

Alismaceae, G. Engelm. April 1856

Alisma fl. herm. pet. involuta stam. definiti; naves verticillati
Dorso dilatati 2-3 carinatae.

Echinodorus fl. hermaphr. petal. imbricat stam. definit. — indefinit.
naves capitata costatae.

Sagittaria fl. monoeci (varius dioeci) petal. imbricat.; stam. indef.
naves capital. compress. dorso alatae.

Alisma Plantago, var. americanum. probably a distinct species, but not sufficiently
examined by me

Echinodorus parvulus E. annuus foliis ^{lanceolatis} ~~angustis~~ spatulatis, ciliis
saepe repentibus, radicebus, ^{proliferis} ~~stoloniferis~~; scapis umbelliferis
foliis aequantibus paucifloris; floribus 9-andris; stylis ovario
multo brevioribus; ^{pubescentibus} ~~nervis~~ ^{pubescentibus} vix apiculatis, multicostatis

About Alcorn on both sides of River, margin of
shallow ponds. — 1-3 inches high, ^{leaves 6-12 l. long} fl. abt 3 l. diameter
I have not seen the plant from any where else, & Alisma subulata
must probably belong to Sagitt. pers. lra, not here.

E. rostratus E. (A. r. Nutt) annuus foliis ^{late} cordatis ^{obtusis} nervosis,
scapo erecto, paniculam ramosam gerente, folia excedente,
fl. 12 andris, stylis ovario ^{superioribus} ~~aequantibus~~; nervibus rostratis
multicostatis

Alcorn, bottoms, common; larger forms 2 feet high,
smaller ones, a few inches high with lanceolate leaves.

E. radicans E. (A. r. Nutt) perennis foliis ^{leaves 2-3, n. long} ~~ovis~~ ^{fl. 4 l. diam} subtruncata
late cordatis obtusis nervosis; caule prostrato, repente
radicante, ^{proliferis} floribus verticillatis sub 21 andris
stylis ovario brevioribus; nervibus breviter rostratis costatis
dorso carinato denticulatis.

Swamps in the American bottoms, Alcorn —
Stems several feet long, leaves oft 6-8 inches long &
wide — sometimes cordate, sometimes more truncate.
flowers 10-15 l. diameter

Sagittaria variabilis, *heterophylla*, *simplex*, *filicata*,
nataus & *pusilla*. I think are the only good species in the U.S.
S. nataus I have never seen.

The New Mexican *Sagittaria*, collected by Fendler and
Whipple seems to be a distinct species, but ripe fruit is
wanting.

I find among Griggs Plants a new *Sagittaria* from
western Mexico, very distinct.

I shall go on examining all my *Sagittariae*, preparing
in that way for examination of specimens in other
Herbaria — but I find that proportion of
peddrells, length & shape of filament, appearance of style
and of fruit are the characteristics we must rely
on. — Shape of leaves is not so certain, though
simplex is hardly even, and *filicata* never sagittate
but size of leaves is of no importance at all.

The shape and size of style is easily seen by looking
at a female flower, which every specimen presents; *Sagitt*
heterophylla is the most bristly, next *S. variabilis*, then
filicata, then *sagittifolia*, *neomexicana*, *mexicana*,
simplex. This last has hardly any style and presents
a very blunt head of carpels.

S. pusilla I have not examined, ^{carefully} but consider
it a good and true *Sagittaria*. My specimens have
no fruit; I have it from the Delaware and from
S. Carolina, always with one single ~~reflexed~~
female fl. — ~~reflexed~~ after flotation.

I believe these data will be sufficient
for your present purpose, my dear Doctor,
and I close here my communications to
your Manual — I hope these data will be
in time yet.

Albion April 7th 56

Ever yours Griseb.



Engelmann, George. 1856. "Engelmann, George Apr. 7, 1856." *George Engelmann letters to Asa Gray*

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