

5. **CITRIOBATUS**, A. Cunn.

(Ixiosporum, F. Muell.)

Petals connivent or connate to above the middle, in a cylindrical tube spreading at the top. Anthers oblong, shorter than the filaments. Ovary 1-celled, with 2 to 5 parietal placentas; style short. Fruit coriaceous or hard, globular, indehiscent. Seeds few or many, nearly globular, often enveloped in a viscous fluid.—Rigid, much branched shrubs, armed with short thorns or abortive branches. Leaves small, entire or toothed. Flowers small, sessile and solitary, surrounded by small sepal-like bracts.

The genus is limited to Australia.

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| Placentas 2, with 8 to 10 ovules each. Fruit 2 to 5 lines diameter,<br>with few seeds . . . . .          | 1. <i>C. multiflorus</i> . |
| Placentas 5, with very numerous ovules. Fruit 1 in. diameter or larger,<br>with numerous seeds . . . . . | 2. <i>C. pauciflorus</i> . |

Citriobatus

2. **C. pauciflorus**, *A. Cunn. in Loud. Hort. Brit. Suppl.* 585 (name only).—Habit of *C. multiflorus*, but stouter and more rigid, the branches similarly rough, with a minute pubescence, and thorny. Leaves from obovate to cuneate-oblong, rarely orbicular, mostly entire and obtuse, but occasionally mucronate or truncate and 3-toothed, rarely exceeding  $\frac{1}{2}$  in. in length, often petiolate and more rigid than in *C. multiflorus*. Flowers larger than in that species, the petals 4 to 5 lines long, united into a complete tube to  $\frac{2}{3}$  of their length. Ovary pubescent, with 5 parietal placentas, covered with innumerable minute ovules. Style longer than in *C. multiflorus*. Fruit attaining 1 to  $1\frac{1}{2}$  in. diameter, with a thick coriaceous pericarp. Seeds numerous, in a viscid pulp.—*IXIOSPORUS spinescens*, F. Muell. *Fragm. Phyt. Austr.* ii. 76.

**N. Australia.** Careening Bay, N.W. coast, *A. Cunningham*.

**Queensland.** E. coast, *R. Brown*; in the scrub on the Fitzroy river, *Thozet*; near the Dawson river, *F. Mueller*; Castor creek, *Leichhardt*.

Cunningham's specimen, in leaf with the remains of a fruit, is not authentically named, but there is little reason to doubt its being the one he had in view. There are, also, in the Hookerian and in Mueller's herbaria specimens in leaf only, which may prove to be one, or perhaps two, additional species of *Citriobatus*, but they are insufficient for determination.

NSD

PITTOSPORACEAE

*citriobatus spinescens*

(F. muell) Druce

1. **PITTOSPORUM**, Banks.

Petals usually connivent or cohering in a tube at their base or above the middle. Anthers ovate-oblong. Ovary sessile or shortly stipitate, incompletely, or almost completely 2-celled, or rarely 3- to 5-celled; style short. Capsule

globose, ovate or obovate, often laterally compressed; the valves coriaceous or thick and hard, bearing the placentas along their centre. Seeds thick or globular, not winged, often enveloped in a viscous liquor.—Shrubs or trees, glabrous, or rarely tomentose. Leaves usually evergreen, entire or minutely toothed, the upper ones frequently collected into a false whorl. Flowers not large, axillary or terminal, solitary or in close corymbose panicles.

A large genus, dispersed over the warmer regions of Africa, Asia, the Pacific islands, and New Zealand. The Australian species are all endemic excepting one which is common to eastern tropical Asia and the eastern Archipelago.

Flowers numerous, small, in compound terminal corymbs, with the lower branches axillary.

Leaves ovate-rhomboid, toothed. Sepals obtuse . . . . . 1. *P. rhombifolium*.

Leaves from obovate to oblong or lanceolate, quite entire. Sepals subulate or subulate-pointed.

Young leaves and inflorescence rusty-tomentose . . . . . 5. *P. ferrugineum*.

Plant glabrous . . . . . 2. *P. melanospermum*.

Peduncles all terminal, clustered, short, each bearing a short simple cyme or umbel.

Glabrous, or the young shoots and inflorescence very slightly pubescent. Flowers about  $\frac{1}{2}$  in. long . . . . . 3. *P. undulatum*.

Young shoots and inflorescence rusty-tomentose or hirsute.

Flowers about  $\frac{1}{2}$  in. Capsule  $\frac{3}{4}$  in., very rough . . . . . 4. *P. revolutum*.

Flowers 3 to 4 lines. Capsule under  $\frac{1}{2}$  in.

Leaves on long petioles, ovate to oblong-lanceolate. Tomentum short and crisp . . . . . 5. *P. ferrugineum*.

Leaves nearly sessile, oblong-lanceolate. Tomentum almost hirsute . . . . . 6. *P. rubiginosum*.

Pedicels axillary, solitary or clustered, 1-flowered, the uppermost sometimes in a terminal cluster.

