-0.5 mm long, coarsely papillose, corrugated in 14-16 ridges, brown (Wynne, 1944).

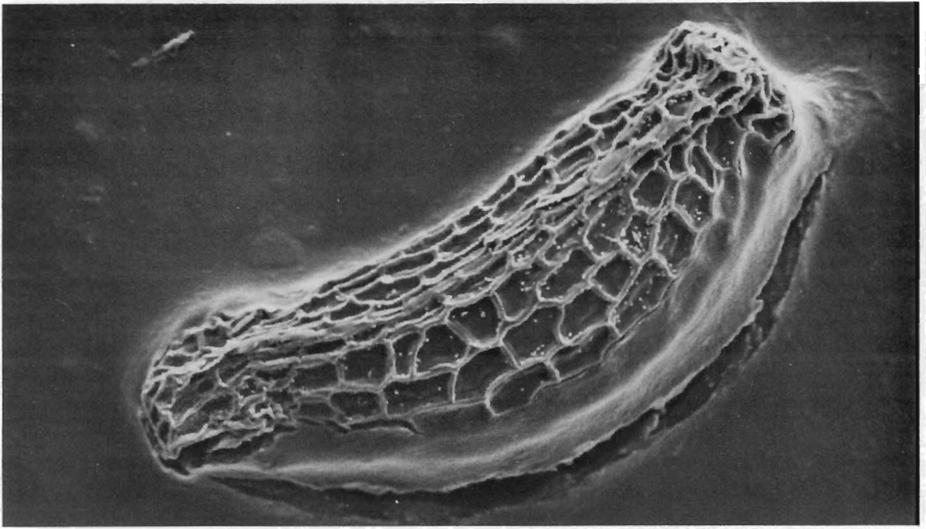


*Drosera filiformis*

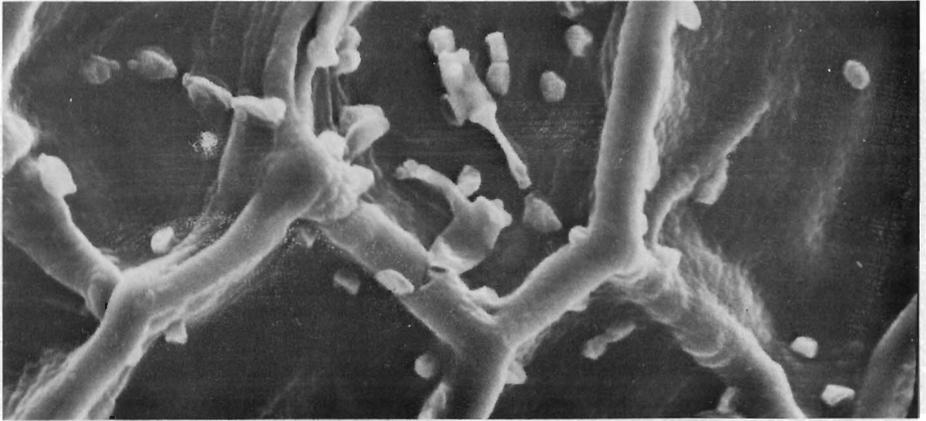
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*Drosera erythrorhiza* Lindl. (Australia) – almost round with angled corners, covered with spongy seed membrane, black (Erickson, 1968), length around 1 mm, pitted.

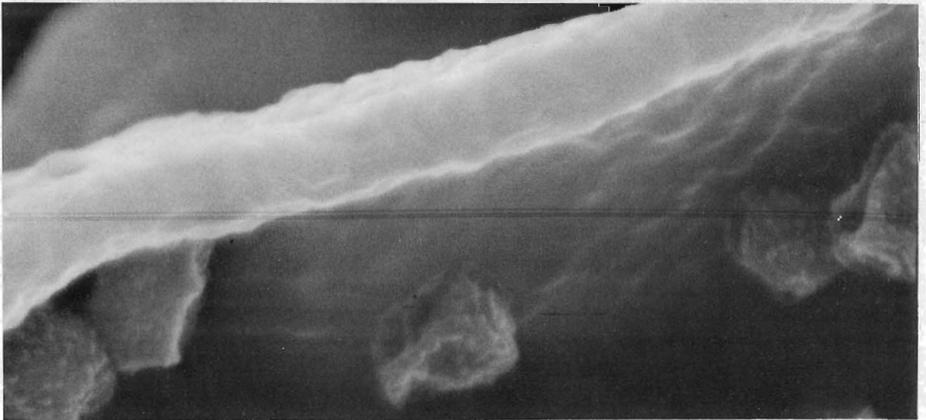
*Drosera filiformis* f. *filiformis* Rafin. (N. America) – elliptic, abruptly caudate at both ends, 0.5-0.8 mm long, coarsely crateriform, pits in 16-20 rows black (Wynne, 1944).



