

**A revision of *Hibbertia depressa* and its allies (Dilleniaceae)  
from Western Australia**

**J. R. Wheeler**

Western Australian Herbarium, Department of Conservation and Land Management,  
120 Albany Highway, Albany, Western Australia 6330

**Abstract**

Wheeler, J.R. A revision of *Hibbertia depressa* and its allies (Dilleniaceae) from Western Australia. *Nuytsia* 15(1): 127–138 (2002). A small group of closely related taxa, which form part of section *Candollea* Gilg. in the genus *Hibbertia* Andr., are revised. Descriptions, illustrations and distribution maps are presented along with a key, including two new taxa, *Hibbertia fitzgeraldensis* J.R. Wheeler and *Hibbertia priceana* J.R. Wheeler. Both new species are restricted in distribution and *Hibbertia priceana* appears to be at risk. The lectotypification of *Hibbertia desmophylla* (Benth.) F. Muell. is also made.

**Introduction**

This is the fifth in a series of papers revising small groups of closely related taxa of the genus *Hibbertia* Andr. (see also Wheeler 2000, 2002a–c). The current paper revises a group of five species, within section *Candollea* Gilg, including two new species. Members in this species group, comprising *Hibbertia depressa* Steud. and its allies, are restricted to the south-west of Western Australia and are characterised by their inconspicuous bracts which remain hidden by the upper leaves. However one of the new species, *H. fitzgeraldensis*, has somewhat more conspicuous bracts than the other species in this group.

Three of the species covered here are currently included on the Department of Conservation and Land Management list of species with conservation priority, including the two new species, both of which are restricted in distribution. The other species are widespread and common and not believed to be under threat, although the response of all five species to attack by *Phytophthora* remains to be documented.

**Taxonomy**

**Key to species in the *Hibbertia depressa* group**

1. Carpels 5. Stamens 15, in 5 fascicles each of 3 stamens.  
(Kent River area to Albany area.) ..... **H. depressa**
1. Carpels 3. Stamens 11–13(18), usually in 3 fascicles, if in 5 fascicles then  
two of the fascicles reduced to only 2 stamens, sometimes also with 1 or 2 single stamens.

2. Leaves obtuse. Bracts broad, obtuse. Outer sepals acute to obtuse; inner sepals obtuse.
3. Leaves clustered on short shoots, linear, with recurved margins.
  4. Anthers narrowly oblong, 1–2 mm long. Sepals all obtuse, the outermost one shorter than the inner ones. (Northern sandplains.) ..... **H. desmophylla**
  4. Anthers narrowly obovate, 0.7–0.8 mm long. Sepals obtuse to subacute, subequal. (Stirling Range.) ..... **H. helianthemoides**
3. Leaves alternate, not clustered, flat, oblong-elliptic. (Ongerup area.) ..... **H. priceana**
2. Leaves with a distinct blunt mucro. Bracts narrow, long-acute, often with a leaf-like tip. Outer sepals long-acute; inner sepals acute or obtusely apiculate. (Fitzgerald River National Park.) ..... **H. fitzgeraldensis**

**Hibbertia depressa** Steud. in Lehm., Pl. Preiss. 1, 268 (1845). *Type citation*: “in clivulo arenoso prope oppidulum Albany, ditiois Plantagenet, 25 Sep. 1840”. *Type*: Albany, Western Australia, 25 September 1840, L. Preiss 2153 (*holo*: LD; *iso*: MEL 666697, MEL 666696).

*Candollea fasciculata* R. Br. ex DC., Syst. 1, 424 (1817) non *H. fasciculata* R. Br. ex DC. *Type citation*: “in Nova-Hollandia loco King’s Georges sound”. *Type*: King George Sound, Western Australia, 1810, R. Brown (*holo*: G-DC n.v., microfiche seen; *iso*: MEL 666918).

*Candollea kochioides* Turcz., Bull. Nat. Imp. Nat. Moscou 22(2): 7 (1849). *Type*: Nova Hollandia occidentalis, [Western Australia], 1842, Gilbert 73 (*holo*: KW).

*Shrub* prostrate or sprawling, to 0.3 m high; branchlets with sparse to dense (in young shoots) long, fine, tangled or somewhat curled hairs, at length somewhat glabrescent, with distant leaf clusters. *Leaves* sessile, spreading, usually densely clustered on very short shoots, occasionally single and alternate on young growth, linear, 5–25(35) mm long, 1–3(4) mm wide, the margin distinctly recurved, upper surface with long fine hairs dense towards the leaf base giving a shaggy appearance but sparse or glabrescent in the upper half, lower surface with long fine hairs which project at the apex as a distinct apical tuft, apex obtuse or with a very shallow rounded point; bracts to leaf clusters brown, oblong, 5–6 mm long, thin, glabrous. *Flowers* single or clustered among the clustered leaves, 8–11(15) mm diam.; bracts 1–3, brown, ovate to elliptic, 1.5–3 mm long, 1.5–2.5 mm wide, thin, glabrous or rarely with sparse hairs, sometimes ciliolate, obtuse to subacute. *Sepals* 5, basally connate, elliptic or ovate-elliptic; outer sepals 3.5–5.5(6) mm long, 1.5–2 mm wide, acute, rarely subacute, with sparse to dense long spreading hairs particularly in the upper half; inner sepals 4–5.5(6) mm long, 2–3 mm wide, obtuse to subacute, slightly broader and glabrous or with very sparse hairs. *Petals* 5, yellow, obovate, 3.5–6(7) mm long, emarginate. *Stamens* 15, in 5 fascicles each of 3 stamens with fused filaments; filament 0.5–1 mm long; anther obovate, 0.5–0.9 mm long. *Carpels* 5, globular, glabrous; ovule 1 per carpel; style 0.7–1.2 mm long. *Fruitlets* obovoid, c. 2 mm long, 1 mm wide; seed brown, ellipsoid, c. 1.5 mm long, with a waxy basal aril. (Figure 1)

