

## Begonias of Borneo.

BY H. N. RIDLEY.

Borneo, at least Sarawak, appears to be tolerably rich in *Begonias* at least as compared with the Malay Peninsula. Few seem to have been described however. The most abundant are the tall woodland species of the *Petermannia* section with very insignificant flowers. Young forms often have the leaves prettily spotted, but this soon goes off and the plate becomes tall and dull-colored. This section is a difficult one owing to the variability of the species, possibly some of the abnormal forms one meets with are hybrids. The presence or absence of petals in the male flower is hardly a good character though often used in distinguishing species and groups. I have in some of this section seen flowers with none, or one or two on the same plant. The limestone rocks and mouths of the caves produce a number of pretty species of which *B. speluncæ*, with its tufts of round leaves and pretty white flowers is one of the most attractive, while among foliage plants, the beautiful *B. promethea*, growing with only two or three large leaves flat on the rock faces of Bukit Tendong, near Busan, is perhaps the most worthy of cultivation.

§ *Petermannia*. Capsule 3 celled, wings 3 nearly equal narrow oblong, dehiscing by 2 valves.

Stems tall.

- |                              |     |     |                             |
|------------------------------|-----|-----|-----------------------------|
| Panicles very small axillary | ... | ... | 1. <i>B. axillaris</i>      |
| Panicles subterminal lax.    |     |     |                             |
| Leaves ovate nearly entire   | ... | ... | 2. <i>B. propinqua</i> .    |
| Leaves ovate sinuate small   | ... | ... | 3. <i>B. sarawakensis</i> . |
| Leaves ovate toothed         | ... | ... | 4. <i>B. borneensis</i> .   |



- Leaves oblong or lanceolate, oblique ... 5. *B. oblongifolia*.  
 Leaves ovate lanceolate cordate ... 6. *B. Pryeriana*.  
 Panicles compact.  
 Stipules broken up into fibres ... 7. *B. inostegia*.  
 Stipules not broken up ... 8. *B. congesta*.  
 Panicles diffuse flowers very small  
 leaves narrow ... 9. *B. polygonoides*.

Stem short erect leafy.

- Leaves rhomboid broad hairy ... 10. *B. pubescens*.  
 Leaves rhomboid narrow glabrous ... 11. *B. Hullettii*.  
 Leaves narrow lanceolate toothed glabrous ... 12. *B. elatostemma*.

§ *Bractibegoniæ*.

- Bracts large. Flowers large ... 13. *B. Burbidgei*.  
 Bracts small flowers small stems  
 tufted erect ... 14. *B. rubida*.  
 Stems prostrate or creeping ... 15. *B. pendula*.

Stems short rhizomatous.

- Leaves tufted orbicular cordate  
 glabrous... 16. *B. speluncæ*.  
 Leaves ovate oblique hairy ... 17. *B. Havilandii*.  
 Leaves few large hairy orbicular  
 cordate ... 18. *B. Promethea*.  
 Rhizome long leaves distant orbicular  
 ... 19. *B. Pyrrha*.  
 Rhizome long with distant long  
 petioled reniform peltate leaves. 20. *B. calcarea*.



§ *Platycentrum*. Capsule with one large oblong wing and two smaller ones erect stemmed epiphyte ... .. 21. *B. adenostegia*.

*B. axillaris*, n. sp.

Stems slender 2 feet and more tall very succulent. Leaves remote lanceolate acuminate base rounded slightly toothed quite glabrous 3 inches long by one wide, petiole  $\frac{1}{4}$  inch. Stipules lanceolate cuspedate caducous. Panicles axillary under an inch long, one to each leaf axil. Peduncle very short branches flexuous, dichotomous. Bracts very small ovate, male flowers  $\frac{1}{8}$  inch across. Sepals oblong rounded petals none. Anthers almost sessile oblong obtuse, about 12 crowded on a torn dehiscing the whole length. Female flowers not seen. Capsule an inch long  $\frac{1}{2}$  an inch across the wings oblong, top truncate broad wings nearly  $\frac{1}{4}$  inch at the tip narrowed to the base. Pedicel  $\frac{1}{4}$  inch long.