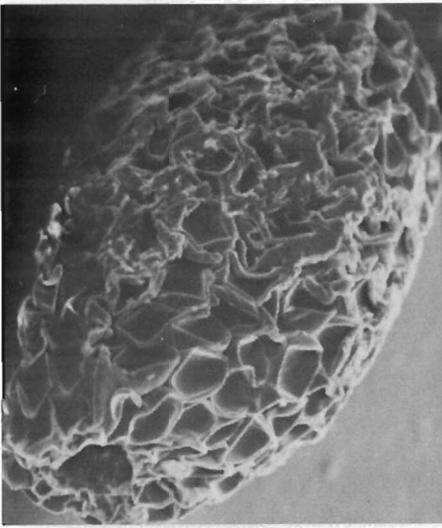
*D. capensis* Mag. 130X



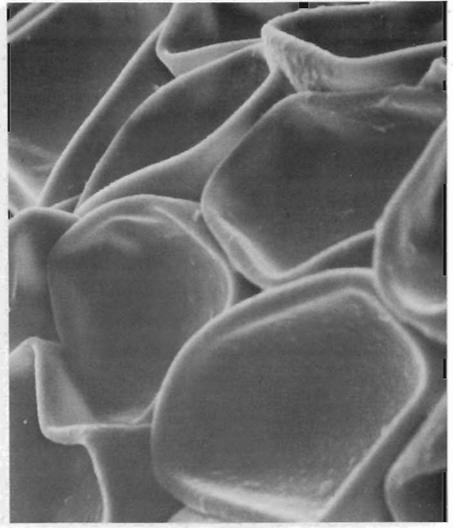
*D. capensis* Mag. 1300X



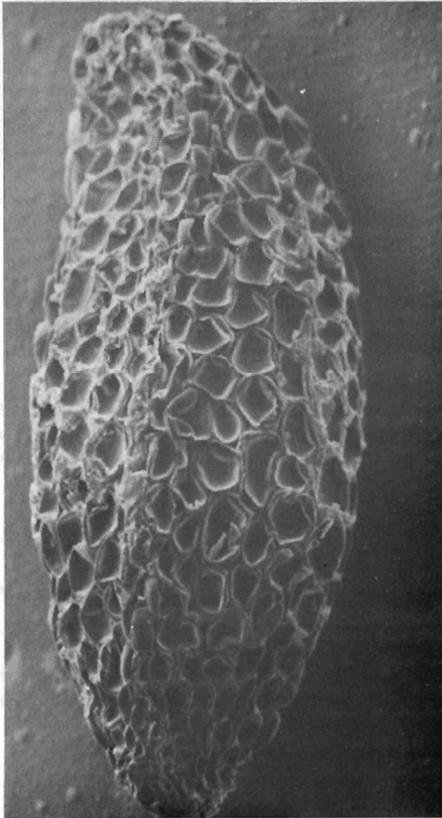
*D. capensis* Mag. 6700X



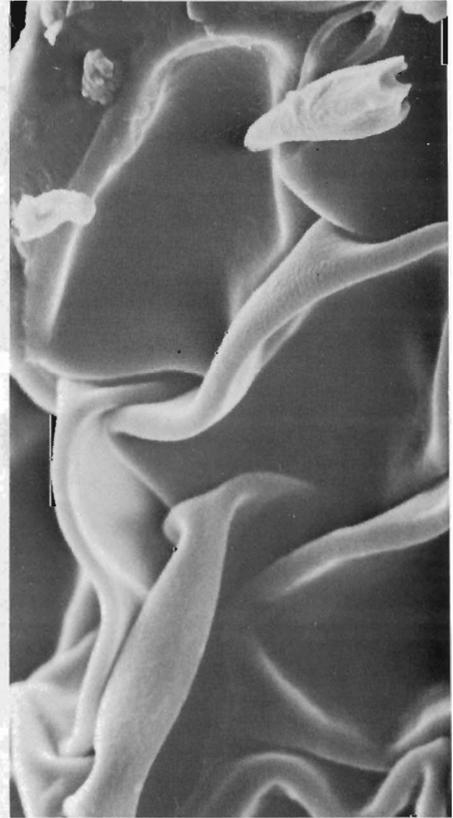
*D. capillaris* Mag. 130X



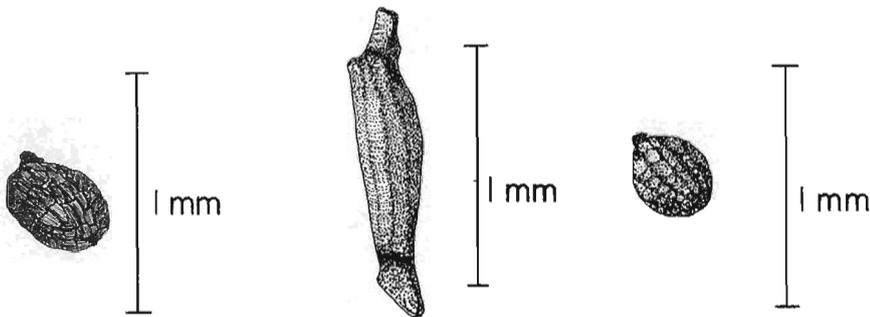
*D. capillaris* Mag. 650X



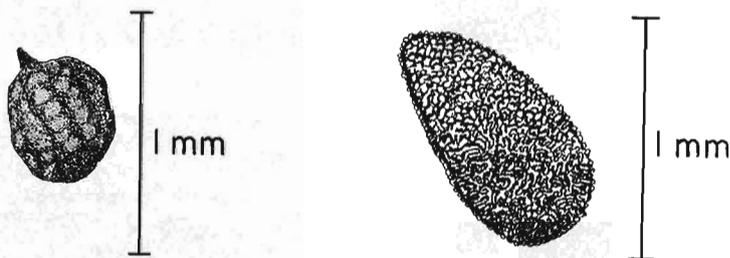
*D. filiformis* Mag. 100X



*D. filiformis* var. *tracyi* Mag. 1100X



*Drosera gigantea* *Drosera hiliaris* *Drosera indica*



*Drosera glanduligera* *Drosera intermedia*

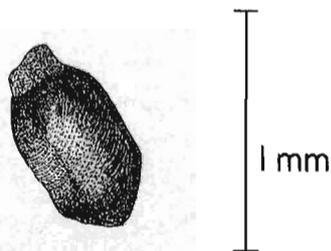
*Drosera gigantea* Lindl. (Australia) – almost round (Erickson, 1968) reticulate, length about 0.5 mm, black.

*Drosera glanduligera* Lehm. (Australia) – ovoid with honeycombed membrane, slate grey (Erickson, 1968), length around 0.5 mm.

*Drosera hiliaris* Cham. Et Schlechtal. (S. Africa) – linear, truncate at both ends, very rugose, length about 1.25 mm, brown.