*Selected specimens examined* (all PERTH). WESTERN AUSTRALIA: Tingle, Point 4277, Gum Link Rd, Walpole district, 12 Dec. 1990, A.R. Annels 1525; Torbay Beach Rd, off Lower Denmark Rd, Torbay, 7 Feb. 1982, E.J. Croxford 1744; Elizabeth St, Lower King, Albany, 25 Oct. 1982, E.J. Croxford 2145; Wood Reserve, sand pit, Nanarup Rd, E of Albany, 25 Oct. 1982, E.J. Croxford 2158; N side of Lake William Rd, near Dunskeys Rd junction, West Cape Howe National Park, 16 Dec. 1990, N. Gibson & M. Lyons 1058; William Bay National Park, track to Lake Williams, 200 m from junction with Madfish Bay Road, 18 Nov. 1990, B.G. Hammersley 484; Denmark Shire, Denbarker forest block, 2+ km W from

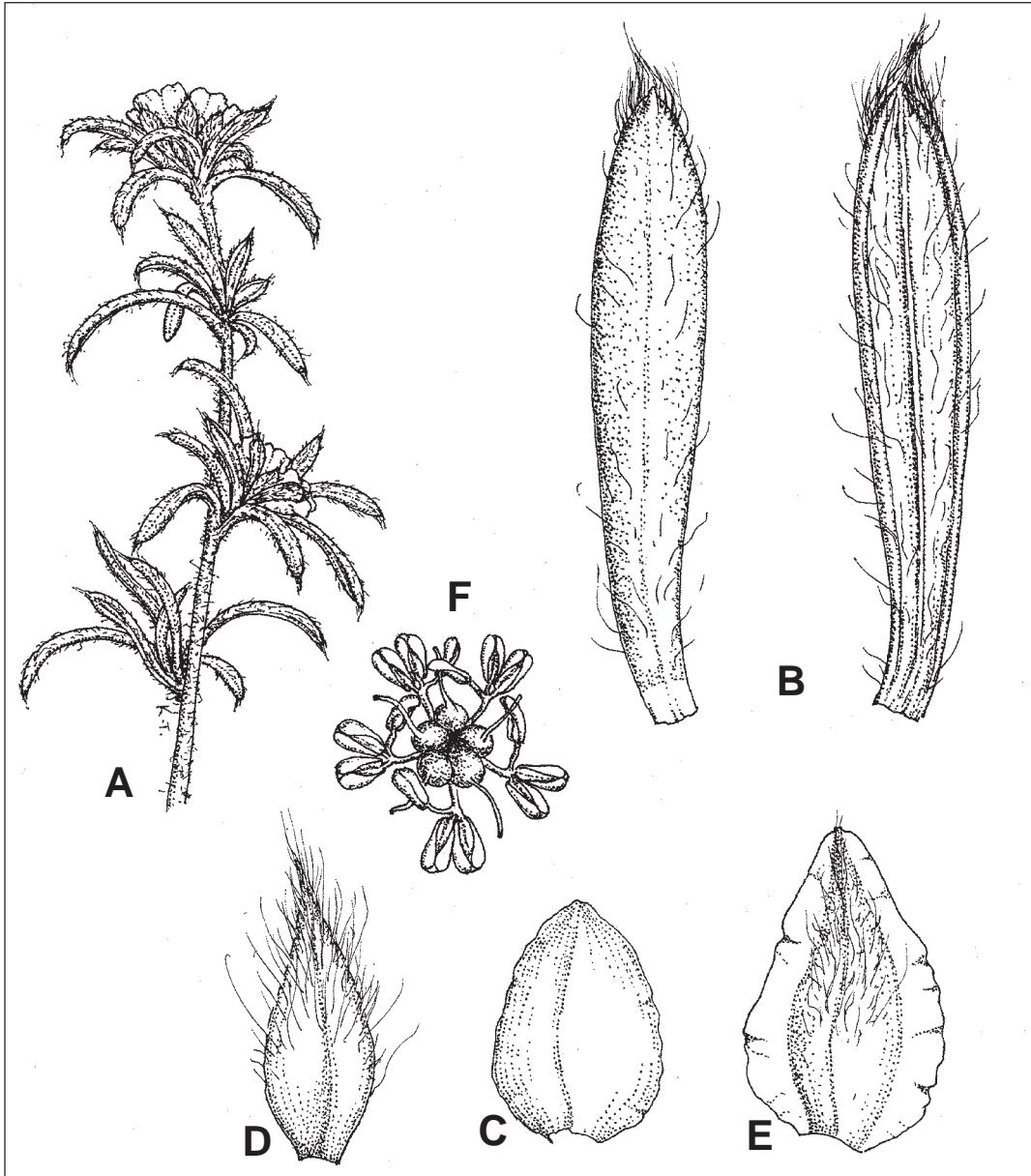


Figure 1. *Hibbertia depressa*. A – flowering branch (x2), B – leaf, upper and lower surface (x8), C – bract (x15), D – outer sepal (x8), E – inner sepal (x8), F – stamens and carpels (x8). Drawn from A.R. Annels 1418 and N. Gibson & M. Lyons 1058.

Denmark–Mount Barker road, along track to WAWA Guaging Station on the Mitchell River, 27 Oct. 1992, *B.G. Hammersley* 763; Mount Barker, Dec. 1898, *R. Helms s.n.*; C. Milton’s Property, 3 km S of Mount Barker, 355 km S of Perth, 25 Oct. 1977, *K.F. Kenneally* 6459; E of Albany on road to Mt Taylor, 5 km S of Lower Kalgan to Nanarup Rd, 25 Sep. 1986, *J.R. Wheeler* 2458 (duplicate AD).