Lingga Island 200 to 300 feet attitude 17-7-93 (Hullett 5707).

Allied to *B. oblongifolia* but very distinct in its small axillary panicles with very short peduncles and a few small dichotomous branches.

*B. propinqua*, n. sp.

Stem succulent 2 or 3 feet tall. Leaves ovate acuminate base cordate unequal 8-9 inches long 4 inches wide glabrous margins slightly sinuate, nerves prominent beneath, petiole 3 inches long, stipules lanceolate oblong  $\frac{1}{4}$  inch long. Cymes lax branches slender spreading. Flowers small white or green. Bracts small rounded male flower  $\frac{1}{8}$  inch across, sepals 2 oblong obtuse. Petals narrower than 2 stamens oblong narrowed to the base. Female flowers not seen.

Fruit oblong  $\frac{1}{2}$  an inch long and as wide apex truncate, wings equal narrow oblong dehiscing by two slits on each face.



Sarawak common in woods. Matang, (Hullett, Haviland, Ridley 11771) Kuching (Haviland).

*B. propinqua*, var.

Leaves ovate long acuminate dotted all over beneath with minute hairs when young. Panicle long slender as much as 9 inches or less diffuse. Flowers male as in *isoptera*. Capsule oblong longer than broad 1 inch long.

Sarawak, Sapudang (Haviland 534).

This may be a distinct species but I should like to see more than the only specimen I have.

*B. sarawakensis*, n. sp.

Stem a foot or more tall slender branched glabrous. Leaves distant ovate acuminate base very unequal margins undulate quite glabrous pale beneath nerves distinct (young leaves at first dotted with small hairs) 3 inches long  $1\frac{1}{2}$  inch wide, petiole slender 1 inch long. Stipules lanceolate acute caducous small  $\frac{1}{8}$  inch long. Panicles lax few flowered, scurfy 1-2 inches long male flowers minute  $\frac{1}{8}$  inch across, on slender pedicels  $\frac{1}{4}$  inch long bracts very small ovate. Sepals 2 oblong ovate petals 3 narrower, pale. Stamens about 12 filaments very short, anthers dehiscing the whole length, oblong longer than the filaments. Female flower 2 or 3 together larger ovary scurfy sepals suborbicular 4. Petals narrow linear oblong 2, styles. Fruit oblong quadrate wings 3 equal straight narrow  $\frac{1}{8}$  inch wide whole fruit  $\frac{1}{2}$  inch long  $\frac{3}{8}$  inch wide across the two wings.

Sarawak; Path to Tabuan (Haviland 784, 76).

Certainly near *B. isoptera* but with much smaller flowers and leaves.

*B. borneensis*. A. De C. Prod. XV, p. 320, Stapf., Trans. Linn. Soc. IV. 166.

A tall herb glabrous. Leaves obliquely ovate base unequally cordate, or subcordate toothed with a distinct



tooth at the end of each nerve and nervule, palmately 6-7 nerved dark green above pale beneath membranaceous 9 inches long 6 inches wide, petiole  $2\frac{1}{2}$ -3 inches. Stipules oblong setaceo-acuminate caducous. Male flowers in a large panicle for the section 5 inches long branches slender with long racemes. Bracts oblong  $\frac{1}{8}$  inch long pink caducous. Sepals white ovate or oblong. Petals 0. Anthers subsessile on an elongate torus oblong. Female flowers few. Capsule obovate three winged on a  $\frac{1}{2}$ -1 inch pedicel narrowed at the base truncate at the top 1 inch across at the top and as long wings sub-equal rounded  $\frac{1}{4}$  inch wide angled at the top edge narrowing to the base.

Borneo (sine loc) Barber. Kinabalu (Haviland 1707). Labuan (Motley).

