

Sepals 5, spreading, sometimes shortly united at the base. Petals 5. Stamens indefinite, rarely fewer than 12, and then usually all on one side of the carpels, either all perfect or some of them reduced to staminodia, all free or the filaments shortly and irregularly united at the base; anthers erect, oblong, or rarely ovate or orbicular, opening in longitudinal slits. Carpels usually 2 to 5, rarely solitary or more than 5, free or shortly cohering on their inner edge, with 2 to 6 or rarely only 1 or more than 6 ovules in each. Styles filiform, diverging, terminal or almost dorsal. Fruit-carpels usually dehiscent at the top. Seeds reniform or nearly globular, with an entire or divided arillus.—Shrubs or undershrubs, usually much branched and low, erect or procumbent, sometimes almost herbaceous or climbing, rarely 5 or 6 feet high. Leaves usually small, alternate in all the Australian species, with a midrib prominent underneath, the lateral veins reticulate and rarely prominent. Flowers yellow or white, solitary and terminal, or (owing to the shortness or abortion of the flowering shoot) apparently axillary sessile in a tuft of floral leaves or pedunculate.

Besides the Australian species, there are only two known, both from Madagascar, belonging to the section *Hemistemma*, but with opposite leaves. The species of the first three of the following sections are usually distributed into two separate genera, *Hemistemma* and *Pleurandra*, the *Hemipleurandras* being referred sometimes to the one, sometimes to the other; but their characters appear to be much less important and less conformable to habit than was originally supposed, and I have followed Mueller in uniting them with *Hibbertia* as sections only.

SECT. I. **Hemistemma**.—Perfect stamens and staminodia all on one side of the carpels, the staminodia outside. Peduncles mostly 2- or more-flowered, except in *H. verrucosa*.—All tropical species except *H. verrucosa*.

Leaves oblong or lanceolate, flat or the margins slightly recurved.

Leaves obtuse.

Leaves with recurved margins, narrowed into a petiole, rusty-brown underneath. Sepals obtuse . . . . . 1. *H. Banksii*.

Leaves flat, closely sessile with a rounded base, white underneath. Sepals acute . . . . . 2. *H. Brownei*.

Leaves acute or mucronate, white underneath.

Spikes terminal, several-flowered . . . . . 3. *H. dealbata*.

Peduncles lateral, 2- or 3-, rarely 1-flowered . . . . . 4. *H. candicans*.

Leaves narrow-oblong or linear, the margins revolute.

Leaves oblong-linear, thick, about  $\frac{1}{2}$  in. long.

Leaves and calyx glabrous or scabrous with stiff stellate hairs. Peduncles 1-flowered . . . . . 8. *H. verrucosa*.

Leaves tomentose underneath. Sepals densely and softly villous. Peduncles mostly 2- or 3-flowered . . . . . 7. *H. ledifolia*.

Leaves narrow linear, about 1 in. long.

Softly hairy . . . . . 6. *H. Muellieri*.

Glabrous. Leaves white underneath . . . . . 5. *H. angustifolia*.

(*Hemistemma*? *Leschenaultii*, DC. Syst. Veg. i. 414, is a species of *Beyeria*.)

SECT. II. **Hemipleurandra**.—Perfect stamens all on one side of the carpels; staminodia 2 or 3 on each side of them, or more numerous and continued round the carpels, very rarely any outside the perfect stamens.—All western species.

Peduncles bearing 2 or more sessile flowers in a one-sided spike.

Leaves glabrous. Staminodia completing the ring of stamens . . . . . 9. *H. spicata*.

Leaves or sepals hirsute. Staminodia few . . . . . 10. *H. polystachya*.

Peduncles 1-flowered.

Leaves oblong or linear, very obtuse, stellate-tomentose or hoary underneath.

Leaves mostly above 1 in., the margins scarcely recurved.

Ovules 4 . . . . . 11. *H. furfuracea*.

Leaves mostly  $\frac{1}{2}$  in., the margins much revolute. Ovules 2 . . . . . 12. *H. hypericoides*.

Leaves rigid, glabrous.

Leaves short, convex, reflexed . . . . . 13. *H. microphylla*.

Leaves narrow-linear, the margins very closely revolute.

Leaves 2 to 4 lines, whitish, obtuse or recurved at the end . . . . . 14. *H. recurvifolia*.

Leaves mostly  $\frac{1}{2}$  in., straight, obtuse . . . . . 15. *H. lineata*.

Leaves very pointed . . . . . 16. *H. acerosa*.

Flowers sessile.

Plant glabrous or nearly so. Leaves mostly  $\frac{1}{2}$  in. Sepals shining . . . . . 17. *H. aurea*.