*Distribution.* Western Australia, South West Botanical Province, IBRA regions (Thackway & Cresswell 1995) of Warren and Jarrah Forest. Recorded from the Kent River area to Nanarup (just east of Albany) and north to Mount Barker with a single collection from as far north as Cranbrook. (Figure 2)

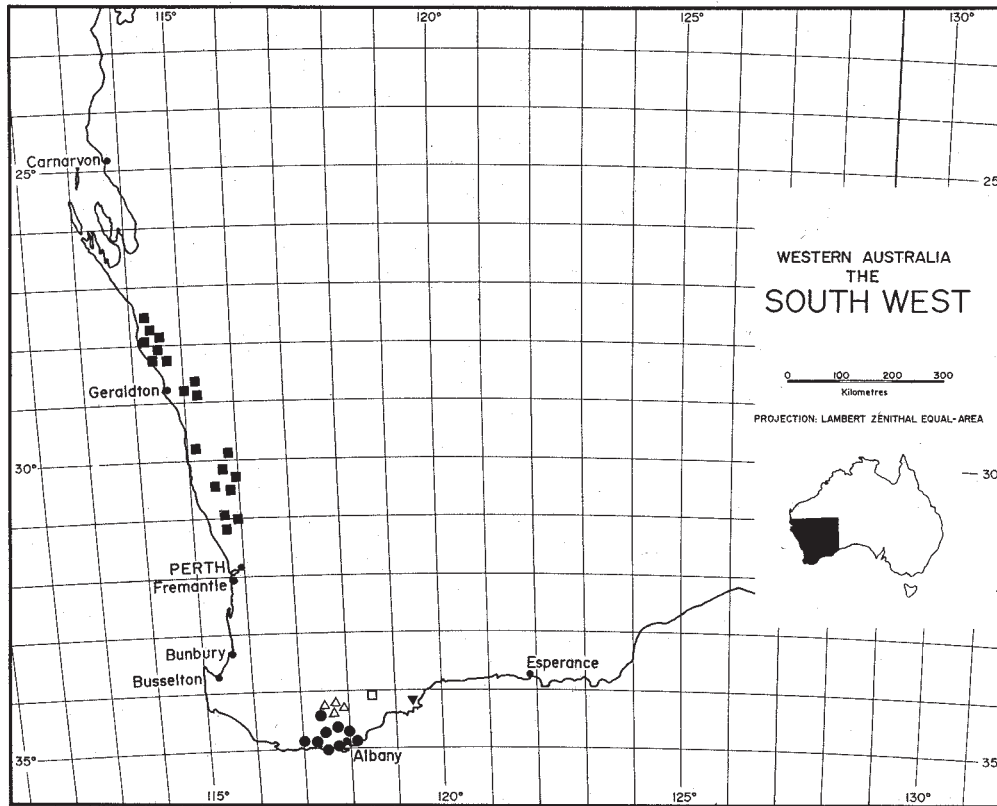


Figure 2. Distribution of *Hibbertia depressa* ■, *H. helianthemoides* △, *H. priceana* □, *H. fitzgeraldensis* ▼ and *H. desmophylla* ▲.

**Habitat.** Commonly occurring in Jarrah woodland or Jarrah-*Banksia* woodland, less often in coastal shrubland on sandy or lateritic soils.

**Phenology.** Flowers recorded for September to February, with an occasional record for April; fruits recorded November and December.

**Affinities.** Most closely related to both *Hibbertia helianthemoides* and *H. desmophylla*. *Hibbertia depressa* differs from *H. helianthemoides* in the presence of a more pronounced apical tuft of hairs arising from the undersurface of the leaf apex. The outer sepals of *H. depressa* are more acute with sparse to dense long spreading hairs. *Hibbertia depressa* has always 15 stamens in 5 fascicles (each with 3 anthers) arranged around 5 carpels whereas *H. helianthemoides* has only 3 carpels and 12–13 stamens.

*Hibbertia depressa* differs from *H. desmophylla* in carpel number and stamen arrangement, leaf tip and in the shape and vestiture of the sepals. *Hibbertia desmophylla* has curlier hairs which never form an apical tuft; sepals which are all very obtuse with the outer ones shorter than the inner; stamens which are variable in number 11–18, but usually in 3 fascicles and often with 1 or 2 additional single stamens; anthers narrowly oblong and longer; carpels 3, with longer styles.

**Notes.** De Candolle (1817) described *Candollea fasciculata* DC. from a Robert Brown collection from King George Sound and, in the same publication, described an eastern states species *Hibbertia fasciculata* DC. based on a Caley specimen from the Port Jackson area. Bentham (1863) synonymised

*C. kochioides* Turcz. and *Hibbertia depressa* under *Candollea fasciculata* DC. However, when transferred to the genus *Hibbertia*, the earliest available name for this south-western species became *Hibbertia depressa*, the name *Hibbertia fasciculata* DC. being already in use for the eastern Australian taxon.

***Hibbertia desmophylla*** (Benth.) F. Muell., *Fragm. Phyt. Austral.* 11: 95 (1880). – *Candollea desmophylla* Benth., *Fl. Austral.* 1: 43 (1863) *p.p.* as to the Oldfield syntype. *Type*: Murchison River, [Western Australia], *Oldfield* (*lecto*: MEL 666835, here designated). *Excluded syntype*: “S.W. Australia”, *J. Drummond s.n.* (K); Western Australia, ?*J. Drummond* 90 (MEL 666832) [= *Hibbertia fitzgeraldensis*].

*Shrub* sprawling or erect, to 1 m high, much-branched and sometimes multi-stemmed; branchlets softly hairy with tangled to curled hairs often quite closely appressed to the stem, often with quite close clusters of leaves. *Leaves* subsessile, spreading, densely clustered on short axillary shoots, alternate to spirally arranged on young growth, linear, 6–17(25) mm long and (0.5)1–1.5 mm wide, margin strongly recurved to revolute except sometimes towards the leaf base, hairs tangled to curled and sparse or glabrescent towards the leaf tip but the hairs denser and longer in the lower half particularly towards the margins near the leaf base giving the leaf a somewhat shaggy appearance, apex obtuse. *Flowers* usually single terminating short shoots, less often 2 or 3 clustered together, (7)10–15(20) mm diam.; bracts 1–3, inconspicuous, ovate to elliptic, 1–3 mm long, thin, glabrous or rarely with short sparse hairs, obtuse to subacute. *Sepals* 5, basally connate, elliptic, usually glabrous, sometimes tinged pink to purple towards their tips, obtuse; outer sepals (3)4–5 mm long, 2–2.5 mm wide; inner sepals slightly longer, (4.5)5–6 mm long, 2.5–4 mm wide. *Petals* 5, yellow, obovate, (4)5–10 mm long, emarginate. *Stamens* variable in number, 11–13(18), with 3 fascicles each of (2)3–5 stamens with fused filaments and sometimes 1 or 2 free stamens; filaments 1–1.5 mm long; anther narrowly oblong, (1)1.3–2 mm long. *Carpels* 3, globular, glabrous; ovule 1 per carpel; style 1.5–2.5 mm long. *Fruitlets* obovoid, 2–2.5 mm long, 1.5–2 mm wide; seed brown, globular to very broadly ellipsoid, 1.5–1.8 mm long, with a waxy basal aril. (Figure 3)

