

This vine has stalks which turn both directions.
The left hand thread appears to mature earlier with
more seed. It grows profusely near Pig Foot Creek
on the west side of Flinders Island between
White Mark and Ennita. The flowers are white
bells about $\frac{1}{8}$ " long. A berry ~~here~~ forms about $\frac{1}{8}$ " diameter
consisting of white pulp. Inside is a single hard
shiny black seed about $\frac{1}{16}$ " diameter. Vine seems
to grow best in moderate shade where small
stalks of grass or reed are available.

12 Feb-60

Mrs. Cooper:

The man who asked about Macquarie
Vine near Pig Foot Creek is
Grote Reber
"Lonsdale"
Kempton, Tex.

He wishes to experiment with this vine. If you can
harvest a small packet of the black seeds in a few weeks
and send them; I am sure he will be greatly
appreciative.

No reply:

Morton
Hotel keeper at Whitebank

Visit to Flinders Island


Noon 19/4/63 to noon 22/4/63.

Arrived too late for best part of seedling season. Most of seed and all flowers from large old vines had fallen to ground. A few of younger plants still had flowers, a few berries and some seed. Apparently vines do not produce berries of good size until several years old. The profusion of berries on old vines noted in middle February 1960 was entirely absent. Perhaps a more moist season will produce more and larger berries. Probably the best time for berries is late February. Best time for seed, early or middle March. Another try should be made next year about 10th March or sooner.

The vine creeps along ground over many tens or few hundred square feet area. It does not send down secondary roots at intervals along runner. Plants at positions 2+3 covered over 200 sq feet and had only one root going into ground a foot or so and branching out. The dominant direction of spiral of all plants is clockwise like bird's eye (left hand thread). All plants

have some counter clockwise stalks as divisions. Such CCW stalks are always in minority. Old plants seem to have about 25 percent while young plants about 10%. Probably 15 to 20% CCW stalks is a fair estimate. Due to complex tangle of wild plants it was impossible to determine which was original stalk and its direction. The plant seems to reproduce by seed, not subdividing, and have a very long life, maybe 20 years. The vines on left (west) side of road near gate mentioned in position 2 appear quite similar to my remembrance of February 1960.

New plants should be grown from seed in pots under suitable controlled conditions next spring; perhaps starting late August or early September.

The bell flowers mentioned on 12/2/60 were really only partly open. Mature flowers have five petals like a single ring rose or very open tulip.  about size of sketch, slightly yellow.

Flinders Island

19/4/63 at Whitemark. Found a lot of vine on both sides of main street one block south of Hotel. Most had gotten beyond seedling stage. However, one clump on west side of street still was flowering. Harvested nearly entire clump and removed seed. Also took out one large root and put in pot with plenty of local soil from same hole. This vine grows as a complex mat over areas dozens of square feet. Obviously it is a perennial. It probably perpetuates itself more by advancing roots than by seed. The plant from root selected was over six feet long. It had at least two main stalks which divided from main stem about three feet from root. One main stalk was clockwise and the other counterclockwise. Both stalks ran from one supporting grass to another always turning in same direction. Apparently direction of spiral is determined at place stalk leaves the main stem. Cut off another plant a sample nearly

straight section between supports. This happened
to have a good selection of leaves, flowers, seeds
covering entire cycle. No visible berries at any stage.
Flowers white to very pale yellow. As soon as
seed gets hard and black the husk or pod opens
at bottom end and seed falls out. This is reason
so few seeds could be found.

Pots

- #1. 19/4/63 from place where seed was gathered on west side of street a block south of hotel at Whitemark. Unknown piece of root.
- #2. 4.5 miles north of Whitemark on way to Enita. Open flat plain on left (west). Gate in fence at south end of open plain. This plain is just north of Pigfoot Creek. East side of road 50 yds north of gate. This plant was climbing in tree. When pulled out it was over ten feet long. Stalks were mostly clockwise like lindweed.
- #3. 200 yds north of #2, same side of road. This plant had a lot of counter clockwise stalks. Both plants #2 & #3 were large old plants far beyond flowering stage. All the seed had dropped off.
- #4. 5.9 miles north of Whitemark on way to Enita. Right (east) side of road stone block house. 75 yds south of gate at side of road at

Clearing in fence, several young plants still in flowering stage. No mature seed yet. The plant selected had two stalks; one right handed and one left handed.

Harvested a lot of vines both CW + CCW at a place 7.3 miles north of Whitemark. On east side of road just where road turns west about 30°. all along fence the vines are at late flowering and early seedling stage, also took all remains as random vine.