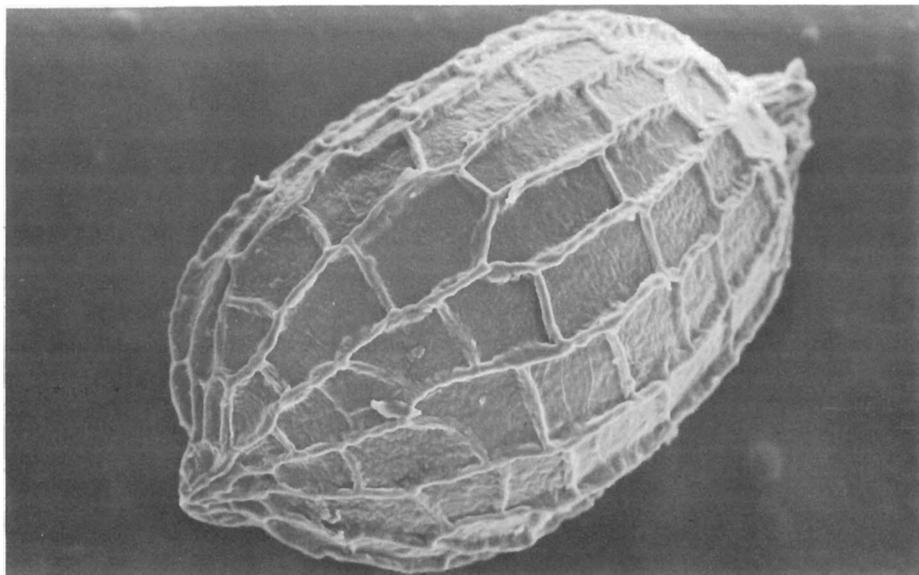
*Drosera indica* L. (Asia, Trop. Australia, S. Africa) – pointed, minutely pitted (Erickson, 1968), about 0.5 mm long, broadly ovate – elliptic, slightly acute at one end, longitudinally ribbed and cross lined (Ohur, 1965), black.

*Drosera intermedia* Hayne (Europe, N. America, Guyana) – oblong, blunt at ends, 0.75-0.95 mm long, densely and irregularly covered with long papillae, reddish brown (Wynne, 1944), rhomboidal (Cruise & Cadling, 1974).

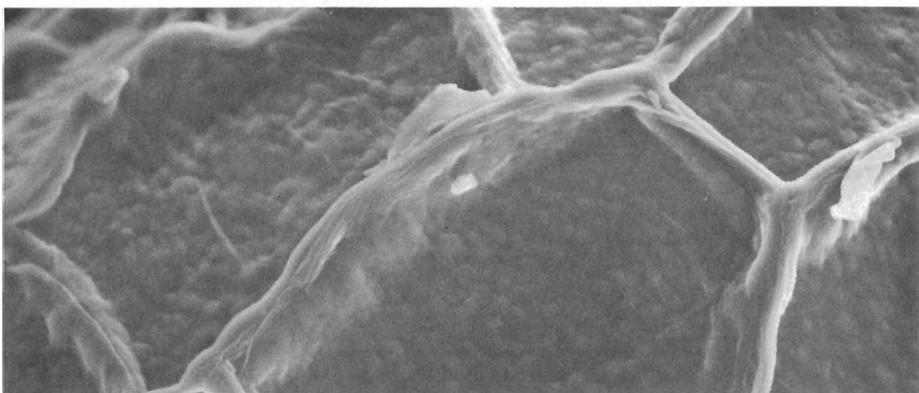


*Drosera linearis*

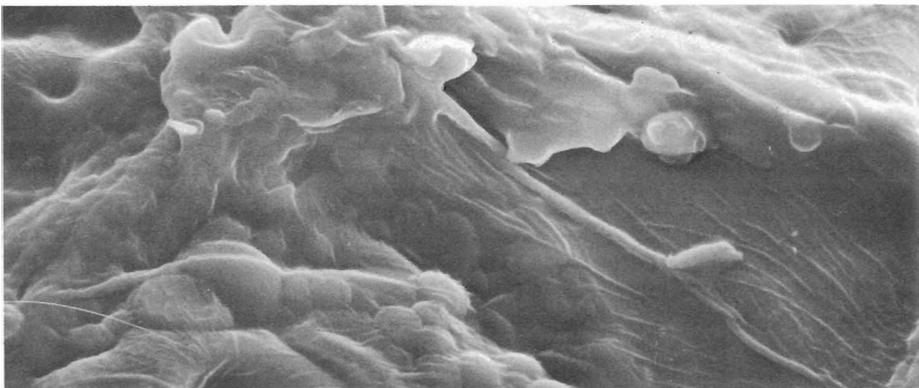
*Drosera linearis* Goldie (N. American Borreal) – rhomboidal, oblong-obovate, 0.5-0.8 mm long, densely and irregularly crateriform, black (Wynne, 1944), densely pebbled (Wood, 1955).