Leaves very obtuse, 2 to 3 lines long, hoary. Sepals pubescent . . . . . 18. *H. crassifolia*.

SECT. III. **Pleurandra**.—Stamens all on one side of the carpels without any staminodia. Peduncle 1-flowered or none.—Species all southern and eastern except *H. pedunculata* and *H. mucronata*, which are western.

Leaves obtuse or with a callous point, oblong or linear.

Flowers sessile.

Leaves with flat or slightly recurved margins, glabrous or slightly hairy.

Calyx glabrous . . . . . 19. *H. nitida*.

Calyx very villous . . . . . 20. *H. bracteata*.

Leaves with their margins much revolute.

Leaves softly pubescent or villous, oblong or linear.

Sepals 3 to 5 lines. Floral leaves usually as long or longer. Petals broadly obcordate . . . . . 21. *H. sericea*.

Sepals 2 lines. Floral leaves small. Petals narrow . . . . . 22. *H. hirsuta*.

Leaves narrow-linear, rigid, glabrous or scabrous . . . . . 23. *H. stricta*.

Flowers pedunculate.

Ovules 4 or more in each carpel.

Leaves obovate, oblong, or shortly linear . . . . . 25. *H. Billardieri*.

Leaves narrow-linear.

Stems virgate, or with numerous ascending branches, or divaricately branched. Calyx glabrous, stellate-tomen-

- Leaves hoary mat, rigidity pungent . . . . . 21. *H. acicularis*.  
 Flowers sessile or shortly peduncled. Leaves loose, channelled underneath. Sepals rather obtuse . . . . . 23. *H. stricta*.  
 Flowers sessile. Leaves crowded, convex underneath. Outer sepals mucronate or aristate . . . . . 28. *H. mucronata*.  
 (*Plourandra reticulata*, Hook. Journ. Bot. i. 245, described from a single specimen in leaf only, is probably some *Pultenaea*.)

SECT. IV. **Euhibbertia**.—Stamens placed all round the carpels, with occasionally small staminodia outside.

§ 1. *Tomentosa*.—Carpels usually tomentose or scaly and 2-ovulate. Stamens numerous, without any or rarely with small staminodia outside. Leaves flat or the margins slightly revolute, usually stellately tomentose or scaly. Flowers pedunculate, axillary.

- Leaves oval, oblong, or cuneate.  
 Tomentum rigid, stellate, mixed with simple hairs. Leaves cuneate,  $\frac{1}{2}$  to  $\frac{3}{4}$  in. . . . . 29. *H. hermanniifolia*.  
 Tomentum soft and velvety. Leaves oblong, 1 to 2 in. . . . . 30. *H. velutina*.  
 Tomentum close and whitish, stellate with a scale-like base.  
 Leaves  $\frac{3}{4}$  to 1 in. long, with an intramarginal vein underneath.  
 Peduncles 1 to 2 lines long . . . . . 31. *H. oblongata*.  
 Leaves  $\frac{1}{2}$  to  $\frac{3}{4}$  in., without intramarginal veins. Peduncles 1 to 2 lines long . . . . . 32. *H. tomentosa*.  
 Leaves  $\frac{1}{2}$  to  $1\frac{1}{2}$  in., without intramarginal veins. Peduncles 1 to  $1\frac{1}{2}$  in. long . . . . . 33. *H. cistifolia*.  
 Leaves scabrous with scattered stellate hairs. Sepals very scaly. Peduncles 1 to 2 lines . . . . . 34. *H. echinifolia*.  
 Leaves narrow-linear.  
 Tomentum stellate. Peduncles  $\frac{3}{4}$  to  $1\frac{1}{4}$  in. . . . . 35. *H. scabra*.  
 Tomentum of peltate scales. Peduncles 1 to 3 lines . . . . . 36. *H. lepidota*.

§ 2. *Vestita*.—Carpels (usually 3) villous, 4-6-ovulate. Stamens with or without staminodia outside. Leaves small, narrow, with revolute margins.

- Flowers sessile, or peduncles not exceeding the leaves.  
 Stamens above 30, with several staminodia . . . . . 37. *H. vestita*.  
 Stamens under 15, without staminodia . . . . . 38. *H. serpyllifolia*.  
 Peduncles longer than the leaves. Stamens 15 to 25 . . . . . 39. *H. pedunculata*.

§ 3. *Ochrolasia*.—Carpels glabrous, 6-8-ovulate. No staminodia.

- Leaves with revolute margins. Bracts small . . . . . 40. *H. ochrolasia*.

§ 4. *Fasciculata*.—Carpels glabrous, 2-6-ovulate. No staminodia. Leaves very narrow, convex underneath, the margins not revolute. Bracts small. Flowers sessile.