*Selected specimens examined* (all PERTH). WESTERN AUSTRALIA: 1.2 km E along old vermin fence from Kalbarri, Balline Rd, 7 Sep. 1999, *D. & B. Bellairs* 6030; Eradu, E of Geraldton, 24 Oct. 1965, *A.C. Burns* 7; Chapman’s farm Coorow, 16 July 1980, *R.J. Cranfield* 1483; Binnu West Rd, 3.4 km c. E of intersection with Ogilvie West Rd (52 km due NW of Northampton), 27 Sep. 1985, *J. D’Alonzo* 626; Red Gully Road, 3.4 km E of junction with Brand Highway near Moore River National Park, 1 Oct. 1988, *J.M. Fox* 88/063 (duplicate CANB *n.v.*); Hill River, no date, *C.A. Gardner* 12783; Lake Indoon (W of Eneabba) N of Leeman Rd, opposite track to lake, 9 Nov. 1981, *E.A. Griffin* 3213; c. 8 miles [13 km] S of turnoff from Geraldton–Mullewa road to The Casuarinas (c. 36 miles [58 km] E of Geraldton), 18 Sep. 1971, *R.D. Hoogland* 11981 (duplicates CANB, HBG, L, UC all *n.v.*); Moore River National Park, 2 Oct. 1971, *R.D. Royce* 9478; Watheroo National Park, W of Watheroo (S boundary of park) 4 Oct. 1971, *R.D. Royce* 9554.

*Distribution.* Western Australia, South West Botanical Province, IBRA regions (Thackway & Cresswell 1995) of Geraldton Sandplains and Swan Coastal Plain, occurring from the Murchison River south to Moore River National Park. (Figure 2)

*Habitat.* Occurs on sand in heath, shrubland and low open banksia woodland.

*Phenology.* Flowers recorded June to December; fruits recorded September to December and February.

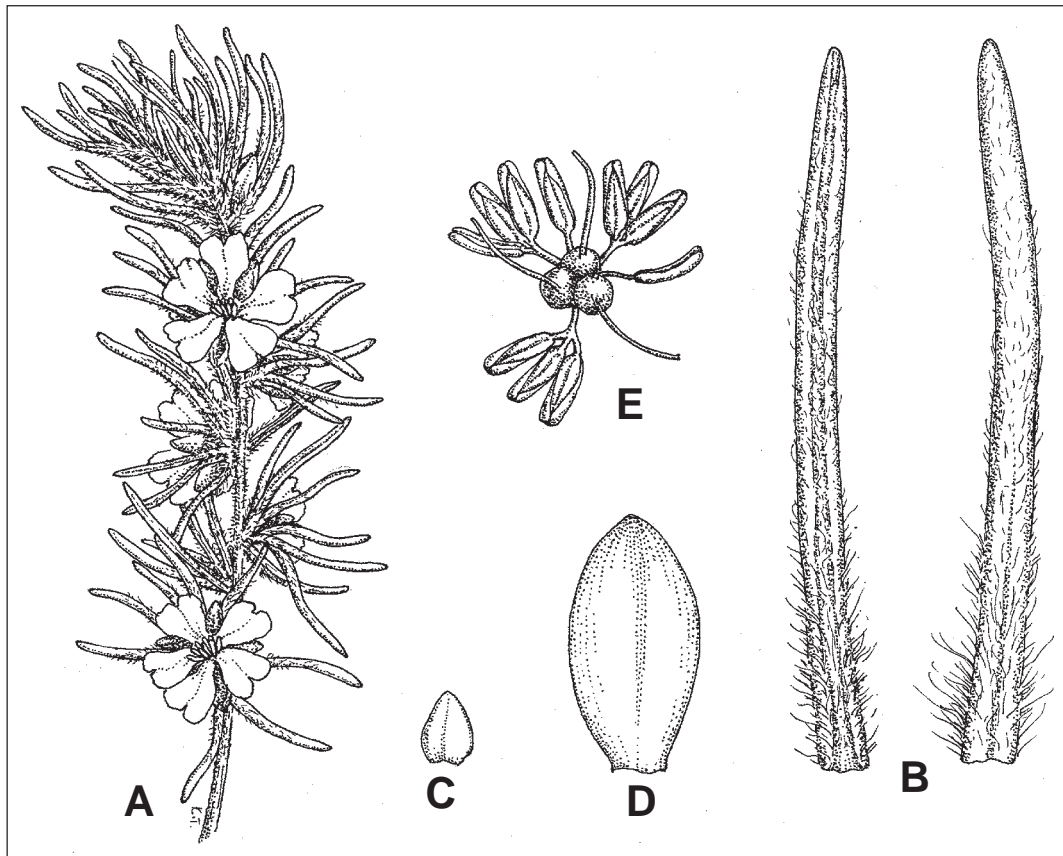


Figure 3. *Hibbertia desmophylla*. A – flowering branch (x2), B – leaf, upper and lower surface (x8), C – bract (x8), D – sepal (x8), E – stamens and carpels (x8). Drawn from R.J. Cranfield 1483 and E.A. Griffin 928.

**Lectotypification.** There are two syntypes of *Candollea desmophylla* Benth., clearly of two different taxa. The Oldfield syntype is chosen as the lectotype for *Hibbertia desmophylla* because it fits the description in the protologue of the stamens being in “3 bundles of 3 or 4 each” (over a larger number of specimens a variation of 3–5 per bundle has been observed with occasionally also 1 or 2 single stamens) and belongs to the much more common and widely distributed of the two taxa. This species from the northern sandplains of Western Australia is the one to which the name *H. desmophylla* has generally been applied.

The excluded syntype, collected by J. Drummond, belongs to *Hibbertia fitzgeraldensis*, a species from Fitzgerald River National Park on the south coast of the Western Australia, which has 11(12) stamens all around the carpels, 9 of them with their filaments fused into 3 fascicles each of 3 stamens, the remaining 2 stamens free or 2 fused and 1 free. The Kew specimen of this syntype has no number either on the label or the specimen and has the label information of “S.W. Australia, Drummond, 1849”. An apparently matching specimen examined from MEL has had a number (90) attached to it, and the label information is “W.A. J. Drummond”. It is thought to be of the same gathering as the K specimen.