*D. gigantea* Mag. 170X



*D. gigantea* Mag. 700X



*D. gigantea* Mag. 17,000X

(Continued on page 45.)

*Drosera montana* St.Hil. (Brazil, Venezuela) – fusiform, reticulate, acute at one end and truncate at the other, length about 0.2-0.3 mm, brown.

*Drosera nitidula* Planch. (Australia) – three-angled, ovoid, glistening and smooth, black (Erickson, 1968), length about 0.7 mm.

*Drosera pauciflora* Banks Ex D.C. (S. Africa) – ovoid to almost deltoid, strongly ribbed longitudinally and faintly cross ribbed, length around 0.5 mm, black.

*Drosera peltata* Sm. Ex Willd. (Australia, Japan, Formosa) – round, pitted, minutely ribbed, black (Erickson, 1968), length about 0.8 mm.

*Drosera planchonii* Hook. F. Ex. Planch. (Australia) – shortly cylindrical, black (Erickson, 1968), slightly truncated at one end, length about 3 mm.

*Drosera pygmaea* DC. (Australia, New Zealand) – ellipsoid, almost smooth, black (Erickson, 1968), reticulate, length around 0.5 mm.

(Continued from page 38.)



1 mm

*Drosera montana*



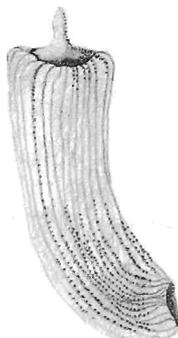
1 mm

*Drosera nitidula*



1 mm

*Drosera peltata*



1 mm

*Drosera planchonii*



1 mm

*Drosera pygmaea*



1 mm

*Drosera pauciflora*

*Drosera rotundifolia* L. (Northern Hemisphere) – sigmoid-fusiform, finely and regularly longitudinally striate, shiny with metallic luster, 1-1.5 mm long, light brown (Wynne, 1944).



*Drosera rotundifolia*

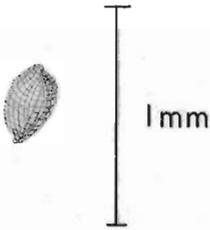
*Drosera spathulata* Labill. (Formosa type) (Formosa) – ovate to ellipsoid, reticulate, length about 0.3 mm, dark brown.

*Drosera spathulata* Labill. (Hong Kong type) – ovate to ellipsoid, reticulate, length about 0.5 mm, black.

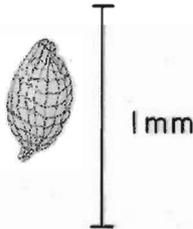
*Drosera spathulata* Labill. (Kansai type) (Japan) – minute, fusiform, obtuse and mucronulate at both ends (Ohwi, 1965), reticulate, length about 0.75 mm, dark brown.

*Drosera trinervia* Spreng. (S. Africa) – orbiculate, reticulate, length about 0.4 mm, brown.

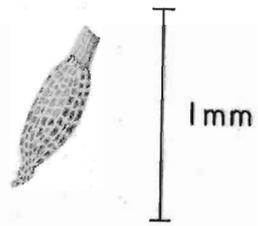
*Drosera whittakeri* var. *praefolia* (Tepper) Black. (S. Australia) – almost spherical (but some are square), spongy seed coat with many pits, length or width no more than 1.0 mm, black.



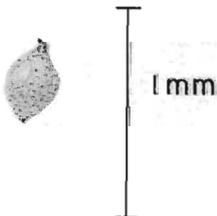
*Drosera spathulata*  
(Formosa)



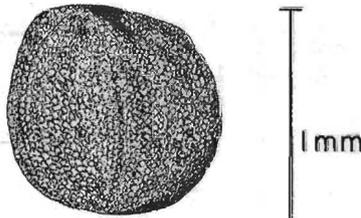
*Drosera spathulata*  
(Hong Kong)