This the first Bornean species described does not seem to be at all common. I have only seen Haviland's specimen. It differs from the common *B. oblongifolia* in its large ovate strongly toothed leaves and much bigger panicle.

*B. oblongifolia*, Stapf. Trans. Linn. Soc. IV. p. 165.

A succulent herb about 2 feet tall, stem covered when young with short hairs. Leaf oblong or oblanceolate acute or acuminate, base inequilateral slightly subcuneate or obtuse, margins faintly undulate with very small teeth at the ends of the nerves, glabrous except the red scurfy nerves beneath, above dark green beneath pale, 5 inches long 2 across, nerves straight about 8, petiole  $\frac{1}{4}$  inch long hairy. Stipules oblong cuspidate green  $\frac{1}{2}$  inch long. Panicle terminal 3-4 inches with few short branches, the longest about  $\frac{1}{2}$  inch. Male flowers crowded on short  $\frac{1}{8}$  inch hairy pedicels. Bracts shorter ovate. Sepals rather firm textured oblong green  $\frac{1}{8}$  inch long blunt. Petals 0. Anthers oblong nearly sessile at the base of the torus, upper ones elliptic with a longer filament, opening by



a slit in the upper part, not splitting all the way down. Female flowers not seen.

Fruit an inch long oblong narrowed at the base,  $\frac{3}{4}$  inch across the two wings. Wings equal truncate at the top, broad and straight ( $\frac{1}{4}$  inch wide) to near the base.

Sarawak, Matang (Hullett, Ridley). Bau (Ridley 11774) Puak, Jambusan Lundu (R) Sepudang 1c.k.m.t. Haviland.

This is the commonest species in Sarawak, and is abundant in the woods. It is somewhat variable in the form of the foliage which in the Kinabalu plant is quite oblong. Another form has leaves similar to those of the Kinabalu form but in some specimens the young parts are covered with stiff yellowish hairs. The flowers have occasionally one petal. This plant was collected by Dr. Haviland at Tabea at 1000 feet on conglomerate. It is probably a mere form of this species.

Another form collected at Niah by Haviland and Hose no 3225, is a slender plant with oblong acuminate leaves more of the shape of those of the Kinabalu plant but altogether smaller.

*B. Pryeriana*, n. sp.

Stem slender glabrous. Leaves distant, lanceolate acuminate cordate very inaequilateral basal lobe broad round, margin sinuate quite glabrous, nerves slender about 6, 5 inches long 2 inches wide, petiole 1 inch slender stipules oblong  $\frac{1}{4}$  inch long subacute. Cymes small slender about 2 inches long. Female flowers solitary 2 on long pedicels in front at the base. Bracts (of male flowers) obovate convolute glandular denticulate. Male flowers  $\frac{1}{8}$  inch long sepals 2 orbicular. Petals 2 narrow linear obtuse. Anthers very numerous obovate cordate, filaments nearly as long. Female flowers not seen.



Capsule  $\frac{3}{4}$  inch long wings broad  $\frac{1}{4}$  inch broad at the top and narrowed and rounded at the base nearly equal, dehiscence on two lines on each face.

Sandakan Byte Estate (Ridley).

The foliage is narrower than that of *B. Borneensis*, the bracts are very different, and the fruit differs in its broad upper edge of the wings form any an angle with the vertical edge which narrows to a rounded base. Named after Mr. Pryer of Byte Estate, with whom I found it.

*B. inostegia*, Stapf. Ic. Pl. 2309. Trans. Linn. Soc. IV p. 166.

This plant only known from Kinabalu resembles *B. congesta*, Ridl. but has more ovate leaves, and a some what longer panicle. It is peculiar in the way its stipules are broken up into long fibres at the tip.

It was collected in Kinabalu at 6000 feet elevation by Haviland (1708).

*B. congesta*, n. sp.

