Australian Plants Society NORTH SHORE GROUP Ku-ring-gai Wildflower Garden



HIBBERTIA, GUINEA FLOWER



(Family: Dilleniaceae)

The *Dilleniaceae* family includes trees, shrubs and climbers of tropical to subtropical regions of South-East Asia (incl. New Guinea, Madagascar, New Caledonia) to temperate Australia. Worldwide there are about 400 species in 10 - 12 genera. The majority of *Hibbertia* species (110) are native to Australia and occur in all states, with two-thirds from Western Australia. Genus *Hibbertia* is under revision.

HIBBERTIA

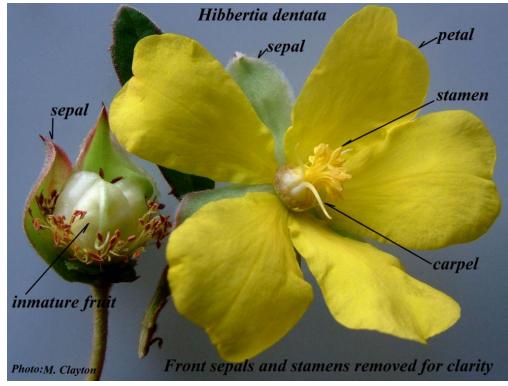
Guinea flower, so called because of their likeness to the golden Guinea coins. *Hibbertia*=after George Hibbert a London merchant, owner of a botanic garden, interested in propagating exotics, introducing many native plants from NSW.

They are small to medium shrubs, prostrate ground covers or twining climbers

Leaves are undivided, alternate, spirally arranged, vary in shape and size, margins entire or toothed, leaves on short axillary shoots often clustered and smaller than leaves on main stem. The underside of the leave has a prominent midrib.

Flowers of most species are with yellow petals, regular, bisexual, flat or cup shaped, with:

- **sepals 5,** glabrous or hairy, persistent. The 2 outer sepals marginally overlap the 3 inner ones
- petals 5, broad, notched or lobed, delicate, falls after 1-2 days of opening.
- stamens few to numerous, surrounding carpels or all on one side of carpels, persistent. Sometimes staminodes present.
- carpels 2-7, free, hairy or glabrous. Ovary superior, ovules 2-6 in each carpel. Styles filiform.
- **-Fruit** a follicle dehiscent at the top.



Key for identification

Hibbertia is under revision. Intermediates occur between some species. Individual species may vary in habit, leaf shape, flower form, making difficult the identification of certain species. Features helping identification are:

- **Number of stamens** (more or less consistent for each species), see Ref. 7
- Stamens all on one side of carpels or Stamens inserted all around the carpels, (sometimes more on one side), occasionally staminodes present
- Carpels glabrous or hairy
- **Leaf** shape and characteristics.
- **Inflorescence** terminal, axillary, sessile, peduncles, bracts

The Hibbertia growing naturally in the Ku-ring-gai Wildflower Garden according to the 1996 records are: Aspera, bracteata, dentata, empetrifolia, fasciculata, linearis, obtusifolia, Hibbertia sp. Observation of Hibbertia by M. C. in 2007/ 2010 found: aspera, bracteata, cistiflora, dentata, empetrifolia, linearis and scandens. The following description cover the above-mentioned Hibbertia, also H. fasciculata, H. obtusifolia, H. pedunculata and H. riparia which appears not to be present in KWG. In KWG, signs for Hibbertia have '25' on a green disc attached to the botanical sign.

Hibbertia bracteata Blue Mountains Guinea Flower.

bracteata = Lat. With bracts.

Erect diffuse shrub to 100 cm high; branches glabrous except for pubescent young shoots. Grows in heath, moist open forest and sheltered slopes in Sydney district and Blue Mts.

Leaves oblanceolate to oblong, 1–3 cm long, 4–7 mm wide, apex ± mucronate, base tapering, margins entire and flat or slightly recurved, lamina glabrous or minutely silky.

Flowers terminal or axillary, sessile, surrounded by bracts. Sepals 12–15 mm long, densely silky. Petals c. 10 mm long.

long, densely silky. Petals c. 10 mm long. Stamens c. 16, on 1 side of carpels. Carpels 2, silky. **Flowering**: spring to summer



Hibbertia cistiflora



cistiflora=cistus flowered, Mediterranean Rockroses.

Ascending shrub to 100 cm high, stems stout. Grows in heath on sandstone, Sydney, Blue MTS

Leaves linear, 5–10 mm long, c. 1 mm wide, apex mucronate, a tiny yellowish point and without a tuft of hairs, margins revolute, lamina scabrous with small tubercles, otherwise glabrous.