- Ovules 6 in each carpel. Plant glabrous, procumbent . . . . . 41. *H. procumbens*.  
 Ovules 2, or rarely 3 or 4 in each carpel. Leaves usually fine, much clustered, often hirsute or pubescent . . . . . 42. *H. fasciculata*.

§ 5. *Bracteata*.—Carpels glabrous, 1-2-ovulate. No staminodia. Leaves flat or convex underneath. Flowers (except in *H. rostellata*) closely sessile within broad brown shining bracts, like those of some of the *Hemihibbertia*.

Leaves very narrow, convex underneath.

- Leaves obtuse.  
 Glabrous and green. Leaves not dilated at the top . . . . . 43. *H. virgata*.  
 More or less hoary. Leaves mostly slightly cuneate . . . . . 44. *H. inclusa*.  
 Leaves recurved and mucronate at the top . . . . . 45. *H. rostellata*.  
 Leaves flat, mostly oblong.  
 Glabrous. Leaves seldom above  $\frac{1}{2}$  in. . . . . 46. *H. glomerata*.  
 Densely silvery-tomentose. Leaves  $\frac{1}{2}$  in. or more . . . . . 47. *H. argentea*.

Loosely pilose or pubescent. Leaves mostly above  $\frac{1}{2}$  in.

- Sepals very densely silky-hairy. Brown bracts very conspicuous . . . . . 49. *H. montana*.  
 Sepals loosely hairy. Brown bracts short and thin . . . . . 48. *H. pilosa*.  
 Sepals glabrous. Staminodia several . . . . . 61. *H. Mylnei*.

§ 6. *Subsessiles*.—Carpels glabrous. Stamens usually numerous, without staminodia. Leaves flat or the margins slightly recurved. Bracts small or passing into the sepals. Flowers sessile or nearly so.

Carpels 1-2-ovulate. Stems erect or diffuse.

- Leaves mostly under 1 in. long.  
 Leaves linear-oblong or scarcely enlarged above the middle.  
 Stems usually erect or ascending . . . . . 50. *H. linearis*.  
 Leaves obovate or cuneate. Stems usually diffuse or prostrate . . . . . 51. *H. diffusa*.  
 Leaves 1 to 3 in. long. Plant softly hairy.  
 Leaves obovate-oblong, obtuse . . . . . 50. *H. linearis*, var.  
 Leaves lanceolate . . . . . 52. *H. saligna*.  
 Carpels 6-8-ovulate. Stems twining or trailing. Leaves large . . . . . 53. *H. volubilis*.

§ 7. *Hemihibbertia*.—Carpels glabrous or rarely villous. Stamens very numerous, with several small, subulate or clavate staminodia outside. Leaves flat. Flowers pedunculate, except in *H. Mylnei*.

Leaves distinctly petiolate, ovate, or oblong, mostly toothed.

- Carpels 10 or more, villous, 2-ovulate . . . . . 54. *H. grossulariaefolia*.  
 Carpels 3, glabrous, 6- to 8-ovulate . . . . . 55. *H. dentata*.

Leaves stem-clasping or tapering near the base and again dilated, glabrous.

- Leaves ovate or oblong.  
 Leaves all perfoliate, the auricles combined. Sepals lanceolate . . . . . 56. *H. perfoliata*.  
 Auricles rounded, shortly decurrent . . . . . 57. *H. bracteosa*.  
 Auricles of most of the leaves distinct, angular, projecting beyond the stem. Sepals ovate-lanceolate . . . . . 58. *H. amplexicaulis*.  
 Leaves linear, mostly auricled . . . . . 59. *H. Cunninghamii*.  
 Leaves oblong-lanceolate, tapering at the base, and half stem-clasping . . . . . 60. *H. glaberrima*.

Leaves sessile, oblong, very hairy. Bracts at the base of the peduncle broad and brown, as in the *Bracteata*.

- Sepals glabrous. Carpels 3. Flowers sessile . . . . . 61. *H. Mylnei*.  
 Sepals very silky-hairy. Carpels 5.  
 Larger leaves obovate-oblong, toothed. Carpels villous . . . . . 62. *H. lasiopous*.  
 Larger leaves narrow-oblong, entire. Carpels glabrous . . . . . 63. *H. notentilliflora*.

*Hibbertia kimberleyensis*

1. **H. ledifolia**, Benth. Branches rigid, the young ones as well as the under side of the leaves densely covered with a rusty or whitish down. Leaves oblong-linear, about  $\frac{1}{2}$  in. long, obtuse, rather thick, with the margins revolute, hoary above when young, but soon glabrous. Peduncles short, terminal, 1- to 3-flowered. Sepals ovate, about 5 lines long, thick and densely villous as well as the bracts. Petals scarcely longer. Stamens about 20, with about 15 shorter staminodia outside. Carpels very villous, with usually 3 ovules in each.—*Hemistemma ledifolium*, A. Cunn. Herb.