Stems tall hairy. Leaves distant oblong ovate inaequilateral acute edge undulate with a few minute distant teeth, nerves prominent much forked about 6-9 inches long 4 inches wide, petiole 3 inches long, glabrous except the petiole and nerves scabrid hairy. Stipules  $\frac{1}{2}$  inch long oblong. Flowers crowded into a head, 2 females and many males. Capitulum very shortly pedicelled, pedicel stout about  $\frac{1}{4}$  inch long. Bracts broad thick outer ones suborbicular, inner ones narrower rough. Male flowers pedicelled, pedicel  $\frac{1}{4}$  inch long. Sepals 2 thick oblong shorter than the stamens. Petals 0. Stamens 12, filament short thick anther oblong blunt slightly narrowed to the base, dehiscing by two linear short pores: Female flower not seen. Capsule oblong quadrate almost sessile, wings narrow linear, one smaller than the others. One inch long  $\frac{1}{2}$  inch across the two wings.



Sarawak Bau (Ridley). Flowers white; Niah Limestone (Haviland and Hose 3224).

*B. polygonoides*, n. sp.

Stem erect branched rather slender 2 feet tall, glabrous. Leaves narrowly lanceolate acuminate 4-5 inches long  $\frac{1}{2}$  inch wide slightly scaly on the midrib otherwise glabrous, base narrowed slightly almost equilateral nerves 5 prominent beneath, petiole  $\frac{1}{8}$ - $\frac{1}{4}$  inch long. Stipules ovate amplexicaul  $\frac{1}{4}$  inch long. Cyme terminal spreading with divaricate slender branches lower two or three bearing single female flowers, upper ones males. Bracts minute ovate, male flowers very small  $\frac{1}{8}$  inch rose pink sepals 2 orbicular oblong. Petals lanceolate acute smaller. Stamens 10 anthers club-shaped narrowed at the base.

Fruit with the wings almost orbicular  $\frac{1}{4}$  inch long, dehiscing by oblong valves on the face, wings rounded equal.

Sarawak, Matang (Ridley 11770, Haviland 1906.)

*B. pubescens*, n. sp. *B. hirsuta*, (Bracemss).

Stem 2 to 4 inches long erect or decumbent leafy. Leaves close together alternate oblanceolate oblong base cuneate or rounded apex subacute margins dentate 5 inches long  $1\frac{1}{2}$  inch wide margins, nerves on the back hairy with stiff slender pale hairs. Upper surface sprinkled with hairs, petiole  $\frac{1}{8}$  inch long hairy. Stem also red hairy. Inflorescence axillary short with 2 bracts lanceolate acute or acuminate keeled hairy  $\frac{1}{4}$  inch long. Male flowers in pairs on slender pedicels several together. Sepals white orbicular  $\frac{1}{8}$  inch long. Petals 0. Stamens 12 filaments free nearly to base longer than the oblong oblanceolate, anthers which possess a ridge over the top. Female flowers not seen.

Capsule ovate long beaked  $\frac{1}{2}$  inch long and wider across the broad veined wings. Capsule punctate and



hairy dehiscing along the wing edge. Wings hairy on the edge.

Sarawak, Matang abundant (Hullett 346) Haviland 76 Ridley, on banks at 1800 feet alt.

Closely allied to *B. Hulletti* but differs in its hairiness, shorter broader leaves and beaked hairy capsule.

*B. Hulletti*, n. sp.

Stems erect or decumbent 3 to 6 inches tall glabrous, leafy. Leaves alternate sessile lanceolate falcate or oblique base cuneate, apex long acuminate, margin toothed at the apex, nerves alternate 3 pairs nervules reticulated, margins and nerves armed with bristles. Flowers axillary in strongly nerved lanceolate acuminate bracts, white, upper flowers male lower ones female male flowers  $\frac{1}{2}$  inch across pedicels nearly  $\frac{1}{2}$  inch long. Sepals 2 oblong obtuse. Petals 0. Stamens 13 or 14 filaments slender, free nearly to the base. Anthers elliptic short dehiscing by slits in the side. Female flowers sepals 2 or 3 petals. Styles three free for half their length, stigmas bifid with long arms. Capsule  $\frac{1}{2}$  inch across the wings, wings long oblong rounded.

