Potamogetons of California.

J. W. Hollins.
California Polamogoton

for Mr. Thomas Watson, Cambridge

with small book of unfinished descriptions

1. P. natans
2. P. Claytonii - Samnus f. sp. Eng.
3. P. longifolius
4. P. angustifolius - Eng. - Samnus
5. P. graminus - Haller
6. P. laxus - M. Kuti
7. P. prolalongus - Samnus Co.
8. P. prolateralus - Eng. m
10. P. Claytonii - William Kewin
11. P. graminus - S.F. (vnum) - Eng. (Kewin)
12. P. natans x

Pech'k'pas
Robbinsii

- Minnesota

- Pecos

11. P. prolalongus
12. P. angustifolius
13. P. Claytonii
14. P. graminus
15. P. natans
16. P. laxus
17. P. Claytonii

- [written in pencil]
We have done far but there immature and imperfect flowering of this plant (from Fraser's Island and elsewhere in Oregon).
P. parasitoides, Tsatsk.

Stems threadlike, ascending. Flowers terminate it. Dianthus usually long-stipitate, ovate, acute, long
petiolate, 11-20-several; submersed very membranaceous, pellucid.
Very long (3-12 by 2-12 wide), lanceolate, green, many
spines grouped and loosely reclinate.

The long stipes of the very much pyramidal
flowers, imbricate, oblong, very oblong, ovate, distinctly keeled.

Flowers, the middle one widened above
and some times with 3-5 shallow indentations, the crowded, slightly curved, very
rigid, the short stile, densely crowded, slightly impressed on the sides, obtuse or rounded above, the anther pointing just above
the base. Found mostly in good places,
some in ponds, leading in August.

* Spikes 1-2 long, directly standing on leaves, narrow
peduncle, ovate, none, slender, long, thin-leaved

* Refer to 2
Pampelones, 1. Stem stout, simple, of very long, variable length; floating leaves sometimes rosette-like, sometimes narrow, in deep water often wanting; calyx very small, lanceolate, sometimes cordate, many-merous, obtuse or abruptly acute, many nerves, equaling or exceeding their petals; submerged axes often very large (reaching 1 ft. 3 in.), round, truncate, lanceolate or nearly so,ordi-

cmal, acute at each end, much rounded, with broad undulations, and pinnate leaves

merous and usually reticulate, on short petioles; stipules very long, acuminate, or at first acuminate, closely investing the stem, usually as

much thinner, longer than the leaf, elongated densely punctate, 3 spikelets, very, hard rather obliquely obvate, the back rounded bluntly rounded, usually bluntly keeled, rather slightly keeled, imprints on the sides, with rather sharp side-keels, in maturing into,

Aug. 9 and Sept.

We have but three specimens.
from our district. This noble American species, of which the normal form comes from Oregon and two narrow-leaved specimens, one each from Oregon and Calina Valley, Cal., of which variety the mature fruit is desirable.

* The lowest radical leaf sometimes reduced, almost to its midrib.

P. prominens, 2
Stems slender rising from small, rosette-like, rooting rootstocks which are sometimes entangled, very branching below, floating leaves (often wanting) mostly there, variable in form, but with a short blunt point, 5-15mm., upper 1/3 more or less peltate, submersed, ovate, usually lanceolate or linear-lanceolate, narrowly narrowed below, about 3 series on the stamens, ovated 0.5-1cm. diam., lanceolate or linear-lanceolate, minutely emarginate above, narrowed below, about 7 series on the stigmata, a few on the edge, somewhat branched, upper ones peltate, lower ones ovate, uppermost point stipitulate, 0.5-1cm., small, sessile, obtuse, submersed, uppermost series or nearly, hairy spikes about 1cm., rather stout small was discolored various, only scales, style apical, notched slightly, ovate, imbricate, ovate, circular, ovate, columnar, stigmas 2-3, very obtuse, style discoid, 0.5-1cm., very obtuse, style discoid, 0.5-1cm., very obtuse, style discoid, 0.5-1cm., very obtuse, style discoid, 0.5-1cm., very obtuse, style discoid, 0.5-1cm., very obtuse, style discoid, 0.5-1cm., very obtuse, style discoid, 0.5-1cm., very obtuse, style discoid, 0.5-1cm., very obtuse, style discoid, 0.5-1cm.
the following

Var. heterophyllus, Trees
This is the medium and more common form, with lower leaves shorter than those of var. graminifolius, lanceolate, more rigid.

*Stipules large, oblong, often spreading

P. Leucus.
Stems rather thick, branching sometimes very large, leaves suboblong or nearly the shape of a strap, pinnate or subcompound, oval or lanceolate, often shining, numerous, mostly chartaceous or brown, transverse, usually acute or acuminate, spotted or serrulate at the margins. *spikes 1-2 long on longer thickly peduncles, fruit round, compressed, usually slightly keeled. Embryo above circularly inclosed. Fruit usually late in maturing.

Of this species, which has numerous forms and is uncertain as to its limits, we have on hand from this region but two specimens, each of which approaches the var. Connecticutensis, which has been frequented, leaves all sub-ovate, short-petiolate, lanceolate, long-stipinate, vivid on the margin much twisted, not shining; fruit
obovate, distinctly keeled, millet thick and hard.

Of our five western forms, No 1 (Minnie Detector, Behrend) has a straighter and more denudation, leaves longer (sometimes 10") with flatter, not curved, slimmer, more firm, entire, slightly much spreading; fruit thicker, less beaked, upper portion of embryo less transverse.