**Affinities.** *Hibbertia desmophylla* differs from both *H. helianthemoides* and *H. depressa* in the more curly nature of its indumentum, its glabrous very obtuse sepals with the outermost slightly but distinctly

shorter than the inner sepals. *Hibbertia desmophylla* has a variable number of stamens with the anthers differing in size and shape, being narrower and longer than those of *H. depressa* or *H. helianthemoides*. The styles of *H. desmophylla* are also longer. *Hibbertia desmophylla* also differs from *H. depressa* in the lack of apical hair tuft and its reduced carpel number.

*Notes.* There is considerable variation in the density of indumentum within this species. The sepals are almost always glabrous, although a few collections from between Watheroo and Moore River have short appressed hairs.

***Hibbertia fitzgeraldensis*** J.R. Wheeler, *sp. nov.*

[*Candollea desmophylla* auct. non Benth.: Benth., Fl. Austral. 1: 43 (1863) *p.p.* as to excluded syntype *J. Drummond*, not as to lectotype.]

*Hibbertiae depressae, H. helianthemoidi et H. desmophyllae* affinis sed foliis obtuso mucronatis, bracteis anguste triangularibus et sepalis longe acutis differt.

*Typus:* Fitzgerald River National Park, summit of West Mt Barren, Western Australia, 23 September 1986, *J.R. Wheeler* 2435 (*holo:* PERTH 03034860; *iso:* AD, CANB, K, MEL).

*Shrub* sprawling, to 0.3 m high; branchlets softly hairy with fine hairs. *Leaves* alternate or clustered on alternate short shoots, linear with slightly to strongly recurved margins, (5)7–30(55) mm long, 0.5–3(6) mm wide, upper surface with fine soft hairs but glabrescent in upper half, lower surface with long fine soft hairs, the leaf base fairly shaggy, apex a distinct and hard but fairly blunt mucro. *Flowers* terminating short axillary shoots, 9–12 mm diam., sessile; bracts 1–3, very narrowly triangular, 3.5–5.5 mm long, *c.* 1 mm wide, ciliate and softly hairy, apex long-acute or with a leaf-like tip. *Sepals* 5, basally connate, narrowly elliptic, usually glabrous apart from a few brownish apical hairs or marginal cilia, occasionally the outermost with sparse appressed white hairs in the upper half; outer sepals 5.5–7 mm long, 1.5–2 mm wide, long-acute; inner sepals broader and less tapered towards the acuminate or awn-like tip, slightly shorter, 5–6 mm long, 2–2.5 mm wide. *Petals* 5, yellow, obovate, 4.5–7 mm long, very shallowly emarginate. *Stamens* 11(12) all around the carpels, 9 of them with their filaments fused into 3 fascicles each of 3 stamens, the remaining 2 stamens free or 2 fused and 1 free; filament *c.* 1 mm long; anther narrowly oblong-elliptic, 1–1.4 mm long. *Carpels* 3; ovule 1 per carpel; style 1.2–2 mm long. *Fruitlets* obovoid, 2.5–3 mm long, *c.* 2 mm wide; seeds brown, ellipsoid, *c.* 2 mm long, with a waxy basal aril. (Figure 4A–F)

*Selected specimens examined* (all PERTH except where indicated). WESTERN AUSTRALIA: SW Australia, *J. Drummond* (K, ?MEL); West Mt Barren, 16 Oct. 1928, *C.A. Gardner* 2218; summit of West Mt Barren, 28 Oct. 1965, *A.S. George* 6975; Mt Bland, 6 Apr. 1963, *K.R. Newbey* 735; at foot of Mt Bland, Fitzgerald River National Park, 20 Oct. 1970, *R.D. Royce* 9114; halfway up E slope of West Mt Barren, Fitzgerald River National Park, 23 Sep. 1986, *J.R. Wheeler* 2438 (duplicates AD, CANB, K); Fitzgerald River National Park, track to Mt Maxwell, 0.6 km N of Collets Rd, 6 Sep. 2001, *J.R. Wheeler* 4075 (duplicates AD, MEL); Fitzgerald River National Park, Mt Maxwell, near car park, 6 Sep. 2001, *J.R. Wheeler* 4076 (duplicates AD, CANB, K); Fitzgerald River National Park, E slopes of West Mt Barren, 6 Sep. 2001, *J.R. Wheeler* 4081 (duplicate K); Fitzgerald River National Park, Point Ann Rd, 4.2 km N of Trigelow Beach Rd junction (100 m N of road) and 8.6 km SE from Collets Rd, 7 Sep. 2001, *J.R. Wheeler* 4091 (duplicates AD, NSW).