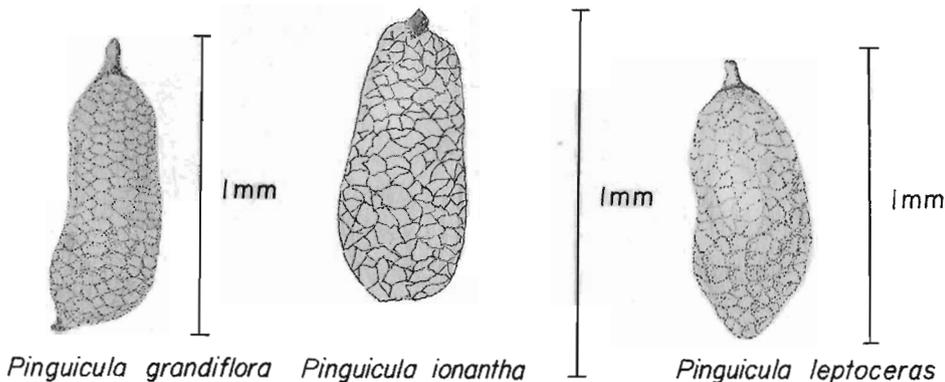
*Drosera spathulata*  
(Kansai)



*Drosera trinervia*



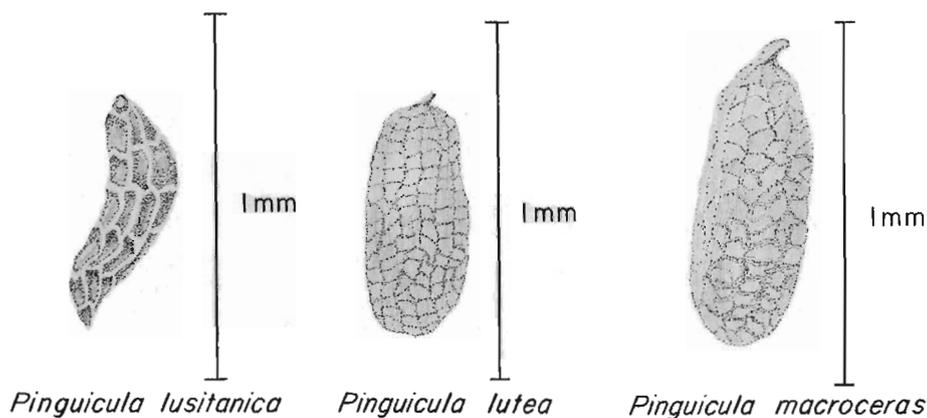
*Drosera whittakeri*



*Pinguicula grandiflora*

*Pinguicula ionantha*

*Pinguicula leptoceras*



*Pinguicula lusitanica*

*Pinguicula lutea*

*Pinguicula macroceras*

*Pinguicula grandiflora* Lam. (Ireland, Spain, France, Switzerland) – scobiform, fusiform, (0.6) 0.85 (1.1) mm long and (0.2) 0.3 (0.4) mm wide, alveolate (Casper, 1966), brown.

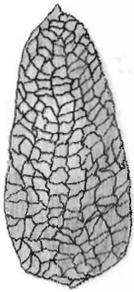
*Pinguicula ionantha* Godfrey (Fla.-USA) – scobiform, oblong-cylindrical, 0.6-0.8 mm long, alveolate, brown (Casper, 1966), alveolae with 1-2 cross lines (Godfrey & Stripl., 1961), black.

*Pinguicula leptoceras* Reichb. (Switzerland, Australia, Italy, France) – scobiform, fusiform,  $\pm$  0.7-0.8 mm long and 0.2-0.3 mm wide, alveolate (Casper, 1966), light brown.

*Pinguicula lusitanica* L. (Portugal, France, Great Britain, N. Africa, Spain) – scobiform, subcylindrical, 0.5-0.65 mm long and 0.2-0.26 mm wide alveolate (Casper, 1966), brown.

*Pinguicula lutea* Walt. (La., Miss., Ala., N.C., S.C., Ga., Fla.-USA) – scobiform, fusiform, 0.5-0.8 mm long alveolate (Casper, 1966), oblong, alveolate with 3-4 cross lines (Godfrey & Stripl., 1961), black.

*Pinguicula macroceras* Link. (Japan, USSR., N.W. & N. America) – scobiform (Casper, 1966), length around 1 mm, reticulate, ovate, brown.