Sarawak, Matang at 800-1000 feet (Hullett, Ridley 11776).

*B. elatostemma*, n. sp.

Stem slender glabrous. Leaves narrow lanceolate long acuminate base acute, margins with a few distant teeth rather large about 12 on each side 4-5 inches long  $\frac{1}{2}$  to  $\frac{3}{4}$  inch wide glabrous petiole slender  $\frac{1}{2}$  inch long stipules oblong cuspidate  $\frac{1}{4}$  inch long. Panicle small 1-2 $\frac{1}{2}$  inch long. Bracts obovate oblong  $\frac{1}{2}$  inch long male flowers crowded  $\frac{1}{4}$  inch across pedicel as long as the sepals. Sepals oblong 2. Petals 0. Stamens 8-10. Anthers ovoid opening by short slits at the top, filaments as short as anthers. Female flowers in pairs.



Capsule  $\frac{1}{2}$  inch long, cylindric swollen shortly beaked, wings 3 equal narrow  $\frac{1}{8}$  inch across, sides straight narrow to apex and base, slightly;  $\frac{1}{4}$  inch across the two wings.

Sarawak Rejang (Haviland 2946).

*B. Bractei* (*Begoniae*) *Burbridgei*. Stapf. l.c. 165.

A tall branched plant 6 to 8 feet tall with ovate acuminate oblique leaves, glabrous, a short terminal panicle of large white flowers  $1\frac{1}{2}$  inch across, with large persistent greenish white bracts. Capsule semiorbicular an inch across the truncate top, the wings broadest at the upper angles rounded

Kinabalu at 7600 feet (Haviland 1706) and at Kiau (Barbidge).

The biggest flowered Begonia I have seen from Borneo. A plant collected at Tambusan by Haviland at 5000 feet on Kinabalu is rather more slender with smaller bracts but apparently the same, as Dr. Haviland suggests.

*B. rubida*, n. sp.

Stems tufted succulent about 3 feet tall slender glabrous. Leaves distant ovate inaequilateral acute, base cordate glabrous succulent 8 inches long,  $1\frac{1}{2}$  inch wide, margins almost entire, nerves radiating from the base about 5, petiole 2 inches long. Bracts of long obtuse  $\frac{1}{2}$  inch long caducous. Inflorescence paniced loose terminal radiis flexuous branches slender. Bracteoles obovate convolute  $\frac{1}{8}$  inch long rounded truncate edges glandular dentate crowded. Male flowers  $\frac{1}{8}$  inch across. Sepals semiovate dark red, petals 2 narrower and shorter linear oblong. Stamens crowded yellow aciniform. Female flowers solitary on the lower branches ovary semiovate with 3 equal rounded wings  $\frac{1}{2}$  inch long red sepals 2 ovate blunt rounded. Petals 3, 2 nearly as large as the sepals oblong, one linear sub-acute. Styles connate for more than half their length



arms 3, stigmas reniform with rather strong processes. Fruit  $\frac{1}{2}$  inch long, 1 inch wide across the broad triangular rounded wings.

Sarawak on the Limestone rocks at Jambusan caves, (Ridley 12393) Braang (Haviland 94).

The flowers and fruit are considerably larger in Haviland's specimens than in mine, but I think they are the same species.

*B. pendula*, n. sp.