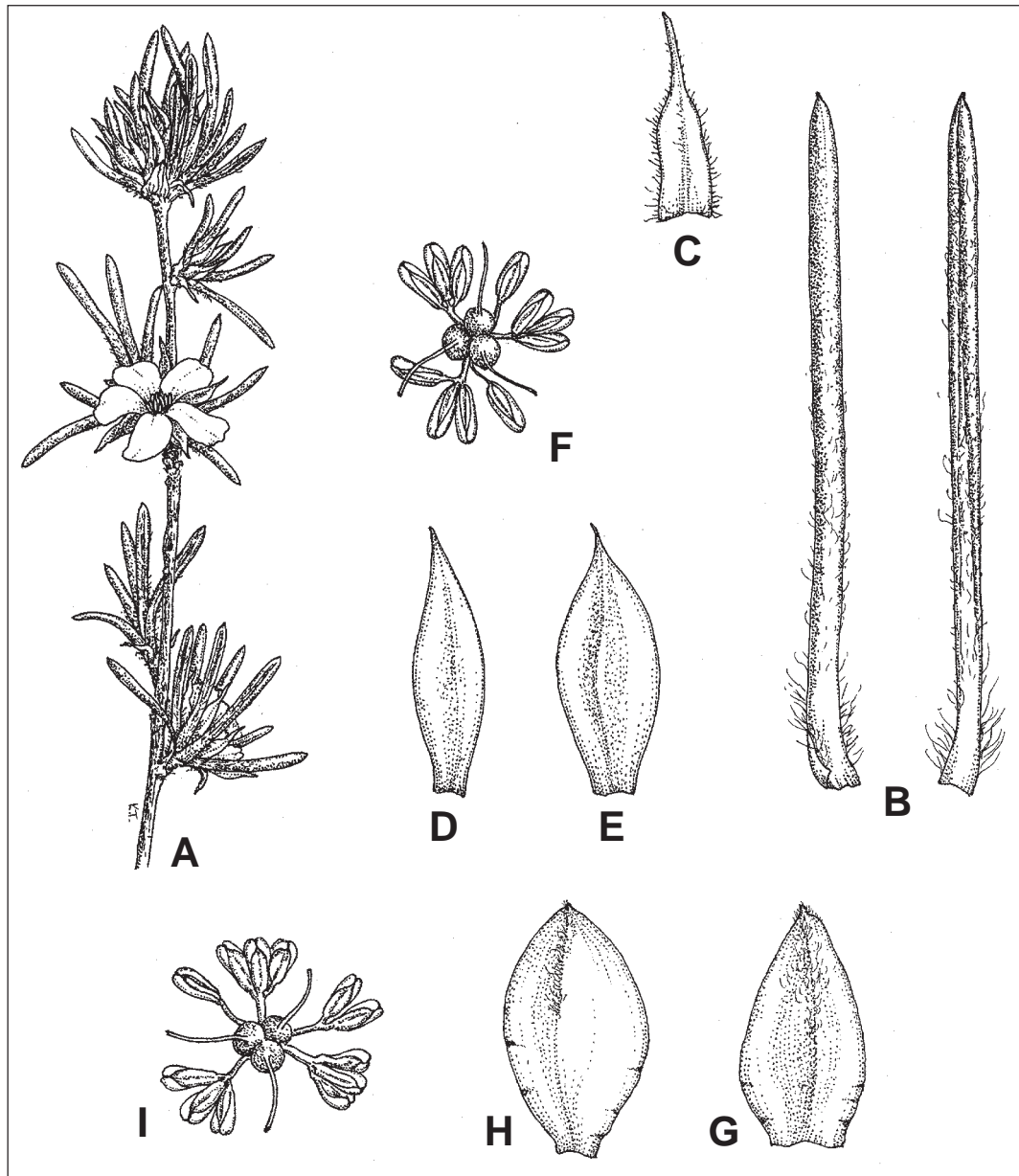


Figure 4. A–F. *Hibbertia fitzgeraldensis*, drawn from R.D. Royce 9114 and J.R. Wheeler 2438. A – flowering branch (x2), B – leaf, upper and lower surface (x8), C – bract (x8), D – outer sepal (x8), E – inner sepal (x8), F – stamens and carpels (x8); G–I. *Hibbertia helianthemoides*, drawn from J.R. Wheeler 2497. G – outer sepal (x8), H – inner sepals (x8), I – stamens and carpels (x8).

*Distribution.* Western Australia, South West Botanical Province, IBRA region (Thackway & Cresswell 1995) of Esperance Plains. Apparently restricted to mountains of the south-west of Fitzgerald River National Park. (Figure 2)

*Habitat.* Recorded in heath from sand or black loam over granite, often from rocky slopes or the summits of hills.



*Phenology.* Flowers September to October, also recorded for April; fruits recorded for October.

*Conservation status.* Conservation Codes for Western Australian Flora: Priority Three. Apparently restricted in distribution, but occurring in a national park and not currently threatened.

*Etymology.* The name refers to the area, the Fitzgerald River National Park, in which the species occurs.

*Affinities.* Differs from other species of this group in the blunt but distinct mucro to its leaves. *Hibbertia fitzgeraldensis* also differs in its more conspicuous and narrowly triangular, acute to awned hairy bracts and in its sepals which are slightly larger and long-acute or awned.

*Hibbertia fitzgeraldensis* also shows similarities to the *Hibbertia ferruginea* group having similar sepals which are gradually tapered and long-acute, the outer sepals being slightly longer than the inner sepals (Wheeler 2003 in prep.). However it clearly differs from the *H. ferruginea* group in the shape of its bracts and in its more clustered leaves. *Hibbertia fitzgeraldensis* perhaps forms a link between the two groups within section *Candollea*.

*Notes.* A collection from near Mt Maxwell (J.R. Wheeler 4075) has particularly luxuriant foliage with leaves up to 55 mm long and 6 mm wide and which have only slightly recurved margins.

***Hibbertia helianthemoides*** (Turcz.) F. Muell., Syst. Census Austral. Pl. 2 (1883). – *Candollea helianthemoides* Turcz., Bull. Soc. Imp. Naturalistes Moscou 22(2): 8 (1849). *Type:* Nova Hollandia [Western Australia], J. Drummond coll. 4, n. 118 (*holo:* KW; *iso:* PERTH).

*Shrub* prostrate or low, spreading to erect, usually to 0.3 m, rarely to 1 m high; branchlets softly hairy with tangled or curled hairs, with distant leaf clusters. *Leaves* sessile, spreading, densely clustered on short axillary shoots, linear, 5–15(20) mm long, 0.7–2(3) mm wide, margin recurved to revolute, softly hairy with fine hairs which are dense and spreading to give the leaf base a shaggy appearance, hairs more appressed and sparser or sometimes glabrescent towards the leaf tip, rarely forming an indistinct apical tuft, apex obtuse. *Flowers* single or few amongst the leaves terminating short shoots, sessile, 9–13 mm diam.; bracts 1–3, hidden amongst the floral leaves, ovate to elliptic, 0.5–3 mm long, thin, glabrous or with sparse appressed hairs, obtuse. *Sepals* 5, basally connate, elliptic, subequal, 3–5.5 mm long, 1.5–3 mm wide; outer sepals subacute to almost obtuse, glabrous or with short appressed hairs towards the apex and down the centre of the sepal; inner sepals obtuse, often glabrous. *Petals* 5, yellow, obovate, 5–8 mm long, emarginate. *Stamens* usually 13, arranged in 3 fascicles each of 3 stamens with fused filaments and 2 fascicles each of 2 stamens with fused filaments, rarely one of the fascicles reduced to a single stamen; filament 0.5–1 mm long; anther obovate to oblong-obovate, 0.5–1 mm long. *Carpels* 3, glabrous; ovule 1 per carpel; style 1–1.2 mm long. *Fruitlets* obovoid, c. 2 mm long, 1.2 mm wide; seeds brown, ellipsoid, c. 2 mm long, with a waxy basal aril. (Figure 4G–I)