#5 13.0 miles north of Whitemark. 150 yds beyond stone block church on west side of road. Recently plowed paddock has many small plants.

#6 2/4/63 Empty lot west of Whitemark Power Supply and across street from Whitemark Garage.

7/6/63 Roots in pots #2 + #5 have shoots. Others appear dead.

18/6/63 Shoots seem to be drying out a bit. Been very cool.

24/6/63 Removed pots from Greenhouse to my room at Stowell.

10/6/63 Sorted out quite a lot of seed from dried vines. Still a lot of unknown vines to be worked

11/6/63 235 clockwise = 0.678 gm or 346 per gram

223 counter clockwise = 0.573 gm or 389 per gram

250 unknown = 0.899 gm or 278 per gram

There must be a lot of hollow undeveloped seed in these samples to cause this large variation.

18/6/63 306 unknown = 1.0063 gm or 304 per gram

24/6/63 176 unknown = 0.5962 gm or 295 per gram

30/6/63 + 7/7/63 Finished sorting out seed from stalks but did not clean hulls off seeds.

Flinders Island Vine

18/10/63 Put 20 unknown seeds in boiling water, all but three floated. This is a bad omen. Planted the lot in a pot with sandy soil. Made very wet.

31/10/63 Several very fine sprouts coming up. Put pot in glass house.

23/11/63 These were grass, all dead. Plant in large can doing very well. Two stalks 1 ft & one stalk $1\frac{1}{2}$ ft high.

Winding them up arbitrarily as they show no sign of twinning.

24/12/63 Several stalks 2 to 3 ft high. Some have now begun to twine of their own volition. Two have decided to turn opposite to marker I started them. I cut off a dozen small secondary stalks to have vine put energy into main stalks. These shoots were planted in a mix of half soil and half sand and watered well. Put in office to keep reasonably cool.

27/12/63 added 200 cc of ammonium nitrate solution

15/1/64 Flowers appearing. Vines 6 ft high. I cut off suckers at frequent intervals. Planted these suckers in a pot of sandy soil and kept moist. None took root. all died by 23/2/64

28/2/64 Vines now about 9 feet high & still growing. Leaves are beginning to fall off at bottom.

15/7/64 Took photo of vine overall and detail. Harvested all but two stalks, one right and one left. Found two secondary stalks. Each was opposite to main stalk. Divided into two groups, left and right. Let dry 2 hours at 120°F and cool.

16/7/64 Ground up both groups. about 55 grams from each.

Flinders Island Vine

28/9/69 Several new buds and small shoots appearing on lower parts of old stalks.

Macquarie Harbour Vine

Muehlenbeckia adpressa Meiss.

Bicheno, Scamander, Port Arthur, Hobart.

Juncious

Von Mueller: Native plants of Victoria

M. adpressa Tall and winding or spreading or trailing, woody towards the base; leaves copious, roundish-cordate or verging into an halberd-shaped or broadly lanceolate form; spikes interrupted, nearly all axillary, crowded or solitary, mostly simple or some reduced to clusters; stigmas acute, nearly sessile, not distinctly fringed; fruit-calyx withering or finally very succulent; real fruit globular, faintly and obtusely angular, smooth, not very lustrous, seeds longitudinally furrowed.

On coast-shores abundant; also in copse as well as in desert-scrubs and forest land.

Extends widely through extra-tropic Australia, reaching Shark-Bay northward and Tasmania southward.

In favourable maritime localities only the enlargement of the calyx into a berry-like form and into a pale-lilac transparency takes place.

Muehlenbeckia adpressa - "Macquarie Harbour Vine".

Rodway says: "A prostrate creeping or climbing shrub, often covering the undergrowth to a considerable distance."

Leaves ovate-lanceolate, with a cordate base, or nearly orbicular, from 1-3 inches long, on stalks half as long as the laminae. Inflorescence loose at the ends of the branches. Flowers few together, in interrupted spikes or axillary clusters. Fruiting-perianth more or less succulent, white. Nut nearly globose.

Common on coasts. It occurs also throughout Southern Australia and extends to New Zealand and South America. Flowers November - December."

("The Tasmanian Flora", 1903)

von Mueller ("Native Plants of Victoria") describes it similarly, and adds:

"On coast-shores abundant; also in copses as well as in desert scrubs and forest land."

Extends widely through extra-tropic Australia, reaching Shark Bay northward and Tasmania southward. In favourable maritime localities only the enlargement of the calyx into a berry-like form and into a pale-lilac transparency takes place."