

(Aylmeria, Mart.)

Sepals 5, either entirely scarious, or herbaceous in the centre and scarious on the margin, but not keeled. Petals 5, entire or toothed. Stamens 5, hypogynous or slightly perigynous, free or united with the petals in a ring or tube. Style elongated, 3-furrowed, 3-toothed, or shortly 3-lobed at the top. Capsule 3-valved. Seeds obovoid or flattened; embryo curved or nearly straight; cotyledons usually (perhaps always) accumbent.—Annual or peren-

nial herbs, erect or diffuse. Leaves narrow-linear or rarely ovate, often clustered in the axils so as to appear verticillate. Stipules scarious. Flowers usually numerous, in terminal cymes, sometimes loose and paniculate, sometimes dense and capitate, often remarkable for the white, pink or purple scarious sepals and bracts.

The genus is dispersed over the tropical and subtropical regions of the Old World, one, the commonest species, extending also into tropical America. The 9 Australian species are all tropical; one is the above-mentioned common one, another, *P. spicata*, is also Asiatic, the 7 others are endemic.

SECT. 1. **Planchonia**, J. Gay.—*Petals and stamens united in a cup or tube, without staminodia.*

Stems hard and almost woody at the base, the radical leaves soon disappearing. Leaves all narrow. Flowers 3 to 4 lines.

Stem tall, pubescent. Corolla-tube shorter than the free part.

Stamens the length of the petals. Capsule short, obtuse . . .

1. *P. longiflora*.

Stems short, glabrous. Corolla-tube longer than the free part.

Stamens much longer than the petals. Capsule oblong, tapering at the top . . .

2. *P. spirostyles*.

Stems herbaceous, several from a rosette of oblong or obovate radical leaves. Stem-leaves narrow. Flowers $1\frac{1}{2}$ to 3 lines . . .

3. *P. synandra*.

SECT. 2. **Aylmeria**, Mart.—*Petals and stamens free or nearly so, with 5 short staminodia inside the petals and opposite to them.*

Sepals purple, glabrous, nearly 3 lines long. Stamens and petals slightly perigynous . . .

4. *P. violacea*.

Sepals white or yellowish, hairy, about 2 lines long. Stamens and petals very perigynous . . .

5. *P. stamirodina*.

SECT. 3. **Polycarpia**.—*Petals and stamens free or united in a ring at the base, without staminodia.*

Stems simple or hard and woody at the base. Radical leaves soon disappearing.

Flowers $1\frac{1}{2}$ lines. Petals rounded and very obtuse. Capsule much shorter than the sepals . . .

6. *P. corymbosa*.—

Flowers less than 1 line. Petals oval-oblong, acute, or toothed at the top. Capsule rather shorter or longer than the sepals . . .

7. *P. breviflora*.

Stems herbaceous, several from a rosette of oblong or obovate radical leaves.

Flower-heads pedunculate, with scarious bracts . . .

8. *P. spicata*.

Flower-heads closely sessile, surrounded by herbaceous floral leaves . . .

9. *P. involucrata*.

6. **P. corymbosa**, *Lam. Illustr. n.* 2798. Minutely pubescent or rarely almost glabrous, with erect, rather slender, but stiff branches, $\frac{1}{2}$ to 1 or even $1\frac{1}{2}$ ft. high. Leaves from narrow-linear to almost subulate, rarely linear-lanceolate, flat or with revolute margins, the longer ones $\frac{1}{2}$ to 1 in., with small ones clustered in their axils, the upper ones much smaller and often few and distant. Stipules tapering to a fine point. Flowers numerous, in dense terminal corymbose cymes, sometimes all forming one dense mass on the top of an otherwise simple stem, sometimes the cymes numerous and loosely paniculate. Floral leaves all reduced to scarious bracts. Sepals about $1\frac{1}{2}$ lines long, white and scarious, without any prominent midrib, but tapering to a fine point. Petals quite free, not $\frac{1}{2}$ line long, broadly ovate, very obtuse and rather firm. Stamens often shorter. Style very short. Capsule ovoid or oblong, much shorter than the sepals.—DC. Prod. iii. 374; Wight, Ic. Pl. Ind. Or. t. 712.

N. Australia. N. coast, *R. Brown*; Victoria river and Albany Island, *F. Mueller*; Lizard Island, Keppel's Island, and Port Curtis, *M. Gillivray*.

The species is common in tropical Asia and Africa, and is found also in Brazil and Guiana.

NIG

CARYOPHYLLACEAE

Polycarpaea holtzei

9. **P. involucrata**, *F. Muell. in Rep. Babb. Exped.* 9. Pubescent, with numerous erect or decumbent rigid dichotomous stems of 2 to 4 in. or rarely twice that length. Radical leaves rosulate, oblong or nearly obovate, narrowed into long petioles; stem-leaves more sessile, narrow-oblong or lanceolate, rather rigid, obtuse or the upper ones acute, 2 to 4 lines long, the floral ones in false whorls of 4 to 8. Flowers several together in sessile heads, in the forks or at the ends of the branches, rarely exceeding the herbaceous floral leaves. Sepals white, finely pointed, 2 to near 3 lines long; the outer ones thickened and cartilaginous at the base. Petals oblong, about $\frac{1}{3}$ the length of the sepals, slightly united with the stamens in a ring at the base. Style very short, with a capitate slightly furrowed stigma. Capsule small, ovoid-globular.