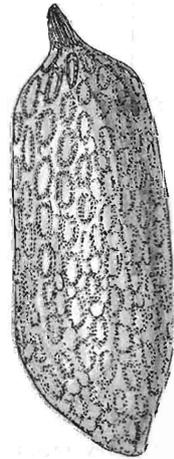
*Pinguicula primuliflora*



*Pinguicula vallisneriifolia*



*Pinguicula pumila*



*Pinguicula vulgaris*

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*Pinguicula primuliflora* Wood et Godfrey (Ala., Ga., Fla., Miss.-USA) – scobiform, subcylindrical, truncated, 0.5-0.7 mm long, brown (Casper, 1966), obpyramidal to subcylindrical-truncate, alveolae without cross lines (Godfrey & Stripl., 1961).

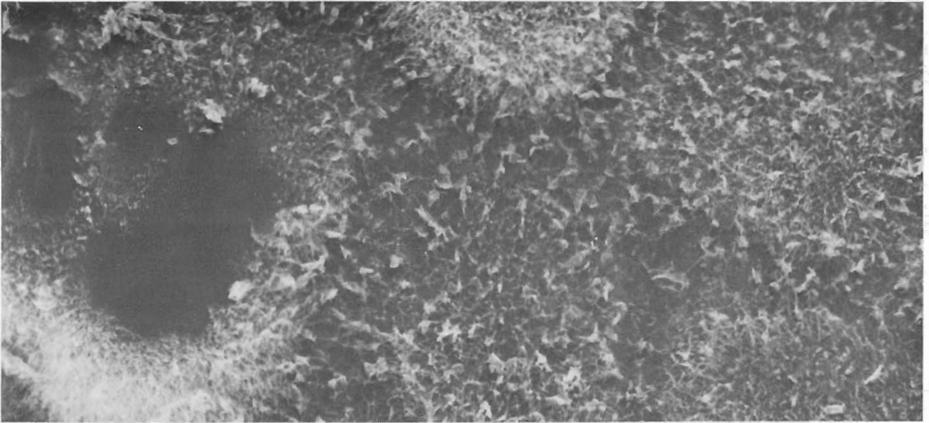
*Pinguicula pumila* Michx. (Tex., La., Ala., N.C., Ga., Fla.-USA, Bahamas) – scobiform, fusiform, 0.3-0.5 mm long and 0.2-0.3 mm wide alveolate (Casper, 1966), oblong to obpyramidal, alveolate mostly with 2-3 cross lines (Godfrey & Stripl., 1961), brown.

*Pinguicula vallisneriifolia* Webb. (Spain) – scobiform, alveolate (Casper, 1966), slightly attenuate at one end, length around 1 mm, light brown.

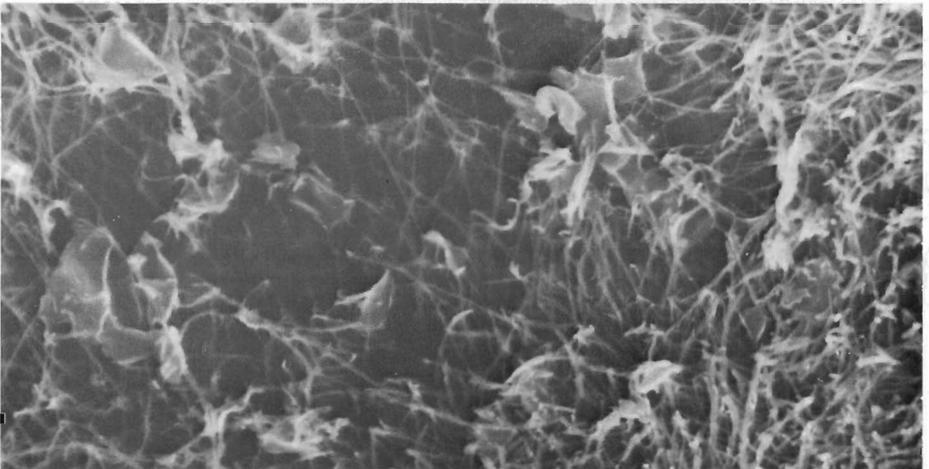
*Pinguicula vulgaris* L. (Europe, Siberia, American Borreal) – scobiform, cylindrical-conical, (0.5) 0.68-0.8 (0.96) mm long and (0.16) 0.2-0.28 (0.32) mm wide alveolate (Casper, 1966), brown.