Leaves glabrous, flat. Flowers yellow . . . . . 7. *P. phillyræoides*.

Leaves revolute on the margins, glabrous above, tomentose or silky underneath. Flowers purple and yellow . . . . . 8. *P. bicolor*.

Doubtful species. Leaves very small. Flowers terminal, 1 line long . . . . . 9. *P. parviflorum*.

2. **P. melanospermum**, *F. Muell. Fragm. i. 70.* A small tree, quite glabrous, or with a scanty minute glandular pubescence on the inflorescence. Leaves from obovate to oblong or even lanceolate, shortly acuminate, mucronate or obtuse, 2 to 4 in. long, entire and flat or slightly undulate on the margin, narrowed into a petiole of 4 to 5 lines, coriaceous, but not shining, of a pale hue and prominently veined. Corymbs compound, terminal, many-flowered, but shorter than the last leaves. Flowers small, the sepals subulate or lanceolate-subulate, the petals 3 or scarcely 4 lines long, spreading from about the middle. Ovary shortly stipitate, with 10 to 12 ovules to each placenta. Capsule obliquely globular or pear-shaped, somewhat compressed, with few or sometimes a single black seed.

**N. Australia.** York Sound, *A. Cunningham*; low rocky hills between Victoria river and the Gulf of Carpentaria, *P. Mueller*.

**Queensland.** Keppel Bay and several points of the N.E. coast, *R. Brown*. There is one specimen, in the Hookerian herbarium, from *A. Cunningham*, marked Hunter's River; but it is not in any other of the numerous collections we have from that locality, nor from any other station in N. S. Wales.

Var. (?) *lateralis*. Corymbs usually lateral. York Sound, *A. Cunningham*; Whitsunday Island, *Henne*.

7. **P. phillyræoides**, DC. *Prodr.* i. 347. A small graceful tree or slender shrub, quite glabrous in all its parts. Leaves usually oblong-

linear-lanceolate, with a small hooked point, 2 to 4 in. long, quite entire, narrowed into a petiole, thick coriaceous and indistinctly veined, but in some forms short and broadly oblong, in others long and narrow. Pedicels axillary, solitary or in sessile or shortly pedunculate clusters or umbels, or the uppermost forming a terminal cluster. Flowers yellow, usually about 4 lines long, often diœcious, the females rather larger and fewer together than the males. Sepals short and very obtuse. Petals united to the middle or still higher, spreading at the top. Ovary pubescent, almost completely 2-celled, with 6 to 8 ovules in each cell. Fruit ovate or round-cordate, much compressed, quite smooth, varying from 4 to 9 lines in length, but usually about  $\frac{1}{2}$  in. Seeds few, dark or orange-red.—Putterl. in Pl. Preiss. i. 192; F. Muell. Pl. Vict. i. 72; *P. angustifolium*, Lodd. Bot. Cab. t. 1859; *P. longifolium* and *P. Roëanum*, Putterl. Syn. Pittosp. 15, 16; *P. ligustrifolium*, A. Cunn. in Putterl. l. c. 16, and in Ann. Nat. Hist. ser. 1, iv. 110; Putterl. in Pl. Preiss. i. 190; *P. oleafolium*, A. Cunn. in Putterl. Syn. Pittosp. 17; *P. acacioides*, A. Cunn. in Ann. Nat. Hist. ser. 1, iv. 109; *P. salicinum*, Lindl. in Mitch. Trop. Austr. 97; *P. lanceolatum*, A. Cunn. in Mitch. l. c. 272 and 291.

**N. Australia.** Upper Victoria river and Sturt's Creek, *F. Mueller*.

**Queensland.** Brigalow scrub, *Mitchell*; and Burdekin river, Warwick, *F. Mueller*.

**N. S. Wales.** Narran river and N.W. interior, *Mitchell*; generally dispersed over the interior, *A. Cunningham*.

**Victoria.** Sandy, barren, or stony declivities and plains dispersed through the desert, *F. Mueller*.

**S. Australia.** On the coast, *B. Brown*; Kangaroo Island, round Spencer's Gulf and other localities, *F. Mueller*.

**W. Australia.** Swan River, *Drummond*, *Preiss*, n. 1297; Rottnest Island, *A. Cunningham*, *Preiss*; Dirk Hartog Island, *A. Cunningham*; Murchison river, *Oldfield*; Abrolhus island, *Bynoe*, *Moore in Herb. Preiss*, n. 1294.

This species, apparently spread over the whole desert country of Australia, cannot be confounded with any other, notwithstanding the variability of the proportions of its leaves, flowers, and fruit. In some of the western specimens the leaves are barely 2 inches long, and fully  $\frac{1}{2}$  inch wide, whilst in a large number of eastern and some western ones they attain 4 or 5 inches in length with a breadth of only 2 or 3 lines.

NSD

PITTOSPORACEAE

Pittosporum resinosum  
Domin.