Flowers sessile, terminal. Sepals c. 5 mm long, glabrous. Petals 7–8 mm long. Stamens c. 6, on 1 side of



carpels. Carpels 2, glabrous. Flowering: Spring

Hibbertia dentata Twining Guinea Flower



dentata = Latin toothed

Twiner with wiry stems to c. 2 m long, grows in sheltered gullies on sandstone and clay soils.

Leaves ovate, 40–70 mm long, 15–30 mm wide, apex acute to obtuse, base obtuse, margins toothed, pubescent when young, often glabrescent with age; petiole c. 10 mm long.

Flowers axillary or terminal on short shoots, peduncles 6–15 mm long. Sepals 7–8 mm long, ± glabrous except for ciliate margins. Petals 20–30 mm long. Stamens > 30, surrounding carpels. Carpels 3, glabrous. **Flowering:** Chiefly spring.



Hibbertia empetrifolia Trailing Guinea Flower



empetrifolia = empetrumleaved Decumbent to spreading shrub to 60 cm high; stems wiry to trailing, pubescent with a few simple or stellate hairs, found in open heath, sclerophyll forest, on sandy soils.

Leaves generally oblong to oblanceolate, 5–7

mm long, 1–3 mm wide, apex ± rounded, rarely mucronate, base tapering, margins recurved to revolute; hairs often soon wearing off both surfaces, upper surface with simple and stellate hairs, lower surface with scattered simple often hooked hairs and stellate hairs usually restricted to midribs and near margins.

Flowers terminal, solitary, or rarely 2 flowers terminal; peduncle 2–10 mm long. Sepals 3–5 mm long, outer surface pubescent. Petals 3–6 mm long. Stamens 5–9, on one side of carpels. Carpels 2, stellate-hairy. **Flowering:** Spring to early summer.



Photos of 2 different plants show leaf variation of same species. Both identified as *Hibbertia empetrifolia* by Sydney Botanical Gardens.



Hibbertia fasciculata

fasciculata = Lat. Clustered, ref. to leaves

Small erect or diffuse shrub to 40 cm high; branches glabrous except for pubescent new growth. Found in heath, dry open forest on sandy soils.

Leaves clustered, narrow-linear, 4–6 mm long, to 0.5 mm wide, margins incurved, softly pubescent to glabrous.

Flowers axillary, sessile. Sepals 4–6 mm long, glabrous. Petals 7–9 mm long. Stamens

8–12, usually completely surrounding carpels. Some in Sydney have 6-8 stamens all on one side of carpels. Carpels 3, glabrous. Flowering winter to early summer.



Hibbertia linearis Showy Guinea Flower



linearis=Lat. strait

Erect or diffuse shrub 50–200 cm high; stems glabrous except for young branches. Grows in heath, scrubland on sandy soils.

Leaves varies from linear-oblong to obovate, mostly 8–30 mm long, 1–5 mm wide, apex obtuse, acuminate or with several notches, glabrous or pubescent, with no obvious petiole, flat or with margins curved underneath







Flowers terminal or axillary, sessile or peduncles 2–3 mm long. Sepals 5–6 mm long, typically glabrous, rarely sparsely hairy. Petals 8–10 mm long. Stamens 15–25, surrounding carpels. Carpels usually 3, glabrous. Some plants in KWFG and Ku-rig-gai NP have 2 glabrous carpels. Closely related to *H. obtusifolia* (more than 30 stamens, hairs on stems and leaves, larger flowers). **Above Photo of 2 different plants of** *H. linearis,* identified by Sydney Bot. Gardens. **Flowering**: May to October

Hibbertia obtusifolia Grey Guinea Flower *Obtusifolia*=blunt leaved, rounded apex.

Erect or diffuse shrub to 60 cm high with stems and leaves greyish, shortly tormentose, stems usually glabrescent with age. Found in woodland, heath, on sandy soils.

Leaves mostly oblanceolate to spathulate, occasionally linear or narrow-elliptic, mostly 10–30 mm long, 2–10 mm wide, apex obtuse, often with a mucro or a broad notch, margins usually recurved.

Flowers sessile, terminal on short shoots or ±



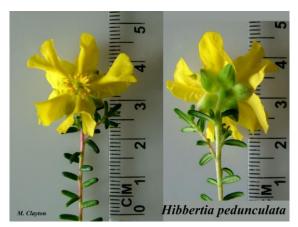
axillary. Sepals 7-9 mm long, glabrous to hairy. Petals 9-15 mm long. Stamens usually 30-40, surrounding carpels. Carpels 3, glabrous.

Flowering: Spring to summer

Hibbertia pedunculata

Pedunculata=Lat. having floral stalks

Diffuse, prostrate or erect shrub, stems alabrous except for pubescent young branches, hairs simple. Grows in open forest, clay soils (Cumberland Plains).