**N. Australia.** York Sound, A. Cunningham.



30. **II. repanda**, R. Br. in DC. Syst. Veg. 1. 432. Branches stem but slender, covered as well as the leaves and sepals with a close silvery or slightly rusty tomentum, consisting of minute peltate scales with scarious edges. Leaves linear, rather acute, mostly  $\frac{1}{2}$  to  $\frac{3}{4}$  in. long, concave, the margins not revolute. Flowers rather small, on pedicels of 1 to 3 lines, solitary or 2 or 3 together in the axils. Sepals broad, very obtuse, about 2 lines long, or 3 when in fruit, the 2 outer rather shorter. Stamens about 12, mostly, but not all, on one side of the carpels, with several small staminodia outside. Carpels 2, scaly-tomentose, 2-ovulate.

**N. Australia.** Gulf of Carpentaria, R. Brown, A. Cunningham; rocky barren sandstone table-land at the sources of Roper river, at the head of Macarthur river, Upper Victoria river, and near M'Adam range, F. Mueller.

§ 2. *Vestita*.—Carpels usually 3, villous, with 4 to 6 ovules in each. Stamens rather numerous, with small staminodia outside, or fewer without staminodia. Leaves small, narrow, with revolute margins. Bracts small. Flowers sessile or pedunculate.

SECTION IV. ECHIBERTIA.—STAMENS usually numerous, and rarely fewer than 12, arranged all around the pistil, although sometimes more numerous on one side than on the other, either without any staminodia, or with few or many small subulate or clavate staminodia outside the perfect stamens.—*Hibbertia proper*, as limited by De Candolle, and most authors.

§ 1. *Tomentosæ*.—Carpels 2 (or very rarely and exceptionally 3), tomentose, or covered with peltate scales, with 2, or very rarely 1 or 3 ovules in each. Stamens numerous, without any, or rarely with small staminodia outside. Leaves ovate, obovate, cuneate, oblong, or linear, flat, or with the margins slightly revolute, usually covered with stellate hairs or peltate scales. Flowers axillary, pedunculate, with a small bract under the sepals, those at the base of the peduncle minute or wanting. The species are all tropical or subtropical.

(*Huttia*, *Drum.* and *Harv.*)

Sepals 5. Petals 5, rarely reduced to 4 or 3. Stamens usually 10, outer ones in a single series all round the carpels, either all perfect, or 2 or 3 of them reduced to small staminodia; filaments either thickened and ovoid, or flat, short, and broad; anthers erect; two inner staminodia alternating with the carpels, and similar to the perfect stamens, except that the anthers are small and empty or wanting. Carpels 2, 2-ovulate. Styles and fruit of *Hibbertia*.—Perennial herbs or undershrubs, with erect, branching, rush-like or flattened stems, apparently leafless, the leaves being all reduced to minute scales, except sometimes a few at the base of the stem. Flowers small, on very short recurved lateral peduncles. Bracts minute.

A small genus, entirely Australian. The three species of one section all tropical, the fourth western.

SECT. 1. **Huttia**.—*Filaments flat, very short. Anthers long.* 1. *P. conspicuum*.

SECT. 2. **Pachynema**.—*Filaments thick, ovoid. Anthers small, the cells somewhat diverging.*

Stem and branches terete and rush-like . . . . . 2. *P. junceum*.

Stem and branches flat.

Branches 1 to 2 lines broad, not glaucous . . . . . 3. *P. complanatum*.

Branches  $\frac{1}{4}$  to  $\frac{1}{2}$  in. broad or more, very glaucous . . . . . 4. *P. dilatatum*.

*Z. P. junceum*, *Perp.*. Stems erect, branching, 1 to 2 ft. high,

terete and rush-like, or very slightly compressed, but scarcely angular, finely striate. Leaves all reduced to minute distant scales. Peduncles usually solitary, slender, recurved, 1 to 3 lines long, or terminating the branches. Sepals orbicular, about 2 lines long, the outer ones rather smaller. Petals obovate-orbicular, entire, about the same size as the sepals. Stamens of the outer row usually 7 or 8, perfect, the filaments thick, fleshy and ovoid at the base, tapering at the top, where they bear 2 small innate diverging cells, the 3 or 2 other outer stamens reduced to minute staminodia, the 2 inner staminodia like the perfect stamens, but without anthers. Carpels 2, glabrous, tapering into pointed styles so as very much to resemble the stamens in shape. Ovules 2 in each ovary.

**N. Australia.** N. coast, *R. Brown*; Victoria river, *Bynoe*.