N. Australia. Hooker's Creek, Sturt's Creek, and near the sources of the Victoria river, *F. Mueller*.

1. **P. longiflora**, *F. Muell. in Rep. Babb. Exped.* 8. Pubescent, erect and rigid, 1 to 2 ft. high, divided at the base into several erect branches. Leaves narrow-linear, acute or ending in a hair-like point, rigid, silky-hairy, often above $\frac{1}{2}$ in. long, with smaller ones clustered in their axils; the upper ones small and distant. Flowers large, brown red or purple, shortly pedicellate in dense terminal corymbose cymes or heads. Sepals fully 3 lines long, scarious, with a prominent midrib, the inner ones narrower, more acute and more deeply coloured than the outer. Petals hypogynous, united with the stamens in a campanulate tube not 1 line long, their free parts considerably longer and shortly bifid at the point. Filaments about as long as the petals. Ovary almost sessile. Style long and subulate. Capsule short ovoid, obtuse.

N. Australia. Grassy flats along the Victoria river and other parts of Arnhem's Land, *F. Mueller*; N.W. coast, *Bynoe*; Nichol Bay, *Walcott*.

Var. leucantha. Leaves larger, broader, and less rigid. Sepals completely scarious and white, without any prominent midrib.—Victoria river, *F. Mueller*.

8. **P. spicata**, Arn. in *Ann. Nat. Hist.* iii. 91. A small glabrous annual, seldom attaining 6 in. and often not half that size. Radical leaves rosulate, obovate or oblong, on long petioles. Stems several, decumbent or erect, with few spreading dichotomous or clustered slender branches. Leaves under the branches in small false whorls, spatulate or obovate-oblong, 2 to 3 lines long, including the petiole. Stipules short, broadly scarious, with a fine point. Flowers small, white, in small dense terminal cymes or heads, the floral leaves all reduced to short obtuse scarious bracts. Sepals rather more than 1 line long, scarious, the outer one with a broad thick centre, the others with a narrow slightly thickened midrib. Petals very minute and subulate, almost free from the short stamens. Style short. Capsule small, nearly globular.—Wight, *Ic. Pl. Ind. Or.* t. 510; *P. staticæformis*, Steud. *Nom. ed.* 2, ii. 369.

N. Australia. N.W. coast, *Bynoe*.

The species ranges over the sandy districts of Arabia and the East Indian Peninsula.

5. **P. staminodina**, *F. Muell. in Rep. Babb. Exp.* 8. Pubescent, with erect, opposite or sometimes clustered branches, $\frac{1}{2}$ to 1 ft. high. Leaves narrow-linear or the lower ones linear-lanceolate, flat, the larger ones $\frac{1}{2}$ to $\frac{3}{4}$ in., with smaller ones clustered in their axils. Stipules with long subulate points. Flowers larger than in *P. corymbosa*, in terminal cymes or heads, forming an irregular general corymb; the floral leaves all reduced to scarious bracts. Sepals about 2 lines long, scarious and pubescent, white or slightly yellowish, without any prominent midrib. Petals almost free, inserted with the stamens on a thickened perigynous disk, lanceolate, entire, rather more than half the length of the sepals. Stamens about as long, alternating with short filiform staminodia opposite the petals. Ovary short, with a rather short style. Capsule small, sessile or shortly stipitate, with few seeds.

N. Australia. Sources of the Victoria river, Hooker's Creek and Sturt's Creek, *F. Mueller.*

3. **P. synandra**, *F. Muell. in Rep. Babb. Exped.* 8. A glabrous annual, with a rosette of petiolate spatulate or oblong radical leaves. Stems several, erect or decumbent, not above 6 in. high, with dichotomous or clustered branches. Leaves narrow-linear, with recurved or revolute margins, the longer ones above $\frac{1}{2}$ in., but mostly shorter, and not much clustered. Stipules small, with fine points. Flowers rather larger than in *P. corymbosa*, in small rather loose corymbose cymes, all more or less pedicellate, the floral leaves all reduced to scarious bracts. Sepals about 2 lines or nearly 3 lines long in the capitate variety, white and scarious with a prominent midrib often purple. Petals united with the stamens in a tube of about 1 line, their free part shorter and entire, sometimes very short, the filaments about the same length. Ovary sessile, with a subulate style. Capsule oblong, tapering at the top, with few seeds.

N. Australia. Hooker's Creek and Sturt's Creek, *F. Mueller*.

S. Australia. In the interior at Wirrawirraloo, *Babbage's Expedition*.

Var. (?) *densiflora*. Leaves small and few. Flowers larger, in a dense, nearly globular head of 1 in. diameter. Petals notched.

Queensland. N.E. coast, *A. Cunningham*; Port Denison, *Fitzalan*; Rockhampton, *Thozet*.

Var. *gracilis*. More slender. Sepals about $1\frac{1}{2}$ lines long. Petals rather broad, notched.

N. Australia. Port Essington, *A. Cunningham, Armstrong*.