No 2 (California, Kellogg, & Hasse) has its stem rather zigzag, leaves of pale green, lance-oblong, short petiolate, obtuse or with an abrupt, blunt point, but slightly wavy narrowed; stipules absent, entire, spreading; spike not compact, flower in wide oil; fruit wanting.

P. prolongus, Millen. White stem very long, flower branching above; leaves of a light green, lance-elongated or lanceolate, glabrate, half clasping, obtuse

with a boatshaped cavity at the extremity, the two often splitting opposite where pressed flat, stipules white, large, oblong, obtuse; pedicels sometimes reaching the incursions; spike sparsely fruiting; achori-

una obliquely obovate, compressed, sharply keeled when dry, style facials; nutlet impressed; embryo curved above into an oral.

Wattle in ponds due in deep water fruit (rarely flowers) remaining late. We have, as yet but a single specimen, with long stemmed leaves from Cal. by Mr. Simmons, Sinaico.
P. prostratus, L.
M. stems rising from running rootstocks, branching; leaves all
submersed, membranous, ovate, oval or lanceolate, from
a cordate-clasping base, 
orately obtuse, often scabrous;
scabrate stems finely 
finishing; spikes 1-1½' long, 
shorter
petiole leaves rarely elongated.
In irregularly ovate, obtusely
margined; ovary incurved 
in an oval. D.'mature fruit, seed.

Var. lanceolatus. Rob. Lowes;
leaves long lanceolate (3½ to som-
timess 4½'), from a cordate-clasping 
base; usually acuminate to 4-rayed,
previously thickened.

The leaves from this district, none of the short leaved eastern are
European forms, but they are still
in some variety. Oregon furnishes
from different localities, two or
cormens (probably from deep water), which have pods, not in a rosette 8' and 8½' long with spikes nearly flower-bearing, and Mr. Watson gathered in the Truckee River, Nevada, a plant, bearing a spike flowered on a ¾' peduncle and leaves 2½' by 5' and very obtuse.
Passiflora, L., sect. Flug.

Stems branching, rising, flat, frequently productive of buds; flowers linear, grass-like (5½ by 1½) abruptly pointed, with fine filaments (13-28) discs, scales of a fine green; sepals (young) oblong, very obtuse; spikes alternate, decumbent (12-15) flowers, shorter than the peduncle; fruit oblong obovate, with another prominent bead, slightly flatter; sides of fr: slightly compressed; the p.c arching upwards, tipped by the style; sepals curved above to more than a circle, the upper portion lying transversely. In water still and slow, flowing, forming its fruit in August. (S. zoological Society, London. July 1867)

We have been able to find,

exhaling specimens furnished from Oregon by Mr. Hall.
P. Dracunculus, Sud.

Stem much flattened & branching, some time rooting from the lower joints, 1-3" long; leaves all submersed, linear, rosette with a mucronate tip, alternate to the sub petiolate base, three or sometimes four pairs, the middle composite below of five nerves, about 2" long by 1/2" wide, stipules (sometimes 2" long) obsolete when young, but persisting into be" with their persistent petals, coming together in pairs less than 1/2" long, ellate, compressed, for spikes capitula 2-4 flowered, fruit reniform, compressed, with a winged and to the back
angled face; embryo upper portion of embryo circularly in a " and sterile transversely below the middle. Frag.

Not only from San Francisco, Cal., but the Dr. Rothrock; its leaves usually 5-stemmed and the petals longer than in the eastern forms. No fruit.
P. paniculata, Phil.

Stems slender, sometimes thread-like, compressed, very branching, 8 to about 2.0 high; leaves narrow-linear, 1-2 long, tapering to a point, sessile; petiole 1-2 wide, wide, obtusely 3-angled; stipules ovoid, 3-angled.

2-flowered, pedicels short, rather club-shaped, bearing capitulate spikes of 2-3 flowers; fruit rounded lenticular, with its back more or less constricted dentate; embryo remarkably incurred above; fruit maturing in Aug. and Sept.

Two forms are before us from Cal. and Oregon, of which the former, from near San Francisco (Dr. Basye, 1875) is very slender, nearly simple, with very few, narrow leaves, longer pedicels and short, nearly conical, 3-angled.

One from San Francisco island, Oregon (Mr. Howitt, 1875) has a dicotyledonous stem, with very numerous, broader leaves above and fruit more winged and dentate.

A very variable species, approaching...
P. pusillus, L.

Stem slender, compressed or nearly cylindrical, branching; leaves linear, very variable in width, obtuse and mucronate or acute, sessile, 1-5 nerves, bifid and divided at the base; stipules mostly absent; spikes capitate or short internodes often capitate interrupted, or pedicellate mostly long, subcompressed and thickened, 2-8 flowers; fruit obliquely broad-elliptical, scarcely or very bluntly keeled; upper portion circularly incurved, with its apex directed variously.

Probs and ditches, dewward, shrub mantling from junctures.

Our district has this few furnishing but few forms of this very variable genus, of which the more common is the

P. vulgaris, Fries. Stems very branching, leaves narrow-lanceolate, about 4 wide, 6-8 nerves; subverticillate. Very rarely with a few floating, lanceolate, smooth leaves.
Disease of Mr. Thomas Scott.

A letter or communication with the physicians containing the notes and observations in the case. The letter states that the patient had been examined in the same hospital as the case, and that the examination revealed some condition in the heart that was not considered significant. The physician notes that the condition was observed, and that the small lesion in the lung had made the examination difficult. The patient was advised to return for further examination. The doctor also stated that the condition was not serious, and that the patient should continue with the treatment as prescribed. The patient was advised to continue with the treatment and to return for further examination. The letter also includes a photo of the patient, which shows him in bed and smiling. The letter concludes with the doctor's signature and the date.