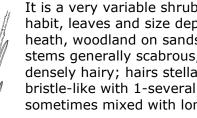


Leaves linear, 3-6 mm long, c. 0.5 mm wide, apex acute, base \pm obtuse, margins recurved, hirsute, sessile, shining.

Flowers terminal, peduncle mostly 5–15 mm long, longer than leaves. Sepals 4–5 mm long, hirsute. Petals 5-6 mm long. Stamens 15-20, surrounding carpels; staminodes present. Carpels 2, hairy (plant in photo had 3 hairy carpels). Flowering: spring to autumn

Hibbertia riparia Erect Guinea Flower

riparia=Lat. Belong to creek banks



It is a very variable shrub usually to 60 cm high. Its habit, leaves and size depend on the site it grows: heath, woodland on sandstone or shale. Leaves and stems generally scabrous, sometimes glabrous or densely hairy; hairs stellate or more often short and bristle-like with 1-several arising from a tubercle, sometimes mixed with longer simple hairs.

Leaves linear, 8–10 mm long, 0.5–2 mm wide, apex obtuse to acute, hairs tubercle-based, scabrous and often glabrescent with age; midrib strongly raised on lower surface and \pm **level** with revolute margins.



Flowers variable, almost sessile, axillary or terminal on short shoots. Sepals 6-12 mm long, silky to minutely hairy. Petals 6-12 mm long. Stamens 6-16, on 1 side of carpels. Carpels 2, silky. A similar sp. H. cistiflora has 2 glabrous carpels and sepals, leaves with a minute yellowish point, mucronate apex.

Flowering: Mostly spring to summer, but also winter.

Hibbertia scandens Climbing Guinea Flower

scandens = Lat. climbing

Climber with stems to 4 m long, scrambling on coastal sand dunes and sunny moist forest.

Leaves obovate, oblanceolate or elliptic, 30–80 mm long, 15-25 mm wide, apex acute to obtuse, base tapering and stem-clasping, margins usually entire,

upper surface usually glossy, lower surface silky; sessile.

Flowers axillary, peduncles 2-4 mm long. Sepals 15-25 mm long, silky to \pm glabrous.



Petals mostly 20–30 mm long. Stamens > 30, surrounding carpels. Carpels 3–7, glabrous. **Flowering:** Usually spring and summer, also other times.

Hibbertia aspera subsp. aspera

Aspera = Lat. Rough

Ascending or erect shrubs to 60 cm. high, in sclerophyll woodland or forests in sandstone and clay soils.

Leaves obovate to oblanceolate 4-20 mm long, 2-7 mm wide, apex obtuse to rounded to truncate or emarginated, base tapering, margins recurved. Upper surface pubescent becoming glabrous, covered with warts with depressed star hairs, with few longer simple hairs. Lower surface velvety.



Flowers terminal small, peduncles 12-15 mm long. Sepals 3-4mm long, outer surface stellate- hairy, sometimes pilose. Petals 3-6 mm. long. Stamens usually 6 on one side of 2 stellate- hairy carpels. **Flowering time**: mid Spring to Summer

REFERENCES

- PlantNET New South Wales Flora Online http://plantnet.rbqsyd.nsw.gov.au/
- 2. Australian National Botanic Gardens Website
- 3. Harden, Gwen J. *Flora of New South Wales* Volume 1. Royal Botanic Gardens Sydney.
- 4. Harden, Gwen J & Murray Louisa J. Supplement to *Flora of New South Wales* Volume 1. Royal Botanic Gardens Sydney.
- 5. Fairley, A. Seldom Seen Rare Plants of Greater Sydney. Reed New Holland. 2004
- 6. Carolin, R C & Tindale, M D. Flora of the Sydney Region. Fourth ED. Reed. 1993.
- 7. Fairley, A & Moore, P. Native Plants of the Sydney District. Kangaroo Press. 2000.
- 8. Robinson, L. Field Guide to the Nat We Plants of Sydney. Kangaroo Press. 2003
- 9. Wrigley, J W & Fagg, M. Australian Native Plants. Reed New Holland.2003
- 10. These notes may contain hyperlinks to materials, including images, illustrations, plant descriptions and a glossary from PlantNET, with the courtesy of The Royal Botanic Gardens & Domain Trust, 2021.

Produced for the *Walks & Talks* Program of the North Shore Group of the Australian Plant Society. Photography, research of species and compilation of text by Margarita Clayton. M C 2010/2020.

ACKNOWLEDGEMENTS

I greatly appreciated the expert advice of Mr. Hellmut Toelken, Senior Botanist, State Herbarium Adelaide, Ms. Barbara Wiecek and Mr. Robert G. Coveny Botanists of the Royal Botanic Garden Sydney who helped me in the identification of some species. M. C.