Stems slender a foot or more long creeping and rooting at the nodes. At each node a pair of oblong lanceolate cuspidate, scale leaves  $\frac{1}{8}$  inch long. Leaves fleshy lanceolate, base rounded apex acute 2-2 $\frac{1}{2}$  inch long 1-1 $\frac{1}{2}$  inch across, glabrous, margins irregularly toothed or nearly entire, petiole slender 1 $\frac{1}{4}$  inch long. Panicles slender lax. Flowers few very small pink males terminal in cymes, female solitary at the base. Bracts minute lanceolate pedicels slender  $\frac{1}{8}$  inch long, male flowers  $\frac{1}{8}$  inch long. Sepals 2 obovate obtuse. Petals 0. Stamens numerous filaments free longer than the elliptic anthers. Female sepals 3 red oblong. Petals 2 smaller. Styles 3 connate at base, stigmas reniform hairy. Capsule elliptic with the broad rounded wings transversely elliptic  $\frac{1}{2}$  inch wide  $\frac{3}{8}$  inch long one wing smaller than the others.

Sarawak on Limestone rocks at Jambusan, Bau (Ridley 11772).

A slender creeping plant hanging down over the rock faces, with fleshy leaves the nerves of which are invisible and red stems, at least in the long trailing stems of the Jambusan plant. In the stouter Bau plant the nerves are more conspicuous the leaves inaequilateral and ovate acuminate. This appears to be the lowest part of the plant, the Jambusan one being creeping sprays.



*B. spelunca*, n. sp.

Stems very short. Leaves tufted orbicular cordate,  $1\frac{1}{2}$  inches across glabrous strongly reticulate petioles slender 2-3 inches long. Cymes on slender peduncles 2 inches long flowers small white those on terminal branches male the lower are female. Bracts very small lanceolate acuminate. Male flower  $\frac{1}{2}$  inch across sepals 2 obovate petals 2 linear narrow. Stamens free near by to the base about 20, anthers oblong, pale dehiscing the whole length, filaments as long. Female flower sepals and petals as in male, stigmas 3, styles separate for part of their length. Capsule fusiform with 3 large broad rounded wings  $\frac{1}{2}$  inch across the wings and  $\frac{1}{4}$  inch long dehiscing by two slits on each face.

Sarawak, Limestone caves, Bidi; Jambusan (Ridley 11773). Mt. Braang (Haviland 873). Tabea on conglomerate at 1000 feet (Haviland.)

This pretty little white flowered begonia reminding one of a violet grows abundantly in the mouths of the caves in the limestone districts.

*B. Havilandii*, n. sp.

A small herb with a short creeping rhizome and erect branches 2 inches tall leaves ovate broad acute, base very unequal, broad lobe rounded 4 inches long  $2\frac{1}{2}$  inch wide, margins toothed each tooth bearing a hair, nerves reticulate, bearing on nerves and nervules rather stiff pale hairs, petiole  $\frac{1}{4}$  to  $1\frac{1}{2}$  inch long hairy when young. The leaves apparently purple marbled when young. Stipules persistent ovate cuspidate keeled  $\frac{1}{4}$  inch long. Panicle terminal 3 inches little branched. Bracts persistent ovate white, toothed, each tooth bearing a glandular hair. Male flowers  $\frac{1}{4}$  inch across pedicel about as long. Sepals oblong 2 petals smaller 2. Stamens about 12 oblong nearly sessile.

Female flowers not seen "segments 6." Capsule orbicular with broad rounded wings,  $\frac{1}{2}$  inch across the



two wings. Wings semilunar narrowed to the tip broader at base. Ovary 3 celled placentas bifid.

Sarawak, Pengkulu Ampat (Haviland 279).

*Begonia promethea*, n. sp.

Stem very short prostrate one inch long. Leaves 2, rarely 3 ovate rounded at the tip unequal at the base petiole an inch long thick hairy red, lamina glabrous except a few hairs on the edge and veins on the back, shining light or emerald green with broad brown bars, finally entirely olive green, nerves depressed on the upper surface, lower surface red with elevated nerves, 6 inches long 4 inches wide. Scape rather slender 9 inches long peduncle glabrous red. Bracts oblong  $\frac{1}{8}$  inch long or more in pairs light green. Panicle of few usually two branches, terminal branch bearing one or two female flowers opens first the lower branch bears male flowers and after the female flowers are almost over grows till it is much longer than the female branch, and the male flowers then open.