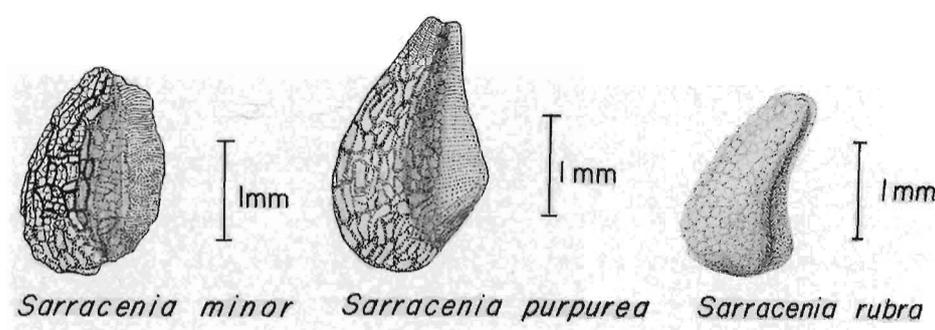
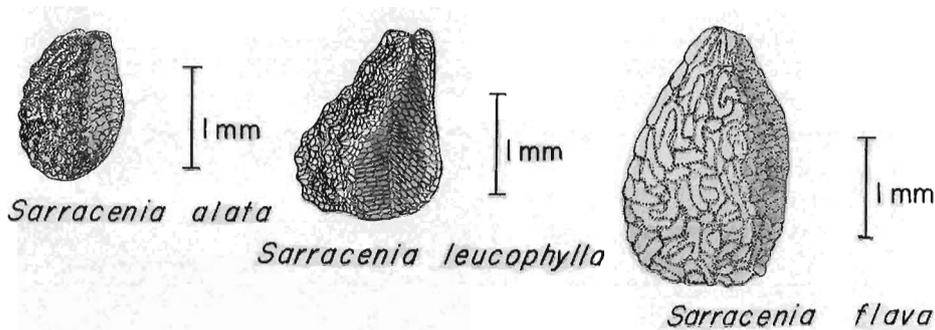
*Sarracenia flava* Mag. 200X



*Sarracenia flava* Mag. 1000X



*Sarracenia flava* Mag. 4000 K




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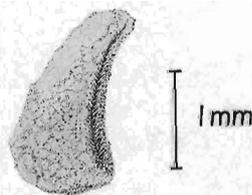
*Sarracenia alata* Wood. (Ala., Miss., La., Tex.-USA) – obovoid-clavate, bullate-areolate, 1.9-2.2 mm long (McDaniel, 1971), brown.

*Sarracenia flava* L. (Va., N.C., S.C., Ga., Fla., Ala.-USA) – obovoid, tuberculate areolate, 1.8-2.5 mm long (McDaniel, 1971), brown.

*Sarracenia leucophylla* Raf. (Ga., Fla., Ala., Miss.-USA) – verrucose-areolate, 1.5-2.1 mm long (McDaniel, 1971), brown.

*Sarracenia minor* Walt. (N.C., S.C., Ga., Fla.-USA) – obovoid, tuberculate-areolate, 1.1-1.3 mm long (McDaniel, 1971), light brown.

*Sarracenia purpurea* L. (Eastern N. America) – obovoid, areolate-tuberculate, 1.7-2.0 mm long (McDaniel, 1971), yellowish brown.



*Sarracenia rubra* ssp. *jonesii*

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*Sarracenia rubra* Walt. (N.C., S.C., Ga., Fla., Ala., Miss.-USA) – irregularly obovoid, tuberculate-areolate, 1.2-1.5 mm long (McDaniel, 1971), light brown.

*Sarracenia rubra* ssp. *jonesii* Wherry (N.C., S.C., Fla., Ala., Miss.-USA) – obovoid, tuberculate-areolate, around 2 mm, brown.