*Selected specimens examined* (all PERTH). WESTERN AUSTRALIA: Plot 5178, Reserve 16262, SW of Tenterden, 20 July 1993, A.R. Annels 3432; Hume Peak, Stirling Range, 1 Oct. 1995, S. Barrett 458; Stirling Range, 0.6 km from Red Gum Springs towards Cranbrook, 10 Oct. 1968, E.M. Canning WA/686192 (duplicate CANB *n.v.*); near Red Gum Springs, 9 Oct. 1962, A.R. Fairall 480; N side of Stirling Range Drive, c. 5.7 km E of junction with Red Gum Pass, Stirling Range National Park, 9 Oct. 1999, J.W. Horn 2819 (duplicate DUKE *n.v.*); between Solomons Well and Conical Hill, 27 Sep. 1902, A. Morrison *s.n.*; near Stirling Range Drive, c. 38 km from junction with Chester Pass Rd and c. 4 km from junction with Red Gum Pass Rd, between Mt Mondurup and Baby Barnett Hill, 30 Sep. 1986,

*J.R. Wheeler* 2496; near Stirling Range Drive, c. 38 km from junction with Chester Pass Rd and c. 4 km from junction with Red Gum Pass Rd, between Mt Mondurup and Baby Barnett Hill, 30 Sep. 1986, *J.R. Wheeler* 2497.

*Distribution.* Western Australia, South West Botanical Province, IBRA regions (Thackway & Cresswell 1995) of Jarrah Forest and Esperance Plains. Apparently restricted to the western Stirling Ranges and west towards Tenterden. (Figure 2)

*Habitat.* Occurs in woodland or shrubland on clayey sand over sandstone, loam over quartzite or on scree slopes.

*Phenology.* Flowers recorded for September to October, with a single record for July; fruits recorded for October.

*Conservation status.* Conservation Codes for Western Australian Flora: Priority Three. Apparently restricted in distribution but occurring in a national park.

*Affinities.* Most closely related to *H. depressa* and *H. desmophylla*, to which it is vegetatively very similar, although the apical tuft of hairs of the leaves of *H. helianthemoides* is absent or less prominent. The outer sepals of *H. helianthemoides* are less acute (usually subacute to almost obtuse) than those of *H. depressa* and are either glabrous or with minute very appressed hairs which are concentrated at the apex or down the midline of the outer sepal. *Hibbertia helianthemoides* has fewer stamens than *H. depressa*, usually 13 with 3 fascicles each with 3 anthers and commonly 2 fascicles each with only 2 anthers one of which is sometimes reduced to a single stamen. The anthers of both species are similar in shape and the carpels and styles similar.

*Hibbertia desmophylla* differs from *H. helianthemoides* in its more variable stamen number (often with up to 5 stamens per fascicle) and anther shape and size. The sepals of both species are often glabrous, but those of *H. desmophylla* are all more obtuse and the outer sepals distinctly shorter.

***Hibbertia priceana*** J.R. Wheeler, *sp. nov.*

*Hibbertiae depressae* affinis sed foliis applanatis oblongo-ellipticis, antheris ellipticis longioribus, sepalis semper glabris et obtusioribus, carpellis et staminibus paucioribus, a *H. helianthemoidi* foliis applanatis oblongo-ellipticis, antheris ellipticis longioribus differt.

*Typus:* Ongerup area [precise locality withheld], Western Australia, 31 July 2001, *J.R. Wheeler* 4063 (*holo:* PERTH; *iso:* AD, CANB, K).

*Shrub* to 0.15 m high, dwarf and usually compact but sometimes sprawling, with bluish grey tinged foliage; branchlets hairy with tangled to curly hairs. *Leaves* sessile, alternate, ascending, narrowly oblong-elliptic, 4.5–10.5 mm long, 1.5–3 mm wide, flat, moderately hairy with fine long and somewhat tangled or curled hairs, margin and midrib thickened, apex obtuse. *Flowers* sessile, terminating very short axillary shoots, 12–15(17) mm diam.; bracts 1–3, ovate, 1–2.5 mm long, glabrous or with a very few hairs towards the tip and obtuse or the outermost with a short hairy leaf-like tip. *Sepals* 5, reddish brown, basally connate, broadly elliptic, subequal, 4–6 mm long, 2.5–3 mm wide, glabrous; outer sepals subacute to obtuse; inner sepals obtuse to very shallowly emarginate. *Petals* 5, bright yellow, obovate,

6–9 mm long, emarginate. *Stamens* 11, 9 of them in 3 fascicles each of 3 stamens with fused filaments and the remaining 2 stamens free; filament 1–1.5 mm long; anther elliptic, 1.5–1.8 mm long, the apex of each cell sometimes split and diverging after dehiscence so as to appear 2-lobed. *Carpels* 3, obovoid-globular, glabrous; style 1–2 mm long, spreading; ovule 1 per carpel. *Fruitlets* narrowly ellipsoid, c. 3 mm long, 1 mm wide; seed narrowly oblong-ellipsoid, 2.2 mm long, with a large waxy aril. (Figure 5)

*Other specimens examined* (all PERTH). WESTERN AUSTRALIA: Ongerup area, 29 June 1970, K.R. Newbey 3190; Ongerup area, June 1987, J. Price s.n.; Ongerup area, 18 July 1987, J.R. Wheeler 2520 (duplicates AD, MEL); Ongerup area, 3 Oct 1986, J.R. Wheeler 2511; Ongerup area, 31 July 2001, J.R. Wheeler 4063A; Ongerup area, 15 Aug. 2001, J.R. Wheeler 4064.