The male flowers in three or more terminal sepals 2 semiorbicular  $\frac{1}{4}$  inch long, red shining outside, pale pinkish white within. Stamens connate, torus cylindric rather thick, anthers very numerous in a round head, yellow oblanceolate 2 celled with a short stalk.

Female flowers one or two only, ovary equally 3 winged with rounded wings,  $\frac{3}{8}$  inch long, as broad as long. Sepals 4, 2 ovate obtuse white with red backs 2 narrower all white. Petals linear white narrow (not always present) styles 3 short thick stigmas four lobed unequally all yellow, 2 curved hornshaped, 2 reniform.

Borneo, Sarawak on sandstone rocks at Bukit Tondong near Busau, also Haviland 485,188. This very pretty begonia grows quite flat on the vertical surfaces of the high rocks. I could reach but few plants of it, but two I brought to Singapore grew very readily and flowered in December and January.



*B. Pyrrha*, n. sp.

Stem creeping slender woolly. Leaves distant orbicular, base cordate 2 inches across, margins hairy with rather pale long hairs upper surface sprinkled with hairs under surface glabrous except the veins covered with woolly appressed hairs, petiole  $\frac{1}{2}$  inch long woolly. Panicle lax few branched and few flowered 3 inches long hairy. Bracts in pairs convolute oblong denticulate  $\frac{1}{8}$  inch long, green. Male flowers nearly sessile,  $\frac{1}{4}$  inch across. Sepals 2 oblong obtuse pink. Petals 2 obovate oblong shorter white. Stamens 13-14 filaments free to the base as long as the linear oblong anthers. Female flower pink, sepals and petals oblong obtuse subequal. Styles separate about halfway, stigmas 3 capsule oblong elliptic with three broad subtriangular obtuse wings  $\frac{1}{2}$  inch across the wings,  $\frac{1}{3}$  inch long.

Sarawak, Saribas, Haviland 2034, 1848.

The flowers both male and female are very shortly pedicelled, the toothed bracts being longer than the pedicel. *B. repens*, Miq., from Java and Borneo might possibly be intended for this but the flowers are not described and it is impossible to be certain what was intended.

*B. calcarea*, n. sp.

Rhizome long creeping, over 4 inches covered with appressed hairs roots long and wiry. Leaves erect from the rhizome with stout hairy petioles 6 inches long densely brown hairy, blade peltate almost reniform rounded 6 inches wide, 4 long base rounded margins sinuate with distant teeth, nerves palmate spreading about 8; blade pale green (when dry) above glaucous beneath, fleshy, sprinkled with short stiff hairs above, backs glabrous except the main nerves dark brown hairy. Inflorescence on a very short peduncle rising directly from the rhizome covered with scale like leaves. Male flowers not seen. Capsule obovoid in outline with 3



equal wings,  $\frac{1}{2}$  inch long narrow at the base widened towards the apex, perianth apparently 6 lobed.

Sarawak, top of Mount Braang old jungle limestone (Haviland).

I have only seen one specimen of this curious begonia with a single capsule and no flowers. It is hardly sufficient to describe.

*B. (Platycentrum), adenostegia*, Stapf., Trans. Linn Soc. IV. 164. An erect epiphytic plant under a foot tall glabrous with leaves entire acute shortly petioled a short little branched panicle with small persistent oblong bracts male flowers  $\frac{1}{2}$  inch across, sepals 2 petals 2 white. Female flowers 5 lobed capsule with one large oblong wing and two smaller ones.

Kinabalu, at Kinitaki 4500 feet, (Haviland 1270).





Ridley, H. N. 1906. "Begonias of Borneo." *Journal of the Straits Branch of the Royal Asiatic Society* 46, 247–261.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/130376>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/171620>

**Holding Institution**

Smithsonian Libraries and Archives

**Sponsored by**

Biodiversity Heritage Library

**Copyright & Reuse**

Copyright Status: Not in copyright. The BHL knows of no copyright restrictions on this item.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.