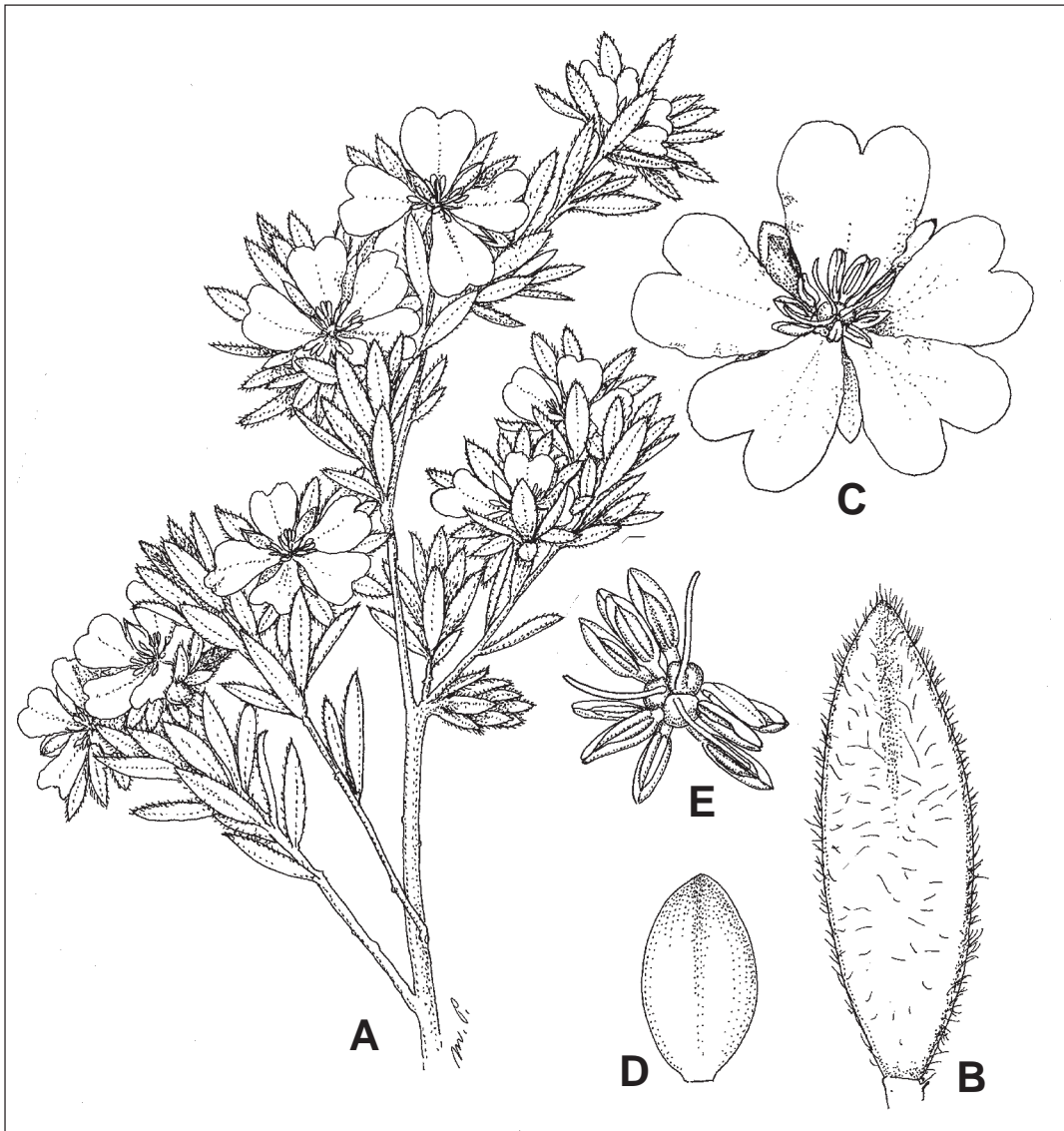


Figure 5. *Hibbertia priceana*. A – flowering branch (x2), B – leaf (x8), C – flower (x4), D – sepal (x8), stamens and carpels (x8). Drawn from J.R. Wheeler 2520.

*Distribution.* Western Australia, South West Botanical Province, IBRA region (Thackway & Cresswell 1995) of Mallee. Appears to be restricted to the Ongerup area. (Figure 2)

*Habitat.* Grey sandy clay with lateritic gravel on ridges in mallee-heath vegetation with *Eucalyptus redunca* and *Dryandra cirsioides*.

*Phenology.* Flowers recorded June to August; fruits recorded for October.

*Conservation status.* Conservation Codes for Western Australian Flora: Priority One. Known only from a very few populations on road verges.

*Etymology.* Named in honour of John Price of the Ongerup area who first drew my attention to the taxon.

*Affinities.* Most closely related to both *Hibbertia depressa* and *H. helianthemoides* but differing in its more compact habit, its bluish grey-tinged leaves which are flat, narrowly oblong-elliptic and not clustered. *Hibbertia priceana* also differs from both *H. depressa* and *H. helianthemoides* in its longer elliptic anthers and from *H. depressa* in its reduced number of carpels and stamens.

### Acknowledgements

I should like to thank the Director and staff of the Western Australian Herbarium for access to the state collection. Thanks to Paul Wilson for nomenclatural advice and for preparing the brief Latin diagnoses. Thanks also to both Kath Trafalski and Margaret Pieroni for their fine illustrations.

### References

- Bentham, G. (1863). Dilleniaceae. *In*: "Flora Australiensis" Vol. 1, pp. 16–48. (Reeve: London.)
- De Candolle, A.P. (1817). Regni Vegetabilis Systema Naturale 1, pp. 424–428.
- Thackway, R. & Cresswell, I.D. (1995). (eds) An interim biogeographic regionalisation for Australia: a framework for establishing the national system of reserves, version 4.0. Published Report of the Australian Nature Conservation Agency: Canberra.
- Wheeler, J.R. (2000). Review of *Hibbertia mucronata* and its allies (Dilleniaceae). *Nuytsia* 13(2): 379–394.
- Wheeler, J.R. (2002a). A review of *Hibbertia glomerata sens. lat.* (Dilleniaceae). *Nuytsia* 14(3): 411–418.
- Wheeler, J.R. (2002b). Two new species of *Hibbertia* section *Candollea* (Dilleniaceae) from the south west of Western Australia. *Nuytsia* 14(3): 419–426.
- Wheeler, J.R. (2002c). Three new subspecies of *Hibbertia glomerata* (Dilleniaceae) from the Darling Range, Western Australia. *Nuytsia* 14(3): 427–435.